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# THE IMLI MANUAL ON INTERNATIONAL MARITIME LAW

Volume III  
Marine Environmental Law  
and Maritime Security Law

GENERAL EDITOR  
DAVID JOSEPH ATTARD

EDITED BY  
MALGOSIA FITZMAURICE  
NORMAN A MARTÍNEZ GUTIÉRREZ  
RIYAZ HAMZA

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**OXFORD**  
UNIVERSITY PRESS

OXFORD  
UNIVERSITY PRESS

Great Clarendon Street, Oxford, OX2 6DP,  
United Kingdom

Oxford University Press is a department of the University of Oxford.  
It furthers the University's objective of excellence in research, scholarship,  
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First Edition published in 2016

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Published in the United States of America by Oxford University Press  
198 Madison Avenue, New York, NY 10016, United States of America

British Library Cataloguing in Publication Data  
Data available

Library of Congress Control Number: 2014940433

ISBN 978-0-19-968394-9

Printed and bound by  
CPI Group (UK) Ltd, Croydon, CR0 4YY

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*To those who serve the rule of international maritime law*



## FOREWORD

Established in 1948 as a specialized agency of the United Nations, the International Maritime Organization (IMO) is the global standard-setting authority for the safety, security, and environmental performance of ships engaged in international trade. Its primary function is to create, and keep up to date in the light of emerging needs, a regulatory framework for the shipping industry that is universally implemented within effective national maritime administration structures. In this respect, IMO also provides the international inter-governmental forum in which the process of agreement, adoption, and implementation of regulations and standards takes place.

Building on its mandate, which now encompasses energy efficiency, new technology and innovation, maritime education and training, maritime safety and security, vessel traffic management, facilitation of maritime traffic, and the development of the maritime infrastructure, IMO is now responsible for more than fifty international treaties and has adopted related thereto amendments to ensure that its global standards meet emerging challenges and keep abreast with developments in shipping technology.

The success of IMO's adopted legal framework depends primarily on its adoption, incorporation, and effective implementation by States. For this purpose IMO has established a dedicated technical cooperation programme which assists States to develop the necessary legislative frameworks and maritime administration structures and thereby implement IMO standards fully and effectively. The Organization has also recognized that, in parallel with the provision of technical cooperation programmes, it is of paramount importance to foster human resource development and institutional capacity building. With this in mind, IMO established the International Maritime Law Institute (IMLI) in 1988. Located in Malta, under the patronage of the Government of Malta, IMLI has been IMO's focal point for the training of specialists in maritime law. With more than twenty-five years in the service of the rule of international maritime law, IMLI is now truly a centre of academic excellence contributing generally to the development and dissemination of knowledge and expertise in international maritime law.

To contribute even further to the international maritime community, IMLI decided to mark its twenty-fifth anniversary with the publication of *The IMLI Manual on International Maritime Law*. Volumes I and II dealing with the Law of



the Sea and Shipping law respectively have been very well received by the international community. It thus gives me great pleasure, as the new Chairman of the IMLI Governing Board, to write this foreword for Volume III which studies the areas of marine environmental law and maritime security law. These two areas of international maritime law are not only of topical importance but are broad enough to encompass aspects of both law of the sea and shipping law, hence their complexity and the imperative need to dedicate them a separate volume.

IMO has been at the forefront of the progressive development of marine environmental law in all its aspects. Regarding prevention, IMO adopted, and over the years amended, the 1978 MARPOL Protocol, which is the main international treaty covering prevention of pollution of the marine environment by ships from operational or accidental causes. The scope of the 1978 MARPOL Protocol was expanded to address issues relating to atmospheric pollution through the adoption of the 1997 MARPOL Protocol. The two protocols have been complemented with treaties dealing, *inter alia*, with the control of harmful anti-fouling systems on ships (2001 AFS Convention); the prevention of the potentially devastating effects of the spread of invasive harmful aquatic organisms carried by ships' ballast water and sediments (2004 BWM Convention); and the safe and environmentally sound recycling of ships (2009 Hong Kong Convention). In so far as pollution preparedness, response, and cooperation are concerned, the primary treaties adopted by IMO are the 1990 OPRC Convention and its 2000 OPRC-HNS Protocol. Despite best practices followed, accidents do happen, and when they do it is important to lay down an effective framework regarding liability and compensation. In this respect, IMO has adopted a number of treaties including the 1992 CLC Convention, the 1992 Fund Convention, the 1996 HNS Convention and the related 2010 HNS Protocol, and the 2001 Bunkers Convention.

IMO has also been very active in the development of a legal framework regarding maritime security. To prevent unlawful acts against the safety of maritime navigation, IMO adopted the 1988 SUA Convention and 1988 SUA Protocol and their respective protocols in 2005. Other measures to enhance maritime security include Chapter XI-2 of the 1974 SOLAS Convention and the associated International Ship and Port Facility Security (ISPS) Code; a number of measures to address the threat of piracy, armed robbery against ships, and other illicit maritime activities; measures to reduce risks of stowaways, guidelines regarding the use of Privately Contracted Armed Security Personnel on board ships; Guidelines for the Prevention and Suppression of the Smuggling of Drugs, Psychotropic Substances and Precursor Chemicals on Ships engaged in International Maritime Traffic; as well as the development of voluntary guidelines on adequate anti-cyber security practices.

Following the approach of the previous volumes, Volume III was written and edited by a group of eminent academics and practitioners, who are the world's

leading experts in their fields, in a manner that will interest both academics and practitioners. It not only addresses the subjects from a historical and current standpoint, but also delves in the many emerging issues that prompt the continuous reassessment of international rules.

This is not only a monumental collection of studies, but also a true testament to the Institute's success. I highly recommend *The IMLI Manual on International Maritime Law* to all those who have an interest in maritime affairs.

Ki-tack Lim  
Secretary-General, International Maritime Organization  
Chairman, IMLI Governing Board



## PREFACE

Whilst there is a trend in certain legal literature to treat the law of the sea and shipping law (or admiralty law) separately, it is submitted that these public and private branches of international maritime law have become intimately interdependent, particularly through the emergence and influence of international maritime treaties, such as those adopted by the International Maritime Organization (IMO). Indeed, it may be argued that they are now fused together into a single body of law. The IMO International Maritime Law Institute (IMLI) has—for over a quarter of a century—devoted its work to offering a holistic treatment of international maritime law in its various taught and research programmes of studies. I therefore felt it would be appropriate to commemorate IMLI's twenty-fifth anniversary by the publication of this Manual which provides a unique and comprehensive guide to all the major branches of international maritime law.

*The IMLI Manual on International Maritime Law* is divided into three volumes: Volume I covers the Law of the Sea, Volume II is dedicated to Shipping Law, and Volume III deals with both Marine Environmental Law and Maritime Security Law. The Manual examines these fields of law from an international and comparative perspective, and provides an in-depth analysis from the point of view of international conventions, customary law, and commercial practices. It also offers comprehensive references and a bibliography on the subjects, so that its users have a single source from which to branch out into even more detailed research. The Manual has been written and edited by academics and practitioners who are leading experts in their respective fields. They have been drawn from a very wide number of legal systems, thereby ensuring that the academic and practical value of the Manual has no geographical boundaries. All these qualities should make it essential reading to students, researchers, academics, and practitioners.

I wish to conclude by thanking the many persons who, in one way or another, have made this project a reality. I would like to express my appreciation to Mr Ki-tack Lim (Secretary-General of the IMO) for honouring the Institute by writing the foreword to this Volume. I wish to thank the distinguished contributors, who have devoted time and research in preparing their learned contributions. I also wish to express my gratitude to my dear colleagues and fellow editors for their relentless work in putting this Manual together. Special thanks are due to The Nippon Foundation which not only supported this project, but also contributed to its funding.

I would also like to record my appreciation to the editorial team of Oxford University Press for their professional support throughout the production process leading to the publication of this Manual.

David Joseph Attard  
General Editor  
1 February 2016

## ACKNOWLEDGEMENTS

The Editors of *The IMLI Manual on International Maritime Law* would like to acknowledge the invaluable contribution of The Nippon Foundation to IMLI and this Manual through the provision of funding within the Project ‘The Human Resources Development Project for the Advancement of a More Effective Global Legal Order for the Oceans’.

Dr Yohei Sasakawa, the Chairman of The Nippon Foundation, anticipated that the twenty-first century would become the ‘century of oceans’ and established numerous fellowships and scholarships to nurture future leaders in maritime affairs globally.



## IMO INTERNATIONAL MARITIME LAW INSTITUTE

The genesis of *The IMLI Manual on International Maritime Law* actually dates back to the establishment of IMLI, in 1988, through an agreement concluded between the Government of Malta and the International Maritime Organization (IMO). One of the first challenges of the Institute's founding fathers was the formulation of an academic syllabus for the teaching of international maritime law on a comparative and international basis. To address this issue, the then IMO Secretary-General CP Srivastava set up a committee of eminent lawyers from the different legal systems of the world. The members of this Committee, which I was asked to co-ordinate, consisted of Professor Francesco Berlingieri (Italy, Former President of the Comité Maritime International), Judge Thomas Mensah (Ghana, Former President of the International Tribunal for the Law of the Sea), and Mr Louis Mbanefo (Nigeria, President of the Nigerian Maritime Law Association).

The Committee produced a unique syllabus of studies, which covered the whole spectrum of international maritime law and took into account the need to train legal officials (mainly from developing States). This syllabus was adopted by the IMLI Governing Board in 1989 and has been updated constantly by IMLI's Academic Committee, to reflect the latest developments in the field, particularly in the work of IMO. An innovative feature of the Committee's proposal was the inclusion (in addition to usual examinations and dissertations) of a requirement that students must prepare draft legislation which incorporates IMO rules into their domestic law. This requirement represents IMLI's *raison d'être*. It is well known that, with one minor exception, IMO has no effective powers to enforce its over fifty conventions and literally hundreds of prescriptions. It is therefore up to its member States to implement and enforce its regimes. Lack of maritime legal expertise has often prevented developing States from participating in this process.

IMLI offers unique taught and research training programmes, designed to provide governments with the necessary expertise through the fostering of excellence in three important areas:

1. the development of expertise to advise on international maritime law and develop national maritime legislation;
2. the development of legislative drafting skills to ensure that States have the necessary expertise to incorporate international rules into domestic legislation; and



3. the preparation of legal advisers to participate in, and contribute to, the deliberations of the international maritime fora.

Through its different taught and research programmes and courses, IMLI has trained over 790 maritime professionals in 135 States and territories worldwide who actively participate and contribute not only in the national maritime infrastructures of their respective States, but also in international fora. IMLI's success is best represented in the achievement of its graduates both at the domestic level—where IMLI graduates occupy positions of Heads of State, Ministers, Professors, Attorneys-General, and senior legal advisers—as well as in international arena, particularly, but not exclusively, in the IMO bodies where currently one of the most important committees, i.e. the Legal Committee is chaired by an IMLI graduate. Beyond IMO, IMLI graduates have demonstrated a similar aptitude for success as is best reflected by the appointment of an IMLI graduate to the post of Prosecutor at the International Criminal Court.

The Institute's work has been recognized for the past eight years by the United Nations General Assembly through its Resolutions entitled 'Oceans and the law of the sea'. The latest Resolution, A/RES/70/235 of 23 December 2015, highlights:

... the importance of the work of the International Maritime Law Institute of the International Maritime Organization, as a centre of education and training of government legal advisers, mainly from developing States, confirms its effective capacity-building role in the field of international law, and urges States, intergovernmental organizations and financial institutions to make voluntary financial contributions to the budget of the Institute. . . .

IMLI is a small institution with a global mission to provide governments with the expertise necessary to participate in the codification and progressive development of international maritime law. Over the past twenty-six years it has grown into a centre of excellence which through its graduates is leaving its mark in the international maritime community. This success augurs well for more years of service to the rule of international maritime law.

David Joseph Attard  
Director  
IMO International Maritime Law Institute  
Malta

01 February 2016

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## LIST OF ABBREVIATIONS

1969 CLC	1969 International Convention on Civil Liability for Oil Pollution Damage
1971	Fund Convention 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage
Abidjan Convention	the Convention for Cooperation in the Protection, Management and Development of the Marine and Coastal Environment of the Atlantic Coast of the West, Central and Southern Africa Region
Abidjan Protocol 2012	Additional Protocol to the Abidjan Convention Concerning Cooperation in the Protection and Development of Marine and Coastal Environment from Land-Based Sources and Activities in the Western Central and Southern African Region
ADIS	Air Defence and Identification Zones
AEWA	1996 Agreement on the Conservation of African-Eurasian Migratory Waterbirds
AIS	automatic ship identification system
The AMEP	Assessment and Management of Environmental Pollution
Antiqua Convention	2002 Convention for the Establishment of an Inter-American Tropical Tuna Commission (IATTC) and Convention for the Strengthening of the Inter-American Tropical Tuna Commission Established by the 1949 Convention between the United States of America and the Republic of Costa Rica
APPS	Act to Prevent Pollution from Ships (US)
Aruba Protocol	1999 Protocol Concerning Pollution from Land-Based Sources and Activities to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region
ASCOBANS	1992 Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas
Athens Protocol	the 1980 Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources
Barcelona Convention	the 1976 Convention for the Protection of the Mediterranean Sea Against Pollution
Barcelona Protocol	the 1976 Protocol for the Prevention of Pollution in the Mediterranean Sea by Dumping from Ships and Aircraft
Basel Convention	Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1989
BAT	Best available technology

## *List of Abbreviations*

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BATBEP	Best available technology and best environmental practice
BC Code	the Code of Safe Practice for Solid Bulk Cargoes
BCH Code	Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
BCN weapons	biological, chemical and nuclear weapons
BDN	bunker delivery note
BEP	Best Environmental Practice
Biological Weapons Convention	Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction 1972
Black Sea Convention	the 1992 Convention on the Protection of the Black Sea Against Pollution (and protocols) as amended and recorded as 1995 Protocol for the Prevention and Elimination of Pollution in the Mediterranean Sea by Dumping from Ships and Aircraft or Incineration at Sea
BP/RAC	Blue Plan
Brussels Convention 1957	International Convention relating to Stowaways 1957
Bucharest Convention	the 1992 Convention on the Protection of the Black Sea Against Pollution
Bucharest Protocol	the 1992 Protocol on Protection of the Black Sea Marine Environment Against Pollution from Land Based Sources
BWC	Biological Weapons Convention
CAEC-MEP	the China-ASEAN Environmental Cooperation Centre of the Ministry
CAMLR	the Convention on the Conservation of Antarctic Marine Living Resources of 1980
CAP	the Caribbean Action Plan
Caribbean Agreement	Agreement Concerning Co-operation in Suppressing Illicit Maritime and Air Trafficking in Narcotic Drugs and Psychotropic Substances in the Caribbean Area 2003
CARICOM Agreement	CARICOM Maritime and Airspace Security Cooperation Agreement 2008
Cartagena Convention	the 1983 Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region (WCR)
CAR/RCU	Regional Seas Programme Coordinating Office, the Caribbean Regional Co-ordinating Unit
CATOC	United Nations Convention against Transnational Organized Crime 2000
CBD	Convention on Biological Diversity 1992
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CCS	carbon capture and storage
CDEM	construction, design, equipment and manning standards
CDS	Continuous Declaration of Security

## *List of Abbreviations*

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CEA/RAC	Special Monitoring & Coastal Environment Assessment Regional Activity Centre of Environmental Protection (MEP)
CEP	Caribbean Environment Programme
Chemical Weapons Convention	Convention on the Prohibition of the Development, Pro- duction, Stockpiling and Use of Chemical Weapons and on Their Destruction 1992
CIMAB	Center of Engineering and Environmental Management of Coasts
CITES	1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora
CITET	Tunis International Centre for Environmental Technologies
CLCS	United Nations Commission on the Limits of the Continen- tal Shelf
CMI	Comité Maritime International
CMS	1979 Convention on the Conservation of Migratory Wild Animals
CO <sub>2</sub>	carbon dioxide
COBSEA	Coastal Areas for East Asian Region
COCATRAM	the Central American Commission on Maritime Transport
CoE Agreement	Council of Europe Agreement 1995
COLREGs	International Regulations for Preventing Collisions at Sea 1972
COP	Conference of the Parties
CPPS	the Secretariat of the Pacific Regional Environment Pro- gramme
CSO	Company Security Officer
CTBT	Comprehensive Nuclear-Test-Ban Treaty
CWC	Chemical Weapons Convention
DA	Designated Authority
DECC	Department of Energy and Climate Change
DELC	Division of Environmental Law and Conventions
DIN/RAC	Data & Information Network Regional Activity Centre and Bays
Djibouti Code of Conduct	Code of Conduct Concerning the Repression of Piracy and Armed Robbery against Ships in the Western Indian Ocean and the Gulf of Aden
DOS	Declaration of Security
DRC	Democratic Republic of the Congo
DTVIA	Drug Trafficking Vessel Interdiction Act
dwt	dead-weight tonnage
EAAP	East African Action Plan
EAF/RCU	the East Asian Seas Regional Coordinating Unit, the East- ern African Regional Coordinating Unit
E&E of CS	Exploration and Exploitation of Continental Shelf



## *List of Abbreviations*

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ECA	Emission Control Area
EEDI	Energy Efficiency Design Index
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EMARSGA	the Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden, the Marine Emergency Mutual Aid Center
EPIRBs	emergency position-indicating radio beacons
ESPP	the Arctic Council Emergency Prevention, Preparedness and Response Working Group
ERS/RAC	Environment Remote Sensing
ETS	Maritime Emissions Trading Scheme
EU	European Union
EUROBATS	Agreement on the Conservation of Populations of European Bats
EZZ	Exclusive Economic Zone
FAL Convention	Convention on the Facilitation of International Maritime Traffic 1965
FAO	Food and Agriculture Organization of the United Nations
Firearms Protocol	Protocol against the Illicit Manufacturing of and Trafficking in Firearms, their Parts and Components and Ammunition 2001
FIRs	Flight Information Regions
FPSO	floating production storage and offloading
FPSOs	floating production, storage and offloading units
FSO	Facility Security Officer
FSS	Facility Security Survey
FSUs	floating storage units
GATT	General Agreement on Tariffs and Trade
GC	General Council
GESAMP	Group of Experts on Scientific Aspects of Marine Environmental Protection
GHG	Emissions Greenhouse Gas Emissions
GI-WACAF	the Global Initiative for West and Central Africa
GMDSS	Global Maritime Distress and Safety System
GPA	Global Programme of Action
HELCOM	the Secretariat of the Antarctic Treaty, the Secretariat of Helsinki Commission
Helsinki Convention	the 1992 Convention on the Protection of the Marine Environment of the Baltic Sea Area
HNS	hazardous and noxious substances
HNS	Convention the 1996 Hazardous and Noxious Substances by Sea Convention

## *List of Abbreviations*

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Hostage Convention	International Convention against the Taking of Hostages 1979
HSC	Convention on the High Seas 1958
HSC Code	International Code of Safety for High-Speed Craft
HTW	highly toxic wastes
HW	Hazardous Wastes
IACS	International Association of Classification Societies
IAEA	International Atomic Energy Agency
IBC Code	International Bulk Chemical Code
ICAO	International Civil Aviation Organization
ICCPR	International Covenant on Civil and Political Rights 1966
ICJ	International Court of Justice
ICZM	Integrated Coastal Zone Management
IGC Code	International Gas Carrier Code
ILO	International Labour Organization
IMA/RAC	Institute of Marine Affairs
IMB	International Maritime Bureau
IMDG Code	International Maritime Dangerous Goods Code
IMO	International Maritime Organization
INF Code	International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on Board Ships
INFO/RAC	Information, Communication & Technical Support
IOC	Intergovernmental Oceanographic Commission
IOPC Funds	International Oil Pollution Compensation Funds
IOPP certificate	International Oil Pollution Prevention certificate
IOSEA	2001 MOU on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia
IPCC	Intergovernmental Panel on Climate Change
IPIECA	Global oil and gas industry association for environmental and social issues
IPOAs	International Plans of Action
ISM Code	International Safety Management Code
ISPRA	Italian Institute for Environmental Protection & Research
ISPS Code	International Ship and Port Facility Security Code
ISSC	International Ship Security Certificate
ITLOS	International Tribunal for Law of the Sea
ITOPF	the International Tanker Owner Pollution Federation
IUU fishing	Illegal, unreported, and unregulated fishing
Jeddah Protocol 2005	Protocol Concerning the Protection of the Marine Environment from Land-Based Activities in the Red Sea and Gulf of Aden

## *List of Abbreviations*

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KP	Kyoto Protocol
Kuwait Convention	the 1978 Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution
Kuwait Protocol	the 1990 Protocol to the Kuwait Regional Convention for the Protection of the Marine Environment Against Pollution from Land-Based Sources
LLMC	1976 Convention on Limitation of Liability for Maritime Claims
LNG	liquefied natural gases
London Convention or LC	Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972
London Protocol or LP	1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972
LOSC	the 1982 Law of the Sea Convention
LPG	liquefied petroleum gases
LSA Code	International Life-Saving Appliance Code
LTBT	Limited Test Ban Treaty
Lusaka Agreement 1994	Lusaka Agreement on Cooperative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora
Ma MAP	Mediterranean Action Plan
Madrid Protocol	the 1991 Protocol on Environmental Protection to the Antarctic Treaty
MAGRAMA	Spanish Ministry of Agriculture, Food and Environment
MAOC-N	Maritime Analysis and Operation Centre—Narcotics
MARPOL	the 1973/1978 International Convention for the Prevention of Pollution from Ships
MEAs	Multilateral Environmental Agreements
MEMAC	the Regional Organization for the Protection of the Marine Environment (ROPME) Sea Area, the Marine Emergency Mutual Aid Centre
MEPC	the Marine Environmental Protection Committee
MERCU	Marine Emergency Response and Salvage Co-ordination Unit
MERRAC	the Marine Environmental Emergency Preparedness and Response Regional Activity Centre
MODU	Mobile offshore drilling unit
MOERI/WORDI	Maritime & Ocean Engineering Research Institute with the Korean Ocean Research and Development Institute
MOPs	Meetings of the Parties
MoU	Memorandum of Understanding
MPA	Marine Protected Area
MRCCs	Maritime Rescue Coordination Centers
MSC	Maritime Safety Committee
MTWG	Mediterranean Technical Working Group

## *List of Abbreviations*

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Nairobi Convention 1986	Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region
Nairobi Protocol 2010	Protocol for the Protection of the Marine and Coastal Environment of the Western Indian Ocean from Land-Based Sources and Activities
NAM	Non-Aligned Movement
NATO	North Atlantic Treaty Organization
NGO	non-governmental organization
NOTMARs	Notice to Mariners
Noumea Dumping Protocol	the 1986 Protocol for the Prevention of Pollution of the South Pacific Region by Dumping
NOWPAP	the Northwest Pacific Action Plan
NO <sub>x</sub>	Nitrogen Oxides
NO <sub>x</sub> ECA	Nitrogen Oxide Emission Control Areas
NPEC	Northwest Pacific Region Environmental Cooperation Centre
NPT	Non-proliferation Treaty
NTBT	Nuclear Test Ban Treaty
NWFZ	nuclear-weapon-free zone
OIF	ocean iron fertilization
OILPOL	Convention for the Prevention of Pollution from Oil
OPRC	International Convention on Oil Pollution Preparedness, Response and Co-operation 1990
OPRC-HNS	Protocol 2000 Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances
OSCE	Organization for Security and Co-operation in Europe
OSPAR	Convention the 1992 Convention for the Protection of the marine Environment of the North-East Atlantic
OTSOPA	Operational, Technical and Scientific Questions concerning Counter Pollution Activities PAs Protection Areas
PAME	Protection of the Arctic Marine Environment
PAP/RAC	Priority Action Programme
PCASP	Privately Contracted Armed Security Personnel
PCIJ	Permanent Court of International Justice
PERGSA	Red Sea and Gulf of Aden
PFSA	Port Facility Security Assessment
PFSO	Port Facility Security Officer
PFSP	Port Facility Security Plans
PGI	Pacific Geographical Institute of the Far East Branch of the Russian Academy of Sciences
P&I	Club Protection and indemnity insurance club
PIC Convention 1998	Rotterdam Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

## *List of Abbreviations*

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POM/RAC	Pollution Monitoring Regional Activity Centre
PoPs Convention 2001	Stockholm Persistent Organic Pollutants
PSC	Port State Control
PSI	Proliferation Security Initiative
PSSA	Particularly Sensitive Sea Area
PTBT	Partial Test Ban Treaty
Quito Protocol	the 1983 Protocol for the Protection of the South-East Pacific Against Pollution from Land-Based Sources
RANs	Regional Activity Networks
RCCMPE	Regional Coordination Centre for Marine Pollution Emergency
ReCAAP	Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia
REMPEC	Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea
REMPEITC	Regional Marine Pollution Emergency Information and Training
REMPEITC-Caribe	the Regional Marine Pollution Emergency, Information and Training Centre
RFMO	regional fisheries management organisation
ROCC	Regional Oil Combatting Centre
ROPME	Regional Organization for the Protection of the Marine Environment
RSOs	Recognized Security Organizations
RSP	Regional Seas Programme
SACEP	the Pacific Regional Environment Programme South Asia Co-operative Environment Programme
SAR	search and rescue
SAR Convention	International Convention on Maritime Search and Rescue 1979
SARTs	search and rescue transponders
SASAP	South Asian Seas Region
SEEMP	Ship Energy Efficiency Management Plan
SLOCs	sea lines of communications
SMPEP	shipboard marine pollution emergency plan
Smuggling Protocol	Protocol against the Smuggling of Migrants by Land, Sea and Air, Supplementing the United Nations Convention against Transnational Organized Crime 2000
SO <sub>2</sub>	sulphur dioxide
SOLAS	International Convention for the Safety of Life at Sea 1974
SOPEP	shipboard oil pollution plan
SO <sub>x</sub> ECA	Sulphur emission control areas
SPAW	Specially Protected Areas and Wildlife

## *List of Abbreviations*

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SPA/RAC	Special Protected Areas
SPREP	the Permanent Commission for the South Pacific
SSA	Ship Security Assessment
SSO	Ship Security Officer
SSP	Ship Security Plan
SSS	Ship Security Survey
STOPIA	Small Tanker Oil Pollution Indemnification Agreement
SUA	Suppression of Unlawful Acts
SUA Convention 1988	Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation 1988
SUA Convention 2005	2005 Protocol to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation
SUA Protocol 1988	Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf 1988
SUA Protocol 2005	2005 Protocol to the 1988 Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf
Syracuse Protocol 1996	Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources and Activities
TB	Transboundary
Territorial Sea Convention	Convention on the Territorial Sea and the Contiguous Zone 1958
TEZ	Total Exclusion Zone
TOPIA	the Tanker Oil Pollution Indemnification Agreement.
Trafficking Protocol	Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children, Supplementing the United Nations Convention against Transnational Organized Crime 2000
UK	United Kingdom
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on the Law of the Sea 1982
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP-CAR/RCU	the Caribbean Coordination Unit
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFSA	United Nations Fish Stocks Agreement
UNGA	United Nations General Assembly
UNHCR	United Nations High Commissioner for Refugees

*List of Abbreviations*

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UNICPOLOS	United Nations Open Ended Informal Consultative Process on Oceans and the Law of the Sea
UNODC	United Nations Office on Drugs and Crime
UNSC	United Nations Security Council
UNSG	United Nations Secretary-General
UNTS	United Nations Treaty Series
US	United States
USC	United States Code
USSR	Union of Soviet Socialist Republics
VDRs	voyage data recorders
Vienna Drugs Convention	Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances 1988
WACAF	West and Central African
WCO	World Customs Organization
WEU	Western European Union
WFF	Wild Fauna and Flora
WHO	World Health Organization
WMD's	weapons of mass destruction
WMU	World Maritime University

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# PART I

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## MARINE ENVIRONMENTAL LAW



## SECTION A

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### GENERAL



# 1

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## STATE JURISDICTION IN RELATION TO THE PROTECTION AND PRESERVATION OF THE MARINE ENVIRONMENT

*Maria Gavouneli*

Since it is generally agreed that jurisdiction is an aspect of sovereignty,<sup>1</sup> State jurisdiction in relation to the protection and preservation of the marine environment denotes the competence of the State authorities under international law to regulate the activities of State organs and private individuals, natural and juridical persons alike, in the marine area. As with all allocations of State power, the notion of jurisdiction includes a geographical element: it designates the outer limits of State 'power to make laws, decisions or rules (prescriptive jurisdiction) [and] . . . to take executive or judicial action in pursuance of or consequent on the making of decisions or rules (respectively enforcement or adjudicative jurisdiction)'.<sup>2</sup> Although closely connected to sovereignty, the notion of jurisdiction does not necessarily exude any sense of exclusivity;<sup>3</sup> it rather attempts to administer contradictory claims on the basis of commonly agreed bases of jurisdiction,<sup>4</sup> which include the principle of territoriality, the principle of nationality, the universality principle, the protective principle, the passive personality principle.<sup>5</sup>

At first glance, these categories do not apply in the context of the Law of the Sea. The UN Convention on the Law of the Sea<sup>6</sup> (UNCLOS) does allocate State power

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<sup>1</sup> A Mann, 'The doctrine of international jurisdiction revisited after twenty years' (1984) 196 *RCADI* III, 9-116, 20; C Staker, 'Jurisdiction' in MD Evans (ed.), *International Law* (4th edn, Oxford University Press, 2014) 309-35.

<sup>2</sup> J Crawford, *Brownlie's Principles of Public International Law* (8th edn, Oxford University Press, 2012) 456.

<sup>3</sup> Crawford (n. 2) 457.

<sup>4</sup> M Gavouneli, *Functional Jurisdiction in the Law of the Sea* (Martinus Nijhoff, 2007) 5-32, 5-7.

<sup>5</sup> As enumerated in the 'Introductory Comment to the Harvard Research Draft Convention on Jurisdiction with Respect to Crime' (1935) 29 *AJIL*, Spec. Suppl., 443; although it considered the last one of questionable permissibility (at 579).

<sup>6</sup> UN Convention on the Law of the Sea (Montego Bay, 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3.



across maritime zones with a distinct geographical emphasis. Nowhere, however, in the text of the UNCLOS may one find any reference to the traditional bases of jurisdiction; instead, the State operates in the UNCLOS context in the guise of the 'flag State', the 'coastal State', or the 'port State', with no definition cited anywhere. There are only two exceptions in this general approach. The first refers to a fourth player, the State of nationality of the master and crew with distinct enforcement jurisdiction under Article 97 paragraph 1 UNCLOS, the only personal jurisdiction reference in the Convention.<sup>7</sup> The second pertains to the general, and indeed customary, obligation of the State, *sans* qualification, 'to protect and preserve the marine environment' in Part XII—which constitutes the subject of the present chapter.

In the following pages, I will attempt to navigate the jurisdictional shoals of the Convention in respect to environmental protection with a view to reconcile the inevitable fragmentation of jurisdictional powers with the common imperative that is the protection and preservation of the marine environment. In doing so, I will concentrate on the 'hidden' functional categorization of States rather than the spatial zoning of the Convention itself; an approach which I find both reflective of the realities in the field and more appropriate in instigating and monitoring State action.

## 1.1 The Flag State

Flag State jurisdiction is the prototype maritime jurisdiction. The flag, as the most potent symbol of State power, demonstrates *urbi et orbi* the existence of a direct link to the State concerned and, for generations, reflected the power of that State to the world. It is the strength of symbolism that creates the importance attached to the jurisdictional basis employed, that of nationality, and the genuine link between the two (see Section 1.1.1). The power connection, however, does not work both ways: as the ship remains a private actor, acts and omissions attached to its presence and operation in the marine environment are not automatically attributable to the

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<sup>7</sup> Note, however, that the human rights aspect of the Convention is further reinforced in the novel prompt release mechanism of the master and crew of arrested vessels under Art. 292 UNCLOS. In spite of its very limited scope, the mechanism has been proven successful, encompassing more than half the cases presented before the International Tribunal on the Law of the Sea. For an overview see J Akl, 'Jurisprudence of the International Tribunal for the Law of the Sea in prompt release proceedings' in H Hestermeyer et al (eds), *Coexistence, Cooperation and solidarity: Liber amicorum Rüdiger Wolfrum* (Martinus Nijhoff, 2012) vol. 2, 1591–1624; S Trevisanut, 'The exercise of administrative functions by ITLOS: A comment on prompt release cases' in N Boschiero et al (eds), *International Courts and the Development of International Law: Essays in Honour of Tullio Treves* (Asser Press, 2013) 311–23; T Mensah, 'The Tribunal and the prompt release of vessels' (2007) 22 *TIJMCL* 425–50; AG Oude Elferink, 'The Arctic Sunrise incident: A multi-faceted Law of the Sea case with a human rights dimension' (2014) 29 *TIJMCL* 244–89.

State and thus do not necessarily trigger the mechanism of State responsibility; rather the State maintains a general *droit de regard* on what remains essentially a private enterprise (see Section 1.1.2). I will address each problem in turn.

### 1.1.1 In pursuit of an illusive link

Nationality remains the typical jurisdictional basis,<sup>8</sup> linking the individual and the State, even beyond its borders. It confers upon the person rights and obligations towards the State, ranging from a prerequisite for the full enjoyment of core human rights<sup>9</sup> to the privilege of diplomatic protection.<sup>10</sup> In the words of the International Court of Justice in the *Nottebohm* case, nationality is ‘a legal bond having in its basis a social fact of attachment, a genuine connection of existence, interests and sentiments, together with the existence of reciprocal rights and duties’.<sup>11</sup> Yet, in spite of the grandiloquent pronouncements, the Court has consistently affirmed jurisdiction, especially regarding corporations, on the basis of formal links, such as the place of incorporation, to the detriment of real links to their shareholders<sup>12</sup>—although the market has already set aside such case law in favour of a more realistic effective control criterion.<sup>13</sup>

The UNCLOS remained attached to this interesting fiction. Following the example of Article 5 of the 1958 Geneva Convention on the High Seas,<sup>14</sup> Article 91 paragraph 1 UNCLOS reiterates: ‘[t]here must be a genuine link between the State and the ship.’ In fact, the qualitative attribute is reduced to a strictly formalistic procedure of registration:<sup>15</sup> no further substantive link is ever required in an operation that is frequently carried out online while the ship in question is somewhere in the high seas with no connection whatsoever to the registry apart from the

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<sup>8</sup> A Annoni and S Forlati (eds), *The Changing Role of Nationality in International Law* (Routledge, 2013); JF Rezek, ‘Le droit international de la nationalité’ (1986) 198 *RCADI* III, 333–400; RD Sloane, ‘Breaking the genuine link: The contemporary international regulation of nationality’ (2009) 50 *Harvard ILJ* 1–60.

<sup>9</sup> S Forlati, ‘Nationality as a human right’ in Annoni and Forlati (n. 8) 18–36.

<sup>10</sup> A Vermeer-Künzli, ‘Nationality and diplomatic protection: A reappraisal’ in Annoni and Forlati (n. 8) 76–95.

<sup>11</sup> The *Nottebohm Case*, (*Liechtenstein v Guatemala*) (1955) ICJ Reports 4–27, 23.

<sup>12</sup> *Case concerning the Barcelona Traction, Light and Power Company Limited, (Belgium v Spain)*, Second Phase, [1970] ICJ Reports 3, 42; *Elettronica Sicula SpA (ELSI) (USA v Italy)* (1989) ICJ Reports 15, available at <<http://www.icj-cij.org>>. See also R Churchill (with C Hedley), *The meaning of the ‘genuine link’ requirement in relation to the nationality of ships*, A study prepared for the International Transport Workers’ Federation, October 2000.

<sup>13</sup> G d’Agnone, ‘Determining the nationality of companies in ICSID arbitration’ in Annoni and Forlati (n. 8) 153–68; B Stern, ‘La protection diplomatique des investissements internationaux. De *Barcelona Traction* à *Elettronica Sicula* ou les glissements progressifs de l’analyse’ (1990) *JDI* 897–948.

<sup>14</sup> (Geneva, adopted 29 April 1958, entered into force 30 September 1962) 450 UNTS 11.

<sup>15</sup> A Oude Elferink, ‘The genuine link concept: Time for a *post mortem*?’ in IF Dekker and HHG Post (eds), *On the foundations and sources of International Law* (Asser Press, The Hague, 2003) 41–63.

will of its beneficiary owner.<sup>16</sup> The admittedly tepid attempts to make the connection real, taking into account participation in ownership or even in the manning of the ship, came to naught, as exemplified in the failed 1986 UN Convention on Conditions for Registration of Ships.<sup>17</sup>

Interestingly enough, and in spite of the effective reversal of the ICJ case law in recent times,<sup>18</sup> the International Tribunal on the Law of the Sea (ITLOS) chose to maintain the fiction rather than venture into uncharted waters.<sup>19</sup> The Tribunal has consistently reiterated the need for a (nominal) genuine link in the 1999 *Saiga* (No 2) case,<sup>20</sup> to the 2001 *Grand Prince* case,<sup>21</sup> to the 2013 *Louisa* case,<sup>22</sup> in spite of equally consistent efforts by some of its members to remind all concerned of the need to invest the ‘empty shell’,<sup>23</sup> the ‘artificial creation’<sup>24</sup> with substance. Indeed, it went one step further arguing that the need for a genuine link constitutes a guarantee for the effective implementation of the duties of the flag State,<sup>25</sup> the ubiquitous example of substandard shipping<sup>26</sup> notwithstanding. Suffice it to state that the Tribunal is not alone in this reading: Within the context of the European Union, the European Court of Justice was equally happy to detect a ‘real financial

<sup>16</sup> E Roucouas, ‘Facteurs privés et droit international public’ (2002) 299 *RCADI* 9–419, 207–11.

<sup>17</sup> UN Convention on Conditions for Registration of Ships (1987) 26 *ILM* 1229–50; G Kasoulides, ‘The 1986 UN Convention on the Conditions for the Registration of Vessels and the question of open registry’ (1989) 20 *ODIL* 543–76; H Wefers Bettink, ‘Open registry, the genuine link and the 1986 Convention on Registration Condition for Ship’ (1987) 18 *Netherlands YBIL*, 68–119.

<sup>18</sup> CH Schreuer, ‘Nationality of investors: Legitimate restrictions v. Business interests’ (2010) 24 *ICSID Review-Foreign Investment LJ* 521–7; D D’Allaire, ‘The nationality rules under the Energy Charter Treaty: Practical considerations’ (2009) 10 *The Journal of World Investment and Trade* 39–68.

<sup>19</sup> V Lowe, ‘The “complementary role” of ITLOS in the development of ocean law’ in H Schreiber and J-H Paik (eds), *Regions, institutions and the Law of the Sea: Studies in Ocean Governance* (Martinus Nijhoff, 2013) 29–36.

<sup>20</sup> *The M/V Saiga* (No. 2) case (*Saint Vincent & The Grenadines v Guinea*, 1999), Judgment, 1 July 1999, [1999] ITLOS Reports 10, para. 65, available at <<http://www.ilos.org>> (accessed 12 August 2014); David Anderson, ‘Freedoms of the high seas in the modern law of the sea’ in D Freestone, R Barnes, and D Ong (eds), *The Law of the Sea. Progress and prospects* (Oxford University Press, 2006) 327–46, 332–40.

<sup>21</sup> *The Grand Prince* (*Belize v France*, 2001), Judgment 20 April 2001, ITLOS, available at [www.itlos.org](http://www.itlos.org) (accessed 12 August 2014); T Treves, ‘Flags of convenience before the Law of the Sea Tribunal’ (2004) 6 *San Diego ILJ* 179–89.

<sup>22</sup> *The M/V Louisa* case (*St. Vincent v Spain*, 2013), Judgment 28 May 2013, ITLOS, Individual Opinion of Judge Ndiaye, para. 124, available at <<http://www.itlos.org>> (accessed 12 August 2014); S Solomon, ‘The case of *Bolivia v Chile* in an era of transforming sovereignty’ (2013) 25 *Florida JIL* 332–57, 346.

<sup>23</sup> *The Grand Prince*, Judgment 20 April 2001, Statement of Judge Wolfrum, para. 3.

<sup>24</sup> *The Grand Prince*, Judgment 20 April 2001, Separate Opinion of Judge Treves, para. 2.

<sup>25</sup> *The M/V Saiga*, Judgment 1 July 1999, para. 83.

<sup>26</sup> Defined as ‘A vessel that, through its physical condition, its operation or activities of its crew, fails to meet basic standards of seaworthiness and thereby poses a threat to life and/or the environment’; OECD Maritime Transport Committee, Policy Statement on Substandard Shipping, 2002; available at <<http://www.oecd.org/dataoecd/18/37/2080990.pdf>> (my emphasis); T Mensah, ‘Flags of convenience: Problems and promises’ in MQ Mejia, Jr. (ed.), *Selected issues in Maritime Law and Policy: Liber Amicorum Proshanto K. Mukherjee* (Nova Science, New York, 2013) 25–52.

link'<sup>27</sup> with the flag State in the act of registration and thus consider it in conformity with both the UNCLOS and the 1986 UN Registration Convention. The distinction between the substantive and formal nationality seems to be relevant only in judicial<sup>28</sup> and quasi-judicial<sup>29</sup> formations pertaining to global and peripheral international systems of human rights protection.

### 1.1.2 Due diligence and the challenge of supervision powers

If registration were sufficient to establish a genuine link with the flag State and thus accord to the ship the protection of the State, one would be justified to expect that said State would also flex its jurisdictional muscles and secure the enforcement of all kinds of obligations accruing upon the ship, including environmental ones. Indeed, the core of this obligation may be detected in Article 94 UNCLOS, according to which '[e]very State shall effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag'<sup>30</sup> and 'is required to conform to generally accepted international regulations, procedures and practices and to take any steps which may be necessary to secure their observance',<sup>31</sup> including 'the applicable international regulations concerning . . . , the prevention, reduction and control of marine pollution . . .'.<sup>32</sup> Such regulations include provisions pertaining to maritime labour<sup>33</sup> or technical specifications required with a view to secure the seaworthiness of vessels at sea, thus ensuring protection of human life and the marine environment at the same time. In its first ever advisory opinion by the full bench,<sup>34</sup> ITLOS reiterated that this obligation extends to cases of illegal, unreported, and unregulated (IUU) fishing activities<sup>35</sup> and expressly linked enforcement jurisdiction for such fishing activities to the duty to cooperate in the prevention of pollution to the marine environment.<sup>36</sup>

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<sup>27</sup> Case C-62/96 *Commission v Greece* (ECJ, 27 November 1997), point 22, available at <<http://www.curia.eu>> (accessed 12 August 2014).

<sup>28</sup> *Beldjoudi et al v France* (ECtHR, 26 March 1992), available at [www.hudoc.echr.coe.int](http://www.hudoc.echr.coe.int) (accessed 12 August 2014).

<sup>29</sup> *Stewart v Canada* (UN Human Rights Committee, 1 November 1996), UN Doc. CCPR/C/58/D/538/1993, available at <[http://www.ohchr.org/\\_layouts/treatybodyexternal/TBSearch.aspx?Lang=en&TreatyID=8&DocTypeID=17](http://www.ohchr.org/_layouts/treatybodyexternal/TBSearch.aspx?Lang=en&TreatyID=8&DocTypeID=17)> (accessed 12 August 2014).

<sup>30</sup> Art. 94 para. 1 UNCLOS.

<sup>31</sup> Art. 94 para. 5 UNCLOS.

<sup>32</sup> Art. 94 para. 4(c) UNCLOS.

<sup>33</sup> M McConnell, 'Forging or foregoing the "genuine link"? A reflection on the Maritime Labour Convention, 2006 and other approaches' in A Chircop et al (eds), *The Regulation of International Shipping: International and Comparative Perspectives: Essays in Honour of Edgar Gold* (Martinus Nijhoff, 2013) 401–25.

<sup>34</sup> *Request for an advisory opinion submitted by the Sub-Regional Fisheries Commission (SRFC)*, ITLOS, available at <<http://www.itlos.org>> (accessed 11 June 2015).

<sup>35</sup> *Request for an advisory opinion submitted by the SRFC*, Order of 14 April, para. 139.

<sup>36</sup> *Request for an advisory opinion submitted by the SRFC*, Order of 14 April, para. 140; see also *The MOX Plant case (Ireland v United Kingdom)*, Provisional Measures, Order of 3 December 2001, ITLOS, para. 82.

An interesting category of rules, addressed to flag States but with a spatial parameter, are to be found in the Special Areas designated under the 1973/1978 MARPOL Convention.<sup>37</sup> The designation of such areas in large parts of the high seas, exclusive economic zones, or even territorial seas where particular oceanographic and ecologic conditions prevail among heavy sea traffic generates special discharge standards for oil,<sup>38</sup> noxious liquid substances,<sup>39</sup> sewage,<sup>40</sup> garbage,<sup>41</sup> and sulphur oxide emissions<sup>42</sup> under the respective MARPOL Annexes.

The same principle applies to the establishment of marine protected areas in the high seas. Absent the territorial jurisdiction of the State, effective enforcement of the protective measures within the area and ultimately respect for the area itself is necessarily entrusted to the flag jurisdiction of States, which thus would acquiesce to the restriction of their freedom of navigation in the high seas for the benefit of the international community as a whole.<sup>43</sup>

One could argue that the existence of Article 94 UNCLOS would have sufficed to set out the full array of duties and obligations accruing upon the flag State under not only the Law of the Sea but also all other 'applicable *international* regulations' (as opposed to just national ones). Indeed, with a nod to the wide expanse of the open seas, Article 94 paragraph 6 includes an optional notification procedure, whereby '[a] State which has clear grounds to believe that proper jurisdiction and control with respect to a ship have not been exercised may report the facts to the flag State. Upon receiving such a report, the flag State shall

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<sup>37</sup> International Convention for the Prevention of Pollution from Ships (London, 2 November 1973, entered into force 12 October 1983) 1340 UNTS 184 (MARPOL).

<sup>38</sup> MARPOL 73/78, Annex I, *Prevention of pollution by oil*. Such areas include the Mediterranean Sea, the Baltic Sea, the Black Sea, the Gulfs area, the Antarctic area, the North-West European waters, and the Southern South Africa waters whereas designated areas in the Red Sea, the Gulf of Eden, and the Sea of Oman are not operational due to the lack of reception facilities in the neighbouring coastal States; a complete list is available at <<http://www.imo.org/OurWork/Environment/PollutionPrevention/SpecialAreasUnderMARPOL/Pages>> (accessed 12 August 2014).

<sup>39</sup> MARPOL 73/78, Annex II, *Control of pollution by noxious liquid substances*. The Antarctic area was designated in 1992 and became operative in 1994 (see list, n. 38).

<sup>40</sup> MARPOL 73/78, Annex IV, *Sewage*. Although designated since 2011, the Baltic Sea area awaits confirmation by the bordering States that they have in place adequate reception facilities (see list, n. 38).

<sup>41</sup> MARPOL 73/78, Annex V, *Garbage*. Such areas include the Mediterranean Sea, the Baltic Sea, the Gulfs area, the North Sea, the Antarctic area, and the Wider Caribbean region, including the Gulf of Mexico and the Caribbean Sea, while the Black Sea and the Red Sea areas still remain inoperative (see list, n. 38).

<sup>42</sup> MARPOL 73/78, Annex VI, *Prevention of air pollution by ships*. Such Emission Control Areas (ECA) may be found (with different emission specifications) in the Baltic Sea, the North Sea, the North American waters, and the US-Caribbean Sea area (see list, n. 38).

<sup>43</sup> K Scott, 'Conservation on the high seas: Developing the concept of the High Seas Marine Protected Areas' (2012) 27 *TIJMCL* 849–57; R Churchill, 'The growing establishment of High Seas Marine Protected Areas: Implications for shipping' in R Caddell and DR Thomas (eds), *Shipping, Law and the Marine Environment in the 21st Century: Emerging Challenges for the Law of the Sea – Legal Implications and Liabilities* (Lawtext Publishing, 2013) 53–88.

investigate the matter and, if appropriate, take any action necessary to remedy the situation'.<sup>44</sup>

Needless to say, this potentially all-encompassing piece of legal drafting remains an exercise in frustration. There is no effective way to force a flag State remiss in his duty of vigilance to take action in spite of the complementary provisions of Article 217 UNCLOS, which direct the flag State to do exactly that 'for the prevention, reduction and control of pollution'.<sup>45</sup> Indeed, the flag State may be prompted 'at the written request'<sup>46</sup> of any State to exercise such enforcement powers and promptly inform on the outcome both the State in question and the IMO.<sup>47</sup> And yet, in spite of the Convention having taken such pains to further reinforce the traditional enforcement powers of the flag State,<sup>48</sup> the final results remain at best meagre. Nor does the complicated procedure of State responsibility appear adequate.<sup>49</sup> It is very interesting to note that although Article 297 paragraph 1 UNCLOS explicitly subjects to the compulsory dispute settlement procedure disputes arising from an alleged breach of 'specified international rules and standards for the protection and preservation of the marine environment, which are applicable to the coastal State, and which have been established by this Convention or through a competent international organization or diplomatic conference in accordance with this Convention',<sup>50</sup> no such dispute has yet been forthcoming. Nor is there any discernible race to resort to a request for provisional measures before the competent court or tribunal 'to prevent serious harm to the marine environment, pending the final decision'.<sup>51</sup> So far ITLOS tends to be rather comprehensive on the grounds it employed for such provisional measures, routinely quoting both the need to preserve the respective rights of the parties *and* avoid serious environmental harm<sup>52</sup> while interpreting the notion of

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<sup>44</sup> Art. 94 para. 6 UNCLOS.

<sup>45</sup> Art. 217 para. 1 UNCLOS.

<sup>46</sup> Art. 217 para. 6 UNCLOS.

<sup>47</sup> Art. 217 para. 7 UNCLOS.

<sup>48</sup> H Caminos, 'Enforcement jurisdiction under the United Nations Convention on the Law of the Sea: An overview' in H Hestermeyer et al (eds), *Coexistence, Cooperation and Solidarity: Liber amicorum Rüdiger Wolfrum* (Martinus Nijhoff, 2012) vol. 1, 737–76; cf. E Papastavridis, 'Enforcement jurisdiction in the Mediterranean Sea: Illicit activities and the rule of law on the high seas' (2010) 25 *TIJMC* 569–99.

<sup>49</sup> D König, 'Flag of ships' in R Wolfrum (ed.), *Max Planck Encyclopedia of Public International Law* (Oxford University Press, 2012), <<http://opil.ouplaw.com/home/EPIL>> accessed 13 August 2014. See also in general Catherine Redgwell, 'The wrong trousers: State responsibility and international environmental law' in M Evans and P Koutrakos (eds), *The International Responsibility of the European Union: European and International Perspectives* (Hart, 2013) 257–74.

<sup>50</sup> Art. 297 para. 1(c) UNCLOS.

<sup>51</sup> Art. 290 para. 1 UNCLOS.

<sup>52</sup> Thus in *The MOX Plant case (Ireland v United Kingdom)*, Provisional Measures, Order of 3 December 2001, paras 81–4 [request denied]; *Case concerning Land Reclamation by Singapore in and around the Straits of Johor (Malaysia v Singapore)*, Provisional measures, Order of 8 October 2003, ITLOS, operative para. 2 [request granted]; and most recently in *Dispute concerning delimitation of the maritime boundary between Ghana and Côte d'Ivoire in the Atlantic*, Provisional measures, Order

‘environment harm’ in the wider possible terms to also include the conservation of the living resources of the seas.<sup>53</sup>

The deficiency becomes even greater considering that the applicable rules comprise not only the broad normative rules included in Part XII of the Convention but also all international rules and standards adopted by the competent international organizations. This incorporation by reference,<sup>54</sup> so as to extend the scope of standard-setting provisions and thus encompass all available environmental protection rules, transforms the UNCLOS from a usual conventional instrument to the comprehensive constitution of the oceans it was designed to be.<sup>55</sup>

Effective compliance is sought through the expansion of the powers of the coastal State or the enforcement jurisdiction of the port State; and attempts by the IMO to use the carrot-and-stick approach, offering technical assistance to those (few) willing but unable to do so through a voluntary audit scheme, whereby it seeks to establish the degree of effective implementation by its member States of the conventional standards set out in IMO legal instruments.

It is interesting to note, however, that although operations at sea, be they related to maritime trade or energy-generation or the harvesting of natural resources, are almost exclusively conducted by the private sector, the primary burden of supervision and consequently responsibility and liability for environmental harm remains with the flag State. This is a concept lurking behind the archetypal tripartite-tiered system of liability in both the Civil Liability and the Fund Conventions<sup>56</sup>—and reflected in the general system proposed by the International Law Committee in its 2006 Principles on the allocation of loss in the case of transboundary harm arising

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of 25 April 2015, ITLOS, paras 67–8 and 99 (request partially granted and partially denied), all available at <<http://www.itlos.org>> (accessed 11 June 2015).

<sup>53</sup> *Southern Bluefin Tuna cases (New Zealand v Japan, Australia v Japan)*, Provisional measures, Order of 27 August 1999, ITLOS, para. 70, available at <<http://www.itlos.org>> (accessed 12 August 2014). Incidentally, for the purposes of the present chapter I chose not to deal with fisheries jurisdiction.

<sup>54</sup> DM Ong, ‘The 1982 UN Convention on the Law of the Sea and marine environmental protection’ in M Fitzmaurice, DM Ong, and P Merkouris (eds), *Research Handbook on International Environmental Law* (Edward Elgar, 2010) 567–85, 572; BH Oxman, ‘The duty to respect generally accepted international standards’ (1991) 24 *NYUJILP* 109–59.

<sup>55</sup> Note, however, the comments by V Lowe, ‘Was it worth the effort?’ (2012) 27 *TIJMLC* 875–81.

<sup>56</sup> This is the system first created by the 1969 International Convention on Civil Liability for Oil Pollution Damage (CLC) and the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution, as complemented by the 1992 Civil Liability Convention and the 1992 Fund Convention and eventually the 2003 Supplementary Fund Protocol; for an overview see <<http://www.iopcfunds.org>> (accessed 12 August 2014). AHE Popp, ‘The regime of liability and compensation for oil pollution damage from ships’ in MH Nordquist, JN Moore, A Chircop, and R Long (eds), *The Regulation of Continental Shelf Development: Rethinking International Standards* (Martinus Nijhoff, 2013) 297–307; D Gallo, ‘Civil liability, shipping and marine pollution: A critical appraisal’ in A del Vecchio (ed.), *International Law of the Sea: Current Trends and Controversial Issues* (Eleven International Publishing, 2014) 237–57.

out of hazardous activities<sup>57</sup>—which assigns residual liability to the State of origin when both the operator and the industry have exhausted their respective capacity to compensate for damage caused. It is an acknowledgement of the ultimate responsibility of the State to ensure that all measures are in place to prevent a polluting incident from happening and, should such an occurrence materialize, to make certain that all relevant compensation schemes are in place and properly functioning—and then to shoulder any excess liability itself. This obligation of due diligence, best defined by the ITLOS Seabed Disputes Chamber in its advisory opinion on the *Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area*<sup>58</sup> and by the ICJ in its 2011 judgment in the *Pulp mills in the River Uruguay* case,<sup>59</sup> confirms the position of the State as the final arbiter of all such activities and, in a wider context, reinforces the State-centred concept of international law.<sup>60</sup>

## 1.2. The Coastal State

From the early stages of its long-winded saga on the delimitation of maritime areas, the ICJ chose to clarify the fundamentals: ‘. . . the land is the legal source of the power which a State may exercise over territorial extensions to seaward . . .’<sup>61</sup> It was nothing more than the affirmation of the long-held principle that the jurisdiction of the coastal State over maritime areas remains the projection of State sovereignty over the sea. The multiplicity of maritime zones is also reflected in the form

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<sup>57</sup> Principle 4 para. 5; available at [legal.un.org/ilc/texts/instruments/english/commentaries/9\\_10\\_2006.pdf](http://legal.un.org/ilc/texts/instruments/english/commentaries/9_10_2006.pdf) (accessed 12 August 2014).

<sup>58</sup> *Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area* (Request for Advisory Opinion submitted to the Seabed Disputes Chamber), Advisory Opinion of 1 February 2011, ITLOS, paras 117–20; available at <<http://www.itlos.org>> (accessed 12 August 2014). D Freestone, Advisory Opinion of the Seabed Disputes Chamber of International Tribunal for the Law of the Sea on ‘Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area’ (2011) 105 *AJIL* 755–60; I Plakokefalos, ‘Seabed Disputes Chamber of the International Tribunal for the Law of the Sea: Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area Advisory Opinion’ (2012) 24 *JEL* 133–43; H Zhang, ‘The sponsoring State’s “obligation to ensure” in the development of the International Seabed Area’ (2013) 28 *TIJMCL* 681–99. See also *Request for an advisory opinion submitted by the Sub-Regional Fisheries Commission (SRFC)*, ITLOS (n. 34) paras 131–2.

<sup>59</sup> *Pulp mills on the River Uruguay* (Argentina v Uruguay) [2010] ICJ Reports 14, para. 197 reads: ‘It is an obligation which entails not only the adoption of appropriate rules and measures, but also a certain level of vigilance in their enforcement and the exercise of administrative control applicable to public and private operators, such as the monitoring of activities undertaken by such operators . . .’ (my emphasis); available at [icj-cij.org](http://icj-cij.org) (accessed 12 August 2014). I Plakokefalos, ‘The Pulp Mills case’ (2011) 26 *TIJMCL* 169–83.

<sup>60</sup> See, however, M Karavias, *Corporate Obligations under International Law* (Oxford University Press, 2013).

<sup>61</sup> *North Sea Continental Shelf cases* (Federal Republic of Germany v Denmark, Federal Republic of Germany v the Netherlands) [1969] ICJ Reports 3, para. 96; *Aegean Sea Continental Shelf* (Greece v Turkey) [1978] ICJ Reports 3, para. 86; *Maritime delimitation and territorial questions between Qatar and Bahrain* (Qatar v Bahrain) [2001] ICJ Reports 40, para. 185.



of jurisdiction exercised by the State, from the full sovereignty over the territorial sea to the sovereign rights enjoyed in the EEZ. Nevertheless, the affirmation of State power within the prescribed limits (see Section 1.2.1) does not preclude further, often unilateral, attempts not to affirm its already established jurisdiction but rather to exclude other users of the seas (see Section 1.2.2).

### 1.2.1 The primacy of coastal State jurisdiction

Having its foundations on the enforcement powers of the State itself, coastal State jurisdiction is by definition the strongest manifestation of the will of the coastal State. Yet it is not uniform: it follows the gradual diminution of State powers the further one moves away from the seashore and adjusts its manifestations to the duties and responsibilities assigned to the coastal State in the numerous maritime zones created by the UNCLOS and customary law.

The full extent of State power is naturally displayed in the territorial sea, where the only concession to the other users of the sea is the traditional right of innocent passage.<sup>62</sup> And yet even this exception is eliminated in cases of ‘wilful and serious pollution’.<sup>63</sup> Truth be told, the formulation of wilful and serious pollution generated while a ship merrily proceeds in innocent passage is nowadays obsolete. The contemporary technical requirements for the building of ships do not practically allow for such operational pollution. The serious impact envisaged is usually the result of a major maritime accident, when, however, the vessel is usually incapacitated and thus innocent passage disappears not due to the pollution generated but because passage ‘continuous and expeditious’<sup>64</sup> is no more.

The required balance between the different uses of the sea is further guaranteed in the limitation imposed upon the prescriptive jurisdiction of the coastal State not to adopt laws and regulations on ‘the preservation of the environment of the coastal State and the prevention, reduction and control of pollution thereof’,<sup>65</sup> which may exceed the international framework created by the UNCLOS and other rules of international law and may eventually hamper the right of innocent passage.<sup>66</sup> The determination of conformity is by no means automatic or even easy: the provisions of Directive 2005/35/EC concerning ship-source pollution and the introduction of penalties for infringements,<sup>67</sup> whereby pollution is also to be criminalized in the domestic legal order of the EU member States when committed ‘recklessly or by serious negligence’, at first glance going beyond the ‘wilful’

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<sup>62</sup> W Agyebeng, ‘Theory in search of practice: The right of innocent passage in the territorial sea’ (2006) 39 *Cornell ILJ* 371–400.

<sup>63</sup> Art. 19 para. 2(h) UNCLOS.

<sup>64</sup> Art. 18 para. 2 UNCLOS.

<sup>65</sup> Art. 21 para. 1(f) UNCLOS.

<sup>66</sup> Art. 24 UNCLOS.

<sup>67</sup> OJ L 255, 11–21, 30 September 2005.

standard of the Convention,<sup>68</sup> generated a veritable judicial battle before the European Court of Justice<sup>69</sup>—and beyond.<sup>70</sup>

In this context, there is further gradation in the type of limitations inbuilt in the Convention. The UNCLOS makes specific provision for the movement of nuclear ships in innocent passage through the territorial sea,<sup>71</sup> due to their potential for catastrophic pollution: it did not prevent the interested States from engaging in long debates and much sabre-rattling.<sup>72</sup> A step further from the limited exercise of the right to prescribe environmental laws and regulations, Article 21 paragraph 2 UNCLOS moves on to the direct prohibition of legislating on matters relevant to the design, construction, manning, and equipment (CDEMs) of foreign ships in an obvious attempt to prohibit unilateral actions in perhaps the only truly international market. Confrontation again threatened when, in the aftermath of the *Erika* and the *Prestige* disasters,<sup>73</sup> the European Union moved with the adoption of Regulation 1726/2003 to exclude from its ports and also all European waters in general all single-hull vessels,<sup>74</sup> in blatant disrespect of the UNCLOS CDEMs exception. A compromise was eventually achieved with the EU member States successfully pursuing through the IMO the adoption in 2003 of new CDEM

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<sup>68</sup> A Pozdnakova, *Criminal Jurisdiction over Perpetrators of Ship-source Pollution: International Law, State Practice and EU Harmonization* (Martinus Nijhoff, 2013); V Frank, *The European Community and Marine Environmental Protection in the International Law of the Sea: Implementing Global Obligations at the Regional Level* (Martinus Nijhoff, 2007).

<sup>69</sup> Case C-308/06, *The Queen on the application of The International Association of Independent Tanker Owners (Intertanko), The International Association of Dry Cargo Shipowners (Intercargo), The Greek Shipping Cooperation Committee, Lloyd's Register, The International Salvage Union v The Secretary of State for Transport*, (ECJ, Judgment of the Court (Grand Chamber) of 3 June 2008) available at [curia.europa.eu](http://curia.europa.eu) (accessed 13 August 2014).

<sup>70</sup> AK-J Tan, 'The EU Ship-Source Directive and recent expansions of coastal State jurisdiction' in D Vidas (ed.), *Law, Technology and Science for Oceans in Globalisation. IUU Fishing, Oil Pollution, Bioprospecting, Outer Continental Shelf* (Martinus Nijhoff, 2010) 291–305.

<sup>71</sup> Art. 23 UNCLOS.

<sup>72</sup> DD Caron and HN Schreiber (eds), *The Oceans in the Nuclear Age: Legacies and Risks* (Martinus Nijhoff, 2010); M Roscini, 'The navigational rights of nuclear ships' (2002) 15 *Leiden JIL* 251–65; L Marin, 'Oceanic transportation of radioactive materials: The conflict between the law of the sea's right of innocent passage and the duty to the marine environment' (2001) 13 *Florida JIL* 361–78.

<sup>73</sup> C Laly-Chevalier, 'Les catastrophes maritimes et la protection des côtes françaises' (2004) *AFDI* 581–606; Y van der Meensbrugge, 'De l'*Erika* au *Prestige*: La réaction de la Communauté européenne en matière de sécurité maritime et de protection de l'environnement marin en 2002' (2003) *ADM* 33–345; J Juste-Ruiz, 'Compensation for pollution damage caused by oil tanker accidents: From *Erika* to *Prestige*' (2010) 1 *Aegean Review of the Law of the Sea and Maritime Law* 37–60.

<sup>74</sup> Regulation (EC) 1726/2003 of the European Parliament and of the Council of 22 July 2003 amending Regulation (EC) 417/2002 on the accelerated phasing-in of double-hull or equivalent design requirements for single-hull oil tankers, OJ L 249, 1–4, 1 October 2003. A Proelss, 'The "Erika III" package: Progress or breach of international law?' in H-J Koch et al (eds), *Climate Change and Environmental Hazards Related to Shipping: An International Legal Framework* (2011) Proceedings of the Hamburg International Environmental Law Conference (Martinus Nijhoff, 2013) 129–56; M Höltmann, *Schiffssicherheit und Meeresumweltschutz in der EU nach Erika und Prestige: die Vereinbarkeit der legislativen Maßnahmen der EU mit dem internationalen Seerecht* (Nomos Verlag, 2012).

standards, whereby all transport of heavy-grade oil by single-hull tankers would have ceased with immediate effect whereas fifteen-year-old single-hull tankers carrying lighter types of fuel would be subjected to a rigorous Condition Assessment Scheme (CAS) before being totally phased out in 2015.<sup>75</sup>

What makes the compatibility discussion interesting is the possibility—but not the duty—granted by the UNCLOS to the coastal State to exercise full enforcement powers, including ‘physical inspection of the vessel relating to the violation and . . . where the evidence so warrants, institute proceedings, including detention of the vessel, in accordance with its laws’,<sup>76</sup> when there are ‘clear grounds for believing’<sup>77</sup> that the vessel in question has ‘violated laws and regulations of that State adopted in accordance with this Convention or applicable international rules and standards for the prevention, reduction and control of pollution from vessels’.<sup>78</sup> Clearly, subjecting a foreign vessel to the will of the coastal State raises questions of reasonableness and proportionality. The ITLOS summarized such prerequisites rather succinctly in the *M/V Saiga (No. 2)* case:

International law requires that the use of force must be avoided as far as possible and, where force is unavoidable, it must not go beyond what is reasonable and necessary in the circumstances. Considerations of humanity must apply in the law of the sea, as they do in other areas of international law.<sup>79</sup>

The Convention itself provides for a long list of safeguards: any enforcement action would not expose the marine environment to an unreasonable risk;<sup>80</sup> no vessel would be delayed longer than essential;<sup>81</sup> physical inspection is to be carried

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<sup>75</sup> IMO Marine Environmental Protection Committee (MERC), Resolution MERC.111(50), *Amendments to the Annex of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973*, adopted on 4 December 2003; text available at <<http://www.imo.org/KnowledgeCentre/IndexofIMOResolutions/Pages/Marine-Environment-Protection-Committee-%28MEPC%29.aspx>> (accessed 13 August 2014).

<sup>76</sup> Art. 220 para. 2 UNCLOS.

<sup>77</sup> Art. 220 para. 2 UNCLOS.

<sup>78</sup> Art. 220 para. 2 UNCLOS.

<sup>79</sup> *The M/V Saiga*, ITLOS, para. 155; it then proceeded to set out the complete step-by-step procedure in para. 156. See also *Guyana-Suriname Award*, (2008) 47 *ILM* 164, para. 445; *Fisheries Jurisdiction case (Spain v Canada)* [1998] ICJ Reports 432 (all accessed 13 August 2014). E Papastavridis, *The Interception of Vessels on the High Seas. Contemporary Challenges to the Legal Order of the Oceans* (Hart, 2013) 66–82; E Franckx and P Gautier (eds), *The Exercise of Jurisdiction over Vessels: New Developments in the Fields of Pollution, Fisheries, Crimes at Sea and Trafficking of Weapons of Mass Destruction* (Bruylant, 2010); P Jimenez-Kwast, ‘Maritime law enforcement and the use of force: Reflections on the categorization of forcible action at sea in the light of the Guyana/Suriname Award’ (2008) 13 *Journal of Conflict & Security Law* 49–91.

<sup>80</sup> Art. 225 UNCLOS. See, for instance, the relevant Dutch argument in *The ‘Arctic Sunrise’ case (The Netherlands v Russian Federation)* Provisional Measures, order of 22 November 2013, ITLOS, para. 87, available at <<http://www.itlos.org>> (accessed 11 June 2015); D Guilfoyle and C Miles, ‘Provisional measures and the *MV Arctic Sunrise*’ (2014) 108 *AJIL* 271–87; A Oude Elferink, ‘The “Arctic Sunrise” incident: A multi-faceted Law of the Sea case with a human rights dimension’ (2014) 29 *TJ/MCL* 244–89.

<sup>81</sup> Art. 226 para. 1(a) UNCLOS.

out only when the relevant certificates are inadequate or altogether missing;<sup>82</sup> release would be promptly available subject to reasonable procedures such as bonding,<sup>83</sup> unless it would present 'an unreasonable threat of damage to the marine environment'.<sup>84</sup> The reasonableness of the bond required is often an essential element of the prompt release of vessels and crews procedure under Article 292 UNCLOS.<sup>85</sup>

It would be wrong, however, to consider that under all circumstances the coastal State action remains dependent upon the level of protection or even the existence of international regulation. The most important source of marine pollution nowadays is that generated from land-based sources: prescriptive jurisdiction, however, remains firmly within the *domaine réservé* of the coastal State, which is bound to take into account internationally agreed rules, standards and recommended practices and procedures<sup>86</sup> and is invited to harmonize policies (but not laws and regulations) at the regional level.<sup>87</sup> The minimum provisions of the Convention have long been superseded in regional practice.<sup>88</sup> One of the best cases, but still with meagre results, is the Mediterranean Sea, where the revamped 1996 Syracuse Protocol for the protection of the Mediterranean Sea against pollution from land-based sources and activities (LBS Protocol)<sup>89</sup> serves as the framework for a detailed network of regional action plans<sup>90</sup> and pollution hotspots and, combined with the holistic approach adopted in the 2008 Protocol on Integrated Coastal Zone Management in the Mediterranean (ICZM Protocol),<sup>91</sup> attempts to rehabilitate one of the most heavily polluted coastlines in the world.

The coastal State also has a free hand in adopting laws and regulations to prevent, reduce and control pollution from seabed activities and artificial installations

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<sup>82</sup> Art. 226 para. 1(a) UNCLOS.

<sup>83</sup> Art. 226 para. 1(b) UNCLOS.

<sup>84</sup> Art. 226 para. 1(c) UNCLOS.

<sup>85</sup> E Franckx, "Reasonable bond" in the practice of the International Tribunal for the Law of the Sea' (2002) 32 *California Western ILJ* 303–42.

<sup>86</sup> Art. 207 para. 1 UNCLOS.

<sup>87</sup> Art. 207 para. 3 UNCLOS.

<sup>88</sup> DL Vanderzwaag and A Powers, 'The protection of the marine environment from land-based pollution and activities: Gauging the tides of global and regional governance' (2008) 23 *TIJMCL* 423–52.

<sup>89</sup> Adopted on 7 March 1996 and entered into force on 11 May 2008, it replaced the original 1980 Athens LBS Protocol; text available at 195.97.36.231/dbases/webdocs/BCP/ProtocolLBS96 amendments\_Eng.pdf (accessed 13 August 2014).

<sup>90</sup> The latest one, the Regional Plan on Marine Litter Management in the Mediterranean was adopted in December 2013, entered into force on 8 July 2014 and is expected to run until 2025; for full details see <<http://www.unepmap.org/index.php?module=news&action=detail&cid=158>> (accessed 13 August 2014).

<sup>91</sup> Adopted in Madrid on 21 January 2008, it entered into force on 24 March 2011; text available at 195.97.36.231/dbases/webdocs/BCP/ProtocolICZM08\_eng.pdf (accessed 13 August 2014). M Gavouneli, 'Mediterranean challenges: Between old problems and new solutions' (2008) 23 *TIJMCL* 477–97.

within its jurisdiction<sup>92</sup> as well as deal with dumping activities;<sup>93</sup> in both cases, however, national laws, regulations, and measures shall be no less effective than global rules and standards.<sup>94</sup> In actual fact, the regulation of dumping has been totally overhauled since the adoption of the Convention, mostly due to the elimination of the practice (with some pernicious exceptions) as the garbage destined for dumping has been converted to recyclable material and then to a tool for climate change mitigation.<sup>95</sup>

The changing situation in the offshore industry is no less dramatic: there is now in Europe a comprehensive regional corpus of regulation for the prevention of pollution from offshore installations, the first time ever that the coastal States have accepted any kind of restriction imposed on their unfettered power to decide on the management of their energy sources: Directive 2013/30/EU on safety of offshore oil and gas operations<sup>96</sup> offers the first ever attempt at an international instrument that would cover the complete life-cycle of offshore platforms from their placement to the licensing of operations and eventually to decommissioning<sup>97</sup> and is complemented by the 1995 Madrid Protocol for the protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil,<sup>98</sup> thus encompassing the wider expanse of European waters and both sides of the Mediterranean. The final package involved as usual a compromise and a political commitment: The legislative format employed was that of directive, leaving significant leeway to the EU member States to act, rather than the rigid conformity of a regulation; and the industry (admittedly limited in number of companies) undertook the obligation to apply the European standards to all their operations worldwide, thus effectively

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<sup>92</sup> Art. 208 UNCLOS.

<sup>93</sup> Art. 210 UNCLOS.

<sup>94</sup> Art. 208 para. 3 UNCLOS and Art. 210 para. 6 UNCLOS.

<sup>95</sup> P Verlaan, 'Current legal developments: London Convention and London Protocol' (2011) 26 *TIJMCL* 185–94; A Rakestraw, 'Open oceans and marine debris: Solutions for the ineffective enforcement of MARPOL Annex V' (2012) 35 *Hastings ICLR* 383–409; A Akhtarkhavi, 'Environmental principles and social change in the ocean dumping regime: A case-study of the disposal of carbon dioxide into the seabed' in B Jessup and K Rubenstein (eds), *Environmental discourses in public and international law* (Cambridge University Press, 2012) 399–419.

<sup>96</sup> Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC, OJ L 178, 66–106, 28 June 2013; M Gavouneli, 'Offshore installations: A comprehensive regime?' *MEPIELAN e-bulletin*, 4 April 2013, available at <<http://www.mepielan-ebulletin.gr/default.aspx?pid=18&CategoryId=4&ArticleId=137&Article=Offshore-Installations-A-Comprehensive-Regime>> (accessed 13 August 2014); S Vinogradov, 'The impact of *Deepwater Horizon*: The evolving international legal regime for offshore accidental pollution, prevention, preparedness and response' (2013) 44 *ODIL* 335–62.

<sup>97</sup> See also D Johnson, 'Regional regulation of offshore oil and gas industry decommissioning by the OSPAR Commission' in Nordquist, Moore, Chircop, and Long (n. 56) 281–93.

<sup>98</sup> Concluded on 14 October 1995, it entered into force on 24 March 2011; text available at 195.97.36.231/dbases/webdocs/BCP/ProtocolOffshore94\_eng.pdf (accessed 12 August 2014).

converting a regional instrument into a global rule. It is worth noting, however, that the Directive does not cover offshore renewable energy facilities, the regulation of which would inevitably fall back into the full discretion of the coastal State and the general obligations it has under general environmental law.<sup>99</sup>

### 1.2.2 Jurisdictional claims in the EEZ

The obligation to protect and preserve the marine environment extends beyond the territorial sea into the Exclusive Economic Zone, where the coastal State enjoys sovereign rights for the exploration, exploitation, conservation and management of its natural resources and exercises jurisdiction, inter alia, for the protection and preservation of the marine environment.<sup>100</sup> In line with the diminishing power of the State the further away from the coast one gets, the enforcement jurisdiction of the State is equally reduced: it remains in principle a request for information about the vessel and examination of documents, mostly on its identity and port of registry, its last and next port of call, so as to establish whether a violation has actually occurred.<sup>101</sup> Physical inspection is possible only when there are 'clear grounds for believing'<sup>102</sup> that there has been a violation in the EEZ 'resulting in a substantial discharge causing or threatening significant pollution of the marine environment'<sup>103</sup> and, in an escalating progress, the coastal State may institute proceedings and detain the vessel only when there is 'clear objective evidence'<sup>104</sup> that the violation committed in the EEZ has resulted 'in a discharge causing major damage or threat of major damage to the coastline or related interests of the coastal State or to any resources'.<sup>105</sup>

This graduated approach to coastal State intervention reflects the obligation incumbent upon it to have 'due regard' to the rights and duties of other States therein while exercising its rights and performing its duties under the Convention. Quite where lies this unique point of balance and indeed whether the obligation to prevent marine pollution<sup>106</sup> might lead to the complete annihilation of other rights, including the traditional freedom of navigation, remains an open question. The Convention does allow in principle severe restrictions imposed on the rights of navigation within a specific area of the EEZ for environmental protection purposes in at least two cases.

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<sup>99</sup> M Portman, 'Involving the public in the impact assessment of offshore renewable energy facilities' (2009) 13 *Marine Policy* 332–8.

<sup>100</sup> Art. 56 para. 1 UNCLOS.

<sup>101</sup> Art. 220 para. 3 UNCLOS.

<sup>102</sup> Art. 220 para. 5 UNCLOS.

<sup>103</sup> Art. 220 para. 5 UNCLOS.

<sup>104</sup> Art. 220 para. 6 UNCLOS.

<sup>105</sup> Art. 220 para. 6 UNCLOS.

<sup>106</sup> I Plakokefalos, 'Prevention obligations in international environmental law' (2012) 23 *YBIEL* 3–43.

The first applies to ice-covered areas and authorizes the coastal State to *unilaterally* adopt and enforce non-discriminatory legislation where the climate circumstances are such that 'pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance'.<sup>107</sup>

The second involves a much more complicated exercise: Under Article 211 UNCLOS, the coastal State may initiate the cordoning-off of a specific area within its EEZ '[w]here the international rules and standards . . . area inadequate to meet special circumstances'<sup>108</sup> and it has 'reasonable grounds for believing that a particular clearly, defined area . . . is an area where the adoption of special mandatory measures for the prevention of pollution from vessels is required for recognized technical reasons in relation to its oceanographical and ecological conditions, as well as its utilization or the protection of its resources and the particular character of its traffic';<sup>109</sup> then a final decision on the subject must be made by the competent international organization, the IMO, within 12 months after receiving such a communication.<sup>110</sup> Were the IMO to approve the request, the coastal State may adopt rules and regulations 'for the prevention, reduction and control of pollution from vessels implementing such international rules and standards or navigational practices as are made available through the Organization for special areas',<sup>111</sup> which then would come into force fifteen months after the submission of the communication to the organization. Should the coastal State wish to adopt additional rules and regulations, excluding CDEMs, then these must be submitted for approval to the organization along with the original communication and will become applicable fifteen months after said submission, provided the organization so decides within twelve months after the submission of the communication.<sup>112</sup> If there is indeed an urgent need for environmental action to be taken, this is hardly the method to go about it. It comes as no surprise that this cumbersome mechanism has never been used.

The principle of restricting access to a specific area within the EEZ, however, remained valid and has given rise to two variations: marine protected areas and ecological zones. The first species was initially encountered in regional environmental treaties, where the contracting coastal States in the exercise of their jurisdiction over their maritime zones decided to mutually exclude from navigation or other uses of the seas certain vulnerable areas under their jurisdiction and control,

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<sup>107</sup> Art. 234 UNCLOS. A Chircop, 'Regulatory challenges for international Arctic navigation and shipping in an evolving governance environment' (2014) 28 *Ocean Yearbook* 269–90; T Henriksen, 'The future of navigation in ice-covered areas: a view from the Arctic' in Caddell & Thomas (n. 43) 8–34.

<sup>108</sup> Art. 211 para. 6(a) UNCLOS.

<sup>109</sup> Art. 211 para. 6(a) UNCLOS.

<sup>110</sup> Art. 211 para. 6(a) UNCLOS.

<sup>111</sup> Art. 211 para. 6(a) UNCLOS.

<sup>112</sup> Art. 211 para. 6(c) UNCLOS.

and has since migrated towards the high seas. Clearly in such circumstances the self-restraint foundation of MPAs disappears and the question of *pacta tertiis* comes to fore.<sup>113</sup> The current attempt to create such areas in the high seas seeks both a legal basis and a moral justification under the coverage of international organizations, very much along the lines set out in the Convention. In a pioneer but, I suspect, soon to be typical example Portugal had the Altagir Sea Mount recognized as a high seas protected area under the OSPAR Convention for the Protection of the marine environment of the North-East Atlantic and then as a protected area within national jurisdiction on the basis of its claim on an extended continental shelf before the UN Commission on the Limits of the Continental Shelf (CLCS).<sup>114</sup> This approach essentially separates the status of the waters above from that of the seabed below<sup>115</sup> and, through recourse to an international organization, avoids the requirement of direct consent by the interested States that has beleaguered such attempts under the 1995 Barcelona Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean.<sup>116</sup> The joint application required by the neighbouring States concerned<sup>117</sup> has stumbled on the underlying mistrust pervasive in the area: no Special Protected Area of Mediterranean Importance (SPAMI) has been proclaimed in the high seas, with the notable exception of the Pelagos Sanctuary for Mediterranean Marine Mammals created in 1999 by a treaty between France, Italy and Monaco and then registered in the SPAMI list.<sup>118</sup>

The individual consensual basis is further removed—if not altogether remote—in the designation by the IMO of Particularly Sensitive Sea Areas (PSSAs), with no

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<sup>113</sup> E Franckx, 'Pacta tertiis and the Agreement for the Implementation of the Straddling and Highly Migratory Fish Stocks Provisions of the United Nations Convention on the Law of the Sea' (2000) 8 *Tulane Journal of International and Comparative Law* 49–81.

<sup>114</sup> MC Ribeiro, 'The "Rainbow": The first national marine protected area proposed under the high seas' (2010) 25 *TIJMCL* 183–207.

<sup>115</sup> It seems to develop into a trend: see the 'grey areas' created in the Bay of Bengal by the International Tribunal on the Law of the Sea: *Dispute concerning delimitation of the maritime boundary between Bangladesh and Myanmar in the Bay of Bengal (Bangladesh/Myanmar)*, Judgment, 14 March 2012, ITLOS, paras 474–6, available at <<http://www.itlos.org>> (accessed 14 August 2014); and by the Annex VII UNCLOS constituted arbitral tribunal: *In the matter of the Bay of Bengal maritime boundary arbitration between the People's Republic of Bangladesh and the Republic of India*, Award of 7 July 2014, paras 503–8, available at <[http://www.pca-cpa.org/BD-IN%2020140707%20Award2890.pdf?fil\\_id=2705](http://www.pca-cpa.org/BD-IN%2020140707%20Award2890.pdf?fil_id=2705)> (accessed 14 August 2014).

<sup>116</sup> The SPA & Biodiversity Protocol was adopted on 10 June 1995 and entered into force on 12 December 1999. It was a new distinct instrument and not an amendment of the previous 1982 Geneva SPA Protocol, which continues in force; for the text and more see 195.97.36.231/dbases/webdocs/BCP/ProtocolSPA95\_eng.pdf (accessed 14 August 2014).

<sup>117</sup> Art. 9 para. 2(b) and (c) of the SPA & Biodiversity Protocol. For an overview see T Scovazzi, 'Marine protected areas on the high seas. Some legal and policy considerations' (2004) 19 *TIJMCL* 1–17; N Oral, 'Protection of vulnerable marine ecosystems in areas beyond national jurisdiction: Can international law meet the challenge?' in A Strati, M Gavouneli, and N Skourtos (eds), *Unresolved Issues and New Challenges to the Law of the Sea: Time before and Time after* (Martinus Nijhoff, 2006) 85–108.

<sup>118</sup> For the inside story see T Scovazzi, 'The Mediterranean Marine Mammals Sanctuary: The signature of an amendment establishing a sanctuary for marine mammals' (2001) 16 *TIJMCL* 132–41.



specific legal basis but rather as a precautionary response in any 'area that needs special protection through action by the IMO because of its significance for recognized ecological, socio-economic or scientific attributes, where such attributes may be vulnerable to damage by international shipping activities'. The 2005 Revised Guidelines for the identification and designation of PSSAs<sup>119</sup> trigger in effect a cluster of protective provisions under IMO instruments and follow the two-stage approach already present in Article 211 paragraph 6 UNCLOS. During the first step the coastal State is called upon to present its case on the vulnerability of the area proposed,<sup>120</sup> including a buffer zone around the core area,<sup>121</sup> and the risk posed by international shipping whereas the final designation is dependent upon the adoption of several categories of 'Associated Protective Measures' (APM)<sup>122</sup> with an 'identified legal basis'<sup>123</sup> in any relevant IMO instrument as well as the UNCLOS, in essence further developing the environmental protection framework of the Convention. The impressive list of PSSAs in both areas under national jurisdiction and in the high seas<sup>124</sup> testifies to the continuing success of this evolving and flexible institution.

The second category moves towards a different direction: rather than interjecting the collective will of an international organization before the express consent of each of the States concerned, the declaration of ecological zones constitutes the triumph of unilateralism. Yet another example of the wave of reactions to the *Prestige* accident, the concept is based on two assumptions. The first assumes that the institution of the EEZ as set out in the UNCLOS is but the full manifestation of a multi-functional maritime zone, the specific parameters of which both in width and in content depend entirely upon the discretion of the coastal State.<sup>125</sup> The second relies on the enforcement jurisdiction accorded to the coastal State by the Convention, as supplemented by the 'generally accepted international rules and

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<sup>119</sup> IMO Resolution A.982 (24), Revised Guidelines for the identification and designation of Particular Sensitive Sea Areas, adopted on 1 December 2005, replacing IMO Resolution A.927 (22), Guidelines for the designation of Special Areas under MARPOL 73/78 and Guidelines for the identification and designation of Particularly Sensitive Sea Areas, adopted on 29 November 2001, available at <[www.imo.org/blast/blastDataHelper.asp?data\\_id=25322&filename=A982\(24\).pdf](http://www.imo.org/blast/blastDataHelper.asp?data_id=25322&filename=A982(24).pdf)> (accessed 14 August 2014).

<sup>120</sup> IMO Resolution A.982 (24), para. 4.4.

<sup>121</sup> IMO Resolution A.982 (24), para. 6.3.

<sup>122</sup> IMO Resolution A.982 (24), para. 7.4.2.1.(a).

<sup>123</sup> IMO Resolution A.982 (24), para. 6.1.

<sup>124</sup> There are PSSAs in the Great Barrier Reef, Australia (1990); the Sabana-Camagüey Archipelago, Cuba (1997); the Malpelo island, Colombia (2002); the sea around the Florida Keys, US (2002); the Wadden Sea, Denmark, Germany, and the Netherlands (2002); the Paracas National Reserve, Peru (2003); the Western European waters (2004); the extension of the Great Barrier Reef area to include the Torres Strait, Australia, and Papua New Guinea (2005); the Galapagos Archipelago, Ecuador (2005); the Baltic Sea area, Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, and Sweden (2005); the Papahānaumokuākea Marine National Monument, US (2007); the Strait of Bonifacio, France, and Italy (2011); the Saba Bank in the North-Eastern Caribbean area of the Netherlands Antilles (2012); full details available at <<http://www.imo.org/OurWork/Environment/PollutionPrevention/PSSAs/Pages/Default.aspx>> (accessed 14 August 2014).

<sup>125</sup> Gavouneli (n. 4) 90–6.

standards' of Article 211 UNCLOS. At least that was in essence the argument put forward by France when it established in 2003 a 'zone de protection écologique' applicable in both the Atlantic and Mediterranean waters,<sup>126</sup> as a 'déclinaison'<sup>127</sup> of its already existing EEZ in the Atlantic waters. In that zone, France would exercise domestic laws and regulations and 'en outre les compétences reconnues par le droit international relatives à la protection et à la préservation du milieu marin', including over 'navires . . . étrangers même immatriculés dans un territoire relevant d'un gouvernement non partie à la Convention [MARPOL]'.<sup>128</sup>

Along the same lines followed Italy with the proclamation of a 'zona di protezione ecologica',<sup>129</sup> which serves both as a zone of environmental protection and as an archaeological protection zone as per Article 303 UNCLOS and the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage.<sup>130</sup> The Italian zone does not apply in the Adriatic and the Ionian seas<sup>131</sup> but the waters of the eastern Adriatic are the scene for other acts of political theatre: Croatia instituted in 2003 an Ecological Protection Zone, the application of which for EU member States has since twice postponed (taking functionality to another level . . . );<sup>132</sup> whereas the Slovenian Ecological Protection Zone<sup>133</sup> overlaps in its

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<sup>126</sup> Loi no. 2003-346 du 15 avril 2003 relative à la création d'une zone de protection écologique au large des côtes du territoire de la République, JO du 16 avril 2003, modifiant Loi no. 76-665 relative à la zone économique au large des côtes du territoire de la République, JO du 16 juillet 1976; text available at [legisfrance.gouv.fr](http://legisfrance.gouv.fr).

<sup>127</sup> Thus C Deffigier, 'La zone de protection écologique en Méditerranée, Un outil efficace de lutte contre la pollution par les navires? Commentaire de la loi no. 2003-346 du 15 avril 2003 relative à la création d'une zone de protection écologique au large des côtes du territoire de la République' (2004) *RJE* 129-41 and 257-66, 131; S Wolf, 'Neue Tendenzen zur Ausdehnung küstenstaatslicher Umweltkompetenzen auf See: Eine Untersuchung am Beispiel der französischen "zone de protection écologique" im Mittelmeer' (2006) 66 *ZaöRV* 73-141.

<sup>128</sup> Art. L218-21 de la Code de l'environnement, as amended by Art. 3 of Loi no. 2003-346 du 15 avril 2003; see n 125.

<sup>129</sup> Legge no. 61 di 8 febbraio 2006, Istituzione di zone di protezione ecologica oltre il esterno del mare territoriale, *Gazzetta Ufficiale* no. 52 del 3 marzo 2006; available at <<http://www.parlamento.it/parlam/leggi/060611.htm>> (accessed 14 August 2014).

<sup>130</sup> UNESCO Convention on the Protection of the Underwater Cultural Heritage (Paris, 2 November 2001, entered into force 2 January 2009) 41 *ILM* 40. Applicable since April 2010, when the UNESCO Convention came into force for Italy; for the text see [unesdoc.unesco.org/images/0012/001260/126065e.pdf](http://unesdoc.unesco.org/images/0012/001260/126065e.pdf) (accessed 14 August 2014). T Scovazzi, 'The Law of the Sea Convention and underwater cultural heritage' (2012) 27 *TIJMC* 753-61.

<sup>131</sup> Decreto del Presidente della Repubblica 27 ottobre 2011, n. 209, Regolamento recante istituzione di Zone di protezione ecologica nel Mediterraneo nord-occidentale, del Mar Ligure e del Mar Tirreno, *Gazzetta Ufficiale Serie Generale* n. 293 del 17 dicembre 2011, in force since 1 January 2012; available at <<http://www.gazzettaufficiale.it/eli/id/2011/12/17/011G0252/sg>> (accessed 14 August 2014).

<sup>132</sup> Decision of the Croatian Parliament for the extension of the jurisdiction of the Republic of Croatia in the Adriatic Sea, 3 October 2003, (2004) 55 *Law of the Sea Bulletin* 31. B Vukas, 'State practice in the aftermath of the UN Convention on the Law of the Sea: The Exclusive Economic Zone and the Mediterranean Sea' in Strati, Gavouneli, and Skourtos (n. 117) 251-8.

<sup>133</sup> Act on the Ecological Protection Zone and the Continental Shelf of the Republic of Slovenia, 22 October 2005, (2006) 60 *Law of the Sea Bulletin* 56-126; D Vidas, 'The UN Convention on the Law of the Sea, the European Union and the rule of law: What is going on in the Adriatic Sea?' (2009) 24 *TIJMC* 1-66.

entirety the Croatian one and is naturally strongly contested. It is clear that in the quest for the balance of interests between the users of the sea mandated by the UNCLOS, the theory and practice of unilateral action remains a potent yet unwieldy weapon at the hands of the coastal State.

### 1.3 The Port State

In traditional terms the jurisdiction of the port State coincides largely with that of the coastal State for a port State is always a coastal State. It would have been entirely appropriate not to distinguish between the two but the inescapable fact that although a vessel may come under the jurisdiction of the coastal State as a result of navigating the high seas, submission to the jurisdiction of the port State assumes at all times that it has entered voluntarily into the port and thus has acquiesced to its jurisdiction.<sup>134</sup> The UNCLOS has acknowledged the peculiarities of port State jurisdiction in a twofold manner: In addition to the traditional coastal State powers, it granted specific enforcement rights and duties to the port State in environmental matters, which in effect create an additional basis of jurisdiction, complementary to that of the flag State (see Section 1.3.1); and further it reinforced the authority of the flag State to set the terms and conditions whereby foreign vessels may be accepted in its ports and thus paved the way for their cooperation in furthering their respective enforcement powers (See Section 1.3.2).

#### 1.3.1 A complementary jurisdiction

The creation of a separate port State jurisdiction was understood as a necessary concomitant to the expansion of the coastal State's jurisdiction over the Exclusive Economic Zone, especially in view of the obligations for the protection and preservation of the marine environment to be exercised therein.<sup>135</sup> Given the vast marine areas that came inevitably under the purview of the coastal State and with a realistic assessment of its (in)capacity to effectively enforce its rules and regulations, the Convention gave to the port State the power to undertake enforcement action 'in respect of any discharge from [a] vessel outside the internal waters, territorial sea and exclusive economic zone of that State in violation of applicable international rules and standards established through the competent international

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<sup>134</sup> E Roucounas, 'Ενίσχυση του «κράτους λιμένος» κατά τη νέα Σύμβαση των Ηνωμένων Εθνών για το Δίκαιο της Θάλασσας και το memorandum των Παρισίων [=Reinforcement of the port State under the new Law of the Sea Convention and the Paris memorandum], *Offer to Ilias Krispis* (Athens, 1995) 611–26, 614.

<sup>135</sup> S Rosenne and A Yankov (eds), *United Nations Convention on the Law of the Sea 1982. A Commentary*, vol. IV: *Articles 192 to 278, Final Act, Annex VI* (Martinus Nijhoff, 1991), para. 218.9(f); TL McDorman, 'A comment on Article 218 of the 1982 Law of the Sea Convention' (1997) 28 *JMCL* 305–22.

organization or general diplomatic conference',<sup>136</sup> provided that 'the violation has cause or is likely to cause pollution in the internal waters, territorial sea or exclusive economic zone of the State instituting the proceedings'.<sup>137</sup> There is nothing novel in this approach: it is a typical exercise of coastal State powers, presumably with the consent of the flag State since the vessel chose to enter the port out of its own volition. Indeed, MARPOL has already given to the port State enforcement powers regarding inspection of certificates<sup>138</sup> and reporting and prosecution 'for the purpose of verifying whether the ship has discharged any harmful substances in violation of the provisions of the Regulations'.<sup>139</sup> Priority, however, is accorded at all times to the flag State, which is called upon to act on the basis of such findings by the port State. The MARPOL Convention itself does not provide for any deviation from the traditional allocation of jurisdictional powers as set out in general international law and the UNCLOS.<sup>140</sup> The powers given to the port State could well be found on the obligation under Article 6 paragraph 1 MARPOL to 'cooperate in the detection of violations and the enforcement of the provisions of the present Convention, using all appropriate and practicable measures of detection and environmental monitoring, adequate procedures for reporting and accumulation of evidence;' in other words, an extension of State sovereignty essentially complementary to that of the flag State.

In addition—and therein lies the innovation—the port State *may* exercise enforcement jurisdiction in respect of discharges in the internal waters, territorial sea, or exclusive economic zone of another State, at the request of that State, the flag State, or a third State damaged or threatened by the discharge violation.<sup>141</sup> It is to a certain extent a delegation of power by the flag State or the coastal State concerned, a form of universal jurisdiction of the *aut dedere aut iudicare* variety. Inevitably, the empowerment of the port State is hedged in with safeguards in respect of the original jurisdictions. The port State may transfer the file to the coastal State concerned and any proceedings are to be suspended at the request of the coastal State victim of pollution.<sup>142</sup> The flag State has priority in prosecuting such cases and thus proceedings already instituted by the port State would be suspended 'upon the taking of proceedings by the flag State within six months of the date on which the proceedings were first instituted',<sup>143</sup> unless the pollution damage to the

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<sup>136</sup> Art. 218 para. 1 UNCLOS.

<sup>137</sup> Art. 218 para. 2 UNCLOS.

<sup>138</sup> Art. 5 paras (2)–(3) MARPOL.

<sup>139</sup> Art. 6 para. (2)–(5) MARPOL.

<sup>140</sup> Art. 9 para. 2 MARPOL. EJ Molenaar, *Coastal State jurisdiction over vessel-source pollution* (Kluwer Law International, 1998) 253–5.

<sup>141</sup> G Kasoulides, *Port State Control and Jurisdiction: Evolution of the Port State Regime* (Martinus Nijhoff, 1993); T Stephens and RR Rothwell, 'The UNCLOS framework for maritime jurisdiction and enforcement 30 years on' (2012) 27 *TIJMC* 701–9.

<sup>142</sup> Art. 218 para. 4 UNCLOS.

<sup>143</sup> Art. 228 para. 1 UNCLOS.

coastal State was so major so as to maintain its priority claim;<sup>144</sup> or ‘the flag State in question has repeatedly disregarded its obligation to enforce effectively the applicable international rules and standards in respect of violations committed by its vessels’,<sup>145</sup> the only possible sanction in case of breach of the Article 94 UNCLOS obligations of the flag State.<sup>146</sup>

The essential element in this construction remains the permissive, not mandatory nature of port State jurisdiction. The Convention may authorize the port State to act as the neighbourhood constable, dispensing common sense and the rule of law, but this ability remains completely discretionary. There is nothing that would impose upon the port State the obligation to carry out such duties, to act as the conscience of the international community for the protection and preservation of the marine environment. In practice, certain States in specific areas of the world consider it politic to avail themselves of these powers albeit always with emphasis on the voluntary character of the duties thus undertaken. Equally, there is no question that the enforcement potential of this jurisdiction is immense and may indeed be pivotal in the evolution of environmental protection under the UNCLOS.<sup>147</sup>

### 1.3.2 A cooperative jurisdiction

The territorial sovereignty of the port State is fully respected by the UNCLOS as ports are to be found in the internal waters and thus are treated as land. Consequently, the sovereign powers of the coastal State are not to be restricted in any shape or form, as it happens with the innocent passage exception in the territorial sea. Nor is there any obligation for the State to accept foreign vessels in its ports without a prior conventional undertaking to that effect,<sup>148</sup> in spite of traditional references to *ius communicationis*.<sup>149</sup> There is no reference to the wider rule but the implication is clear in Article 211 paragraph 3 UNCLOS: the port State is presumed to ‘establish particular requirements for the prevention, reduction and control of pollution of the marine environment as a condition for the entry of foreign vessels into their ports or internal waters or for a call at their offshore terminals’.

Moreover, the port State is expressly obligated by the Convention not to allow a vessel to proceed once it has been ascertained that it ‘is in violation of applicable

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<sup>144</sup> Art. 228 para. 1 UNCLOS.

<sup>145</sup> Art. 228 para. 1 UNCLOS.

<sup>146</sup> See the discussion under Section 1.1 above.

<sup>147</sup> EJ Molenaar, ‘Port State jurisdiction: Towards mandatory and comprehensive use’ in Free-stone, Barnes, and Ong (n. 20) 192–209.

<sup>148</sup> AV Lowe, ‘The right of entry in maritime ports in international law’ (1976–1977) 14 *San Diego LR* 597–622.

<sup>149</sup> Thus the 1923 Convention and Statute of the International Regime of Maritime Ports, concluded in Geneva on 9 December 1923, 58 LNTS 285, available at [cil.nus.edu.sg/rp/il/pdf/1923%20Convention%20and%20Statute%20of%20the%20International%20Regime%20of%20Maritime%20Ports-pdf.pdf](http://cil.nus.edu.sg/rp/il/pdf/1923%20Convention%20and%20Statute%20of%20the%20International%20Regime%20of%20Maritime%20Ports-pdf.pdf) (accessed 14 August 2014).

international rules and standards relating to seaworthiness of vessels and thereby threatens damage to the marine environment'.<sup>150</sup> The combination of absolute State discretion and the obligation to uphold international standards has converted the port State to the primary control point for all vessels entering its ports. The control obligation was initially perceived as complementary to that of the flag State (shades of MARPOL lingering . . . ) and indeed the latter is to be notified 'promptly' of any action related to its vessel<sup>151</sup> but clearly it has taken on over the years a life of its own. Port State control has developed into perhaps the most effective tool for environmental compliance available today:<sup>152</sup> starting as a rather non-offensive list of technical requirements, it has expanded onto the 'human element' in international shipping and affects the whole operation of the ship.<sup>153</sup> The IMO and the International Labour Organization have since come together to establish guidelines for inspections relating to labour rights<sup>154</sup> whereas the World Health Organization has added its own health regulations<sup>155</sup> into the mix. The effectiveness of the system has recommended its expansion to other areas of interest as well, especially in the fishing sector where it has developed into the primary tool to combat IUU fishing;<sup>156</sup> or as a cultural protection tool, under the 2001 UNESCO Underwater Cultural Convention, which prohibits the use of the territory of States parties, 'including their maritime ports', 'in support of any activity directed at underwater cultural heritage which is not in conformity with this Convention'.<sup>157</sup>

The effectiveness of the system has been further enhanced by regional agreements not at the port State level but rather at the port authorities level. As a result, the

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<sup>150</sup> Art. 219 UNCLOS.

<sup>151</sup> Art. 231 UNCLOS. Indeed, the wording seems essentially identical to the provisions of Art. 6 MARPOL.

<sup>152</sup> ET Bulgherini, 'Port State Control' in Del Vecchio (n. 56) 205–19; B Ho-Sam, 'Is Port State Control an effective means to combat vessel-source pollution? An empirical survey of the practical exercise by port States of their powers of control' (2008) 23 *TIJMCL* 715–59.

<sup>153</sup> IMO, *International Safety Management Code (ISM Code) and Guidelines on Implementation*, 2010, adopted by Resolution A.741(18) as amended by MSC.104(73), MSC.179(79), MSC.195(80) and MSC.273(85), available at <<http://www.imo.org/OurWork/HumanElement/SafetyManagement/Pages/ISMCode.aspx>> (accessed 14 August 2014).

<sup>154</sup> ILO, *Guidelines for port State control officers carrying out inspections under the Maritime Labour Convention*, 2006, 2008; text available at <[http://www.ilo.org/wcmsp5/groups/public/---ed\\_norm/---normes/documents/publication/wcms\\_101787.pdf](http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/publication/wcms_101787.pdf)> (accessed 14 August 2014). See also F Maupain, 'Persuasion et contrainte aux fins de la mise en œuvre des normes et objectifs de l'OIT' in J-C Javillier and B Gernigon with GP Politakis (eds), *Les normes internationales du travail: Un patrimoine pour l'avenir. Mélanges en l'honneur de Nicolas Valticos* (BIT, Genève, 2004) 687–709.

<sup>155</sup> WHO, *International Health Regulations*, 2005; on the monitoring machinery see <<http://www.who.int/ihr/procedures/en>> (accessed 14 August 2014).

<sup>156</sup> FAO, Agreement on port State measures to prevent, deter and eliminate illegal, unreported and unregulated fishing, approved by the FAO Conference at its 36th session on 22 November 2009; text available at <[http://www.fao.org/fileadmin/user\\_upload/legal/docs/1\\_037t-e.pdf](http://www.fao.org/fileadmin/user_upload/legal/docs/1_037t-e.pdf)> (accessed 14 August 2014); E Witbooi, 'Illegal, Unreported and Unregulated Fishing on the High Seas: The Port State Measures Agreement in context' (2014) 29 *TIJMCL* 290–320.

<sup>157</sup> Art. 15 of the UNESCO Convention. T Scovazzi, 'Protection of the Underwater Cultural Heritage' in Caddell & Thomas (n. 43) 293–306; R Garabello, *La Convenzione Unesco sulla protezione del patrimonio culturale subacqueo* (Giuffrè, 2004).

Memoranda of Understanding (MoUs) instituting port State control cooperation procedures do not usually constitute international treaties; rather they operate on the sub-statal level coordinating administrative procedures and ensuring both that the quality of the controls performed in different ports around the world remains comparable and that there is a level playing field in the port services market.<sup>158</sup> Starting with the 1982 Paris Memorandum of Understanding,<sup>159</sup> which brought together the port authorities of twenty-seven European States, the method has proliferated to cover the Asian and Pacific waters (Tokyo MoU),<sup>160</sup> the Latin American waters (Acuerdo de Viña del Mar),<sup>161</sup> the wider Caribbean area (Caribbean MoU),<sup>162</sup> the Atlantic waters in West and Central Africa (Abuja MoU),<sup>163</sup> the Black Sea region (Black Sea MoU),<sup>164</sup> the southern waters of the Mediterranean (Mediterranean MoU),<sup>165</sup> the Indian Ocean (Indian Ocean MoU),<sup>166</sup> and the wider Gulf area (Riyadh MoU).<sup>167</sup> Most of these agreements remain voluntary undertakings although the coordinating efforts of the IMO have often imbibed them with a regulatory aspect as well. The conversion from an informal arrangement into a binding agreement is particularly striking in the European waters, where the procedures agreed under the Paris MoU are regularly incorporated into EU Directives and thus become endowed with the full regulatory and enforcement powers of the European Union. The latest instalment comprises Directive 2009/16/EC,<sup>168</sup> applicable since 1 January 2011, as already amended by Directive

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<sup>158</sup> I Christodoulou-Varotsi, 'The Memoranda of Understanding (MOUs) on port State control' in I Christodoulou-Varotsi and DA Pentsov (eds), *Maritime Work Law Fundamentals; Responsible Shipowners, Reliable Seafarers* (Springer, 2008) 707–43.

<sup>159</sup> Memorandum of Understanding on Port State Control, Paris, 26 January 1982, as repeatedly amended, most recently on 1 July 2014; text available at <<http://www.parismou.org/about-us/memorandum>> (accessed 14 August 2014).

<sup>160</sup> Established in 1993; information available at <<http://www.tokyo-mou.org>> (accessed 14 August 2014).

<sup>161</sup> Established in 1992; information available at <<http://www.acuerdolatino.int.ar>> (accessed 14 August 2014).

<sup>162</sup> Established in 1996; information available at <<http://www.caribbeanmou.org/index.php>> (accessed 14 August 2014).

<sup>163</sup> Established in 1999; information available at <<http://www.abujamou.org/index.php>> (accessed 14 August 2014).

<sup>164</sup> Established in 2000; information available at <<http://www.bsmou.org>> (accessed 14 August 2014).

<sup>165</sup> Established in 1997; text available at <[http://www.medeapsc.org/Med\\_MoU\\_Text.html](http://www.medeapsc.org/Med_MoU_Text.html)> (accessed 14 August 2014).

<sup>166</sup> Operational since 1999; information available at <<http://www.iomou.org/moumain.htm>> (accessed 14 August 2014).

<sup>167</sup> Established in 2005; information available at <<http://www.riyadhrou.org>> (accessed 14 August 2014).

<sup>168</sup> Directive 2009/16/EC of the European Parliament and of the Council of 23 April 2009 on port State control, OJ L 131, 57–98, 28 May 2009, further implemented by Commission Regulation (EU) No 428/2010 of 20 May 2010 implementing Article 14 of Directive 2009/16/EC of the European Parliament and of the Council as regards expanded inspections of ships, OJ L 125, 2–7, 21 May 2010; Commission Regulation (EU) No 801/2010 of 13 September 2010 implementing Article 10(3) of Directive 2009/16/EC of the European Parliament and of the Council as regards the flag State criteria, OJ L 241, 1–3, 14 September 2010; and Commission Implementing Regulation

2013/38/EU<sup>169</sup> to include enforcement of the ILO 2006 Maritime Labour Convention, supervised by the European Maritime Safety Agency (EMSA).<sup>170</sup>

The strongest element of IMO involvement, however, is seen in practice as the different regional mechanisms come together to run coordinated campaigns on particular issues, eg currently a Concentrated Inspection Campaign (CIC) on STCW hours of rest, thus effectively overcoming the limitations of partial regulation in only some selected or even privileged parts of the world. To a certain extent, both the concept and the performance of MOUs accurately reflect the apportionment of jurisdictional powers at sea: those willing to make it work would find powerful tools within the UNCLOS system, as it has developed over the years; those unwilling to act continue to rely on the relative inability of the system to effectively supervise its rules and regulations and impose meaningful sanctions. At any rate, the UNCLOS continues to evolve and adjust and adapt to new exigencies as all living instruments do.

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(EU) No 1205/2012 of 14 December 2012 amending Regulation (EU) No 802/2010 as regards the company performance, OJ L 347, 10–11, 15 December 2012.

<sup>169</sup> Directive 2013/38/EU of the European Parliament and of the Council of 12 August 2013 amending Directive 2009/16/EU on port State control, OJ L 218, 1–7, 14 August 2013.

<sup>170</sup> For an overview see <<http://www.emsa.europa.eu/implementation-tasks/port-state-control.html>> (accessed 14 August 2014).





## SECTION B

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### PREVENTION OF MARINE POLLUTION



## 2

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# THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS (MARPOL)

*Malgosia Fitzmaurice\**

### 2.1 Pollution from Ships: Introduction and Historical Development

Ninety per cent of global trade is conducted by shipping, which is considered to be the most environmentally friendly form of transport, taking into account its productive value. Shipping contributes to a limited extent to marine pollution from human activities, in particular when compared to pollution from land-based sources (or even dumping).<sup>1</sup> Protection of the environment was not the International Maritime Organization's (hereinafter the IMO) original mandate. Its main interest was maritime safety. However, in 1954 the IMO became the depository of the first 1954 Convention for the Prevention of Pollution from Oil (hereinafter the OILPOL, see further below). Since then the protection of the marine environment has become one of the most important activities of the IMO. Among fifty-one treaty instruments the IMO has adopted so far, twenty-one are directly environment-related (twenty-three if we include the Salvage and Wreck Removal Conventions). The Marine Environment Protection Committee is the IMO's technical body in charge of marine pollution related matters (it is aided in its work by a number of Sub-Committees).<sup>2</sup>

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\* The author of this Chapter would like to express her thanks to Mr Ruben Maceda who provided valuable comments on and contributed to the very first draft of this Chapter.

<sup>1</sup> <<http://www.imo.org/OurWork/Environment/Pages/Default.aspx>> (accessed 24 December 2013).

<sup>2</sup> See n. 1.

The precursor of the International Convention on the Prevention of Pollution from Ships<sup>3</sup> (hereinafter the MARPOL) was the OILPOL.<sup>4</sup> This Convention only relates to pollution caused by tankers during their routine operations such as the washing of cargo tanks and dumping of resultant oily water in the ocean. The OILPOL regulated the amount of oily water which could be discharged in the oceans, the places it could be dumped, and encouraged the Parties to install reception facilities where oily water could be discharged.<sup>5</sup> This Convention also introduced special areas (very sensitive) where dumping of oily residues were prohibited. It was amended several times, firstly in 1962 when the limits of special areas were extended. The next fundamental amendment of the OILPOL was effected in 1969 after the *Torrey Canyon* incident (see further below). A procedure developed by the oil industry and known as 'load-on-top' (LOT) was introduced to save oil and reduce pollution. Under this mechanism washings resulting from tank cleaning are pumped into a special tank. During the voyage back to the loading terminal the oil and water separate. The water at the bottom of the tank is pumped overboard, and at the terminal oil is pumped onto the oil left in the tank. Another amendment was the downsizing of tanks after 1972 so that, in case of damage to the vessel, only a limited amount of oil could enter the sea.<sup>6</sup> The LOT system failed expectations of producing environmental benefits, mostly due to difficulties in its operation and the lack of skilled crews as well as due to unscrupulous crews which circumvented LOT and simply discharged contaminated dirty ballast water.<sup>7</sup>

At the same time, several factors (eg the exponential growth in the maritime transport of oil, the size of tankers, the increasing amount of chemicals being carried at sea, and increasing concern for environmental issues in general), resulted in an opinion expressed by many States that the OILPOL was no longer adequate, despite the various amendments which had been adopted.<sup>8</sup>

One of the factors which contributed to the adoption of the MARPOL was the above-mentioned *Torrey Canyon* incident. In 1967, the *Torrey Canyon* ran aground while entering the English Channel and spilled her entire cargo of 120,000 tons of

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<sup>3</sup> (London, 2 November 1973, entered into force 12 October 1983) 1340 UNTS 184 (MARPOL). See generally: MN Tsimplis, 'Marine Pollution from Shipping Activities' (2008) 14 *The Journal Of International Maritime Law* 101–152.

<sup>4</sup> The Oil Pollution Convention of 1954 was the first international treaty that attempted to protect the sea from pollution from oil tankers.

<sup>5</sup> JV Crayford, 'Forthcoming Changes to the International Convention for the Prevention of Pollution from Ships' in MH Nordquist and JN Moore (eds), *Current Maritime Issues and The International Maritime Organization* (Kluwer Law International/Martinus Nijhoff Publishers, 1999) 133.

<sup>6</sup> <<http://www.imo.org/fr/OurWork/Environment/PollutionPrevention/OilPollution/Pages/Background.aspx>>; <<http://www.imo.org/OurWork/Environment/PollutionPrevention/OilPollution/Pages/Background.aspx>> (accessed 24 December 2013) See also A Griffin, 'MARPOL 57/78 and Vessel Pollution: A Glass Half Full or Half Empty?' (1994) 1 *Indiana Journal of Global Legal Studies* 489–513.

<sup>7</sup> Griffin (n. 6) 495.

<sup>8</sup> Crayford (n. 5) 133.

crude oil into the sea. It was the most serious oil pollution incident ever recorded up to that time. This incident raised questions about measures existing at that time to prevent oil pollution from ships and revealed drawbacks of the system for compensation resulting from accidents at sea.<sup>9</sup> In order to accommodate these various changes and occurrences, in 1969 the IMO Assembly decided to convene an international conference to adopt a completely new convention,<sup>10</sup> incorporating the regulations contained in the amended OILPOL Convention. In order to extend the mandate of the Sub-Committee on Oil Pollution, it was renamed the Sub-Committee on Marine Pollution, and finally became the Marine Environment Protection Committee (hereinafter the MEPC) in order to deal with all matters relating to marine pollution.

## **2.2 The International Convention for the Prevention of Pollution from Ships (MARPOL): Historical Development (with Special Attention to Annex I)**

The conference which adopted the 1973 MARPOL was convened in October–November 1973, but preparatory meetings began in 1970. It incorporated much of OILPOL and its amendments into Annex I, covering oil, while other annexes covered chemicals (Annex II), harmful substances carried in packaged form (Annex III), sewage (Annex IV), and garbage (Annex V). A Protocol was later adopted in 1997 to amend the MARPOL and a new Annex VI on Air Pollution was added which entered into force on 19 May 2005.

Although Annex I only copied OILPOL, it was broadened and improved. It included requirements for continuous monitoring of oily water discharges and the requirement for governments to provide shore reception and treatment facilities at oil terminals and ports. It also established a number of Special Areas in which more stringent discharge standards were applicable (such as the Mediterranean Sea, the Red Sea and Gulf, and the Baltic Sea). These standards on special areas would be implemented when the coastal States concerned had provided adequate reception facilities for dirty ballast and other oily residues.

Regulation 13 required segregated ballast tanks on new tankers over 70,000 dead-weight tonnage (dwt), in order to ensure that ballast water would not be contaminated by oil carried as cargo or fuel.

However, there was slow progress at ratifying the Convention and this became a major concern. Due to a series of serious oil spill incidents off the coast of the United States in 1977, the United States of America asked the IMO Council to consider adopting further regulations on tanker safety. In 1978 the Council

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<sup>9</sup> Crayford (n. 5) 133.

<sup>10</sup> Crayford (n. 5) 133.

convened a Conference on Tanker Safety and Pollution Prevention.<sup>11</sup> The Conference, in February 1978, adopted a protocol to the 1973 MARPOL Convention. It absorbed the 1973 Convention and expanded on the requirements for tankers to help make them less likely to pollute the marine environment.<sup>12</sup>

The Protocol expanded the requirements for tankers in the following manner:

- (i) all new crude oil tankers of 20,000 dwt and above and all new product carriers of 30,000 dwt and above were required to have segregated ballast tanks;
- (ii) segregated ballast tanks were required to be protectively located (ie placed in areas of the ship where they will minimize the possibility of the amount of oil outflow from cargo tanks after a collision or grounding);
- (iii) new tankers over 20,000 dwt were required to be fitted with a crude oil washing system (crude oil washing, or COW, uses high-pressure jets of crude oil for the cleaning or washing of cargo tanks. This reduces the quantity of oil remaining on board after discharge);
- (iv) existing tankers over 40,000 dwt had to be fitted with either segregated ballast tanks or COW systems (for an interim period, it also allowed for some tankers to use clean ballast tanks, whereby specific cargo tanks are dedicated to carry ballast water only).

Annex I allowed certain exceptions to the general prohibition of oil discharge in the ocean, ie it permitted the discharge of a 1/15,000 and 1/13,000 quantity of the cargo of Existing Ships and New Ships respectively, provided that the tanker is: 1) not in a Special Area; 2) fifty nautical miles from the nearest land; and 3) the instantaneous discharge of oil does not exceed thirty litres per nautical mile.<sup>13</sup>

At the same time, additional measures for tanker safety were incorporated into the 1978 Protocol to the 1974 International Convention for the Safety of Life at Sea (hereinafter the SOLAS). These included:

- (i) the requirement for inert gas systems (whereby exhaust gases, which are low in oxygen and thus incombustible, are used to replace flammable gases in tanks) on all new tankers over 20,000 dwt and specified existing tankers; and
- (ii) the requirements for: steering gear of tankers; stricter requirements for carrying of radar and collision avoidance aids; and stricter regimes for surveys and certification.<sup>14</sup>

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<sup>11</sup> See on MARPOL in general: Md S Karim, *Prevention of Pollution of the Marine Environment from Vessels. The Potential and Limits of the Maritime International Organization* (Springer International Publishing, 2015), in particular ch. 3.

<sup>12</sup> Crayford (n. 5) 135.

<sup>13</sup> <[http://www.imo.org/en/KnowledgeCentre/ReferencesAndArchives/FocusOnIMO\(Archives\)/Documents/Focus%20on%20IMO%20-%20MARPOL%20-%2025%20years%20\(October%201998\).pdf](http://www.imo.org/en/KnowledgeCentre/ReferencesAndArchives/FocusOnIMO(Archives)/Documents/Focus%20on%20IMO%20-%20MARPOL%20-%2025%20years%20(October%201998).pdf)> (accessed 9th November 2015) <<http://www.imo.org/OurWork/Environment/PollutionPrevention/OilPollution/Pages/Background.aspx>> (accessed 24 December 2013).

<sup>14</sup> Crayford (n. 5) 136.

To speed up the implementation of the MARPOL, the Conference allowed that the Parties will not be bound by the provisions of Annex II of the Convention for a period of three years from the date of entry into force of the Protocol. Therefore, States could accept Annex I and have three years to implement Annex II.

Initially, for the purpose of Annex II chemicals were divided in four categories: category A chemicals which both Existing Ships and New Ships were prohibited to discharge; category B chemicals with maximum discharge of 300 litres for Existing Ships and 100 litres for New Ships; category C chemicals with maximum discharge of 900 litres for existing Ships and 300 litres for New Ships; and Category D, with no restrictions on discharges. There was also a category of chemicals in Annex III that was considered not harmful if discharged into oceans from a cleaning tank or deballasting operations.<sup>15</sup>

Further amendments to the MARPOL, particularly to Annex I, were in response to major oil spills which indicated the necessity for stricter regulations. These are the 1989 *Exxon Valdez* incident, the 1999 *Erika* incident, and the 2002 *Prestige* incident.

The *Exxon Valdez* loaded with 1,264,155 barrels of crude oil, ran aground in the north-eastern portion of Prince William Sound, Alaska, spilling about one-fifth of its cargo which was the largest crude spill in the United States of America (US) to date. As a result, the US promulgated its Oil Pollution Act (OPA) of 1990 making it mandatory for all tankers calling at US ports to have double hulls. The US initiated the discussion on double-hull tankers in the IMO, a proposal which was met with some resistance on the part of the oil industry due mainly to the cost of retrofitting existing tankers. However, as explained below (Section 2.2), due to the subsequent *Erika* and *Prestige* incidents involving the sinking and massive marine pollution of single-hull tankers, the IMO ultimately considered the proposal of the US and later the European Union (EU) making the double-hull for tankers mandatory and the subsequent phasing out of single-hull tankers.

The MEPC agreed to make mandatory the double hulls or alternative designs (like the mid-deck tanker and Coulombi Egg tanker) which, however, ensured the same level of protection against pollution in the event of a collision or stranding. The amendments introducing double hulls (or an alternative) were contained in old Regulation 13F—(now Regulation 19) prevention of oil pollution in the event of collision or stranding. The amendments were adopted in March 1992 and entered into force in July 1993 (see further on double-hull tankers, Section 2.4).

The sinking of the *Erika*, which occurred off the coast of France, led to a new, accelerated phaseout schedule for single-hull tankers: that is, it resulted in the revision of the old regulation 13G of MARPOL.

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<sup>15</sup> On the development of Annexes II and III see Crayford (n. 5) 138–46.



As a result of the *Erika* incident, the IMO also adopted the following measures in response:

- (i) the 2000 amendments raising by fifty percent the limits of compensation payable to victims of pollution by oil from oil tankers under the International Convention on Civil Liability for Oil Pollution Damage (CLC Convention) and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (IOPC Fund) were adopted;
- (ii) in 2000 the MSC adopted amendments to the Guidelines on the enhanced programme of inspections during surveys of bulk carriers and oil tankers (resolution A.744(18) in relation to the evaluation of the longitudinal strength of the hull girders of oil tankers);
- (iii) other measures aimed at enhancing safety and minimizing the risk of oil pollution.

The *Prestige* incident off the coast of Spain led to further calls for amendments to the phaseout schedule for single-hull tankers. The MEPC at its 49th session in July 2003 decided to consider the adoption of proposals for an accelerated phaseout scheme for single-hull tankers, along with other measures including an extended application of the Condition Assessment Scheme (CAS) for tankers.<sup>16</sup>

## **2.3 The MARPOL: General Structure and Underlying Principles**

### **2.3.1 General structure**

As noted earlier, the MARPOL is the main international instrument which deals with pollution from ships, that is, with operational and accidental spillages from ships (Annexes I and II regulate only operational spillages). As such it is a global convention and its parties constitute ninety-eight percent of the world's merchant tonnage. As of 27 September 2012, there are 152 parties to it.<sup>17</sup>

MARPOL covers a multitude of instruments which consist of an umbrella convention (which sets out the main rights and obligations of States) and six Annexes (see above) which cover the areas under MARPOL's jurisdiction. All Annexes have been amended several times; therefore their content has undergone radical changes. However, not all States parties have accepted all amendments which had

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<sup>16</sup> <<https://www.imo.org/en/OurWork/Safety/Regulations/Pages/OilTankers.aspx>>; <<http://www.imo.org/OurWork/Environment/PollutionPrevention/OilPollution/Pages/Background.aspx>> (accessed 9th November 2015). To date, MARPOL (Annexes I and II) has been ratified by 150 countries representing over 99 per cent of world merchant-shipping tonnage.

<sup>17</sup> AMSA website <<https://www.amsa.gov.au/>> (accessed 9 October 2012).

resulted in an extremely complex nexus of differentiated obligations of States under these Annexes.

MARPOL as a global instrument comprises 'generally accepted international rules and standards' as formulated in the 1982 United Nations Convention on the Law of the Sea (UNCLOS) (Article 211). They constitute a minimum standard prescribed by flag States for their merchant ships and have also become binding on third States through the working of customary international law.<sup>18</sup> It may be presumed that the criterion of the minimum standard is applicable to the umbrella treaty itself and the two first Annexes (acceptance of which was mandatory for States ratifying the MARPOL). The acceptance of other Annexes is not so extensive.<sup>19</sup>

Apart from Annexes, the MARPOL has also two Protocols: Protocol I, Provisions concerning Reports on Incidents Involving Harmful Substances (in accordance with Article 8 of the Convention); and Protocol II, on Arbitration. The amendments in the MARPOL itself, the Protocols, and the Annexes are governed by Article 16 of the 1973 original Convention, which is very complex and combines the system of tacit approval (opting out) with express approval (opting in). The opting out system is based on the principle that a State party to the Convention may 'opt out' from accepting a new amendment within a prescribed period of time, and as a result is not bound by it. The procedure makes the application of the Convention (including the Annexes) very patchy and as observed by some authors it complicates the issue of whether some particular regulation is 'generally accepted' for the flag State to apply in the sense of Article 211 of the UNCLOS. Under the MARPOL the parties undertake to give effect to the provisions of the Convention and those Annexes which bind them, in order to prevent pollution of the marine environment by the discharge of harmful substances or effluents containing such substances in contravention of the Convention (Article 1 (1)).

Article 4 of the MARPOL provides a double system of national prohibitions and sanctions. First, violations are to be prohibited and sanctions to be established under the law of the Administration of the ship concerned, wherever the violation occurs (Article 4 (1)); and, secondly, violations are to be prohibited and sanctions established under the law of the party within whose jurisdiction they occur (Article 4 (2)). By 'the Administration' we understand

... Government of the State under whose authority the ship is operating. With respect to a ship entitled to fly a flag of any State, the Administration is the Government of that State. With respect to fixed or floating platforms engaged in exploration

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<sup>18</sup> P Birnie, A Boyle, and C Redgwell, *International Law and the Environment* (Oxford University Press, 2009) 404.

<sup>19</sup> Annex III entered into force on 1 July 1992; Annex IV entered into force on 27 September 2003; Annex V entered into force on 31 December 1988; Annex VI entered into force on 19 May 2005.

and exploitation of the sea-bed and subsoil thereof adjacent to the coast over which the coastal State exercises sovereign rights for the purposes of exploration and exploitation of their natural resources, the Administration is the Government of the coastal State concerned (Article 2 (5)).

According to MARPOL, the flag State has to ensure that its ships comply with all the required technical standards. In order to achieve this end, the State has to conduct inspections and issues an 'international oil pollution prevention certificate'. Article 5 of the Convention introduced the far-reaching jurisdiction of the port State. It provides that the inspection must be carried out to confirm that the ship is in possession of a valid certificate to assess the condition of the ship when there are 'clear grounds' for believing that its condition does not conform substantially to the certificate.<sup>20</sup>

In cases of stated non-compliance with the MARPOL certificate, Article 7 imposes a duty of the port State not to allow the ship to leave the port unless it can do so without presenting an unreasonable threat or harm to the marine environment. However, the port State has an obligation not to delay ships unduly. In the event of such violation, within a jurisdiction of the Party, according to Article 4 (2), a Party can either start proceedings in accordance with its own law; or furnish such information and evidence as it may have in possession that violation has occurred to the Administration of the ship concerned (Article 4 (2a–b)). Article 4 (1) further provides that, if the Administration of the ship involved in a violation is informed of it and is satisfied that sufficient evidence is available to enable proceedings to be brought, that Administration shall cause such proceedings as soon as possible, in accordance with its law. It may also be noted that 'any violation' in Article 4 (2) means that it applies to operational and discharge standards, as well as to design and equipment standards of the Convention. MARPOL provides that the parties to the Convention 'shall cooperate in the detection of violations and the enforcement of the provisions of the Convention, using all appropriate and practicable measures of detection and environmental monitoring, adequate procedures for reporting and accumulation of evidence' (Article 6 (1)). Further, it states:

any Party shall furnish to the Administration evidence, if any, that the ship has discharged harmful substances or effluents containing such substances in violation of the provisions or the Regulations. If it is practicable to so, the competent authority of the former party shall notify the master of the ship of the alleged violation (Article 6 (3)).

Parties have the duty to furnish the Administration information on the discharge of harmful substances or effluents. Upon the receipt of such evidence, the Administration so informed is to investigate the matter and may request the other party

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<sup>20</sup> R Becker, 'MARPOL 73/78: AN Overview in International Environmental Enforcement' (1998) 19 *The Georgetown Int'l Envtl. Law Review* 625.

to furnish further better evidence of the alleged contravention. If the Administration is satisfied that sufficient evidence is available to enable proceedings to be taken in accordance with its law it shall do so as soon as possible. The Administration shall promptly inform the party which has reported the alleged violation, as well as the IMO, of such actions (Article 6(4)).

Article 4 (4) stipulates that the Parties adopt laws giving effect to agreed regulations by prohibiting prescribed acts and omissions and by specifying penalties under their domestic laws which are 'adequate in severity to discourage violations'.

MARPOL is one of the international legal responses that have been adopted after the occurrence of severe accidental releases of oil and other substances from ships.<sup>21</sup>

The Convention imposes a general prohibition of all discharges of oil and noxious substances and provides that sanctions shall be established according to the law of the State under whose authority the ship is operating.<sup>22</sup> These penalties 'shall be adequate in severity in order to discourage violations and shall be equally severe irrespective of where the violations occurred'.<sup>23</sup> Although the nature of these sanctions is not unquestionably and clearly affirmed it has to be assumed that these also include criminal sanctions applied in the context of criminal proceedings. For instance, in the United States MARPOL is implemented through the Act to prevent Pollution from Ships,<sup>24</sup> which establishes that the knowing violation of the Convention, of the Act itself, or of other regulations relating to wastes from ships, including garbage, oil, and hazardous substance shall be sanctioned with imprisonment up to ten years and/or with fines.<sup>25</sup>

MARPOL has exclusions concerning the enforcement of its obligations. The Convention does not apply to any warship, naval auxiliary, or other ship owned or

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<sup>21</sup> See, among others, D Cremean and EJ Techera, 'Marine Pollution Law' in S Alam et al (eds), *Routledge Handbook of International Environmental Law* (Routledge, 2013) 277–93. See general rules on the imposition of penalties, Art. 230 UNCLOS:

Article 230

Monetary penalties and the observance of recognized rights of the accused:

1. Monetary penalties only may be imposed with respect to violations of national laws and regulations or applicable international rules and standards for the prevention, reduction and control of pollution of the marine environment, committed by foreign vessels beyond the territorial sea.
2. Monetary penalties only may be imposed with respect to violations of national laws and regulations or applicable international rules and standards for the prevention, reduction and control of pollution of the marine environment, committed by foreign vessels in the territorial sea, except in the case of a wilful and serious act of pollution in the territorial sea.
3. In the conduct of proceedings in respect of such violations committed by a foreign vessel which may result in the imposition of penalties, recognized rights of the accused shall be observed.

<sup>22</sup> Art. 4.

<sup>23</sup> Art. 4.

<sup>24</sup> Act to Prevent Pollution from Ships, 33 USC 1901 et seq.

<sup>25</sup> See 18 USC 3571.

operated by a State and used on government non-commercial service. However, the Convention imposes an obligation on these ships to act in a manner consistent with the Convention, as long as it is practicable. As it is evident that national governments and their agencies are quite prodigious polluters, provision excluding such entities undermines the purpose of the MARPOL, and the insertion of 'the best efforts clause' constitutes a weak attempt to ensure State compliance. The 'best efforts clause' was the result of a compromise among the parties to the MARPOL.<sup>26</sup>

The States argued that such vessels should not be subject to other States' inspection, as it would compromise national security. However, it is suggested that States can comply with the requirements of the Convention avoiding compromising national security, by assuming more responsibility for monitoring compliance (eg flag States could conduct an annual MARPOL inspection of their ships, or introduce a random inspection to which their ships would be subjected at any time). The existing provision appears to send a wrong message and should be changed to make it clear that these ships are not immune from the MARPOL regulations.<sup>27</sup>

With respect to the ships of non-parties to the MARPOL, the parties are to apply such requirements as may be necessary to ensure that no more favourable treatment is given to such ships (Article 5). The measures under Article 5 are the source of some doctrinal controversy in so far as they purport to apply to ships flying the flag of non-parties. As an exercise of jurisdiction of the coastal State over foreign ships, these provisions cannot, according to one of the authors, restrict the rights enjoyed by non-parties under the general international law principle of *pacta tertiis nec nocent nec prosunt*.<sup>28</sup>

### 2.3.2. The MARPOL and the precautionary principle

MARPOL, although very far reaching in protecting the environment and innovative in enforcing environmental regulations, does not include an express provision on the precautionary principle. However, the MEPC adopted on 15 September 1995 a resolution on Guidelines on the Incorporation of the Precautionary Approach in the Context of Specific IMO Activities.<sup>29</sup> The Resolution is related to Agenda 21 as well as Principle 15 of the 1992 Rio Declaration on Environment and Development. The precautionary approach was implemented on the basis of this Resolution as an interim measure, 'until further experience with their [i.e.

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<sup>26</sup> DW Abecassis, RM Jarvis, and R Jarashow (eds), *Oil Pollution from Ships: International, United Kingdom and United States Law and Practice* (Stevens, 1985) 38.

<sup>27</sup> Abecassis, Jarvis, and Jarashow (n. 26).

<sup>28</sup> J Willish, *State Responsibility for Technological Damage in International Law* (Decker & Humbold, 1987) 115.

<sup>29</sup> Annex 10, MEPC 37/22, Add.1.

Guidelines] application has been gained'. The Resolution also requested all relevant IMO bodies to review the Guidelines and submit comments to the MEPC with a view to their eventual submission to the Assembly for their adoption to all the relevant IMO activities. The Annex to this Resolution set the specific Guidelines on the implementation of the precautionary approach. The Guidelines rely on Principle 15 of the Rio Declaration as a fundamental definition of the precautionary approach and on Agenda 21 chapter 17 on the manner of its application.<sup>30</sup>

The Guidelines include the following list of elements to be taken into consideration in order to incorporate the precautionary approach into the decision-making processes of the IMO:

1. anticipation and prevention of environmental problems arising from any regulatory activities of the IMO and striving for continued improvement in all facets of those activities;

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<sup>30</sup> In particular paras 17.21 and 17.22 of Agenda 21:

17.21. A precautionary and anticipatory rather than a reactive approach is necessary to prevent the degradation of the marine environment. This requires, inter alia, the adoption of precautionary measures, environmental impact assessments, clean production techniques, recycling, waste audits and minimization, construction and /or improvement of sewage treatment facilities, quality management criteria for the proper handling of hazardous substances, and a comprehensive approach to damaging impacts from air, land and water. Any management framework must include the improvement of coastal humans' settlements and the integrated management and development of coastal areas.

...

17.22. States, in accordance with the provisions of the United Nations Convention on the Law of the Sea on the protection and preservation of the marine environment, commit themselves, in accordance with their policies, priorities and resources, to prevent, reduce and control degradation of the marine environment to maintain its life-support and productive capacities. To this end, it is necessary to:

- a. Apply preventive, precautionary and anticipatory approaches as to avoid degradation of the marine environment, as well as to reduce the risk of long-term or irreversible adverse effect upon it;
- b. Ensure prior assessment of activities that may significant adverse effect upon the marine environment;
- c. Integrate protection of the marine environment into relevant general environmental, social and economic development policies;
- d. Develop economic incentives, where appropriate, to apply clean technologies and other means consistent with the internalization of environmental costs, such as the polluter pays principle, so as to avoid degradation of the marine environment;
- e. Improve the living standards of coastal population in developing countries, as to contribute to reducing the degradation of coastal and marine environment.

See also B Sage-Fuller, *The Precautionary Principle in Marine Environmental Law. With Special Reference to High Risk* (Routledge, 2013) 218–45; S Marr, *The Precautionary Principle in the Law of the Sea. Modern Decision Making in International Law* (Martinus Nijhoff, 2003); EJ Molenar, *Coastal State Jurisdiction over Vessel-Source Pollution* (Kluwer law International, 1998) 45; A K-J Tan, *Vessel Source Marine Pollution. The Law and Politics of International Regulation* (Cambridge University Press, 2006) 68.

2. that solutions to problems and consideration of new and existing policies, programmes, guidelines, and regulations are developed in accordance with the precautionary approach;
3. that where the action is necessary and options may involve uncertainty, all options are evaluated consistent with the precautionary approach;
4. adoption of cost-effective practices and practical solutions to problems and promotion of their continued development;
5. where appropriate, that decision-making is preceded by environmental assessment and risk analysis to identify the environmental impacts of the proposed or alternative courses of action, whether these impacts can be prevented or minimized and how that may be done;
6. improvement in decision-making and management by obtaining and providing baseline and other data, identifying and explaining environmental changes;
7. promotion of national and international research, analysis and information programmes to identify, understand, and disseminate information about threats to the environment from maritime operations, to contribute to defining problems, including analysis of the degree of risk involved, by which uncertainties are reduced, and developing and testing solutions to problems;
8. consideration and adoption of economic incentives to encourage environmental responsibility so as to conserve the marine environment and to avoid further degradation;
9. support for the development of new and existing policies, programmes, guidelines, or regulations, where appropriate, which contribute to the protection and enhancement of the marine and coastal environment consistent with IMO mandate;
10. that, as necessary and appropriate, the IMO should, through programmes such as its Integrated Technical Co-operation Programme, assist countries to improve their capabilities in order to comply with the IMO standards in the shortest possible time;
11. where existing practices fail to provide adequate environmental protection, encouragement of the development and use of cost-effective interim protective measures with feasible time frames, which include best environmental practice and best available technology;
12. promotion of clean technologies, and waste minimization techniques from maritime activities, including the best environmental practice and best available technology to ensure improving environmental performance.

The Resolution also stresses that the precautionary approach should not be considered in isolation from the other IMO practices, procedures, and resolutions and principles such as the 'polluter-pays principle' as reflected in Principle 16 of the Rio Declaration. The document 'Framework and Activities of the IMO' outlines the management and decision-making framework to be followed in order

to promote the incorporation of preventive, precautionary, and anticipatory approaches.

In conclusion, it may be said that the main features of the precautionary approach of the IMO are as follows:

- (i) the IMO supports the precautionary approach, not principle, which is in line with the formulation adopted by Principle 15 of the Rio Declaration;
- (ii) the precautionary approach has to be applied in case of uncertainty, however,
- (iii) it has to be cost-effective;
- (iv) environment impact assessment forms an indispensable part of the implementation of the precautionary approach;
- (v) access to and dissemination of information should be promoted;
- (vi) national and international research (such as risk analysis) must be considered;
- (vii) the conservation of the marine environment may be achieved through the adoption of economic incentives;
- (viii) the IMO through various programmes will assist States where necessary in improving their capabilities of achieving the IMO standards;
- (ix) new practices will be introduced based on the best available practices and the best available technology.

It is noteworthy that the above-mentioned elements of the implementation of the precautionary approach follow its general concept. The inherent vagueness of 'scientific uncertainty' and the risk of long-term irreversible adverse effects on the environment are counterbalanced by the presence of the environmental impact assessment, the duty to inform, and the use of best available technology and best environmental practice (the 'BATBEP'), which are the most tangible constitutive elements of this approach.

## **2.4 The MARPOL Annexes**

### **2.4.1 Annex I: Prevention of pollution by oil**

Oil tankers transport some 2,400 million tonnes of crude oil and oil products around the world by sea safely due to measures introduced by the IMO ensuring that the majority of oil tankers are safely built and operated and are constructed in order to reduce the amount of oil spilled in the event of an accident (see the introductory Section for more details). The technical designs of vessels are very strict. The rule in equipping new vessels with Segregated Ballast Tanks (SBT) is designed to eliminate the problem of discharging oily ballast as there are separate holds for water and oil. The cheaper variation of SBT is the Dedicated Clean Ballast Tanks (CBT) system, which operates on the basis of setting aside cargo tanks only for



carrying ballast water. This system can be as effective as SBTs but only if the tanks are kept clean of oil.<sup>31</sup> There is also the Crude Oil Washings (COW) system, which is based on a use of oil in place of water to clean off the walls of cargo tanks. These two systems were permitted by Annex I for older vessels (Annex I is based on a sliding scale). Apart from the requirement of SBTs, Annex I require all vessels to have the equipment necessary to operate LOT and to retain oily residues on board vessel until they can be discharged into port reception facilities. There is a requirement of State Parties to MARPOL to provide adequate reception facilities for oil residues and oily mixtures at loading terminals, repair ports, and other ports frequented by ships with oily residues to discharge.<sup>32</sup>

Annex I also requires ships to be equipped with systems that can monitor and control oily discharges. All oil record books must be kept for at least three years. According to the IMO there are three categories of cargo monitoring systems: control units, computing units, and calculating units.<sup>33</sup> As in the case of SBTs, the monitoring equipment is based on a sliding scale: new tankers are obliged to have it installed.<sup>34</sup>

Annex I also includes an operational requirements, which must be monitored by the monitoring equipment. For oil tankers, standards are as follows: 1. a ship may not discharge more than 1/30,000th of its total carrying capacity into the ocean; 2. the rate at which oil that may be discharged must not exceed sixty litres per mile travelled by ship; and 3. no discharge of any oil can be made within fifty miles from the nearest land or in certain areas. For other vessels, the standards are not so restrictive: 1. the oil content of effluents must be less than 100 parts per million; and 2. no discharge can be made within twelve miles from the nearest land or in certain special areas.<sup>35</sup> All ships must carry on board an oil record book in which all operations involving oil are recorded. This book may be inspected by authorities of any State Party to MARPOL.<sup>36</sup>

The US was the first State to legislate the phasing out of single-hull tankers.<sup>37</sup> Double-hull tankers of 5,000 dwt (or alternative design approved by the IMO)<sup>38</sup>

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<sup>31</sup> Griffin (n. 6) 493.

<sup>32</sup> Annex I, Reg. 12, 1350–56, Griffin (n. 6) 499.

<sup>33</sup> Griffin (n. 6) 497.

<sup>34</sup> Griffin (n. 6) 498.

<sup>35</sup> Annex I, Reg. 9(1) b, 1344; Griffin (n. 6) 499.

<sup>36</sup> Annex I, Reg. 20, 1359–61, Griffin (n. 6) 499.

<sup>37</sup> See United States Oil Pollution Act 1990. <<http://www.imo.org/OurWork/Environment/PollutionPrevention/OilPollution/Pages/Default.aspx>>. (accessed 24 December 2013). See also, C Stenman, 'The Development of the MARPOL and the EU Regulations to Phase Out Single Hull Tankers', <<https://gupea.ub.gu.se/bitstream/2077/1941/1/200556.pdf>> (accessed 24 December 2013).

<sup>38</sup> Such as the so-called 'mid-deck' under which the pressure within the cargo tank does not exceed the external hydrostatic water pressure. Tankers of such a design have double sides but not

have become mandatory from 1993, following the 1992 *Erika* incident (regulation 13 F, at present regulation 19 of Annex I).<sup>39</sup> Then, the IMO had to react to the unilateral decisions of the United States, with the adoption in 1992 of a series of rules for double-hull tankers. Those standards require all tankers with deadweight up to 600 tons, delivered from 1996, to be constructed with a double hull or equivalent design. Consequently, from that date single-hull tankers of this size are no longer made.

Following the *Prestige* incident, a new, stricter timetable introduced an accelerated phaseout schedule for single-hull tankers, adopted by the MEPC resolution the MEPC 111(50) and entered into force for all Parties to the MARPOL in 2005.

Furthermore, another regulation related to the prevention of oil pollution from oil tankers regarding carrying of heavy grade oil (HGO) was introduced.<sup>40</sup> The new regulation banned the carriage of HGO in single-hull tankers of 5,000 tonnes dwt and above after the date of entry into force of the regulation (5 April 2005), and in single-hull oil tankers of 600 tonnes dwt and above but less than 5,000 tonnes dwt, not later than the anniversary of their delivery date in 2008.

Regulation 20 to Annex I (the previous regulation 13 G) allows the flag State to permit continued operation of Category 2 (MARPOL tankers) and category 3 (relatively small tankers of less than 5,000 dwt) tankers beyond its phaseout date in accordance with the schedule subject to satisfactory results of the Condition Assessment Scheme (hereinafter the 'CAS'), but their continued operation must not go beyond the anniversary of the date of delivery of the ship in 2015 or the date on which the ship reaches twenty-five years of age after the date of its delivery, whichever is earlier.<sup>41</sup>

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a double bottom, instead of which they have a mid-deck installed inside the cargo tank with the venting arranged so that there is an upward pressure on the bottom of the hull.

<sup>39</sup> This measure was adopted to be phased in over a number of years because shipyard capacity is limited and it would not be possible to convert all single-hull tankers to double hulls without causing immense disruption to world trade and industry.

<sup>40</sup> The new regulation banned the carriage of HGO in single-hull tankers of 5,000 tons dwt and above after the date of entry into force of the regulation (5 April 2005), and in single-hull oil tankers of 600 tons dwt and above but less than 5,000 tons dwt, not later than the anniversary of their delivery date in 2008.

<sup>41</sup> In the case of certain Category 2 or 3 oil tankers fitted with only double bottoms or double sides not used for the carriage of oil and extending to the entire cargo tank length or tankers fitted with double-hull spaces not meeting the minimum distance protection requirements, the Administration may allow continued operation beyond its phaseout date in accordance with the schedule, provided that the ship was in service on 1 July 2001, the Administration is satisfied by verification of the official records that the ship complied with the conditions specified and that those conditions remain unchanged (such continued operation must not go beyond the date on which the ship reaches 25 years of age after the date of its delivery). In the case of certain Category 2 or 3 tankers carrying HGO as cargo, fitted only with double bottoms or double sides, not used for the carriage of oil and extending to the entire cargo tank length, or tankers fitted with double-hull spaces not meeting the minimum distance protection requirements which are not used for the carriage of oil and extend to

It is very important to note that a Party to the MARPOL can deny entry of single-hull tankers which have been allowed to continue operation under the above exemptions into the ports or offshore terminals under its jurisdiction.

As already stated above, the MARPOL (Annex I) regulation 21 bans the carriage of HGO in single-hull tankers. A Party to the MARPOL can deny entry of single-hull tankers carrying HGO which have been allowed to continue operation under the exemptions (see note 30) into the ports or offshore terminals under its jurisdiction, or deny ship-to-ship transfer of heavy grade oil in areas under its jurisdiction except when this is necessary for the purpose of securing the safety of a ship or saving life at sea.

It may be worth mentioning the European Union (EU) adopted several regulations concerning the phasing out of single-hull tankers in the so-called *Erika* law packages, which consist of a set of complex and extensive regulations (*Erika* I–III packages).<sup>42</sup> The original regulation 417/2002 was amended several times in order to accelerate further the phasing out for single-hull tankers.

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the entire cargo tank length, the Administration, under certain conditions, may allow continued operation of such ships beyond 5 April 2005 until the date on which the ship reaches 25 years of age after the date of its delivery. Regulation 21 also allows for continued operation of oil tankers of 5,000 dwt and above, carrying crude oil with a density at 15°C higher than 900 kg/ m<sup>3</sup> but lower than 945 kg/ m<sup>3</sup>, if satisfactory results of the Condition Assessment Scheme warrant that, in the opinion of the Administration, the ship is fit to continue such operation, having regard to the size, age, operational area, and structural conditions of the ship and provided that the continued operation shall not go beyond the date on which the ship reaches 25 years after the date of its delivery. The Administration may allow continued operation of a single-hull oil tanker of 600 dwt and above but less than 5,000 dwt, carrying HGO as cargo, if, in the opinion of the Administration, the ship is fit to continue such operation, having regard to the size, age, operational area, and structural conditions of the ship, provided that the operation shall not go beyond the date on which the ship reaches 25 years after the date of its delivery. The Administration may exempt an oil tanker of 600 dwt and above carrying HGO as cargo if the ship is either engaged in voyages exclusively within an area under the Party's jurisdiction, or is engaged in voyages exclusively within an area under the jurisdiction of another Party, provided the Party within whose jurisdiction the ship will be operating agrees. The same applies to vessels operating as floating storage units of HGO.

All information available at: <<http://www.imo.org/OurWork/Environment/PollutionPrevention/OilPollution/Pages/constructionrequirements.aspx>> (accessed 24 December 2013).

<sup>42</sup> Regulation (EC) No 417/2002, entry into force 27.3.2002, OJ L 64 of 7.3.2002; amending acts: Regulation (EC) No 2099/2002, entry into force 9.12.2002, OJ L 324 of 29.11.2002; Regulation (EC) No 1726/2003, entry into force 21.10.2003, OJ L 249 of 1.10.2003; Regulation (EC) No 457/ 2007, entry into force 20.5.2007, OJ L 113 of 30.4.2007; Regulation (EC) No 2192009, entry into force 20.5.2007; OJ L 113 of 30.4.2007; Regulation (EC) No 1163/2009, entry into force 21.12.2009, OJ L 314 of 1.12.2009. There was a difference between the Revised Regulation 13G and the Regulation 417/2002. The Regulation did not allow 'the continued operation, in accordance with paragraph 5 of the revised Regulation 13G of the Annex I to MARPOL 73/78, of Category (2) and Category (3) oil tankers under the flag of a Member State' or 'the entry into ports of offshore terminals under the jurisdiction of a Member State of other Category (2) and Category (3) oil tankers, irrespective of the fact that they continue to operate the flag of a third State in accordance with paragraph 5 of the revised Regulation 13G of Annex I to MARPOL 73/78' (Art. 7 of the Regulation 417/2002).

In broad strokes the gist of the EU phasing-out regulation is as follows:

The regulation applies to all tankers of 5,000 dwt or above, which enter or leave a port or offshore terminal or anchor in an area under the jurisdiction of an EU country, irrespective of their flag, or which fly the flag of an EU country, and to oil tankers of 600 dwt and above for the transport of the heavy grades of oil.

Single-hulled oil tankers are not allowed to operate under the flag of an EU country, nor are they allowed to enter into ports or offshore terminals under the jurisdiction of an EU country after the anniversary of the date of delivery of the ship in the year specified below:

- (i) For Category 1 (Pre-MARPOL) oil tankers: 2003 for ships delivered in 1980 or earlier; 2004 for ships delivered in 1981; 2005 for ships delivered in 1982 or later;
- (ii) For Category 2 (MARPOL tankers) and 3 (small) oil tankers: 2003 for ships delivered in 1975 or earlier; 2004 for ships delivered in 1976; 2005 for ships delivered in 1977; 2006 for ships delivered in 1978 and 1979; 2007 for ships delivered in 1980 and 1981; 2008 for ships delivered in 1982; 2009 for ships delivered in 1983; 2010 for ships delivered in 1984 or later.

The Condition Assessment Scheme (CAS) will be applied to all types of oil tanker which have reached fifteen years of age by 2005 for Category 2 and Category 3 ships.

#### **2.4.2. Annex II: Regulations for the control of pollution by noxious liquid substances in bulk**

It may be observed that regulations governing the carriage of chemicals by ship are also contained in the International Convention for the Safety of Life at Sea (hereinafter the SOLAS).

The marine pollution hazards of thousands of chemicals have been assessed by the Evaluation of Hazardous Substances Working Group, giving a resultant GESAMP Hazard Profile which indexes the substances taking into account their bio-accumulation, bio-degradation, acute toxicity, chronic toxicity, long-term health effects, and effects on marine wildlife and on benthic habitats.

According to standards prescribed by both Conventions, chemical tankers built after 1 July 1986 have to comply with the International Bulk Chemical Code (hereinafter the 'IBC' Code). It prescribes international standards for the safe transport by sea in bulk of liquid dangerous chemicals, through the design and construction standards of ships involved in such transport and the equipment they should carry. These measures are designed to minimize the risks to the ship, its crew, and to the environment, having regard to the nature of the products carried.

Amendments to the IBC Code have been adopted, which resulted in the amendments to the MARPOL Annex II. The said amendments incorporate revisions to the categorization of certain products relating to their properties as potential marine pollutants as well as revisions to ship type and carriage requirements following their evaluation by the Evaluation of Hazardous Substances Working Group.

Ships constructed after 1986 carrying substances identified in chapter 17 of the IBC Code must follow the requirements for design, construction, equipment, and operation of ships contained in the Code.

Ship types should correspond to the hazard properties of the products covered by the Codes (such as flammability, toxicity, corrosivity, and reactivity). To this effect the IBC Code lists chemicals and their hazards and gives both the ship type required to carry that product as well as the environmental hazard rating.

On the other hand, chemical tankers constructed before 1 July 1986 should comply with the requirements of the Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (hereinafter the 'BCH' Code) which is the predecessor of the IBC Code.<sup>43</sup>

The Annex II Regulations for the control of pollution by noxious liquid substances in bulk define a four-category categorization system for noxious and liquid substances.

The categories of noxious substances are:

- (i) Category X: Noxious Liquid Substances which, if discharged into the sea from tank cleaning or deballasting operations, are deemed to present a major hazard to either marine resources or human health and therefore justify the prohibition of the discharge into the marine environment;
- (ii) Category Y: Noxious Liquid Substances which, if discharged into the sea from tank cleaning or deballasting operations, are deemed to present a hazard to either marine resources or human health or cause harm to amenities or other legitimate uses of the sea and therefore justify a limitation on the quality and quantity of the discharge into the marine environment;
- (iii) Category Z: Noxious Liquid Substances which, if discharged into the sea from tank cleaning or deballasting operations, are deemed to present a minor hazard to either marine resources or human health and therefore justify less stringent restrictions on the quality and quantity of the discharge into the marine environment; and
- (iv) Other Substances: substances which have been evaluated and found to fall outside Category X, Y, or Z because they are considered to present no harm to

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<sup>43</sup> All information available at: <<http://www.imo.org/OurWork/Environment/PollutionPrevention/ChemicalPollution/Pages/Default.aspx>> (accessed 24 December 2013).

marine resources, human health, amenities, or other legitimate uses of the sea when discharged into the sea from tank cleaning of deballasting operations. The discharge of bilge or ballast water or other residues or mixtures containing these substances are not subject to any requirements of MARPOL Annex II.<sup>44</sup>

This Annex also includes a number of other requirements reflecting modern stripping techniques, which specify discharge levels of products which have been incorporated into Annex II.<sup>45</sup> The evaluation of noxious substances is an ongoing process. For example, vegetable oils which were previously categorized as being unrestricted are now required to be carried in chemical tankers.<sup>46</sup>

#### **2.4.3 Annex III: Regulations for the prevention of pollution by harmful substances in packaged form**

The MARPOL Annex III includes regulations for the prevention of pollution by harmful substances in packaged form and includes general requirements for the issuance of detailed standards on packing, marking, labelling, documentation, stowage, quantity limitations, exceptions, and notifications for preventing pollution by harmful substances. Chemicals which are carried in packaged form, in solid form or in bulk are also regulated by Part A of SOLAS Chapter VII—Carriage of dangerous goods which includes provisions for the classification, packing, marking, labelling and placarding, documentation, and stowage of dangerous goods.

The parties to the Convention are required to issue instructions at the national level. The chapter refers to International Maritime Dangerous Goods Code (hereinafter the 'IMDG Code') developed by the IMO, which is constantly updated to accommodate new dangerous goods and to supplement or revise existing provisions.

The IMDG Code was developed as a uniform international code for the transport of dangerous goods by sea (it deals with such matters as packing, container traffic, and stowage, with particular reference to the segregation of incompatible

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<sup>44</sup> (n. 43).

<sup>45</sup> For ships constructed on or after 1 January 2007 the maximum permitted residue in the tank and its associated piping left after discharge is set at a maximum of 75 for products in categories X, Y and Z (compared with previous limits which set a maximum of 100 or 300 litres, depending on the product category). <<http://www.imo.org/OurWork/Environment/PollutionPrevention/ChemicalPollution/Pages/Default.aspx>> (accessed 24 December 2013).

<sup>46</sup> An MEPC resolution on Guidelines for the transport of vegetable oils in deep tanks or in independent tanks specially designed for the carriage of such vegetable oils onboard dry cargo ships was adopted in October 2004. It allows general dry cargo ships that are currently certified to carry vegetable oil in bulk to continue to carry these vegetable oils on specific trades. The guidelines took effect on 1 January 2007. <<http://www.imo.org/OurWork/Environment/PollutionPrevention/ChemicalPollution/Pages/Default.aspx>> (accessed 24 December 2013).

substances). The IMDG Code includes products considered to be marine pollutants. The IMO's Maritime Safety Committee (MSC) decided in principle, at its seventy-third session in 2000, to make some parts of the IMDG Code mandatory.<sup>47</sup>

For the purpose of Annex III, 'harmful substances' are those identified as 'marine pollutants' in the IMDG Code.<sup>48</sup>

#### **2.4.4 Annex IV: Sewage**

This Annex contains the regulations regarding the discharge of sewage into the sea, ships' equipment and systems for the control of sewage discharge, the provision of facilities at ports and terminals for the reception of sewage, and requirements for survey and certification. It also includes a model International Sewage Pollution Prevention Certificate to be issued by national shipping administrations to ships under their jurisdiction.<sup>49</sup> The general principle is that on the high seas, the oceans are capable of assimilating and dealing with raw sewage through natural bacterial action, and therefore the regulations in Annex IV of the MARPOL regulates discharging sewage within a specified distance of the nearest land, unless they have in operation an approved treatment plant. Governments are required to ensure the provision of adequate reception facilities at ports and terminals for the reception of sewage.

The revised Annex will apply to new ships engaged in international voyages, of 400 gross tonnage and above or which are certified to carry more than fifteen persons. Existing ships will be required to comply with the provisions of the revised Annex IV five years after the date of entry into force of Annex IV, namely from September 2008. The Annex requires ships to be equipped with either a sewage treatment plant or a sewage comminuting and disinfecting system or a sewage holding tank.

The discharge of sewage into the sea will be prohibited, except when the ship has in operation an approved sewage treatment plant or is discharging comminuted and disinfected sewage using an approved system at a distance of more than three nautical miles from the nearest land; or is discharging sewage which is not comminuted or disinfected at a distance of more than twelve nautical miles from the nearest land.

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<sup>47</sup> <<http://www.imo.org/OurWork/Environment/PollutionPrevention/ChemicalPollution/Pages/Default.aspx>> (accessed 24 December 2013).

<sup>48</sup> <<http://www.imo.org/OurWork/Environment/PollutionPrevention/ChemicalPollution/Pages/Default.aspx>> (accessed 24 December 2013).

<sup>49</sup> All information from <<http://www.imo.org/OurWork/Environment/PollutionPrevention/Sewage/Pages/Default.aspx>> (accessed 24 December 2013). This Annex entered into force in 2003. A revised Annex was adopted on 1 April 2004, with an entry into force date of 1 August 2005.

#### *2.4.4.1 Revised sewage standards*

The MEPC, by the Resolution 159 (55) at its fifty-fifth session in 2006 adopted revised Guidelines on implementation of effluent standards and performance tests for sewage treatment plants. The revised Guidelines, which will apply to sewage treatment plants installed on board on or after 1 January 2010, replace the Recommendation on international effluent standards and guidelines for performance tests for sewage treatment plants adopted by resolution MEPC.2 (VI) in 1976.

The MEPC also adopted a standard for the maximum rate of discharge of untreated sewage from holding tanks which is at a distance equal or greater than 12 nautical miles from the nearest land (see resolution MEPC.157 (55)).

#### **2.4.5 Annex V: Garbage**

Garbage poses danger to marine life as much as oil or chemicals.<sup>50</sup> In particular plastic is dangerous as it can float for years. Fish and marine mammals can in some cases mistake plastics for food and they can also become trapped in plastic ropes, nets, bags, and other items—even such innocuous items as the plastic rings used to hold cans of beer and drinks together.

Rubbish comes from people on shore as well as from cities that dump rubbish into rivers or the sea. But in some areas most of the rubbish found comes from ships. The process of degradation can take months or years.<sup>51</sup> The MARPOL sought to eliminate and reduce the amount of garbage being dumped into the sea from ships.

Under Annex V of the Convention, garbage includes:

- (i) all kinds of food;
- (ii) domestic and operational waste, excluding fresh fish, generated during the normal operation of the vessel and liable to be disposed of continuously or periodically.

Annex V totally prohibits the disposal of plastics anywhere into the sea, and severely restricts discharges of other garbage from ships into coastal waters and 'Special Areas' (see above). The Parties to the Annex have the duty to ensure the provision of reception facilities at ports and terminals for the reception of garbage.

Provisions to extend Port State Control (PSC) to cover operational requirements as regards prevention of marine pollution were adopted as a new regulation 8 to the

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<sup>50</sup> <<http://www.imo.org/OurWork/Environment/PollutionPrevention/Garbage/Pages/Default.aspx>> (accessed 24 December 2013) entered into force in 1988.

<sup>51</sup> Paper bus ticket 2–4 weeks; cotton cloth 1–5 months; rope 3–14 months; woollen cloth 1 year; painted wood 13 years; tin can 100 years; aluminium can 200–500 years; plastic bottle 450 years. <<http://www.imo.org/OurWork/Environment/PollutionPrevention/Garbage/Pages/Default.aspx>> (accessed 24 December 2013).



Annex in 1994 (entering into force on 3 March 1996). PSC officers can inspect a foreign-flagged vessel and ‘where there are clear grounds for believing that the master or crew are not familiar with essential shipboard procedures relating to the prevention of pollution by garbage’ can require the proper training of crew or in extreme cases detain the ship.

A new regulation referring to implementation and enforcement was adopted in 1995. It requires all ships of 400 gross tonnage and above and every ship certified to carry fifteen persons or more, and every fixed or floating platform engaged in exploration and exploitation of the seabed to provide a Garbage Record Book and to record all disposal and incineration operations of garbage.<sup>52</sup>

The regulations concerning garbage management are very strict:

- (i) all ships of 400 gross tonnage and above and every ship certified to carry fifteen persons or more will have to carry a Garbage Management Plan (including written procedures for collecting, storing, processing, and disposing of garbage, including the use of equipment on board. It should designate the person responsible for carrying out the plan and should be in the working language of the crew.)
- (ii) The MEPC/Circ.317 gives Guidelines for the development of garbage management plans and an Appendix to Annex V of the MARPOL gives a standard form for a Garbage Record Book.

Regulation 9 came into force for new ships on 1 July 1997 and as from 1 July 1998 applicable to all ships built before 1 July 1997 thus making the standards even stricter.<sup>53</sup>

By the Resolution MEPC 76/40, the MEPC at its fortieth Session in September 1997 adopted a Standard Specification for Shipboard Incinerators (covering the

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<sup>52</sup> The date, time, position of ship, description of the garbage, and the estimated amount incinerated or discharged must be logged and signed. The Garbage Record Book must be kept for a period of two years after the date of the last entry. This regulation does not in itself impose stricter requirements—but it makes it easier to check that the regulations on garbage are being adhered to as it means ship personnel must keep track of the garbage and what happens to it. It may also prove an advantage to a ship when local officials are checking the origin of dumped garbage—if ship personnel can adequately account for all their garbage, they are unlikely to be wrongly penalized for dumping garbage when they have not done so. <<http://www.imo.org/OurWork/Environment/PollutionPrevention/Garbage/Pages/Default.aspx>> (accessed 24 December 2013).

<sup>53</sup> All ships of 400 gross tonnage and above and every ship certified to carry 15 persons or more, and every fixed or floating platform engaged in exploration and exploitation of the seabed. The regulation also requires every ship of 12 metres or more in length to display placards notifying passengers and crew of the disposal requirements of the regulation; the placards should be in the official language of the ship's flag State and also in English or French for ships travelling to other States' ports or offshore terminals.

<<http://www.imo.org/OurWork/Environment/PollutionPrevention/Garbage/Pages/Default.aspx>> (accessed 24 December 2013).

design, manufacture, performance, operation, and testing of incinerators designed to incinerate garbage and other shipboard waste).<sup>54</sup> In July 2011, MEPC 62 adopted, by the revised MARPOL Annex V which entered into force on 1 January 2013. By resolution 220(63) the MEPC has adopted on 2 March 2012 Guidelines for the Development of Garbage Management Plans.

The revised Annex V now generally prohibits the discharge of all garbage into the sea, except as provided otherwise in regulations 4, 5, and 6 of the Annex, which are related to food waste, cargo residues, cleaning agents and additives, and animal carcasses. An overview of the revised MARPOL Annex V discharge provisions can be accessed here. Exceptions with respect to the safety of a ship and those on board and accidental loss are contained in regulation 7 of Annex V.

Under the revised MARPOL Annex V, garbage includes all kinds of food, domestic and operational waste, all plastics, cargo residues, incinerator ashes, cooking oil, fishing gear, and animal carcasses generated during the normal operation of the ship and liable to be disposed of continuously or periodically. Excluded from garbage are: fresh fish and parts thereof generated as a result of fishing activities undertaken during the voyage, or as a result of aquaculture activities.

The effectiveness of ships to comply with the discharge requirements of MARPOL depends upon the availability of adequate port reception facilities (especially within special areas). The Annex obliges Governments to ensure the provision of adequate reception facilities at ports and terminals for the reception of garbage without causing undue delay to ships, and according to the needs of the ships using them.<sup>55</sup>

It appears, however, that there is still insufficient understanding of the importance of not using oceans for disposing of garbage. Despite the entry into force of Annex V in 1988, even recent surveys carried out in the United States of America each year have produced up to 10 tonnes of garbage per mile of coastline.<sup>56</sup>

#### **2.4.6 Annex VI: Regulations for the prevention of air pollution from ships**

This Annex was added in 1997 in order to deal with local and global air pollution and environmental problems, and to minimize emissions from ships (eg SO<sub>x</sub>, NO<sub>x</sub>, ODS, VOC).<sup>57</sup> In 2007 international shipping was estimated to have contributed about 2.7% to the global emissions of carbon dioxide (CO<sub>2</sub>). The MARPOL Annex VI prohibits deliberate emissions of ozone-depleting substances.

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<sup>54</sup> (n. 53).

<sup>55</sup> <<http://www.imo.org/OurWork/Environment/PollutionPrevention/Garbage/Pages/Default.aspx>> (accessed 25 January 2015).

<sup>56</sup> (n. 55).

<sup>57</sup> Annex VI was adopted in 1997 and entered into force on 19 May 2005 and a revised Annex VI with stricter emissions limits was adopted in October 2008 which entered into force on 1 July 2010.

It also regulates shipboard incineration, and the emissions of volatile organic compounds from tankers.<sup>58</sup>

The stricter amendments of Annex VI consists of a progressive reduction globally in emissions of SO<sub>x</sub>, NO<sub>x</sub> and particulate matter and the introduction of emission control areas (ECAs) to reduce emissions of those air pollutants further in designated sea areas.<sup>59</sup>

The revised NO<sub>x</sub> Technical Code 2008 includes a new chapter based on the agreed approach for regulation of existing (pre-2000) engines established in MARPOL Annex VI, provisions for a direct measurement and monitoring method, a certification procedure for existing engines, and test cycles to be applied to Tier II and Tier III engines.

Revisions to the regulations for ozone-depleting substances, volatile organic compounds, shipboard incineration, reception facilities, and fuel oil quality have been made, with the addition on regulations on fuel oil availability.

In this regard it may be mentioned that air pollution from ships has been dealt with also within the framework of the EU. In November 2002, the EU Commission adopted the strategy of reduction of emissions of air pollutants from sea-going ships. The Commission also published a proposal for modifying directive 1999/32/EC as regards the sulphur content of marine fuels.<sup>60</sup> The emissions of air pollutants from ships in the Baltic Sea, the North Sea, the north-eastern part of the Atlantic, the Mediterranean, and the Black Sea were estimated to have been 2.6 million tonnes of sulphur dioxide and 3.6 million tonnes of nitrogen oxides (expressed as NO<sub>x</sub>) a year in 2000. Despite the enforcement of the MARPOL

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<sup>58</sup> All information from <<http://www.imo.org/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Air-Pollution.aspx>> (accessed 24 December 2013).

<sup>59</sup> Under the revised MARPOL Annex VI, the global sulphur cap is reduced initially to 3.50% (from the current 4.50%), effective from 1 January 2012; then progressively to 0.50 %, effective from 1 January 2020, subject to a feasibility review to be completed no later than 2018. The limits applicable in ECAs for SO<sub>x</sub> and particulate matter were reduced to 1.00%, beginning on 1 July 2010 (from the original 1.50%); being further reduced to 0.10%, effective from 1 January 2015. Progressive reductions in NO<sub>x</sub> emissions from marine diesel engines installed on ships are also included, with a 'Tier II' emission limit for engines installed on or after 1 January 2011; then with a more stringent 'Tier III' emission limit for engines installed on or after 1 January 2016 operating in ECAs. Marine diesel engines installed on or after 1 January 1990 but prior to 1 January 2000 are required to comply with 'Tier I' emission limits, if an approved method for that engine has been certified by an Administration. Effective from 1 January 2015, the MARPOL (The International Maritime Organization's Marine Pollution Convention) will set a further reduction on marine fuel sulphur cap of 0.1% in the Northern European Sulphur Emissions Control Areas (SECAs) comprising the English Channel, the Baltic Sea and the North Sea.

<sup>60</sup> 'Air Pollution from Ships', briefing document by: the European Environmental Bureau (EEB), the European Federation for Transport and Environment (T&E), Seas At Risk (SAR), and the Swedish NGO Secretariat on Acid Rain, available at <<http://123doc.org/document/1151018-the-european-environmental-bureau-eeb-the-european-federation-for-transport-and-environment-t-e-seas-at-risk-sar-the-swedish-ngo-secretariat-on-acid-r.htm>>; <<http://www.flad.pt/documentos/1227109470H7mFL7ge1Kr88CN8.pdf>> (accessed 24 December 2013).

Annex VI, this set limits on the sulphur content of marine fuels for the Baltic Sea, the North Sea and the English Channel, and emissions of SO<sub>x</sub> from international shipping are expected to increase by more than forty-two per cent by 2020, and those of NO<sub>x</sub> by two thirds. In both cases, by 2020 the emissions from international shipping around Europe will have exceeded the total from all land-based sources in the twenty-five Member States combined. On 20 November 2002, the Commission published a proposal to amend directive 1999/32/EC so as to limit the sulphur content of marine fuels marketed and used in the EU.<sup>61</sup> This Directive was amended by Directive 2005/33/EC that designated the Baltic Sea, the North Sea, and the English Channel as sulphur emission control areas (SECAs) and limited the maximum sulphur content of the fuels used by ships operating in these sea areas to 1.5%. This fuel standard applies also to passenger ships operating on regular service outside SECAs. However, at the time of adoption the SECA fuel standard was already widely recognized as being insufficient to address observed environmental impacts from shipping.<sup>62</sup>

On the 1st January 2010, the EU implemented its requirement that ships burn fuel of 0.1 per cent sulphur content or less when they are within EU ports or within EU inland waterways.

On the 1st July 2010, this requirement was extended offshore into Emissions Control Areas (ECA) including the North Sea and the Baltic Sea. The European Parliament and the Council requested the Commission to report on the implementation of the Directive and to consider submitting a proposal for an amendment. Following this request and considering the development at the IMO in 2008 (see above), the Commission carried<sup>63</sup> out a review of the Directive and adopted a proposal for its revision on 15 July 2011. Particularly interesting is the US implementation of Annex VI. In 2009, they submitted a joint proposal with the Canadian government to designate coastal areas for low sulphur fuel use that will substantially reduce emissions coming from ocean-going vessels. The US flagged ships must match the standards of the MARPOL Annex VI. The US have calculated that the benefits from its enforcement are, in total, around 30:1, so for every dollar spent thirty dollars in health benefits can be saved and thus totals up to billions.

## 2.5 MARPOL Special Areas and Particularly Sensitive Areas

At the outset, Marine Protected Areas (MPAs) are also recognized under the regime of the 1982 UNCLOS, specifically Article 211. However, it has been

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<sup>61</sup> (n. 60).

<sup>62</sup> <<http://ec.europa.eu/environment/air/transport/ships.htm>> (accessed 24 December 2013).

<sup>63</sup> (n. 62). See also Proposal for a Council decision establishing the position to be taken in HELCOM and IMO concerning the designation on the Baltic Sea as Nitrogen Oxide Emissions Control Area (NECA) /\* COM/2013/0300 final - 2013/0153 (NLE) <<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52013PC0300>> (accessed 21 January 2016).

observed that the issue of establishing such areas on the high seas is far from clear.<sup>64</sup> On one hand, the IMO has the competence regarding international shipping in such areas; but on the other hand, the debate is pending on the status of such areas in the forum of the United Nations' Open Ended Informal Consultative Process on Oceans and the Law of the Sea (UNICPOLOS). The issue of MPAs was discussed at this forum; however, there is still no clear set of conditions or modalities on how to establish such areas.<sup>65</sup> The second criterion, that is, ecological conditions, is species related, as it covers: depleted, threatened, or endangered marine species; areas of high productivity; spawning; breeding of nursery grounds for important marine species; and areas representing migratory routes for marine mammals and sea birds. Rare or fragile ecosystems (eg coral reef, mangroves, and wetlands) and /or critical habitats for marine resources are also being considered.<sup>67</sup>

For instance, the US established a national programme to designate certain areas of marine environments as areas of special national significance that warrant heightened care in its National Marine Sanctuaries Act. The primary purpose of the law is to protect marine resources and ecosystems, such as coral reefs, sunken historical vessels, or unique habitats, from degradation while facilitating public or private uses compatible with resource protection. In some sanctuaries the discharge of sewage is prohibited in special zones to protect fragile habitat, such as coral. The US authorities also provide for civil penalties for violations of its requirements or the permits issued under it.

### 2.5.1 Special Areas

The IMO has jurisdiction to establish Special Areas. Special Areas are areas designated in Annexes I (Prevention of pollution by oil), II (Control of pollution by noxious liquid substances), IV (Prevention of pollution by sewage from ships) and V (Prevention of pollution by garbage from ships) of MARPOL as marine areas in which, for the reasons relating to their oceanographical and ecological

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<sup>64</sup> A Gillespie, *Protected Areas and International Environmental Law* (Martinus Nijhoff, 2007) 17; A Gillespie, *Conservation, Biodiversity and International Law* (Edward Elgar, 2012) 189–91. Sage-Fuller argues that the establishment of Special Areas and Particularly Sensitive Areas is an expression of the application of the precautionary principle by the IMO. Sage-Fuller (n. 30) 223–41.

<sup>65</sup> Gillespie, *Conservation, Biodiversity and International Law* (n. 64) 192.

<sup>66</sup> Gillespie, *Protected Areas* (n. 64) 17.

<sup>67</sup> They have also assessed the impact of Annex VI with air quality modelling and used census data to find the populations exposed to emissions from locomotive hubs and from ports; in particular they found that minority populations were two to three times as likely to be exposed to the pollution from ocean-going vessels. 67,000 people are exposed to ocean-going vessel pollution. They concluded that the combination of Annex VI measures with the emission control area will substantially reduce that exposure. See National Environmental Justice Advisory Council Meeting, 27–29 January, 2010.

condition and to their sea traffic, the adoption of specially strict mandatory methods for the prevention of sea pollution is required. The oceanographically conditions focus on how vulnerable the ecosystem of a particular area is to possible damage.<sup>68</sup> The possible conditions for vulnerability include circulation patterns (such as convergence zones or gyres), temperate and salinity stratification, flushing rates, extreme weather conditions, and the rate of exchange of water, such as the Baltic Sea.<sup>69</sup>

Annex VI Regulations for the Prevention of Air Pollution from Ships establish certain sulphur oxide (SOx) Emission Control Areas (ECAs) with more stringent controls on sulphur emissions.<sup>70</sup>

<sup>68</sup> Gillespie, *Conservation* (n. 64) 191.

<sup>69</sup> Gillespie, *Conservation* (n. 64) 192.

<sup>70</sup> Special areas under MARPOL are as follows:  
Adoption, entry into force & date of taking effect of Special Areas

Special Areas	Adopted	Date of Entry into Force	In Effect From
Annex I: Oil			
Mediterranean Sea	2 Nov 1973	2 Oct 1983	2 Oct 1983
Baltic Sea	2 Nov 1973	2 Oct 1983	2 Oct 1983
Black Sea	2 Nov 1973	2 Oct 1983	2 Oct 1983
Red Sea	2 Nov 1973	2 Oct 1983	not yet in effect
'Gulfs' area	2 Nov 1973	2 Oct 1983	1 Aug 2008
Gulf of Aden	1 Dec 1987	1 Apr 1989	*
Antarctic area	16 Nov 1990	17 Mar 1992	17 Mar 1992
North West European Waters	25 Sept 1997	1 Feb 1999	1 Aug 1999
Oman area of the Arabian Sea	15 Oct 2004	1 Jan 2007	*
Southern South African waters	13 Oct 2006	1 Mar 2008	1 Aug 2008
Annex II: Noxious Liquid Substances			
Antarctic area	30 Oct 1992	1 Jul 1994	1 Jul 1994
Mediterranean Sea	2 Nov 1973	31 Dec 1988	1 May 2009
Baltic Sea	2 Nov 1973	31 Dec 1988	1 Oct 1989
Black Sea	2 Nov 1973	31 Dec 1988	not yet in effect
Red Sea	2 Nov 1973	31 Dec 1988	not yet in effect
'Gulfs' area	2 Nov 1973	31 Dec 1988	1 Aug 2008
North Sea	17 Oct 1989	18 Feb 1991	18 Feb 1991
Antarctic area (south of latitude 60 degrees south)			
16 Nov 1990	17 Mar 1992	17 Mar 1992	
Wider Caribbean region including the Gulf of Mexico and the Caribbean Sea			
4 Jul 1991	4 Apr 1993	1 May 2011	
Annex IV: Sewage			
Baltic Sea	15 Jul 2011	1 Jan 2013	

## 2.5.2 Particularly Sensitive Sea Areas (PSSAs)

A Particularly Sensitive Sea Area (PSSA) is an area that needs special protection through action by the IMO because of its significance for recognized ecological or socio-economic or scientific reasons and which may be vulnerable to damage by international maritime activities. An area can be designated as PSSA and at the same time as a special area, which is frequent practice.

Guidelines on designating a PSSA are contained in resolution A.982(24), called Revised Guidelines for the identification and designation of Particularly Sensitive Sea Areas (PSSAs), adopted by the IMO Assembly in November–December 2005 at its twenty-fourth session.

To be designated a PSSA, an area must fulfil a number of criteria: ecological criteria; social, cultural and economic criteria, such as significance of the area for recreation or tourism; and scientific and educational criteria, such as biological research or historical value.

Whilst dealing with ecological conditions relating to PSSAs, the IMO has endeavoured to distinguish this section from Special Areas (see Section 2.4.1) by including eight possible sub-sets. The additional categories are: uniqueness; representativity; dependency; productivity; diversity; integrity; vulnerability; and its naturalness, or the degree to which it is submitted to human influence. These

Special Areas	Adopted	Date of Entry into Force	In Effect From
Annex V: Garbage			
Mediterranean Sea	2 Nov 1973	31 Dec 1988	1 May 2009
Baltic Sea	2 Nov 1973	31 Dec 1988	1 Oct 1989
Black Sea	2 Nov 1973	31 Dec 1988	not yet in effect
Red Sea	2 Nov 1973	31 Dec 1988	not yet in effect
'Gulfs' area	2 Nov 1973	31 Dec 1988	1 Aug 2008
North Sea	17 Oct 1989	18 Feb 1991	18 Feb 1991
Antarctic area (south of latitude 60 degrees south)			
16 Nov 1990	17 Mar 1992	17 Mar 1992	
Wider Caribbean region including the Gulf of Mexico and the Caribbean Sea			
4 Jul 1991	4 Apr 1993	1 May 2011	
Annex VI: Prevention of air pollution by ships (Emission Control Areas)			
Baltic Sea (SOx)	26 Sept 1997	19 May 2005	19 May 2006
North Sea (SOx)	22 Jul 2005	22 Nov 2006	22 Nov 2007
North American			
(SOx, and NOx and PM)	26 Mar 2010	1 Aug 2011	1 Aug 2012
United States			
Caribbean Sea ECA			
(SOx, NOx and PM)	26 Jul 2011	1 Jan 2013	1 Jan 2014

(<<http://www.imo.org/ourwork/environment/pollutionprevention/specialareasundermarpol/Pages/Default.aspx>>) (accessed 24 December 2013).

conditions were added in 2001 with the possibility of adding further criteria of critical habitat and bio-geographical importance. The example of such a PSSA, fulfilling all criteria, can be the Great Barrier Reef.<sup>71</sup>

When an area is approved as a particularly sensitive sea area, specific measures can be used to control the maritime activities in that area, such as routing measures, strict application of the MARPOL discharge and equipment requirements for ships, such as oil tankers; and installation of Vessel Traffic Services (VTS).<sup>72</sup>

A PSSA can be protected by ships routing measures—such as an area to be avoided: an area within defined limits in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties and therefore should be avoided by all ships or by certain classes of ships.

## 2.6 Enforcement of MARPOL

As Griffin observes, the enforcement of the MARPOL can be done in three ways: through ship inspections to ensure that vessels fulfil minimum technical standards; by monitoring ship compliance with discharge standards; and by punishing ships violating the standards.<sup>73</sup> The main responsibility of inspections of ships is bestowed on the flag State. The MARPOL requires States to conduct inspections or surveys prior to putting the ship into service and when issuing the five-year International Oil Pollution Prevention (IOPP) certificate. At minimum a survey must be conducted once every five years. A ship which fails such a survey cannot sail unless it has fulfilled the MARPOL standards.

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<sup>71</sup> Gillespie, *Conservation* (n. 64) 192.

<sup>72</sup> List of adopted PSSAs

The following PSSAs have been designated:

- The Great Barrier Reef, Australia (designated a PSSA in 1990)
- The Sabana-Camagüey Archipelago in Cuba (1997)
- Malpelo Island, Colombia (2002)
- The sea around the Florida Keys, United States (2002)
- The Wadden Sea, Denmark, Germany, Netherlands (2002)
- Paracas National Reserve, Peru (2003)
- Western European Waters (2004)
- Extension of the existing Great Barrier Reef PSSA to include the Torres Strait (proposed by Australia and Papua New Guinea) (2005)
- Canary Islands, Spain (2005)
- The Galapagos Archipelago, Ecuador (2005)
- The Baltic Sea area, Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden (2005)
- The Papahānaumokuākea Marine National Monument, United States (2007)
- The Strait of Bonifacio, France and Italy (2011)

(<<http://www.imo.org/OurWork/Environment/PollutionPrevention/PSSAs/Pages/Default.aspx>>)  
(accessed 24 December 2013).

<sup>73</sup> Griffin (n. 6) 489.



One particular feature of the MARPOL is the wide scope of the port State jurisdiction. The PSC officers can board the vessel and inspect the ship's IOPP certificate and the other MARPOL certificates. In case of the lack thereof or if there are 'clear grounds' to believe that the condition of the ship, its equipment, or crew does not substantially meet the international Convention, the PSC has jurisdiction of conducting the full detailed survey. If the ship, on the other hand has the IOPP certificate, the PSC has to treat it as its own and issue a 'clean' inspection report to the master of the ship.<sup>74</sup>

Moreover in the event of 'clear grounds for believing that the condition of the ship or its equipment does not correspond substantially with the particulars of the certificate' the PSC has the authority to conduct a complete survey.<sup>75</sup> A port State has the jurisdiction to take administrative measures to prevent a vessel from leaving if it has breached international regulations applying to its navigation and if it threatens marine environment. Inspection can result in detention or temporary arrest of the ship and inspection report can be forwarded to any State requiring it.<sup>76</sup> However, 'all possible efforts shall be made to avoid a ship being unduly detained or delayed under Article 4, 5, or 6 of the present Convention, it shall be entitled to compensation for any loss or damage suffered'.<sup>77</sup>

Monitoring vessel discharges constitutes the second element of enforcement under the MARPOL.<sup>78</sup> All State Parties are required to cooperate in detecting ship violations, through environmental monitoring; reporting and accumulation of evidence.<sup>79</sup> If the State has evidence of the MARPOL breaches, it has to submit evidence to the flag State of the responsible ship.<sup>80</sup> The breaches of the MARPOL on the high seas are very difficult to prove. The best way to detect such a violation is when the ship is docked or in an off-shore terminal, as the MARPOL gives jurisdiction to PSC to conduct discharge inspections, through survey of its oil record book and oil discharge monitoring equipment and checking amounts of dirty ballast or oily residues in slop tank, as evidence of incorrect operational discharge.<sup>81</sup>

Upon notification about violations of the MARPOL by its ship, the flag State must investigate and if the evidence is sufficient, it must start the judicial proceedings. It has an obligation of notifying the State Party which reported the violation of the

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<sup>74</sup> Art. 5 (1) MARPOL 73/78.

<sup>75</sup> Art. 5 (2) MARPOL M73/78.

<sup>76</sup> Arts 5 and 6 MARPOL 73/78 and Art. 219 UNCLOS.

<sup>77</sup> Art. 7 (1 and 2) MARPOL 73/78.

<sup>78</sup> Griffin (n. 6) 501.

<sup>79</sup> Art. 6 (1) MARPOL 73/78.

<sup>80</sup> Art. 6 (3) MARPOL 73/78.

<sup>81</sup> Griffin (n. 6) 488–9.

action it had taken.<sup>82</sup> Penalties must be adequate in severity in order to discourage breaches of the MARPOL notwithstanding where they occur.<sup>83</sup>

The primacy of the jurisdiction of the flag State in environmental matters is confirmed by the provisions of the UNCLOS. Article 228 (1) of the UNCLOS provides that the proceedings against a foreign ship must be suspended in the event of the flag State instituting proceedings within six months after the original charges were commenced. A flag State has to enforce international rules and standards irrespective of the place of violation (Article 217 of UNCLOS). Therefore, in effect a flag State can supersede the port State jurisdiction and dismiss any proceedings brought by that port State.<sup>84</sup>

Although it is frequently argued that the MARPOL's drawback is its lack of proper enforcement by the flag State, the US is a good example of how it can be quite strictly enforced, including criminal penalties. The US became a party to the MARPOL in 2008 and it is implemented domestically through the Act to Prevent Pollution from Ships<sup>85</sup> (APPS) and to a lesser extent by the Clean Water Act.

The US implementation of the MARPOL Convention is based on the port State jurisdiction, and its jurisdiction covers all vessels in its jurisdictional waters, including the exclusive economic zone.

The US has ratified those of the MARPOL annexes that meet their standards and has aligned its practice with those annexes that they have not ratified because they do not meet US standards.

APPS applies to all US flagged ships anywhere in the world, and to all foreign flagged vessels while operating in the navigable waters of the US or while at a port or terminal under its jurisdiction. The APPS provides for the violation of the MARPOL, the Act, or regulations relating to wastes from ships, including garbage, oil, and hazardous substances and establishes a penalty of imprisonment of not more than ten years and/or fines as set forth in 18 USC 3571.<sup>86</sup>

The US Department of Justice, in conjunction with the Coast Guard and EPA's Criminal Investigation Division, has worked on a vessel pollution enforcement initiative designed to detect, investigate, and prosecute illegal vessel discharges of oily wastes, plastics, and other wastes that are in violation of US environmental laws, including those implementing international treaties such as the MARPOL, as well as related criminal violations.

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<sup>82</sup> Art. 6 (4) MARPOL 73/78.

<sup>83</sup> Art. 4 (4) MARPOL 73/78.

<sup>84</sup> A Rakestraw, 'Open Oceans and Marine Debris: Solutions for the Ineffective Enforcement of MARPOL Annex V' (2012) 35 *Hastings Int'l & Comp. L. Rev.* 392.

<sup>85</sup> Act to Prevent Pollution from Ships, 33 USC 1901 et seq.

<sup>86</sup> See 33 USC 1908(a).

## 2.7. The European Union and the MARPOL

In order to regulate the national legislation and policies of the EU Member States with regard to maritime safety and the protection of the environment, the EU adopted Directive 2005/35/EC<sup>87</sup> dealing with ship-source discharges of oil and noxious liquid substances.<sup>88</sup> The purpose of the Directive is to incorporate international standards for ship-source pollution into Community law.<sup>89</sup> This Directive has been amended by Directive 2009/123/EC<sup>90</sup> (the 2005 Directive, as amended by the 2009 Directive, is hereinafter referred to as ‘the ship-source pollution Directive’). With regard to the geographical scope, the ship-source pollution Directive provides that an offence is committed if the discharging of polluting substances is carried out in internal waters of a EU Member States, in the territorial water of a Member State, in straits used for international navigation, in the exclusive economic zone (EEZ) of a Member State or in the high seas.<sup>91</sup> These rules apply to any ship regardless of its flag.<sup>92</sup> The Directive also addresses port and coastal State enforcement<sup>93</sup> and it requires Member States to comply with international law and to apply its provisions without discriminating against foreign ships.<sup>94</sup> Furthermore, the Directive imposes additional obligations on Member States on respect of matters such as cooperation and reporting, as well as other

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<sup>87</sup> Directive 2005/35/EC on ship-source pollution and on the introduction of penalties for infringements [2005] OJ L255, 30.9.2005, 11.

<sup>88</sup> The list of categorized polluting substances is taken directly from MARPOL (Art. 2 of the Directive).

<sup>89</sup> Art. 1 Directive 2005/35/EC, as amended. As it has been highlighted [‘t]he implementation of the International Convention for the Prevention of Pollution from Ships (MARPOL), 1973/78, as amended, shows discrepancies among Member States and thus there is a need to harmonize its implementation at Community level, in particular the practice of Member States relating to imposition of penalties for discharges of polluting substances differs significantly’ (Axel Luttenberger, ‘Criminal penalties for ship-source pollution in the environmental legislation’, available at <[http://www.researchgate.net/publication/253649917\\_CRIMINAL\\_PENALTIES\\_FOR\\_SHIP-SOURCE\\_POLLUTION\\_IN\\_THE\\_ENVIRONMENTAL\\_LEGISLATION/file/5046351fa19aa675ac.pdf](http://www.researchgate.net/publication/253649917_CRIMINAL_PENALTIES_FOR_SHIP-SOURCE_POLLUTION_IN_THE_ENVIRONMENTAL_LEGISLATION/file/5046351fa19aa675ac.pdf)> (accessed July 2014). See also: V Mitsilegas, M Fitzmaurice, and E Fasoli, ‘The Relationship between EU Criminal Law and Environmental Law’ in V Mitsilegas, M Bergstrom, and T Konstantinides (eds), *Research Handbook on EU Criminal Law* (Edward Elgar, forthcoming 2016). In general, see L Nengye, ‘The European Union’s Role in the Prevention of Vessel-Source Pollution and its International Influence’ (2009) 15 *The Journal of International Maritime Law* 411–22; F Pellegrino, ‘The Introduction of Penalties for Ship-source Pollution in Community Law: Recent Developments’ (2011) 48 *European Transport* 99–108; and A Pozdnakova, *Criminal Jurisdiction over Perpetrators of Ship-source Pollution, International Law, State Practice and EU Harmonisation* (Martinus Nijhoff, 2013) 209 ff.

<sup>90</sup> Directive 2009/123/EC amending Directive 2005/35/EC on ship-source pollution and on the introduction of penalties for infringements [2009] OJ L280, 27.10.2009, p. 52.

<sup>91</sup> Art. 3.

<sup>92</sup> Art. 3, para. 2.

<sup>93</sup> Arts 6 and 7.

<sup>94</sup> Art. 9.

provisions relating to implementation, although these are not directly the subject of the present analysis.<sup>95</sup>

The rules on criminal liability are contained in Articles 4, 5 and 8 of the ship-source pollution Directive. These rules will be analysed in light of the MARPOL provisions.

As explained in Section 2.3.1 the MARPOL establishes a general prohibition of all discharges of oil and noxious substances. In addition, Annex I and II<sup>96</sup> provide for a set of exceptions according to which discharges are permitted in three cases: where necessary to secure the safety of a ship or save life at sea (para. 1 of Regulation 4, Annex I and the corresponding provisions in Annex II); where the discharges into the sea of oil or oily mixture result from damage to a ship or its equipment provided that *i)* 'all reasonable precautions' were taken 'after the occurrence of the damage or discovery of the discharge' for the purposes of preventing or minimizing the discharge; and that *ii)* the owner or the master did not act either with intent to cause damage, or recklessly and with knowledge that damage would probably result (para. 2 of Regulation 4, Annex I and the corresponding provisions in Annex II); and where approved by both the flag State and any Government in whose jurisdiction it is contemplated the discharge will occur, in order to combat a specific pollution incident for minimizing the damage from pollution (para. 3 of Regulation 4, Annex I and the corresponding provisions in Annex II).

On the other hand, Art. 4 of the ship-source pollution Directive provides that 'Member States shall ensure that ship-source discharges of polluting substances . . . are regarded as infringements if committed with intent, recklessly or by serious negligence'. In addition, Art. 5 consists of two paragraphs that refer directly to the MARPOL exceptions to the above described general prohibition of discharge of oil and noxious liquid substances. More precisely, paragraph one provides that

[a] discharge of polluting substances into any of the areas referred to in Article 3(1) [internal waters] shall not be regarded as an infringement if it satisfies the conditions set out in Annex I, Regulations 15, 34, 4.1 or 4.3 or in Annex II, Regulations 13, 3.1.1 or 3.1.3 of Marpol 73/78.

Paragraph two states that

[a] discharge of polluting substances into the areas referred to in Article 3(1)(c), (d) and (e) [straits used for international navigation, EEZs and the high seas] shall not be regarded as an infringement for the owner, the master or the crew when acting under the master's responsibility if it satisfies the conditions set out in Annex I, Regulation 4.2 or in Annex II, Regulation 3.1.2 of marpol 73/78.

As far as the elements that are relevant for our analysis are concerned, the MARPOL and the ship-source pollution Directive differ in the following: the

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<sup>95</sup> Arts 10–12.

<sup>96</sup> Annex I, Regulations 15, 34, 4.1 or 4.3 and Annex II, Regulations 13, 3.1.1 or 3.1.3.

MARPOL consider a discharge being 'reckless' only if made with 'knowledge that damage would probably result' (see *ii*) above), whereas the Directive does not contain this additional specification and only covers cases of pollution committed 'with intent, recklessly or by serious negligence' (although not providing further guidance as to the precise content of these criteria). Article 5(1) of the Directive that applies to internal waters, includes paragraphs 1 and 3 of Regulation 4 of Annex I (and the corresponding provision in Annex II) of the MARPOL in the regime of exceptions to liability, but excludes paragraph 2 of Regulation 4 of Annex I on pollution resulting from damage to the ship or its equipment. Furthermore, Art. 5(2) of the Directive, dealing with pollution in the straits used for international

navigation, in the EEZ or on the high seas, excludes from the exceptions to liability for pollution resulting from damage to the ship or its equipment all the persons different from the owner, the master and the crew acting under the master's responsibility. In other words, anyone could in principle be liable and subject to penalties in respect of a discharge. By contrast, in the MARPOL the exclusion from liability for discharges operates only if the master or the owner did not act either with intent to cause damage, or recklessly and with knowledge that damage would probably result. The literal wording of the international provision seems to suggest that the acts of persons other than the owner or master are completely irrelevant in the case of discharge resulting from damage to the ship or its equipment. Discharge would appear to be prohibited only where one of these two persons acted with intent or recklessly and with knowledge that damage would probably result. On this point some Authors have highlighted that such an interpretation of the MARPOL would lead to the rather illogical result that, for example, a person who caused intentional damage to a ship or its equipment could escape liability so long as neither the master nor the owner acted with intent or recklessly.<sup>97</sup> However, an interpretation more in line with the general objectives of the Convention to prevent pollution and to discourage potential perpetrators suggests that a wider range of persons can be involved in the pollution and potentially subject to criminal penalties. Therefore, it cannot be ruled out that other operators in the shipping chain bear responsibility and can cause damage resulting in discharge.<sup>98</sup> This interpretation avoids the possible contradiction between the MARPOL and the ship-source pollution Directive.

In relation to sanctions, the MARPOL specifies that sanctions have to be adequate in severity in order to discourage violations and equally severe irrespective of where the violations occurred. However, the nature of these sanctions is not clearly affirmed.

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<sup>97</sup> See Pozdnakova (n. 89) 227.

<sup>98</sup> See the Advocate General's Opinion in the *Intertanko* case, para. 89 (*infra* para. 6) and Pozdnakova (n. 89) 246.

By contrast, the ship-source pollution Directive, still in its original version, required Member States to take measures to ensure that infringements were subject to 'effective, proportionate and dissuasive sanctions',<sup>99</sup> including *criminal* or *administrative* penalties (Art. 8 Directive 2005/35/EC). It is important to mention that the 2005 Directive was initially supplemented by a Council Framework Decision the main aim of which was to approximate criminal-law legislation of the Member States by requiring them to establish a system of criminal penalties in order to combat the pollution caused by ships. The Framework Decision also indicated the content of these criminal penalties (eg imprisonment up to ten years, fines up to 1.5 million euros, temporary or permanent disqualification from engaging in commercial activities, judicial winding up etc.). However, this was annulled by the ECJ in 2007.<sup>100</sup> On that occasion the Court affirmed, *inter alia*, that although the Commission may have prescribed the use of criminal penalties, the 'determination of the type and level of the criminal penalties to be applied did not fall within the Community's sphere of competence'.<sup>101</sup> Subsequently, Directive 2009/123/EC deleted the reference to the penalties of administrative nature and retained the one to the criminal penalties, thus aligning its wording with that contained in the environmental crime Directive, which will be described in the next paragraph. As it stands now, as far as natural persons are concerned, Directive 2009/123/EC requires that Member States shall take the necessary measures to ensure that ship-source discharges of polluting substances producing a deterioration of water quality<sup>102</sup> and committed with intent, recklessly or by serious negligence be regarded as criminal offences and are punished by effective, proportionate and dissuasive *criminal* penalties.<sup>103</sup> Therefore, differently from the unclear wording of the MARPOL, in the ship-source pollution Directive, at least the criminal nature of the measures is affirmed.<sup>104</sup>

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<sup>99</sup> For the interpretation of the concepts of effective, dissuasive, and proportionate penalties see particularly M Faure, 'Effective, Proportional and Dissuasive Penalties in the Implementation of the Environmental Crime and Ship-source Pollution Directives: Questions and Challenges' (2010) *European Energy and Environmental Law Review* 259–65.

<sup>100</sup> C-440/05. *Commission of the European Communities v Council of the European Union*, Judgment of the Court (Grand Chamber) of 23 October 2007. <<http://curia.europa.eu/juris/liste.jsf?la=language=en&num=C-440/05>>.

<sup>101</sup> Para. 70 of the ECJ judgment. See Faure (n. 99) 257–8; MJ Borgers and T Kooijmans, 'The Scope of the Community's Competence in the Field of Criminal Law' (2008) 16 *European Journal of Crime, Criminal Law and Criminal Justice* 379–95; and M Hedemann-Robinson, 'The EU and Environmental Crime: the Impact of the ECJ's Judgment on Framework Decision 2005/667 on Ship-Source Pollution' (2008) 20 *Journal of Environmental Law* 279–92.

<sup>102</sup> Art. 5a.2. The Directive also specifies that minor but repeated discharges fall within the scope of the prohibition, unless no deterioration of water quality is caused (Art. 5a.3).

<sup>103</sup> See Arts 5a.1 and 8a Directive 2009/123/EC.

<sup>104</sup> In addition, the Directive provides that any intentional act of inciting or of aiding and abetting a pollution violation has to be punished as a criminal offence under the domestic law of the EU Member States (Art. 5b Directive 2009/123/EC).

EU Member States are required to prescribe the use and to define the specific content of criminal penalties with regard to non-negligible illegal shipments of waste, non-negligible trade in protected specimens as well as to cases of illegal pollution caused by ships.

Finally, it has also to be mentioned that the Directive adopted in 2009 introduced provisions on liability and penalties for legal persons, which were absent in the original version.<sup>105</sup> However, the Directive stated that the penalties, although effective, proportionate, and dissuasive,<sup>106</sup> did not have to be necessarily of a criminal nature. Similar provisions are also contained in the environmental crime Directive.

Within the EU there has been a long struggle for the adoption of a binding instrument dedicated to the protection of the environment through criminal law.

A new instrument was considered necessary by the European institutions because of the rise in environmental offences and their effects, which increasingly extended beyond the borders of the States in which the offences were committed. The offences were considered to pose a threat to the environment and therefore an appropriate response was called. The existing systems of penalties had not been sufficient to achieve complete compliance with the laws for protecting the environment.<sup>107</sup>

After long negotiations which started in 2000 upon the Danish initiative for a Framework Decision and after a Commission proposal for a Directive adopted in 2001, the Council and the Parliament in 2008 finally reached an agreement on the proposal for a new instrument.<sup>108</sup>

The Directive 2008/99/EC of the European Parliament and of the Council on the protection of the environment through criminal law was formally adopted on 19 November 2008.<sup>109</sup>

The text of the environmental crime Directive offers a common understanding of what constitutes environmental crime. It requires Member States to establish a system of criminal sanctions for natural persons committing serious environmental

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<sup>105</sup> The legal persons can be held liable for offences committed for their benefit by persons acting in leading positions or where the lack of supervision or control by a person in a leading position has made possible the commission of the offence (Art. 8b of Directive 2009/123/EC).

<sup>106</sup> Art. 8c.

<sup>107</sup> See, among others, GM Vagliasindi, 'The European Harmonisation in the Sector of Protection of the Environment Through Criminal Law: the Results Achieved and Further Needs for Intervention' (2012) 3 *The New Journal of European Criminal Law* 320–31.

<sup>108</sup> See H-E Zeitler, 'Happy End of a Long saga—Agreement on the Directive for the Protection of the Environment through Criminal Law' (2008) 5 *Journal of European Environmental & Planning Law* 281–91.

<sup>109</sup> Directive 2008/99/EC on the protection of the environment through criminal law [2008] OJ L328, 6.12.2008, 28.

crimes so as to demonstrate a social disapproval of a qualitatively different nature when compared to the administrative or a compensation mechanism under civil law.<sup>110</sup> It also clarifies the scope of the liability for legal persons.

The environmental crime Directive contains an harmonized definition of nine environmental criminal offences that are considered unlawful i) when they are in breach of the European legislation listed in Annex A or B and based on the EC and the EURATOM Treaty (objective element) and ii) when they are committed 'intentionally or at least with serious negligence' (subjective element).

As far as the objective element is concerned, the offences require that the activity causes or is likely to cause serious harm to persons or the environment, namely, the quality of air, soil, or water, or to animal or plants. The conduct that potentially constitutes a criminal offence includes: the illegal collection, transport, recovery, disposal and shipment of waste; the illegal use or storage of dangerous substances in the operation of a plant; the illegal production, handling and disposal of hazardous radioactive substances; the trade, killing, destruction, possession, and taking of endangered flora and fauna species; the unlawful deterioration of habitats; and the production, importation, exportation, placing on the market, or use of ozone-depleting substances.<sup>111</sup> It has to be noted that this list of activities is only indicative as under Art. 193 TFEU Member States are free to adopt stricter measures so that they may establish additional offences.

Nevertheless, while being true that the Directive expands the list of activities that can be potentially criminalized, at the same time, regarding the type and content of the penalties to be applied by the Member States, it suffers from the same vagueness as the ship-source pollution Directive. In fact, even if it provides that the penalties should be of a criminal nature (along with being effective, proportionate, and dissuasive), it still does not lay down any specific procedural rules of criminal law nor touches upon the powers of prosecutors and judges. This necessarily leads to a considerable variation in the level of punishment. At the Member States level the average of the criminal law sanctions ranges from six months to life imprisonment for natural persons and from 200,000 to 60,000,000 euros for legal persons.<sup>112</sup>

At present, there is a high degree of confusion regarding the national implementation of penalties. Therefore, it would be highly advisable to unify the provisions on criminal penalties at the national level.

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<sup>110</sup> M Faure, 'The Implementation of the Environmental Crime Directives in Europe' (paper presented at the Ninth International Conference on Environmental Compliance and Enforcement, Brussels, Belgium) <[http://inece.org/conference/9/proceedings/41\\_Faure.pdf](http://inece.org/conference/9/proceedings/41_Faure.pdf)> (accessed April 2014).

<sup>111</sup> For the analysis of each specific offence see Faure (n. 110) 362–5.

<sup>112</sup> Data presented by H Wagner (European Commission-DG Justice) during the European Union Project on Environmental Crime meeting (the EFFACE project) (efface.eu) on 24 January 2014 (Berlin, Germany).



Furthermore, still from the point of view of the objective element, the conduct under the Directive covers both the 'concrete' and the 'abstract' endangerment of the environment. However, some of these activities are very difficult to classify since the activities referred to can all potentially endanger the environment, but in some cases, the danger may be merely abstract whereas in other cases the danger may be more concrete or could lead to concrete harm. Some legal uncertainties arose with reference to some of the notions used in the environmental crime Directive (but also contained in the ship-source pollution Directive). Notions such as 'substantial damage', 'non-negligible quantities' or impacts, or 'dangerous activities and substances' can in fact be problematic and lead to difficulties in their interpretation since they 'would violate the *lex certa* requirement which follows from the legality principle in criminal law and requires that the law should be sufficiently precise for the potential perpetrator to know whether he will fall under the scope of the criminal law or not.'<sup>113</sup> As has been suggested, Member States could give content to these vague notions through the use of the European legislation listed in Annex A and B of the environmental crime Directive that has been already transposed at the national level. In fact, to the extent that quality standards have been determined or dangerous substances have been identified at the national level this may be very helpful for Member States who wish to provide more precision and guidance in the implementation of the vague notions contained in the environmental crime Directive.<sup>114</sup>

Another noteworthy point with regard to the environmental crime Directive is the definition of criminal offences, both in terms of technique and in terms of terminology.<sup>115</sup> A wide range of conduct is criminalized, 'when unlawful'.<sup>116</sup> Unlawfulness is defined by reference to the infringement of a wide range of Community instruments, listed in two annexes to the Directive.<sup>117</sup> This drafting technique poses serious challenges for legal certainty, in particular in the light of the fact that infringement constitutes a criminal offence.<sup>118</sup>

As far as the subjective element of the criminal offence is concerned, conduct as defined in Articles 2, 3, and the annexes to the Directive is a criminal offence when committed intentionally, 'or with a least serious negligence'.<sup>119</sup> Not only does the

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<sup>113</sup> Wagner (n. 112) 368.

<sup>114</sup> Wagner (n. 112) 368.

<sup>115</sup> V Mitsilegas, 'The Third Wave of Third Pillar Law: Which Direction for EU Criminal Justice?' (2009) 34 *European Law Review* 523–60.

<sup>116</sup> Directive Art. 3.

<sup>117</sup> Directive Art. 2(a). The definition of key terms to the Directive (such as 'protected fauna and flora species' and 'habitat within a protected site') are also defined by reference to Community Directives—see Art. 2(b) and (c).

<sup>118</sup> See also in this context the analysis of Zimmermann, who notes that no less than 72 legal instruments are listed in the annexes to the Directive: F Zimmermann, 'Wann ist der Einsatz von Strafrecht auf europäischer Ebene sinnvoll?' (2009) *Zeitschrift für Rechtspolitik* 74, 75.

<sup>119</sup> Directive 2008/99 Art. 3.

extension of *mens rea* to negligence (in combination with the long list of Community law instruments whose infringement constitutes a criminal offence) extend the scope of criminalization, but it also adds to the concerns with regard to respect for legal certainty in Community criminal law. As will be seen in the next section, the issue has been the subject of litigation before the ECJ in the context of the ship-source pollution Directive.

As it relates to the MARPOL the reference to the subjective element has been already described above in relation to the provisions contained in the ship-source pollution Directive.

Finally, the environmental crime Directive also contains rules on the scope of liability for natural legal persons that are absent in the relevant international Conventions. Legal persons may be held liable for offences committed for their benefit by persons acting in a leading position based on a power of representation, on an authority to take decisions on behalf of the legal person or to exercise control within the legal person.<sup>120</sup> Legal persons can be also liable where the lack of supervision or control by a person in a leading position has made possible the commission of the offence.<sup>121</sup> As to the penalties, Member States have to ensure that the offences are 'punishable by effective, proportionate and dissuasive penalties'.<sup>122</sup> Evidently, in this case the penalties do not have to be necessarily of a criminal nature.

In light of the above, both the environmental crime Directive and the ship-source pollution Directive constitute a step forward in the criminalization of certain activities and conduct harmful to the environment compared to the provisions contained in certain existing Multilateral Environmental Agreements (such as the Convention on the Trade in Endangered Species of Fauna and Flora or the Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Disposal). Nevertheless, when it comes to defining the types and level of criminal penalties, these instruments reflect the status of the delicate debate on the harmonization of environmental criminal law of the Member States. Furthermore, legal uncertainties arise with reference to some of the notions used in both Directives, such as 'substantial damage', 'non-negligible quantities or impacts', and with regard to the definition of criminal offences itself (both in terms of technique and terminology) in combination with the extension of *mens rea* to negligence.

As seen above, EU law has introduced more extensive criminalization provisions to international law, in particular as regards ship-source pollution. These divergences between the international and the European standards led a coalition of the shipping industry to bring an action against the Secretary of State for Transport before

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<sup>120</sup> Art. 6.

<sup>121</sup> Art. 6.

<sup>122</sup> Art. 7.

the English High Court of Justice.<sup>123</sup> In 2008 the High Court of Justice (Queen's Bench Division) decided to make a referral for a preliminary ruling to the ECJ regarding the incompatibility between Community law and international law of the sea under the MARPOL 73/78 Convention and the UN Convention on the Law of the Sea (UNCLOS).<sup>124</sup> It was argued in particular that: it was unlawful for the Community to legislate independently of the MARPOL for third-country vessels on the high seas or in the EEZ; it was unlawful for the EC to legislate in relation to activities in the territorial sea otherwise than in accordance with MARPOL; and that under UNCLOS passage affected by negligent or serious negligent pollution remains lawful and any attempt to lower this threshold would amount to an unlawful interference with the right of innocent passage.<sup>125</sup> The applicants added that the use of the term 'serious negligence' in the Directive infringed the principle of legal certainty.<sup>126</sup> The High Court decided to refer these questions to Luxembourg Court,<sup>127</sup> where the applicants (representing a variety of shipping interests) and the Greek, Cypriot, and Maltese Governments submitted that Articles 4 and 5 of the ship-source pollution Directive did not comply with international law in particular by establishing a stricter liability regime for accidental discharges than that laid down in the MARPOL.<sup>128</sup>

In addressing these questions, the Court was called primarily to assess the compatibility of Community law with international law on pollution at sea.<sup>129</sup> The Court reiterated the principle of primacy of international agreements concluded by the Community over secondary Community legislation<sup>130</sup> and acknowledged

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<sup>123</sup> *The Queen on the Application of the International Association of Independent Tanker Owners (Intertanko) and others v Secretary of State for Transport* [2006] EWHC 1577.

<sup>124</sup> See, *ex multis*, D König, 'The EU Directive on Ship-Source Pollution and on the Introduction of Penalties for Infringements: Development or Breach of International Law?' in TM Ndiaye and R Wolfrum (eds), *Law of the Sea, Environmental Law and Settlement of Disputes: Liber Amicorum Judge Thomas A. Mensah* (Martinus Nijhoff, 2007) 769; R Pereira, 'On the Legality of the Ship-Source Pollution 2005/35/EC Directive—The Intertanko Case and Selected Others' (2008) *European Energy and Environmental Law Review* 372–83; AKJ Tan, 'The EU Ship-Source Pollution Directive and Recent Expansions of Coastal State Jurisdiction' in D Vidas (ed.), *Law, Technology and Science for Oceans in Globalisation, IUU Fishing, Oil Pollution, Bioprospecting, Outer Continental Shelf* (Martinus Nijhoff, 2010) 292–3; and R Pavoni, 'Controversial Aspects of the Interaction Between International and EU Law in Environmental Matters: Direct Effect and Member States' Unilateral Measures' in E Morgera (ed.), *The External Environmental Policy of the European Union* (Cambridge University Press, 2012) 353–60.

<sup>125</sup> See V Mitsilegas, 'The European Union and the Globalisation of Criminal Law' (2009–2010) 12 *Cambridge Yearbook of European Legal Studies* 337–407.

<sup>126</sup> R Barnes and M Happold, 'Current Legal Developments. United Kingdom' (2007) 22 *The International Journal of Marine and Coastal Law* 331.

<sup>127</sup> See *Intertanko* para. 29.

<sup>128</sup> Para. 37.

<sup>129</sup> The Court also examined the issue of the compatibility of the term 'serious negligence' used in the Directive with the principle of legal certainty, but purely from the perspective of Community law—paras 67–80. The analysis in this part will focus on the part of the Court's ruling on the relationship between Community and international law.

<sup>130</sup> *Intertanko*, para. 42.

that the validity of a measure of secondary Community legislation may be affected by the fact that it is incompatible with such rules of international law.<sup>131</sup> The review of the validity of Community law in this context takes place under two conditions: i) that the Community is bound by the international agreements in question;<sup>132</sup> and ii) that review is not precluded by the nature and the broad logic of the international agreement and that the latter's provisions appear, as regards their content, to be unconditional and sufficiently precise.<sup>133</sup> The Court applied this two-fold test at two levels: to assess the validity of the ship-source pollution Directive in the light of the MARPOL; and to assess the validity of the Directive in the light of UNCLOS. In both cases, but via a different reasoning in each case, the Court shielded the ship-source pollution Directive from a review in the light of international law.

As regards the assessment of the validity of the Directive in the light of the MARPOL, the Court stated from the outset that the Community is not a party to that Convention.<sup>134</sup> It added that it does not appear that the Community has assumed, under the EC Treaty, the powers previously exercised by the Member States in the field to which the MARPOL applies, nor that, consequently, its provisions have the effect of binding the Community.<sup>135</sup> The Court distinguished the MARPOL from the General Agreement on Tariffs and Trade (GATT) within the framework of which the Community progressively assumed powers previously exercised by the Member States, with the consequence that it became bound by the obligations flowing from that agreement and found that the GATT case law cannot be applied to the MARPOL.<sup>136</sup> The fact that all the Member States of the Community are parties to the MARPOL does not change this finding as in the absence of a full transfer of the powers previously exercised by the Member States to the Community, the latter cannot, simply because all those States are parties to the MARPOL, be bound by the rules set out therein, which it has not itself approved.<sup>137</sup> The assessment of whether the validity of the ship-source pollution Directive can be assessed in the light of the MARPOL fell thus in the very first hurdle, namely to establish whether the Community is bound by the international Convention in question. Not even the acknowledgement by the Court of the contested fact that the Directive has the objective of incorporating certain rules set out in that Convention into Community law was deemed to be sufficient to allow such review.<sup>138</sup>

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<sup>131</sup> Para. 43.

<sup>132</sup> Para. 44.

<sup>133</sup> Para. 45, where the Court referred to its *IATA* ruling—Case C-344/04 *IATA* and *ELFAA* [2006] ECR I-403.

<sup>134</sup> Para. 47.

<sup>135</sup> Para. 48.

<sup>136</sup> Para. 48.

<sup>137</sup> Para. 49.

<sup>138</sup> Para. 50.

The Court did further examine whether the Directive could be reviewed in the light of rules of customary international law, but found that in the specific case in question the relevant the MARPOL rules do not codify such rules.<sup>139</sup> In the light of the above, the Court stated unequivocally that the validity of the ship-source pollution Directive cannot be assessed in the light of the MARPOL, even though the latter binds the Member States.<sup>140</sup> This is a far-reaching conclusion, as it creates a fundamental tension between Member States' obligations under international law and their duties under Community law.<sup>141</sup> The Court addressed this tension by acknowledging that, based on the principle of loyal cooperation, it has a duty to interpret the relevant secondary law in the light of the MARPOL.<sup>142</sup>

This finding may open an avenue towards interpreting Community law in the light of the MARPOL. By way of example, the 'serious negligence' requirement under the ship-source pollution Directive could be interpreted as to include also an element of 'knowledge' as provided by the MARPOL.<sup>143</sup> Therefore, a serious breach of a duty of care (under the Directive) could thus correspond to reckless behaviour with knowledge that damage would probably result (as provided by the MARPOL). Following this interpretation, the compatibility between the international and the EU provisions would be assured. As has been suggested by legal doctrine, 'Member States will have implemented the Directives correctly so long as their domestic laws catch a sufficiently broad range of pollution incidents while specifically targeting violations. In fact, the national laws of many States apply simply to 'negligent pollution', rather than addressing the concept of 'serious negligence'.<sup>144</sup>

Nevertheless, the fact remains that in declining to review the validity of the Directive in the light of that Convention the Court has effectively allowed, under certain conditions, Member States to disregard their international law obligations when legislating at EU level.

The Court further declined to review the Directive in the light of UNCLOS.<sup>145</sup> While in the ship-source pollution ruling<sup>146</sup> the Court affirmed internally the

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<sup>139</sup> Para. 51.

<sup>140</sup> Para. 52.

<sup>141</sup> On this point, see also see P Eeckhout, who points out that it has been ambiguous during negotiations whether the purpose of the Directive was to implement international standards—see his case note in Case C-308/06, *The Queen on the application of Intertanko and Others v Secretary of State for Transport*, Judgment of the Court of Justice (Grand Chamber) of 3 June 2008, (2009) 46 *Common Market Law Review* 2041, 2052.

<sup>142</sup> *Intertanko*, para. 51.

<sup>143</sup> The ECJ interpreted serious negligence as 'an unintentional act or omission by which the person responsible commits a patent breach of the duty of care which he should have and could have complied with in view of his attributes, *knowledge*, abilities and individual situation' (emphasis added, judgment, para. 77).

<sup>144</sup> Pozdnakova (n. 89) 224.

<sup>145</sup> Paras 53–65.

<sup>146</sup> See above, para. 2.

autonomy of the Community legal order with regard to the Union legal order, in *Intertanko* the Court did the same externally, by affirming the autonomy of the Community legal order with regard to international law. The Court thus has boosted the autonomy of both the constitutional and the political choices on the criminalization of ship-source pollution by the Community. However, in doing so, the choices of the European legislator may lead to over-criminalization in the field of the protection of the environment at EU level.

## 2.8 The Evaluation of MARPOL

In general MARPOL has been evaluated as one of the most successful and vibrant MEAs in the field of environmental protection in general.<sup>147</sup> Everyone will agree that because of MARPOL, ship-source pollution, whether intentional, operational, or accidental has significantly been reduced since its adoption.

However, there are certain aspects which diminish its effectiveness. One of the major difficulties with MARPOL is the question of enforcement (see Section 2.4), that is, the question of determination of which State has the jurisdiction to investigate and prosecute pollution violations: the flag State; the port State; the coastal State; or the combination of the three.<sup>148</sup> The efficiency of the flag State jurisdiction is frequently questioned in relation to the so-called flags of convenience (or open registers) which may apply less stringent standards to ships. A port State jurisdiction plays a secondary role to the flag State jurisdiction but, as mandated, the port State will only have to report a violation of the Convention to the flag State and it happens frequently that the flag State that receives the report does not investigate the alleged violation. One reason for this inaction is that such an investigation is frequently very expensive, and also the flag State lacks the necessary motivation to investigate as most often there is a lack of sufficient and real 'connecting factors' between the ship and the flag State.<sup>149</sup> MARPOL also provides for coastal State jurisdiction which presupposes that the ship is in the territorial sea of that State. The coastal State either prosecutes the violation itself or forwards evidence to the flag State. In fact, it is noteworthy that over-reliance on the State flag jurisdiction is one of the shortcomings of MARPOL and other maritime Conventions.<sup>150</sup>

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<sup>147</sup> Md. S Karim, 'Implementation of the MARPOL Convention in Developing Countries' (2010) 79 *Nordic Journal of International Law* 9.

<sup>148</sup> Becker (n. 20) 631.

<sup>149</sup> Becker (n. 20) 631.

<sup>150</sup> G Peet, 'The MARPOL Convention: Implementation and Effectiveness' (1992) 7 *Int'l J. Maritime & Estuarine Coastal Law* 277–95; JB Curris, 'MARPOL 73/78: An International Success Story?' (1985) 15 *Env'tl L* 676.

It has to also be mentioned that the failure to protect the oceans from accidental pollution has not only resulted in the States Parties amending MARPOL but also adopting unilateral measures after the occurrence of catastrophes, such as in cases of the *Erika* and the *Prestige* accidents. Their analysis clearly indicates that EU legislation and national legislation vary from MARPOL in many aspects, which can be exemplified by the case of the 1999 *Erika*. France (like the US previously), expanded the coastal State's competence to fight marine oil pollution caused beyond its territorial sea. France applied national legislation with more severe offences than those foreseen in MARPOL and with a wider scope covering areas excluded under MARPOL jurisdiction such as the exclusive economic zone.

Developing States have problems in complying with the MARPOL both as coastal and port States.<sup>151</sup> There are several contributory factors to non-compliance, such as the lack of funds and non-availability of modern equipment. Most developing States do not have reception facilities in their ports. They are of the view that the method of drafting MARPOL provisions regarding these facilities makes their installation a non-legally binding obligation.<sup>152</sup> One of the most important challenges developing States encounter is the implementation of the MARPOL in their domestic legal systems. Some States consider that it is against their sovereignty to apply the Convention directly domestically. Therefore MARPOL must be applied through enabling national legislation which at times cannot be enacted due to lack of required expertise. Even if there are experts they are underutilized by their governments.<sup>153</sup> Further, there remains the question of lack of funds and other economic factors. Lastly, it may be noted that there is a lack of political will in developing countries concerning the state of the marine environment and socio-economic impact of marine environmental pollution.<sup>154</sup>

There is also the question of insufficient reporting on the implementation of MARPOL as many States do not comply with this requirement. Other drawbacks of the MARPOL are the exclusion from its jurisdiction of the warships, naval auxiliary, and other State-operated ships or those used in non-commercial service, although governments and their agencies are the greatest sources of pollution.<sup>155</sup> It must also be mentioned that not all crews are sufficiently skilled in operating pollution prevention equipment on board and lack frequently a working knowledge of the English language.<sup>156</sup>

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<sup>151</sup> Karim (n. 147) 319.

<sup>152</sup> Karim (n. 147) 319.

<sup>153</sup> Karim (n. 147) 327–28.

<sup>154</sup> Karim (n. 147) 328, 329.

<sup>155</sup> Art. MARPOL 73/78, Becker (n. 20) 635.

<sup>156</sup> Becker (n. 20) 638.

## 2.9 Conclusion

At the time of its adoption MARPOL, with its five annexes, was originally designed to be a Convention that would tackle all problems of ship source pollution. However, in 1997, taking into consideration a different source of pollution from ships, a Protocol was adopted adding annex VI to the Convention. Two more Conventions (The Ballast Water Convention and the Anti-Fouling Convention) were adopted subsequently to form a whole gamut of prevention of all ship-source pollution.

Despite the above-mentioned shortcomings of MARPOL, its regulatory regime is undoubtedly the reason why ship-source pollution incidents since the 1970s were always in decline, especially the so-called operational vis-à-vis accidental pollution. Credit of course should be given to the IMO for its dynamism in responding to the many challenges of the maritime industry, especially for forging consensus on many difficult issues confronting Member States due to the divergent interests of the maritime industry's stakeholders. The apparent success of MARPOL is very crucial in achieving IMO's goal for safe, secure, and efficient shipping on clean oceans. Regrettably, while the international mechanism for ship-source pollution is fully in place and has proved to be effective, there is no equivalent international mechanism that can address the land-source pollution which is still today's main source of coastal marine pollution.



# 3

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## POLLUTION FROM DUMPING

*Hossein Esmaili and Brendan Grigg*

### 3.1 Introduction

Dumping at sea is a major cause of marine pollution that accounts for about 10 per cent of marine environment pollution.<sup>1</sup> Ocean dumping was once considered a necessary means of disposing industrial and even radioactive waste, due to the cost and impacts of waste disposal on land. It is now regarded, however, as a serious interference with the marine environment, its biodiversity, and with the earth's ecosystem. The disposal of waste at sea by individual countries arguably imposes pollution risks on other countries and future generations, and creates major environmental and security problems.<sup>2</sup> Since the 1950s and, most manifestly, since 1972, the issue of dumping waste at sea has been an agenda of international law. It is now the subject of a specific global framework and is regulated by a number of significant international and regional treaties. This chapter reviews and analyses the international legal regime of pollution from dumping at sea.

The origins of the present day international regime can be found in the international community's focus on the disposal at sea of radioactive waste.<sup>3</sup> This chapter considers the international legal regime that applies today to the dumping of waste, including the dumping of radioactive waste at sea. It focuses, in particular, on the specific international legal framework that regulates sea dumping established by the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972<sup>4</sup> (London Convention) and the London

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<sup>1</sup> P Sands and J Peel, *Principles of International Environmental Law* (3rd edn, Cambridge University Press, 2012) 365.

<sup>2</sup> S Boehmer-Christiansen, 'An end to radioactive disposal "at sea"?' (1986) 10 *Marine Policy* 119, 131.

<sup>3</sup> O Schram Stokke, 'Beyond Dumping? The effectiveness of the London Convention' (1989/99) *Yearbook of International Cooperation and Development* 39, 39.

<sup>4</sup> Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London, 29 December 1972, entered into force 30 August 1975) 1046 UNTS 120.

Convention's 1996 Protocol. The chapter also examines the regional treaties and arrangements that apply to pollution from dumping at sea. Further, this chapter also explores recent responses of the international sea dumping regime to climate change and the extent to which it currently regulates the dumping at sea of radioactive waste: the issue that was its genesis.

### 3.2 Convention on the Law of the Sea 1982

The UN Convention on the Law of the Sea 1982 (UNCLOS)<sup>5</sup> does not prohibit dumping: it regulates dumping. Under UNCLOS Article 1(5)(a) dumping is defined as 'any deliberate disposal of waste or other matter from vessels, aircrafts, platforms or other man-made structures at sea'. Included in this definition is the deliberate disposal of vessels and other sea installations (Art. 1(5)(a)(ii)). The same article excludes from the definition the disposal of wastes and other matter that are incidental to the normal operations of vessels and other offshore installations (Art. 1(5)(b)(i)). The definition provided by the UNCLOS is similar to the definition of dumping in the London Convention,<sup>6</sup> which is noted below, and to the definition contained in a number of other international and regional treaties.<sup>7</sup>

The provisions of the UNCLOS that regulate dumping at sea can be found in Articles 210 and 216. Under Article 210(1) coastal states are obliged to adopt national laws in order to prevent, reduce, and control the amount of pollution by dumping in the marine environment. A State's national laws and regulations must not be less effective than the global rules in place that prevent and control marine pollution by dumping (Art. 210(6)). Article 210, while not banning dumping completely, regulates it and provides that dumping within the territorial sea, the exclusive economic zone (EEZ) and the continental shelf shall only be carried out with the permission of the coastal state (Art. 210(5)).

The existing global rules and standards in relation to dumping and which give content to the obligations under the UNCLOS are now based on the provisions of a large number of international instruments, notably the 1996 London Protocol, and several regional instruments, such as the 1992 Convention for the Protection

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<sup>5</sup> UN Convention on the Law of the Sea (Montego Bay, 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3.

<sup>6</sup> The London Convention, Art. 3(1).

<sup>7</sup> See also The Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki, 9 April 1992, entered into force 17 January 2000) 1507 UNTS 167 (The Helsinki Convention) BNA35: 0401 Art. 2(4), and The Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona, 16 February 1976, entered into force 12 February 1978) 1102 UNTS 27 (Barcelona Convention); revised and renamed as the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and The Protocol for the Prevention of Pollution in the Mediterranean Sea by Dumping from Ships and Aircraft (The Barcelona Protocol) (Barcelona, 16 February 1976) as revised, Art. 3.

of the marine Environment of the North-East Atlantic (OSPAR Convention). The general provisions in relation to dumping of waste at sea in the UNCLOS are significant, as the large number of states that are party to the UNCLOS has meant that many provisions of the UNCLOS may now be considered customary international law.

### **3.3 The London Convention Regime**

The London Convention is a major global convention which establishes a global legal framework to protect the marine environment from human activities and has been in force since 1975. It currently has eighty-seven States Parties.<sup>8</sup> A review of the London Convention took place in the mid-1990s. The result of those negotiations was the 1996 Protocol. Both of these instruments are examined in detail below.

Article 2 of the London Convention requires the Contracting Parties to 'take effective measures individually, according to their scientific, technical and economic capabilities, and collectively, to prevent marine pollution caused by dumping and shall harmonise their policies in this regard'. Article 2 of the London Protocol is framed in similar terms.

The London Convention does not prohibit ocean dumping, and indeed, with the exception of certain limited wastes, almost any material can be dumped at sea under certain circumstances and with the requirement for it to be authorized through the grant of permits being issued by national authorities of the contracting parties. Dumping is defined in Article 3 as 'any deliberate disposal at sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea' and 'any deliberate disposal at sea of vessels, aircraft, platforms or other man-made structures at sea'. The London Convention expressly excludes from the definition of dumping disposal at sea of matter that is incidental to, or derived from, the normal operations of vessels, aircraft, platforms, or other man-made structures at sea and their equipment. Similarly, matter that is placed in the sea other than merely for disposal is excluded from the definition of dumping (Art. 3).

The London Convention regulates three categories of wastes: (1) highly hazardous substances, (2) grey list wastes, and (3) all other wastes. The first category, listed in Annex I of the London Convention, includes crude oil and its wastes, refined petroleum products, petroleum, radioactive wastes or matters, biological and chemical warfare materials, industrial wastes, persistent plastics, organohalogen

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<sup>8</sup> International Maritime Organization, 'London Convention and Protocol' <<http://www.imo.org/OurWork/Environment/LCLP/Pages/default.aspx>> accessed 1 February 2014.

compounds, mercury and mercury compounds, and incineration at sea of industrial waste and sewage sludge. Dumping of waste listed in Annex 1 is prohibited pursuant to Article IV(1)(a) of the London Convention.

The hazardous list in Annex II of the London Convention contains substances and materials that require special care. These materials can only be dumped with a prior special permit, pursuant to Article IV(1)(b). Annex II includes: wastes containing significant amounts of, for example, arsenic, zinc, copper, and lead; and containers, scrap metal, and other bulky wastes liable to sink to the sea bottom and present a serious obstacle to fishing or navigation.

The dumping of all other wastes or matter requires a prior general permit pursuant to Article IV(1)(c). A prior general permit may only be issued after careful consideration of all the factors set forth in Annex III. These factors include the characteristics and composition of the matter and the characteristics of the dumping site and method. The issue of a special and general permit for the dumping of wastes, except the hazardous and grey list, is within the power and discretion of national authorities of each state.<sup>9</sup> However, a special permit by parties to the Convention may only be issued in certain circumstances, including in emergencies that pose unacceptable risks relating to human health and admit no other feasible solution.<sup>10</sup> Further, the contracting parties must advise and consult in advance other countries that may be affected, as well as the International Maritime Organization (IMO).<sup>11</sup> In practice, not all parties follow the requirement of reporting to other countries and the IMO when they prescribe the dumping of special wastes at sea.<sup>12</sup>

The London Convention requires the contracting parties to promote support for training of scientific and technical personnel, the supply of equipment and facilities for research, and the methods for the disposal and treatment of waste and other measures to prevent or mitigate pollution caused by dumping (Art. IX). Article X requires the contracting parties to develop, in accordance with the principles of international law relating to State responsibility, procedures for the assessment of liability and the settlement of disputes regarding dumping of waste at sea.

The contracting parties have designed a mechanism for Consultative Meetings of the Parties, which are held at the International Maritime Organization Headquarters in London. These meetings occur at least once every two years. The Consultative Meetings review, administer, and implement the Convention, and may

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<sup>9</sup> London Convention 1972, Art. VI(1).

<sup>10</sup> London Convention, Art. V(2).

<sup>11</sup> London Convention, Art. V(2).

<sup>12</sup> See eg 'Status of Compliance with the Notification and Reporting Requirements under Article VI(4) of the London Convention 1972', IMO Doc LC 27/INF.2, 25th July 2005, cited in Sands and Peel (n. 1) 367–8.

adopt amendments to the Convention and its annexes based on scientific or technical considerations.<sup>13</sup> The Consultative Meetings have established a number of subsidiary groups. At its Fourteenth Meeting the Scientific Group of the London Convention was established. The Scientific Group meets regularly and addresses issues relating to various scientific aspects of ocean dumping. The 36th Meeting of the Scientific Group, held in Buenos Aires in May 2013, addressed a number of issues, including a Review of the CO<sub>2</sub> Sequestration Guidelines.<sup>14</sup>

### **3.4 The 1996 London Protocol**

As noted above, the outcome of the review of the London Convention in the 1990s was the 1996 London Protocol,<sup>15</sup> which currently has forty-four Contracting Parties.<sup>16</sup> The London Protocol is a more modern and comprehensive waste management regime that places greater emphasis on marine protection than the London Convention does. It is a more restrictive scheme than that of the London Convention: Article 4 of the London Protocol prohibits all forms of dumping, except for certain listed substances which are contained on the 'safe list' in Annex I. These wastes include dredged material, sewage sludge, fish waste, vessels, and platforms or other man-made structures, inorganic geological materials, organic materials of natural origin; bulky items primarily comprising of iron, steel, and concrete, and other similarly harmless materials for which concern is their physical impact.<sup>17</sup> The dumping of Annex I substances requires a permit. This effectively reverses the mechanism of the London Convention and reflects the precautionary approach which is expressly contemplated in Article 3 of the London Protocol which states:

In implementing this Protocol, Contracting Parties shall apply a precautionary approach to environmental protection from dumping of wastes or other matter whereby appropriate preventative measures are taken when there is reason to believe that wastes or other matter introduced into the marine environment are likely to cause harm even when there is no conclusive evidence to prove a causal relation between inputs and their effects.

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<sup>13</sup> London Convention 1972, Arts XIV, XV(2).

<sup>14</sup> The 36th meeting of the Scientific Group of the London Convention and 7th meeting of the Scientific Group of the London Protocol (LC-SG36/LP-SG7) were held concurrently from 27–31 May in Buenos Aires, Republic of Argentina. See 'Convention and Protocol News', International Maritime Organization, 29 January 2013, <<http://www.imo.org/OurWork/Environment/SpecialProgrammesAndInitiatives/Pages/London-Convention-and-Protocol.aspx>> accessed 19 August 2013.

<sup>15</sup> The Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter (The London Protocol) (7 November 1996) (1997) 36 *ILM* 1.

<sup>16</sup> International Maritime Organization 'London Convention and Protocol' <<http://www.imo.org/OurWork/Environment/LCLP/Pages/default.aspx>> accessed 1 February 2014.

<sup>17</sup> London Protocol, Annex 1.

The London Protocol entered into force in March 2006. It supersedes the London Convention as between the parties to the Protocol.<sup>18</sup> The London Protocol is designed ultimately to replace the London Convention entirely. For the present time, however, both agreements are in force and parties may join the Convention without joining the Protocol.<sup>19</sup>

The London Convention and the Protocol create parallel regimes which represent an innovative and unique approach in administration of international treaties.<sup>20</sup> Regular annual meetings of the Parties to both instruments, the production of some very important up-to-date and detailed regulations for dumping at sea of waste and materials, and the gradual increase in the number of states joining both treaties, indicate that the global legal regime provided by these treaties is working effectively. It has, thus, rightly been said that the London Convention, in practice, has been largely successful in establishing an international legal framework for action in relation to dumping.<sup>21</sup>

### 3.5 Responding to Climate Change

In 2006, the London Protocol was amended to allow sequestration of carbon dioxide under the seabed to facilitate climate change mitigation measures. Annex 1 was amended to include carbon dioxide streams from carbon dioxide capture processes for sequestration on the 'safe list' of waste that can be dumped at sea. Clause 4 was also added to Annex 1 to provide that 'carbon dioxide streams may be considered for dumping if the disposal is into a sub-seabed geological formation and they consist overwhelmingly of CO<sub>2</sub> and no wastes or other matters are added for the purpose of disposing of those wastes or other matters'. These amendments entered into force on 10 February 2007.

For similar reasons at the Fourth Meeting of the Contracting Parties to the London Protocol, held in October 2009, Article 6 of the London Protocol which prohibits contracting parties from allowing the export of wastes or other matter to other countries for dumping or incineration at sea was amended to enable transboundary exports of CO<sub>2</sub>. This was necessary as the term 'export' has been interpreted to include any movement of CO<sub>2</sub> from one country to another for the purpose of dumping at sea.<sup>22</sup> There was no exception for transferring CO<sub>2</sub> in

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<sup>18</sup> International Maritime Organization 'London Convention and Protocol' <<http://www.imo.org/OurWork/Environment/LCLP/Pages/default.aspx>> accessed 1 February 2014.

<sup>19</sup> Sands and Peel (n. 1) 366.

<sup>20</sup> Sands and Peel (n. 1) 366, and P Verlaan, 'Current Legal Development: London Convention and London Protocol' (2011) 26 *The International Journal of Marine and Coastal Law* 185, 185.

<sup>21</sup> P Birnie, A Boyle, and C Redgwell, *International Law & the Environment* (3rd edn, Oxford University Press, 2009) 472.

<sup>22</sup> International Maritime Organization (2008), *Report of the 1st Meeting of the Legal and Technical Working Group on Transboundary CO<sub>2</sub> Sequestration Issues*, LP/CO<sub>2</sub> 1/8 [3.9] cited in

order to store it under the seabed.<sup>23</sup> Accordingly Article 6 has been amended to provide an exception for the export of carbon dioxide streams for disposal provided that the countries concerned have entered into an agreement or arrangement that includes:

- 1) confirmation and allocation of permitting responsibilities between the exporting and receiving countries, consistent with the provisions of this Protocol and other applicable international law; and
- 2) in the case of export to non-contracting parties, provisions at a minimum equivalent to those contained in this Protocol, including those relating to the issuance of permits and permit conditions for complying with the provisions of Annex 2, to ensure that the agreement or arrangement does not derogate from the obligations of contracting parties under this Protocol to protect and preserve the marine environment.

The requirement contained in Article 21 that amendments such as the amendment to Article 6 will enter into force after two-thirds of the Contracting Parties to the London Protocol have ratified it mean that it has not yet come into force. It is unlikely to enter into force in the near future.<sup>24</sup>

In another response to climate change mitigation efforts, the Contracting Parties responded to proposals for ocean fertilization, or the process of sowing 'large areas of the sea with nutrients to assess their effects, if any, on phytoplankton and carbon sequestration'<sup>25</sup> by deciding that this activity fell within the scope of the London Convention and London Protocol and required regulation.<sup>26</sup> In a non-binding resolution in 2007, the Contracting parties defined the activity of ocean fertilization and prohibited forms of it that were not related to scientific research.<sup>27</sup>

By the time the 2013 London Convention and London Protocol Consultative Meetings took place, a formal amendment to the London Protocol had been prepared. In due course the Contracting Parties adopted, by consensus, a resolution to amend to the London Protocol that defines and regulates this activity referred to as marine geo-engineering.<sup>28</sup> The entry into force of these amendments is also

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International Energy Agency, *Carbon Capture and Storage and the London Protocol: Options for Enabling Transboundary CO<sub>2</sub> Transfer* (Working Paper 2011) 11.

<sup>23</sup> International Maritime Organization (2008), *Report of the 1st Meeting of the Legal and Technical Working Group on Transboundary CO<sub>2</sub> Sequestration Issues*, LP/CO<sub>2</sub> 1/8 [3.9]. See also International Maritime Organization (2008), *Report of the Thirtieth Consultative Meeting and the Third Meeting of Contracting Parties*, LC 30/16 [5.24].

<sup>24</sup> International Energy Agency, *Carbon Capture and Storage and the London Protocol: Options for Enabling Transboundary CO<sub>2</sub> Transfer* (Working Paper 2011) 12.

<sup>25</sup> P Verlan, 'Current Legal Developments: London Convention and London Protocol' (2013) 28 *The International Journal of Marine and Coastal Law* 729, 729.

<sup>26</sup> Verlan (n. 25) 729.

<sup>27</sup> Resolution LC-LP.1 (2008) on the Regulation of Ocean Fertilization (adopted on 31 October 2008) Res. LC-LP.1 (2008), < [http://www.imo.org/blast/blastDataHelper.asp?data\\_id=24337&file\\_name=LC-LP1\(30\).pdf](http://www.imo.org/blast/blastDataHelper.asp?data_id=24337&file_name=LC-LP1(30).pdf) > accessed 11 February 2014.

<sup>28</sup> Verlan (n. 25) 730.

governed by Article 21 of the London Protocol. The amendments will enter into force after two-thirds of the Contracting Parties to the London Protocol have ratified.

Marine geo-engineering is defined by a paragraph added to Article 5 as:

A deliberate intervention in the marine environment to manipulate natural processes, including to counteract anthropogenic climate change and/or its impacts, and that has the potential to result in deleterious effects, especially where those effects may be widespread, long-lasting or severe.

The amendments contain a new Annex 4. The effect of these amendments is to prohibit all ocean fertilization unless it is assessed as constituting legitimate scientific research. In such cases the activity may be authorized under a permit. The amendments also contain a new Annex 5 which contains relevant guidelines for assessment of permissible marine geo-engineering activities, with reference to the Assessment Framework for Scientific Research Involving Ocean Fertilisation that was adopted in 2010.<sup>29</sup>

The work of the contracting parties to develop a ‘sound, practical and predictable mechanism’ for dealing with marine geo-engineering in a manner that highlights consistent application of both the London Convention, the London Protocol and the UNCLOS 1982 has been lauded as ‘timely, environmentally responsible [and] “pioneering”’.<sup>30</sup>

### **3.6 Regional Sea Dumping Arrangements**

The features of certain marine environments mean that specific regional measures to control dumping at sea have been adopted. Both the London Convention and the 1982 UNCLOS specifically contemplate that specific regional arrangements may be adopted in such circumstances. In this regard, Article 8 of the London Convention provides that contracting parties ‘with common interests to protect in the marine environment in a given geographical area’ may enter into regional arrangements concerning the prevention of pollution, especially by dumping. These regional arrangements, which are analysed below, must be consistent with the London Convention.

### **3.7 1992 OSPAR Convention**

The Convention<sup>31</sup> (OSPAR Convention) was the result of the unification of the 1972 Oslo Dumping Convention and the 1974 Paris Convention. The 1972 Oslo

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<sup>29</sup> Res LC-LP.2 (2010) as cited in Verlan (n. 25) 730.

<sup>30</sup> Verlan (n. 25) 736.

<sup>31</sup> The Convention for the Protection of the Marine Environment of the North-East Atlantic (Paris, 22 September 1992, in force 25 March 1998) 2354 UNTS 67, 32 *ILM* 1069 (1993).



Convention applied to the North East Atlantic, the North Sea, and the adjoining parts of the Arctic Ocean area. The Oslo Convention concerned the dumping of materials into the sea by, or from, ships or aircraft.<sup>32</sup> The 1974 Paris Convention was concluded to prevent marine pollution from land-based sources from watercourses, the coast, artificial structures, and atmospheric emissions. This Convention, similar to the London Convention, followed a 'list' approach in relation to the disposal of wastes at sea. It classified waste materials into 'blacklist' and 'grey-list' substances.<sup>33</sup>

The OSPAR Convention, a significant regional convention, regulates activities at sea in the North-East Atlantic in various maritime areas of the sea, including territorial waters, the Exclusive Economic Zones, and the high seas.<sup>34</sup> It defines 'dumping' as any deliberate disposal in the maritime area wastes or other matters from vessels, aircraft, and offshore installations.<sup>35</sup> Dumping also includes the deliberate disposal of vessels, aircraft, and offshore installations themselves.<sup>36</sup> The OSPAR Convention has established a Commission, made up of the representatives of all the contracting parties to supervise the implementation of the Convention, as well as to adopt binding decisions and recommendations.<sup>37</sup>

While the Convention prohibits dumping from offshore installations, it permits the leaving in place, wholly or partly, a disused offshore installation, or a disused offshore pipeline, provided that such operation takes place in accordance with relevant provisions of the Convention and international law.<sup>38</sup> However, in 1998 the OSPAR Ministerial Meeting adopted OSPAR Decision 98-3 on the Disposal of Disused Offshore Installations, which made the leaving of offshore installations at sea subject to new regulations. The decision recognized that 'the reuse, recycling or final disposal on land will generally be the preferred option for the decommissioning of offshore installations in the maritime area'.<sup>39</sup> Further, the decision prohibited the leaving in place, wholly or partly, of disused offshore installations within the maritime area, except if the competent authority of the relevant contracting party is satisfied that there are significant reasons to prefer a disposal option at sea over recycling or final disposal on land.<sup>40</sup> This means that the competent authority of the relevant State Party may prescribe to be left at sea all or part of the footing of

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<sup>32</sup> Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft (15 February 1972, Oslo) 932 UNTS 3, Art. 19(1).

<sup>33</sup> The Convention for the Prevention of Marine Pollution from Land-Based Sources (Paris, 4 June, 1974, entered into force 6 May 1978) 1546 UNTS 119, 13 *ILM* 352 (1974 Paris Convention) Annex A, Part I (1-5), Part II (1-3).

<sup>34</sup> OSPAR Convention, Art. 1 (a).

<sup>35</sup> OSPAR Convention, Art. 1(f)(i).

<sup>36</sup> OSPAR Convention, Art. 1 (f)(ii).

<sup>37</sup> OSPAR Convention, Arts 10, 13.

<sup>38</sup> OSPAR Convention, Art. 1 (g)(iii).

<sup>39</sup> OSPAR 98/14/1-E Annex 33, preamble.

<sup>40</sup> OSPAR 98/14/1-E Annex 33, paras 2, 3.

a steel installation, placed offshore before 9 February 1999, or an installation consisting of a concrete anchor base. Any other disused offshore installation can be dumped or left in place under exceptional and unforeseen circumstances, resulting from structural damage or deterioration.<sup>41</sup>

The contracting parties to the OSPAR Convention adopted a strategy on hazardous substances in 1998, which was subsequently revised in 2003. The strategy's ultimate aim is to reduce the amount of hazardous substances in the marine environment and to achieve concentrations in the marine environment of close to zero for man-made synthetic substances. OSPAR's work focuses on the objective of reducing discharges, emissions and losses of hazardous substances to these levels by 2020.<sup>42</sup> Further, the OSPAR Commission adopted the North-East Atlantic Environment Strategy (2010–2020), which recognized that while a number of objectives in the previous strategy (2003 OSPAR Strategies) had been achieved, many had still not been reached and require further efforts.<sup>43</sup> The North-East Atlantic Environment Strategy directs the OSPAR Commission to take the Ecosystem Approach, which is:<sup>44</sup>

the comprehensive integrated management of human activities based on the best available scientific knowledge about the ecosystem and its dynamics, in order to identify and take action on influences which are critical to the health of the marine ecosystems, thereby achieving sustainable use of ecosystem goods and services and maintenance of ecosystem integrity.

The Ecosystem Approach covers the protection of biodiversity, eutrophication, hazardous substances, offshore hydrocarbon activities, ionizing radiation, and radioactive substances in the OSPAR maritime areas.<sup>45</sup>

### **3.8 Dumping in the Antarctic Region**

The specific arrangements that regulate dumping in the Antarctic Region are an example of specific provisions adapted to the specific features of that region, however, as noted below these arrangements are not parts of the London Convention system. Instead, dumping in the Antarctic region is prohibited under the regime established under the 1959 Antarctic Treaty.<sup>46</sup> The Antarctic Treaty was designed to freeze territorial claims to sovereignty over the Antarctic continent and was thus not intended primarily as a vehicle for the protection of the Antarctic

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<sup>41</sup> OSPAR 98/14/1-E Annex 33, para. 3.

<sup>42</sup> 'OSPAR Strategy with Regard to Hazardous Substances' OSPAR Ministerial Meeting, Sintra, 22–23 July 1998, 21, 23. Available at: <<http://www.ospar.org/documents?v=6877>> (accessed 27 November 2015).

<sup>43</sup> 'The North-East Atlantic Environment Strategy'.

<sup>44</sup> 'The North-East Atlantic Environment Strategy' Part I, p 2.

<sup>45</sup> 'The North-East Atlantic Environment Strategy' Part I, p 4, para 2.2.

<sup>46</sup> Antarctic Treaty (Washington, 1 December 1972, entered into force 11 March 1978) 402 UNTS 71.

environment. Nevertheless, the scheme has developed a number of features that protect the region's environment. As noted below, some of them have developed into a regime that constitutes 'the most comprehensive and stringent regime of environmental protection rules ever established under the rules of public international law anywhere in the world'.<sup>47</sup>

The Antarctic Treaty applies to the polar region below 60° south latitude.<sup>48</sup> Article I provides that Antarctica is to be used 'for peaceful purposes only'<sup>49</sup> and it forbids the use of Antarctica for military purposes. Article II permits the continued use of Antarctica for 'scientific investigation' and cooperation.<sup>50</sup> Article V prohibits both nuclear explosions and the disposal of nuclear waste in Antarctica.

The meetings of the consultative parties led to the first specific environment protection measures with the adoption, in 1964, of the Brussels Agreed Measures for the Conservation of Antarctic Fauna and Flora.<sup>51</sup> This agreement was followed by agreements aimed at protecting other aspects of the Antarctic environment: the 1972 Antarctic Seals Convention;<sup>52</sup> the 1980 Convention on the Conservation of Antarctic Marine Living Resources,<sup>53</sup> the 1988 Convention on the Regulation of Antarctic Mineral Resource Activities<sup>54</sup> and the 1991 Protocol on Environmental Protection to the Antarctic Treaty (The Madrid Protocol).<sup>55</sup> These specific agreements, together with the 1982 UNCLOS, the 1989 Basel Convention<sup>56</sup> and the 1997 IAEA Joint Safety Convention<sup>57</sup> provide considerable protection of the Antarctic environment and mean that there is now a large body of environmental regulation that applies to the Antarctic.

### **3.9 The Madrid Protocol and its Annexes III and IV**

The Madrid Protocol was negotiated following the refusal of Australia and France to ratify the 1988 Convention on the Regulation of Antarctic Mineral Resource

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<sup>47</sup> Sands and Peel (n. 1) 586.

<sup>48</sup> Antarctic Treaty, Art. VI.

<sup>49</sup> Antarctic Treaty, Art. I.

<sup>50</sup> Antarctic Treaty, Art. II.

<sup>51</sup> Recommendation ATCM III-VIII (Brussels, 13 June 1964) 1964 17 UST 992, TIAS 6058.

<sup>52</sup> Convention for the Conservation of Antarctic Seals (London, 1 June 1972, entered into force 11 March 1978) 11 *ILM* 251 (1972).

<sup>53</sup> The Convention on the Conservation of Antarctic Marine Living Resources (Canberra, 20 May 1980, entered into force 7 April 1982) 1329 UNTS 48, 19 *ILM* 841 (1980).

<sup>54</sup> The Convention on the Regulation of Antarctic Mineral Resource Activities 1988 (Wellington, 2 June 1988) 27 *ILM* 868 (1988).

<sup>55</sup> The Protocol on Environmental Protection to the Antarctic Treaty (The Madrid Protocol) (Madrid, 4 October 1991) 30 *ILM* 1461 (1991).

<sup>56</sup> Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal (Basel, 22 March 1989, entered into force 5 May 1992) 1673 UNTS 126, 28 *ILM* 657 (1989) (The Basel Convention).

<sup>57</sup> Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (Vienna, 5 September 1997) 36 *ILM* 1431 (1997).

Activities because they argued that it failed to protect the Antarctic environment adequately.<sup>58</sup> Article 4 of the Madrid Protocol expressly provides that it is additional to and does not derogate from the Antarctic Treaty. Pursuant to Article 2 the parties:

commit themselves to the comprehensive protection of the Antarctic environment and dependent and associated ecosystems and hereby designate Antarctica as a natural reserve, devoted to peace and science.

The Preamble to the Madrid Protocol indicates that the States Parties were motivated to take the action set out in the document by the conviction that to do so was 'in the interest of mankind as a whole'. Article 7 of the Madrid Protocol prohibits '[a]ny activity relating to mineral resources, other than scientific research' while Article 3 establishes principles to guide the planning and conduct of non-mineral resources activities. Article 3(2)(a) requires activities in the Antarctic Treaty area to be 'planned and conducted so as to limit adverse impacts on the Antarctic environment and dependent and associated ecosystems', and Article 3(2)(b) seeks specifically to ensure that activities are planned and conducted so as to avoid:

- (i) adverse effects on climate or weather patterns;
- (ii) significant adverse effects on air or water quality;
- (iii) significant changes in the atmospheric, terrestrial (including aquatic), glacial or marine environments;
- (iv) detrimental changes in the distribution, abundance or productivity of species or populations of species of fauna and flora;
- (v) further jeopardy to endangered or threatened species or populations of such species; or
- (vi) degradation of, or substantial risk to, areas of biological, scientific, historic, aesthetic or wilderness significance . . .

The Madrid Protocol is supplemented by six annexes that detail measures and procedures specific to certain activities. Annexes III and IV relate to sea dumping.

Annex III on Waste Disposal and Waste Management sets out general obligations to reduce, as far as practicable, the amount of waste produced and disposed of in the Antarctic Treaty area and to minimize interference with the natural values of Antarctica, scientific research and the other uses consistent with the Antarctic Treaty (Art. 1(1)). Article 1(2) places prime importance on questions of waste storage, waste disposal and removal of waste in the planning and conduct of activities in the Antarctic Treaty area. Article 1(3) provides that to the maximum extent possible, waste removed from the Antarctic Treaty area should be returned to the country responsible for the activities that generated it or to another country where other international agreements contemplate it.

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<sup>58</sup> Sands and Peel (n. 1) 586.

Annex IV on Prevention of Marine Pollution regulates and, in some cases, prohibits the discharge of substances from ships. It is largely consistent with the International Convention for the Prevention of Pollution from Ships 1973<sup>59</sup> (MARPOL), as amended by the 1978 Protocol. Article 3(1) for examples prohibits any discharge (defined to mean any release howsoever caused from a ship and includes any escape, disposal, spilling, leaking, pumping, emitting, or emptying) into the sea of oil or oily mixture, except in the cases permitted under Annex I of MARPOL, as amended by the 1978 Protocol. Except in certain stated cases of damage to a ship, Article 3 also requires that when operating in the Antarctic Treaty area all ships are to retain on board and must not discharge to the sea sludge, dirty ballast, tank washing waters, and other oily residues.

Article 4 of Annex IV expressly prohibits the discharge to the sea of any noxious liquid substance, and any other chemical or other substances, in quantities or concentrations that are harmful to the marine environment. In addition Article 5(1) prohibits the disposal of all plastics, including synthetic ropes, synthetic fishing nets and plastic garbage bags. Article 5(2) extends this prohibition to 'all other garbage, including paper products, rags, glass, metal, bottles, crockery, incineration ash, dunnage, lining and packing materials'. Article 5(3) applies to food wastes. It permits disposal of food wastes into the sea in certain limited circumstances. This includes a requirement that they have been passed through a comminuter or grinder and are disposed of as far as practical from land and ice shelves and no less than twelve nautical miles from the nearest land or ice shelf.

Article 6 provides a limited mechanism for the discharge at sea of untreated sewage (as defined in the International Convention for the Prevention of Pollution from Ships 1973, as amended by the 1978 Protocol). Article 6(1)(a) prohibits its discharge within twelve nautical miles of land or ice shelves. Beyond that distance Article 6(1)(a) requires that it be disposed of from a holding tank at a moderate rate and, where practicable, while the ship is travelling at a speed of no less than four knots.

Article 7 provides an exemption from Articles 3, 4, 5, and 6 in cases of emergency relating to the safety of a ship and those on board or to the saving of life at sea.

Consistent with the attention that the Madrid Protocol gives to planning Article 9 of Annex IV extends obligations upon each state party to ensure that all ships flying its flag are fitted with sufficient tank capacity to retain all sludge, dirty ballast, tank washing waters, and other oily residues, garbage, and noxious liquid substances. Article 9 also requires each state party to ensure that such ships have arrangements in place for the discharge of oily residues and garbage at a reception facility once the ship has left the Antarctic Treaty area. The focus on planning is

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<sup>59</sup> International Convention for the Prevention of Pollution from Ships (London, 2 November 1973, entered into force 12 October 1983) 1340 UNTS 184 (MARPOL).

extended by Article 10 of Annex IV which requires each state party to take into account the objectives of Annex IV in the design, construction, manning and equipment of ships engaged in supporting its Antarctic operations.

### **3.10 United Nations Environment Programme Regional Protocols**

Regional arrangements have also been developed for the following specific marine environments: the Mediterranean,<sup>60</sup> the Black Sea,<sup>61</sup> the South Pacific,<sup>62</sup> and the Baltic Sea.<sup>63</sup> These agreements provide for licensing, enforcement, and supervision arrangements that are similar to those of the London Convention.<sup>64</sup> They provide a further institutional mechanism for achieving compliance. Birnie, Boyle, and Redgwell have noted that the additional level of regional institutional supervision afforded by these arrangements contributes to the enforceability and effectiveness of the sea dumping regime.<sup>65</sup> This is due to the fact that these regional standards are articulated 'within a clear global framework of minimum standards' that are reinforced in the wider forum of the Consultative Meeting of the parties to the London Convention.<sup>66</sup>

### **3.11 Dumping of Radioactive Waste**

It is possible to dispose of radioactive waste and materials at sea or on land. Disposal of radioactive waste into the sea by dumping started in the late 1940s.<sup>67</sup> The first sea dumping operation took place in 1946 in the North East Pacific Ocean, approximately 80 kilometres off the coast of California in the United States.<sup>68</sup> For many years, disposal of radioactive waste at sea was the standard practice of several nuclear states, such as the United States, the United Kingdom, and Japan. The

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<sup>60</sup> Protocol for the Prevention of Pollution in the Mediterranean Sea by Dumping from Ships and Aircraft (The Barcelona Protocol) (16 February 1976 Barcelona) amended and recorded as Protocol for the Prevention and Elimination of Pollution in the Mediterranean Sea by Dumping from Ships and Aircraft or Incineration at Sea (10 June 1995 Barcelona).

<sup>61</sup> Convention on the Protection of the Black Sea Against Pollution (and protocols) (The Black Sea Convention) (21 April 1992 Bucharest) 32 *ILM* 1101 (1992).

<sup>62</sup> Protocol for the Prevention of Pollution of the South Pacific Region by Dumping (25 November 1986 Noumea) (The Noumea Dumping Protocol) *IELMT* 986:87A.

<sup>63</sup> Convention on the Protection of the Marine Environment of the Baltic Sea Area (The Helsinki Convention) (Helsinki 9 April 1992) *BNA*35: 0401.

<sup>64</sup> Birnie et al (n. 21) 471.

<sup>65</sup> Birnie et al (n. 21) 471.

<sup>66</sup> Birnie et al (n. 21) 471.

<sup>67</sup> S Boehmer-Christiansen, 'Dumping nuclear waste into the sea, International control and the role of science and law' (1983) 7 *Marine Policy* 25, 25.

<sup>68</sup> D Calmet, 'Ocean disposal of radioactive waste: Status report' IAEA Bulletin, 4/1989.

issue became an international matter when the Second United Nations Conference on the Law of the Sea (UNCLOS II) in 1958 addressed the issue of prevention of pollution of the sea from the dumping of radioactive waste. The Conference did not suggest the prohibition of the dumping of radioactive waste at sea; however, it did make this practice subject to any standards and regulations that were provided by the competent international organizations,<sup>69</sup> notably the International Atomic Energy Agency (IAEA).

The IAEA published the 'Safety Series No. 5, Radioactive Waste Disposal into the Sea' in 1961, which provided general guidance and recommendations for the disposal of radioactive waste in the sea.<sup>70</sup> This publication has been followed by many subsequent guidelines, requirements and standards.<sup>71</sup>

The 1972 London Convention categorized radioactive waste and matter within its 'blacklist' (Annex I to the Convention) and prohibited its disposal at sea, except in very low quantities and subject to the IAEA guidelines.<sup>72</sup> The IAEA Standards have been criticized by some states for being significantly low.<sup>73</sup> Several regional environmental treaties have banned radioactive dumping at sea.<sup>74</sup> Radioactive dumping is not prohibited by the 1996 London Protocol.<sup>75</sup>

### 3.12 Precautionary Principles and Dumping of Waste at Sea

The precautionary principle which was developed to avoid gaps in the international protection of the environment based on scientific uncertainty is now a well-established approach in international law and a norm of customary international law.<sup>76</sup> The principle requires states and policy makers to adopt approaches in

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<sup>69</sup> Convention on the High Seas (Geneva, 29 April 1958, entered into force 30 September 1962) 450 UNTS 82 348, Art. 25(1).

<sup>70</sup> International Atomic Energy Agency, *Safety Series No. 5, Radioactive Waste Disposal into the Sea*. <[http://gnssn.iaea.org/Superseded%20Safety%20Standards/Safety\\_Series\\_005\\_1961.pdf](http://gnssn.iaea.org/Superseded%20Safety%20Standards/Safety_Series_005_1961.pdf)>, accessed 21 February 2014.

<sup>71</sup> For further information on the current status of the safety guidelines and requirements of radioactive waste disposal, see International Atomic Energy Agency, <<http://www-ns.iaea.org/standards/documents/default.asp?s=11&l=90&sub=40>>.

<sup>72</sup> London Convention Annex I, para 6; Annex II para d. See also IAEA, Code of Conduct on the Safety and Security of Radioactive Sources, (January 2004) <[http://www-pub.iaea.org/MTCD/publications/PDF/Code-2004\\_web.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/Code-2004_web.pdf)>; and IAEA, *Inventory of Radioactive Waste Disposals at Sea* (August 1999) <[http://www-pub.iaea.org/MTCD/publications/PDF/te\\_1105\\_prn.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/te_1105_prn.pdf)>.

<sup>73</sup> Birnie et al (n. 21) 468.

<sup>74</sup> 1992 Helsinki Convention, Art. 11; 1986 Noumea Convention, Art. 10; 1989 Protocol for the protection of the South-East Pacific Against Radioactive pollution; 1992 Black Sea Protocol, Art. 2 and Annex I; 1992 OSPAR Convention, Annex II, Art. 3(3); 1995 Barcelona Protocol for the Prevention of Pollution by Dumping, Annex I.

<sup>75</sup> London Protocol, Annex I, Para 3.

<sup>76</sup> See generally, O McIntyre and T Mosedale, 'The Precautionary Principle As A Norm of Customary International Law' (1997) 9 *Journal of Environmental Law* 221; J Cameron and J Abouchar,

international law which '[ensure] that errors are made on the side of excess environmental protection and that it may require preventative action before scientific proof of harm has been submitted'.<sup>77</sup> The Precautionary Principle has particularly received consistent approval in international instruments relating to marine pollution. An example is the way in which it has been adopted in the 1992 OSPAR Convention. Article 2 requires states parties to apply the precautionary principle. This is explained as a requirement that:

preventive measures are to be taken when there are reasonable grounds for concern that substances or energy introduced, directly or indirectly, into the marine environment may bring about hazards to human health, harm living resources and marine ecosystems, damage amenities or interfere with other legitimate uses of the sea, even when there is no conclusive evidence of a causal relationship between the inputs and the effects.<sup>78</sup>

### 3.13 Conclusion

The issue of dumping at sea has been a concern of international law for many decades and has become increasingly more important in recent years. There is an international legal framework regulating dumping in various areas of the sea by individual countries. The principal international instruments are the 1972 London Convention and its 1996 Protocol. There are also further regulations in a number of other international environmental law treaties as well as principles of customary international law.

While the 1982 UNCLOS provides only general principles and provisions in relation to dumping of waste at sea the 1972 London Convention provides a global legal framework with detailed provisions in relation to dumping of materials at sea. The London Convention, similarly to the UNCLOS Convention, does not prohibit ocean dumping but regulates different categories of the dumping of waste at sea. The London Convention and its 1996 Protocol have created a global legal regime for action in relation to dumping which is relatively effective and successful.

Besides the global legal regime established by the UNCLOS and the London Convention and its Protocol, there have been regional instruments relating to dumping activities at sea, notably the 1992 OSPAR Convention and the 1959 Antarctic Treaty. The latter prohibits dumping of waste materials in the Antarctic region.

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'The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment' (1991) 14 *Boston College International and Comparative Law Review* 1.

<sup>77</sup> D Freestone, 'The Road to Rio: International Environmental Law after the Earth Summit' (1994) 6 *Journal of Environmental Law* 193, 211.

<sup>78</sup> 1992 OSPAR Convention, Art. 2(2)(a).



One important area is the disposal of radioactive waste at sea. Generally international law does not prohibit disposal of radioactive waste at sea but regulates the activities by a number of legal principles, guidelines, and recommendations. The relevant principal legal international legal instruments are the 1972 London Convention and the IAEA guidelines and provisions in relation to the disposal of radioactive waste at sea.

Although there is a relatively effective international legal regime concerning the disposal of waste at sea, given the significance of the ocean for the protection of the global environment, a more rigorous international law regime relating to dumping may be required in the near future. The fact that the London Protocol will eventually supersede the London Convention would be an important step in this direction.

## POLLUTION FROM SEABED ACTIVITIES

*Ricardo Pereira*

### 4.1 Introduction

The infrequent incidence of seabed pollution claims has been cited in the past as one of the reasons for the lack of political will by States to adopt a common global international liability and safety scheme relating to pollution from seabed activities.<sup>1</sup> This is in stark contrast with the well-developed international legal regime relating to oil pollution from ships adopted under the auspices of the International Maritime Organization (IMO), which establishes common standards not only for pollution prevention and control, but also responsibility and liability relating to oil (and other hazardous forms of) pollution from ships.<sup>2</sup> Indeed, with the notable exception of the global regime for dumping and deep seabed mining, most initiatives relating to safety and liability in connection with pollution from seabed activities have been adopted at the regional or national level, often as a reaction to specific accidents.<sup>3</sup>

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<sup>1</sup> S-H Svensen, 'Pollution from Offshore Activities: Liability and P&I Insurance Aspects' in CM de La Rue (ed.), *Liability for Damage to the Marine Environment* (Lloyd's of London Press LTD, 1993).

<sup>2</sup> See Convention on Civil Liability for Oil Pollution Damage, (Brussels, 19 November 1969, entered into force 19 June 1975) 973 UNTS 3; International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (Brussels, 18 December 1971, entered into force 16 October 1978) 1110 UNTS 57; Convention for the Prevention of Marine Pollution from Ships 1973/1978 (London, 2 November 1973, entered into force 12 October 1983) 1340 UNTS 184 (MARPOL); Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution (Brussels, 17 November 1992, entered into force 30 May 1996) 1956 UNTS 255 (CLC); and the International Convention on Civil Liability for Bunker Oil Pollution Damage (London, 23 March 2001, entered into force 21 November 2008) UKTS No. 8 (2005), IMO LEG/CONF.12/19.

<sup>3</sup> Examples of 'reactive' regulations include the responses to the *Exxon Valdez* oil tanker incident off the coast of Alaska in 1989, after which the IMO adopted the Convention on Oil Pollution Preparedness, Response and Cooperation (adopted on 30 November 1990, entered into force 13 May 1995) 1891 UNTS 51, and the US Congress passed the 1990 Oil Pollution Act. Moreover, following the Piper Alpha rig explosion and destruction in the North Sea in 1988, the UK adopted the 1989 Offshore Installations (Safety Representatives and Safety Committees) Regulations.

Recent examples of oil-spill pollution caused by blow-outs in oil rigs include the Montara offshore platform located in Australian waters, which resulted in significant release of pollution into the Timor Sea in August 2009;<sup>4</sup> and the blow out in April 2010 of the *Deepwater Horizon* Macondo oil rig operated by British Petroleum (BP) / Transocean<sup>5</sup> in the Gulf of Mexico, 84 kilometres (20 miles) off the coast of Louisiana, United States. This accident led to the death of eleven workers and caused the discharge of some 4.9 million barrels (205.8 million gallons) of crude oil into the sea.<sup>6</sup> The United States president, Barack Obama, released a statement suggesting that the BP/Transocean oil spill was the worst environmental disaster in the history of the United States.<sup>7</sup>

This chapter aims to assess the development of international law regulating pollution from offshore installations and crafts used in seabed activities. In particular, it aims to analyse the extent to which international law addresses liability and safety standards in the context of pollution from seabed activities; as well as to assess the case for a global treaty, whilst considering the existing regional initiatives in the field.

Specifically, Section 4.2 discusses the growth of the offshore industries and the impacts of offshore seabed activities on the marine environment. Section 4.3 provides an overview of international regulatory standards applicable to seabed activities. This section discusses the extent to which international law has come to establish regulatory standards for offshore activities in the continental shelf of coastal states; and also analyses the international standards for environmental protection arising from deep seabed activities beyond the jurisdiction of the coastal state and under the supervision of the International Seabed Authority (the 'Area'). Section 4.4 of the chapter focuses on liability for environmental damage. It analyses the liability of the State granting an 'authorization license' to an operator in its continental shelf; as well as the liabilities that the economic operator or contractor holder of a licence may incur for pollution arising from seabed activities.

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<sup>4</sup> The Montara Development Project is located in a remote area of the Timor Sea, approximately 250km northwest of the Western Australian coast. The Montara oil spill occurred after a blowout and fire on the Montara wellhead platform. The total surface area over which oil was observed at was around 90,000 square kilometres. See Li, Xiaojing, et al., *The 2009 Montara oil spill in the Timor sea as observed by earth observation satellites* (University of New South Wales, Australia, 2010).

<sup>5</sup> Svensen (n. 1).

<sup>6</sup> Litigation stemming from the *Deepwater Horizon* accident in the US courts is ongoing. See also, TJ Schoenbaum, 'Liability for Damages in Oil Spill Accidents: Evaluating the USA and International Law Regimes in the Light of Deepwater Horizon' (2012) 24 *Journal of Environmental Law* 3.

<sup>7</sup> See President Barack Obama's statement in a prime-time address on 15 June 2010, suggesting that the Gulf oil spill was 'the worst environmental disaster America has ever faced'. Alan Silverleib, CNN News, *The Gulf spill: America's worst environmental disaster?* 10 August 2010 at <<http://edition.cnn.com/2010/US/08/05/gulf.worst.disaster/>> (accessed 22 February 2016).

This section also includes an analysis of the liabilities and responsibilities of the 'sponsoring' State and the operator of the economic activity in the Area. Section 4.5 focuses on regional developments, including those adopted under the Regional Sea Programmes of the United Nations Environment Programme (UNEP) and recent initiatives adopted by the European Union and other regional organizations. Finally, Section 4.6 assesses the case for a global treaty regulating safety and liability arising from seabed activities aimed at preventing pollution, compensating victims thereof, as well as for rectification of damage to the marine environment. Section 4.7 provides concluding remarks.

## **4.2 The Impact of the Offshore Extractive Industries on the Marine Environment**

### **4.2.1 The growth of the offshore extractive industries**

While modern oil production dates back to the 1850s, oil exploration from offshore activities did not begin until 1896 with the first offshore explorations off the coast of California.<sup>8</sup> However, it was only shortly before World War II that offshore oil and gas operations started on a larger commercial scale.<sup>9</sup> Production from offshore platforms has significantly increased since then, in particular as advances in technology permitted coastal states to extend the exploration and exploitation well beyond their territorial seas and in greater depths of the ocean. By the mid-1990s, offshore oil and gas accounted for around one-third of the total world production.<sup>10</sup> As the price of and demand for oil have increased, so have offshore operations in the last thirty years.<sup>11</sup> This increase in production poses a number of challenges for international and national regulators, not least because of the risks of pollution that are the subject of this chapter. Yet in future there could be less incentive for some States to increase offshore oil and gas extraction and production in light of energy and climate security concerns, which call for the exploration of renewable energy sources as alternatives to conventional fossil fuels energy sources.<sup>12</sup>

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<sup>8</sup> E Gold and C Petriet, 'Pollution from Offshore Activities an Overview of the Operational, Legal and Environmental Aspects' in CM de La Rue, *Liability for Damage to the Marine Environment* (Lloyd's of London Press LTD, 1993).

<sup>9</sup> R Churchill and V Lowe, *The Law of the Sea* (Oxford University Press, 1999) 141. D Rothwell and T Stephens, *The International Law of the Sea* (Hart Publishing, 2010) 287.

<sup>10</sup> *Report of the Secretary General on the Oceans and the Law of the Sea*, UN Doc. A/57/57 (2002) [229] It is estimated that around 70% of world's undiscovered reserves may lie offshore. See further Churchill and Lowe (n. 9) 141.

<sup>11</sup> *Report of the Secretary General* (n. 10).

<sup>12</sup> See eg the EU *Directive on the Promotion of Renewable Energy Sources* 2009/28/EC, 23 April 2009.

#### 4.2.2 The impacts of seabed activities on the marine environment

The extensive oil pollution caused by oil rig blow-outs makes this a real or potential threat to the environment, persons and property of coastal States, and the States neighbouring other coastal States. The potential transboundary impact of an oil spill is thus one of the main justifications for international regulation establishing minimum standards of safety and liability for environmental damage in the offshore energy and mining sectors. Although the vast majority of the pollution entering the oceans is from land-based sources,<sup>13</sup> the impact of one single oil spill accident on particular ecosystems and local economies is considerable.<sup>14</sup> Examples of oil spills from offshore installations which caused significant pollution in recent history include the Shell's *Gannet Alpha* oil platform in the North Sea in August 2011, the spill from oil platforms in the Persian Gulf during the Gulf war in 1991, and the *Deepwater Horizon* disaster in the Gulf of Mexico in April 2010.<sup>15</sup> In some instances, the transboundary impacts of pollution have been significant.<sup>16</sup> In addition to accidental spills, pollution can be caused by the regular operations of offshore platforms, including deliberate discharges. It has been estimated that 10 per cent of the marine pollution comes from dumping of pollutants in oceans, which includes pollution from dumping from offshore installations.<sup>17</sup> This type of pollution includes the release of harmful chemicals and oils used in routine processes of drilling, the discharge of 'produced water' from oil platform operations, and the emission of airborne pollutants from activities such as 'flaring' of excess gas.<sup>18</sup> The Group of Experts on the Scientific Aspects of Marine Environment Protection (GESAMP) considers the potential for environmental damage from the exploration and exploitation of energy and mineral resources to be greater in deeper waters, since a blow-out in deep water would be difficult to control quickly resulting in serious ecological effects.<sup>19</sup> Moreover, the exploration and exploitation of the hydrocarbon and other non-living resources of the seabed inevitably results in

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<sup>13</sup> It is estimated that 80% of the pollution entering the oceans are from land-based sources. See *Report of the Secretary General* (n. 10) para. 347. See further P Birnie, A Boyle, and C Redgwell, *International Law and the Environment* (Oxford University Press, 2009).

<sup>14</sup> This includes, for example, the ecological harmful effects of the *Prestige* and *Erika* vessel pollution accidents off the coasts of Spain and Portugal in 2002 and France in 1999 respectively, and the *Exxon Valdez* oil spill off the coast of Alaska in 1989.

<sup>15</sup> M Smith, 'Deepwater Horizon Disaster: An Examination of the Spill's Impact on the Gap in International Regulation of Oil Pollution from Fixed Platforms' (2011) 25 *Emory International Law Review* 1477.

<sup>16</sup> For example, the Ixtoc I oil platform operated by a private Mexican contractor released more than 3 million gallons of oil into the Gulf of Mexico, and the resulting damage had transboundary implications, extending far enough to injure the fishing and tourism industries of Texas and to the surrounding environment. See further Smith (n. 15).

<sup>17</sup> See *Report of the Secretary General* (n. 10) para 356.

<sup>18</sup> Rothwell and Stephens (n. 9) 372.

<sup>19</sup> GESAMP Report and Studies No. 70, *A Sea of Trouble*, UNEP 15th January 2001. See also IMO Report to the Commission on Sustainable Development in connection with the World Summit on Sustainable Development, Background Paper no. 9.

some degree of disturbance of the ocean-bottom environment.<sup>20</sup> Enclosed and semi-enclosed oceans are particularly vulnerable to this type of pollution.<sup>21</sup>

The impact on the marine environment from the deep seabed activities beyond national jurisdiction (ie the Area) requires special consideration.<sup>22</sup> Indeed, the fauna in the Area includes fragile organisms living in active hydrothermal vents, including clams, mussels, sea anemones, crabs, tube worms, shrimps, fishes, and bacteria, many of which are new to science and valuable biological resources.<sup>23</sup> The direct disruption of the seafloor by the nodule mining machinery is likely to be the main threat on the abyssal biota of the Area,<sup>24</sup> causing habitat loss and extinction of the local nodule fauna.<sup>25</sup>

### **4.3 The International Regulation of Pollution from Seabed Activities**

The current international legal framework regulating offshore seabed exploration and exploitation is fragmented and incomplete. Although the United Nations Convention on the Law of the Sea ('UNCLOS') provides the legal basis for creation of an international regime on safety and liability for damage to the marine environment,<sup>26</sup> no such regime in the context of continental shelf activities has been established so far. Notwithstanding this, there is a well-established body of international customary and treaty sources concerning the exploration and exploitation of resources in the continental shelf and the Area, as well as for marine environment protection generally, as will be discussed in this section.

#### **4.3.1 The 1958 Geneva Conventions**

Following the Declaration by United States President Truman made in 1949<sup>27</sup>—a landmark development leading to the crystallization of customary law relating to

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<sup>20</sup> See Rothwell and Stephens (n. 9).

<sup>21</sup> eg eutrophication of enclosed waters of the Baltic, North Sea, Mediterranean, Northern Adriatic, as well as parts of Japan and the US east coasts, cause serious damage to the marine environment.

<sup>22</sup> See further, L Suhr, 'Environmental Protection in Deep Seabed Mining: International Law and New Zealand's Approach' (2008) 12 *NZ J Envtl L* 97.

<sup>23</sup> See *Oceans and Governance: Report of the Secretary-General*, Sixtieth Session of the General Assembly, UN Doc. A/60/63/Add.1 (16 July 2005), at 8, and Suhr (n. 22).

<sup>24</sup> *Oceans and Governance* (n. 23).

<sup>25</sup> A study on the environmental impacts of nodule mining suggested a mortality rate of 95–100 per cent for the living organisms which are found in exploitation strips. See S Berge, J M Markussen, and G Vigerust, *Environmental Consequences of Deep Seabed Mining – Problem Areas and Regulations* (the Fridtjof Nansen Institute, 2001). See also *Oceans and Governance* (n. 23).

<sup>26</sup> Art. 235 (2) UNCLOS.

<sup>27</sup> *Truman Proclamation on Policy of the United States with Respect to the Continental Shelf Resources of the Subsoil and Seabed of the Continental Shelf* (28 September 1945) 150—Proclamation 2667.

the continental shelf<sup>28</sup>—the first concerted attempt by States to adopt global standards pertaining to continental shelf activities was in the form of four Conventions adopted in the 1958 Geneva I conference on the law of the sea.<sup>29</sup>

The 1958 High Seas Convention<sup>30</sup> and the Continental Shelf Convention<sup>31</sup> go some way, albeit limited, to establish global rules for protection of the environment in the context of seabed activities.<sup>32</sup> The Continental Shelf Convention is in fact more concerned with reconciling the conflicting interests of navigation and the laying of offshore platforms, although incidentally it offers a limited level of environmental protection by requiring the conservation of fisheries and other living resources in the context of offshore economic activities. Yet there is hardly any specific reference in the Continental Shelf Convention to the prevention and control of pollution from seabed activities. Under the Convention there is only a general requirement that the exploration and exploitation of the continental shelf do not result in an unjustifiable interference with navigation, fishing and the conservation of living resources at sea.<sup>33</sup> This could be read as requiring the prevention of the release of harmful pollutants from offshore installations into the ocean in light of their potentially harmful impacts on the living resources in the seas.<sup>34</sup>

The High Seas Convention contains more specific rules regulating pollution from seabed activities, including a general requirement that States adopt regulations to prevent oil pollution in the context of seabed activities.<sup>35</sup> The scope of application of this Convention to the regulation of seabed activities is limited, however, since it only aims to regulate seabed activities in the high seas. Since the entry into force of UNCLOS in November 1994,<sup>36</sup> offshore mining extraction activities in the high seas fall under the 'Area' regime and thus under the oversight of the

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<sup>28</sup> See generally, F Penick, 'The Legal Character of the Right to Explore and Exploit the Natural Resources of the Continental Shelf' (1985) 22 *San Diego L Rev* 765; Churchill and Lowe (n. 9).

<sup>29</sup> Convention on the Continental Shelf, (Geneva, 29 April 1958, entered into force 10 June 1964) 499 UNTS 311 ('Continental Shelf Convention'); Convention on the High Seas (Geneva, 29 April 1958, entered into force 30 September 1962) 450 UNTS 82, r.n. 6465. ('High Seas Convention'); Convention on Territorial Sea and Contiguous Zone (Geneva, 29 April 1958, entered into force 22 November 1964) 516 UNTS 205 ('Territorial Sea Convention'); the Convention on Fishing and Conservation of Living Resources of the High Seas (Geneva, 29 April 1958, entered into force 10 September 1964) 559 UNTS 285.

<sup>30</sup> High Seas Convention (n. 29).

<sup>31</sup> Continental Shelf Convention (n. 29).

<sup>32</sup> In contrast, given their specific scope, the Territorial Sea Convention (n. 29) and the Convention on Fishing and Conservation of Living Resources of the High Seas Convention (n. 29) do not contain any legal provisions which apply specifically to seabed activities.

<sup>33</sup> Art. 5 (1), Continental Shelf Convention.

<sup>34</sup> In addition to para. (1), the subsequent paragraphs of Art. 5 of the Continental Shelf Convention have implications for prevention of pollution from offshore activities, although not directly addressing the issue, for example by requiring that 'State parties must establish 500 metres safety zones around all drilling units' (para. 2).

<sup>35</sup> See Art. 24 of the High Seas Convention.

<sup>36</sup> United Nations Convention on the Law of the Sea (Montego Bay, 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS).

International Seabed Authority ('ISBA'). This suggests that the impact of the High Seas Convention on the regulation of pollution from offshore installations is, at best, very limited.<sup>37</sup>

In general, it could be said that the protection of marine environment received little attention in the Law of the Sea Conventions adopted in the 1958 Geneva conference. In practice, the Geneva Conventions allow States to enjoy substantial freedom to pollute the oceans, which was only to a certain degree moderated by the requirement that seabed activities need to be exercised with reasonable regard for the rights of other States, in particular the right to freedom of navigation.<sup>38</sup> This could be attributed to the fact that at the time of adoption of the Geneva Conventions in 1958, the global environmental consciousness was not yet well developed and hence was not a priority in international law and policy-making.

#### **4.3.2 MARPOL**

States' reluctance to adopt specific rules to regulate pollution from seabed activities is evident in subsequent interstate efforts to regulate ship-source pollution. Although the first attempt to regulate oil pollution from tankers dates back to 1954,<sup>39</sup> MARPOL<sup>40</sup> is currently the main international legal framework for prevention of pollution from vessels. MARPOL, which was adopted in 1973 and significantly amended in 1978 in order to facilitate its entry into force, aims to provide a global legal framework for pollution prevention from ships.<sup>41</sup> Yet MARPOL explicitly rules out its application to pollution arising from seabed activities.<sup>42</sup> Indeed, as the release of harmful substances from an offshore facility do not fall within the definition of 'discharge', pollution arising directly from the exploration, exploitation, and associated offshore processing of seabed mineral resources are left expressly unregulated under MARPOL.<sup>43</sup>

#### **4.3.3 The 1972 London Dumping Convention and the 1996 Protocol**

Although UNCLOS contains general rules regulating dumping and waste disposal in the seas,<sup>44</sup> the 1972 London Dumping Convention<sup>45</sup> is currently the

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<sup>37</sup> It should be noted that the High Seas Convention (as well as the other three Geneva Conventions) may still be relevant for States that have not yet ratified UNCLOS but which are parties to the Geneva Conventions, such as the USA and Israel.

<sup>38</sup> Churchill and Lowe (n. 9).

<sup>39</sup> See the International Convention for the Prevention of Pollution of the Sea by Oil (London, 12 May 1954, entered into force 26 July 1958) 327 UNTS 3, repealed by MARPOL.

<sup>40</sup> IMO International Convention for the Prevention of Pollution from Ships (London, 2 November 1973, entered into force 2 October 1983) 1340 UNTS 184 (MARPOL).

<sup>41</sup> Annexes I and II regulate carriage of oil and chemicals respectively.

<sup>42</sup> See Art. 2(3) MARPOL.

<sup>43</sup> Art. 2(3) b) ii MARPOL.

<sup>44</sup> Art. 210 UNCLOS.

<sup>45</sup> Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London, 29 December 1972, in force 30 August 1975) 1046 UNTS 120 ('London Dumping Convention').



main international environmental agreement dealing with dumping of harmful pollutants in the seas.

The London Convention divides substances into three categories according to their dangerousness and potential harm, and makes the disposal of these substances in the seas either prohibited or authorized only with a permit.<sup>46</sup> With effect from February 2007, Annex I of the London Convention was amended in 2006 to permit carbon capture and storage activities. It requires that the carbon dioxide disposal is made into sub-seabed geological formations; consists overwhelmingly of carbon dioxide; and no wastes or other matter are added for the purpose of disposing them.<sup>47</sup>

Decommissioning is one of the main pollution problems regulated under the London Convention. The London Convention adopts a 'permitted unless prohibited' approach to decommissioning of offshore installations.<sup>48</sup> Another significant development was the adoption in 1996 of the London Protocol<sup>49</sup> with the view of strengthening the London convention and, eventually, to replace it. Some of the key innovations introduced by the 1996 Protocol to the international regulation of dumping include the mandatory application of the precautionary approach; the shift of the burden of proof to the party willing to carry out the dumping; and a 'reverse list' approach is applied, which implies that dumping is prohibited unless expressly permitted.<sup>50</sup>

#### 4.3.4 UNCLOS (1982)

It was not until the adoption of the UN Convention on the Law of the Sea (UNCLOS) in 1982<sup>51</sup> that a more specific and comprehensive global regime aimed at controlling and preventing pollution caused by the release of harmful substances arising from the exploration, exploitation and processing of seabed materials was agreed by States. UNCLOS has established for the first time a more comprehensive

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<sup>46</sup> See further, *IMO: Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter*, at <<http://www.imo.org/OurWork/Environment/LCLP/Pages/default.aspx>> (accessed 22 February 2016).

<sup>47</sup> See 'Specific Guidelines on Assessment of CO<sub>2</sub> Streams for Disposal into a Sub-Seabed Geological Formation' adopted by the second meeting of the contracting parties on November 2007. See further, *IMO Climate Change and the London Convention and Protocol* <<http://www.imo.org/OurWork/Environment/LCLP/EmergingIssues/Documents/LCLP%20and%20climate%20change.pdf>> (accessed 22 February 2016).

<sup>48</sup> The IMO has also adopted guidelines requiring all platforms as from 1 January 1998 to be capable of entire removal. See IMO Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone, Resolution A.672 (16), adopted by IMO Assembly on 19 October 1989.

<sup>49</sup> The Protocol to the London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London, 7 November 1996, entered into force 24 March 2006) 36 *ILM* 1 (1997) ('1996 London Protocol').

<sup>50</sup> See in particular Art 3 (1), Art. 4, Art. 5, and Art. 6 of the 1996 Protocol.

<sup>51</sup> See Part XII UNCLOS, in particular Art. 208.

global regime for protection of the marine environment, beyond the regulation of dumping and oil pollution from vessels which were already regulated under specific international and regional environmental agreements. In particular, Part XII of UNCLOS lays down the general rules on the protection of the marine environment and establishes a State duty to protect the marine environment. Specifically, under UNCLOS contracting States have a duty to protect and preserve the marine environment,<sup>52</sup> which includes coastal States' duty to adopt 'measures designed to *minimise pollution from installations in the seabed*'<sup>53</sup> (emphasis added). Hence UNCLOS makes it clear that pollution of the seas is no longer permissible as part of the freedom of the seas, and diligent prevention and control of pollution is required. Importantly, to give effect to the environmental protection provisions under Part XII the Convention recognizes the principle of common but differentiated responsibilities,<sup>54</sup> and also requires that States apply the best available techniques to control pollution.<sup>55</sup>

In an attempt to reconcile the interests of coastal and flag States, UNCLOS recognizes a number of rights to the coastal States in their continental shelf. In particular, it establishes coastal States' exclusive right to authorize and regulate drilling on the continental shelf 'for all purposes',<sup>56</sup> which extends to the exclusive right to authorize and regulate the construction, operation, use of installations, and structures (or artificial islands) in the EEZ or on the continental shelf.<sup>57</sup> This suggests that the overall responsibility for, and ultimately the obligation to control and prevent pollution in the event of an accident, falls on the coastal State that has granted the offshore production or exploration licence to the operator.

UNCLOS goes further to clarify that States may adopt measures to prevent pollution to the marine environment which shall include, inter alia, those designed to minimize to the fullest possible extent 'pollution from installations and devices used in the exploration and exploitation of the natural resources of the seabed and subsoil', in particular '*measures for preventing accidents and dealing with emergencies, ensuring safety of operations at sea, and regulating the design, construction, equipment, operation and manning of such installations or devices*' (emphasis added).<sup>58</sup> There is also a requirement under UNCLOS that coastal States adopt laws and regulations to implement anti-pollution requirements in the context of seabed

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<sup>52</sup> Art. 192 UNCLOS.

<sup>53</sup> Art. 194 (3) (c) UNCLOS.

<sup>54</sup> See Art. 194 (1) UNCLOS, according to which States shall take measures to prevent and control pollution 'in accordance with their capabilities'.

<sup>55</sup> Art. 194 (1) UNCLOS. This provision requires that States shall apply the 'best practical means at their disposal'.

<sup>56</sup> Art. 81 UNCLOS.

<sup>57</sup> Art. 60 (1) and (2) UNCLOS.

<sup>58</sup> Art. 194 (3) (c) UNCLOS.

activities, in particular pollution from artificial islands, installations and structures.<sup>59</sup> However, UNCLOS does not define ‘installations’ nor ‘structures’, leaving doubt as to whether wind turbines are included in the scope of that provision.<sup>60</sup>

It is clear from the foregoing discussion that UNCLOS only aims to provide a general international legal framework to regulate pollution from offshore installations, whilst leaving the adoption of specific rules to be adopted in subsequent agreements.<sup>61</sup> With this broad aim in mind, the Convention drafters succeeded in providing a general ‘framework’ for environmental protection of the marine environment, as well as general guidance on the powers and duties of coastal States to adopt rules to prevent and control pollution from seabed activities.

#### 4.3.5 Convention on Oil Pollution Preparedness, Responses and Cooperation (1990)

Following the *Exxon Valdez* disaster off the coast of Alaska in 1989, the IMO negotiated the Convention on Oil Pollution Preparedness, Responses and Cooperation in 1990<sup>62</sup> committing parties to respond to requests for assistance from States likely to be affected by oil pollution.<sup>63</sup> Under the Convention, the IMO must be informed of major incidents, and it holds responsibility for facilitating cooperation including request of technical assistance and advice for States faced with major oil spill incidents.<sup>64</sup>

The Convention on Oil Pollution Preparedness, Response and Cooperation defines ‘ships’ as ‘a vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats, air-cushion vehicles, submersibles, and floating craft of any types’.<sup>65</sup> The Convention also applies to offshore units which are defined under the convention as ‘any fixed or floating offshore installation or structure engaged in gas or oil exploration, exploitation or production activities, or loading or unloading of oil’.<sup>66</sup> Despite its limited scope, the Convention is particularly relevant in that it

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<sup>59</sup> Art. 208 (1) UNCLOS.

<sup>60</sup> It has been suggested that ‘structures’ should apply not only to production platforms, but also to the production of wind power by wind turbines, which fall under the EEZ regime under Art. 56 (1) (a) UNCLOS. See Rothwell and Stephens (n. 9) 288.

<sup>61</sup> Art. 208 (5) UNCLOS. Under Art. 208 (3) UNCLOS, coastal States must adopt laws and regulations in relation to seabed activities that ‘are to be no less effective than international rules, standards and recommended practices’. Hence UNCLOS permits coastal States to implement higher standards than required under international law.

<sup>62</sup> IMO Convention on Oil Pollution Preparedness, Responses and Cooperation (London, 30 November 1990, entered into force 13 May 1995) 1891 UNTS 51 (‘IMO Convention on Oil Pollution Preparedness’).

<sup>63</sup> Art. 4 IMO Convention on Oil Pollution Preparedness (1990).

<sup>64</sup> Art. 4 IMO Convention on Oil Pollution Preparedness (1990).

<sup>65</sup> Art. 2 (3) IMO Convention on Oil Pollution Preparedness (1990).

<sup>66</sup> Art. 2 (4) IMO Convention on Oil Pollution Preparedness (1990).

also applies to 'offshore units' and hence it also addresses interstate cooperation for the control oil pollution from offshore installations.

#### **4.3.6 The International Association of Drilling Contractors and the International Regulators' Forum**

In addition to the 'hard law' initiatives discussed above, a number of relevant industry-wide soft-law standards have been adopted which address safety and environmental protection standards in connection with seabed activities. For example, the International Association of Drilling Contractors (IADC) issued the HSE Case Guidelines for both Mobile Offshore Drilling Units and for Land Drilling Units.<sup>67</sup> The Guidelines provide a framework for developing an integrated health, safety, and environmental management system for use in reducing the risks associated with offshore and onshore drilling activities. It also includes a Health, Safety, and Environment Committee responsible for exchange of information and best practices.<sup>68</sup>

Further industry-wide standards have been set by the International Regulators' Forum (IRF). The IRF is a group of eleven regulators of health and safety in the offshore upstream oil and gas industry.<sup>69</sup> It aims to improve health and safety in the sector through collaboration in joint programmes and information sharing.

Although these initiatives are non-binding, the work on industry-wide standards represents an important first stage in developing national and international regulatory frameworks, and could provide the knowledge base necessary to support policy decisions.

#### **4.3.7 The 'Area'**

It is not surprising that the environmental protection regime in connection with deep seabed mining in the 'Area' is considerably more developed than the continental shelf anti-pollution regime. The principle of State sovereignty poses limits on the extent to which States are willing to agree on global common standards for environmental protection in connection with the economic activities in their own continental shelves. In contrast, the deep seabed regime is 'internationalized' and governed by the International Seabed Authority (ISBA), therefore calling on States to cooperate for adoption of global environmental standards applicable to the Area. The case for global rules on environmental protection in the context of the

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<sup>67</sup> IADC, *Health, Safety and the Environment (HSE)*, at <<http://www.iadc.org/hse/>> (accessed 22 February 2016).

<sup>68</sup> IASC, *Health, Safety and the Environment (HSE) Committee*, at <<http://www.iadc.org/hse-committee/>> (accessed 22 February 2016).

<sup>69</sup> International Regulators' Forum (IRF): *Global Offshore Safety*, at <<http://www.irffshoresafety.com>> (accessed 22 February 2016).

Area regime is particularly compelling in light of the fragile ecosystems of the deep seabed impacted by extraction activities, as discussed above.<sup>70</sup>

UNCLOS requires that ‘activities in the Area shall be carried out with reasonable regard for other activities in the marine environment’.<sup>71</sup> Moreover, ‘[o]ther activities in the marine environment shall be conducted with reasonable regard for activities in the Area’.<sup>72</sup> UNCLOS also provides for the protection and conservation of the natural resources of the Area and the prevention of damage to the flora and fauna of the marine environment.<sup>73</sup> Yet the legal regime under UNCLOS is only aimed at providing a general legal framework under which future regulations can be developed.<sup>74</sup>

In addition to Part XI of UNCLOS and the Implementation Agreement of Part XI (1994),<sup>75</sup> the Area regime is further complemented by the International Seabed Authority regulations on mining and marine environment protection, known collectively as the ‘Mining Code’. It consists of the ‘Regulation on Prospecting and Exploration for Polymetallic Nodules in the Area’ (RPEPN),<sup>76</sup> the ‘Regulations for Prospecting and Exploration of Polymetallic Sulphides’ (RPEPS),<sup>77</sup> and the ‘Regulations for Prospecting and Exploration of Cobalt-Rich Crusts’ (RPECRC).<sup>78</sup>

The environmental protection regime is found in the RPEPN, and also in the Standard Clauses for Exploration Contract (‘Standard Clauses’), which are found in Annex IV of the Mining Code.<sup>79</sup> These rules represent ‘a balance between the need to preserve and protect the marine environment and the objective of developing the resources of the Area’,<sup>80</sup> whilst aiming to provide for a relatively strong

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<sup>70</sup> See Suhr (n. 22).

<sup>71</sup> Art. 147 (1) UNCLOS.

<sup>72</sup> Art. 147 (3) UNCLOS.

<sup>73</sup> Art. 145 (b) UNCLOS.

<sup>74</sup> Indeed, Art. 209 (1) UNCLOS calls on States to adopt ‘international rules, regulations and procedures(. . .) to prevent, reduce and control pollution of the marine environment from activities in the Area’.

<sup>75</sup> Agreement Relating to the Implementation of Part XI of the United Convention on the Law of Sea, 33 *ILM* 1309 (adopted 28 July 1994, entered into force 28 July 1996).

<sup>76</sup> Regulations for Prospecting and Exploration of Polymetallic Nodules ISBA/6/A/18 (adopted 13 July 2000). The RPEPN were updated on 25 July 2013. See Decision of the Council of the International Seabed Authority relating to amendments to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area and related matters ISBA/19/C/17 and Decision of the Assembly of the International Seabed Authority regarding the amendments to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area ISBA/19/A/9.

<sup>77</sup> Decision of the Assembly of the International Seabed Authority relating to the regulations on prospecting and exploration for polymetallic sulphides in the Area ISBA/16/A/12/Rev.1 ISBA/16/C/L.5 of 4 May 2010.

<sup>78</sup> Decision of the Assembly of the International Seabed Authority relating to the Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area ISBA/18/A/11 (adopted 27 July 2012).

<sup>79</sup> See further Suhr (n. 22).

<sup>80</sup> E D Brown, *Sea-bed Energy and Minerals: The International Legal Regime*, Vol 2, ‘Sea-bed Mining’ (Martinus Nijhoff Publishers, 2001) 398.

protection of the deep seabed environment.<sup>81</sup> Regulation 2 (2) of the RPEPN is of fundamental importance as it prohibits prospecting activities '[i]f substantial evidence indicates the risk of serious harm to the marine environment'.<sup>82</sup> Importantly, unlike a number of international environmental treaties which tend not to define 'environmental harm', the ISA Regulations contain an expansive definition of 'serious harm to the marine environment' which should mean 'any effect . . . which represents a significant adverse change in the marine environment . . .'.<sup>83</sup> It has been suggested that although this definition applies specifically to prospecting activities, it should logically extend to exploration and exploitation activities.<sup>84</sup> Moreover, the Regulations state that the Council of the ISBA can eventually disapprove areas for exploitation due to concerns over their impacts on the environment, and proclaim that exploration in these areas shall not be recommended.<sup>85</sup>

The precautionary principle or 'approach',<sup>86</sup> as reflected in Principle 15 of the Rio Declaration<sup>87</sup> as well as in a number of other international environmental treaties and instruments,<sup>88</sup> underscores the legal regime for exploration and exploitation activities in the Area. Indeed, the provisions of the Mining Code reflect the fact that the environmental impacts of deep seabed activities on the marine environment are still not fully understood by scientists.<sup>89</sup> According to Regulation 31.2 'the Authority and sponsoring States shall apply a precautionary approach, as reflected in Principle 15 of the Rio Declaration'. It calls on States to introduce necessary measures to prevent, reduce, and control pollution and other hazards to the marine environment arising from prospecting 'as far as reasonably possible' using 'the best available technology available to it'.<sup>90</sup> This suggests that where there are 'threats of serious or irreversible damage, lack of full scientific certainty

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<sup>81</sup> See Suhr (n. 22) 127.

<sup>82</sup> Regulation 2.2 RPEPN.

<sup>83</sup> Regulation 1 (3) (f) RPEPN.

<sup>84</sup> This is because 'prospecting is the minimally invasive step of the commercial exploitation of mineral resources, [and therefore] the provision should *a fortiori* apply to the exploration and exploitation of polymetallic nodules'. See Suhr (n. 22) 128.

<sup>85</sup> Regulation 2 (3) and Regulation 12 (7) (c) RPEPN.

<sup>86</sup> On the precautionary principle, see further N de Sadeleer (ed.), *Implementing the Precautionary Principle: Approaches from the Nordic Countries, EU and USA* (Earthscan, 2007); E Fisher, J Jones and R van Schomberg (eds), *Implementing the Precautionary Principle: Perspectives and Prospects* (Edward Elgar, 2006); M Fitzmaurice, *Contemporary Issues in International Environmental Law* (Edward Elgar, 2009); E Hey, 'The Precautionary Concept in Environmental Policy and Law: Institutionalizing Caution' (1992) 303 *Georgetown International Environmental Law Review* 4, 2.

<sup>87</sup> Principle 15, Declaration on Environment and Development, found in Report of the UN Conference on Environment and Development (A/CONF.151/26/Rev.1 (Vol. I), 14 June 1992), Annex ('Rio Declaration').

<sup>88</sup> See eg United Nations Framework Convention on Climate Change (New York, 9 May 1992, entered into force 21 March 1994) 1771 UNTS 107 (UNFCCC), Art. 3.3; the Cartagena Protocol on Biosafety to the Convention on Biological Diversity (adopted 29 January 2000; entered into force 11 September 2003) 1760 UNTS 79 ('Cartagena Protocol'); and Consolidated Version of the Treaty on the Functioning of the European Union, [2008] OJ C115/49 ('TFEU'), Art. 191.2.

<sup>89</sup> See Suhr (n. 22).

<sup>90</sup> See Regulation 31 (3) RPEPN.

should not be used as a reason for postponing such cost-effective measures<sup>91</sup> for the protection of the environment of the Area. It thus gives the ISBA leeway to move forward and tighten environmental regulatory controls despite the lack of scientific consensus regarding the nature and seriousness of the perceived threat to the marine environment.<sup>92</sup> The application of the precautionary principle has the additional benefit of requiring that economic operators in the Area follow due diligence procedural obligations prior to—and in the course of—the exploration of the deep seabed, such as environmental impact assessment and strategic impact assessment.<sup>93</sup> In this regard, in 2002 the ISBA Legal and Technical Commission issued a set of recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from the exploration for polymetallic nodules.<sup>94</sup>

The Seabed Chamber of the International Tribunal for the Law of the Sea ('ITLOS') had an opportunity to elaborate on the obligations of the sponsoring state and contractor as regards economic activities in the Area in its advisory opinion delivered on February 2011 in an action brought by the Republic of Nauru.<sup>95</sup> This case also provided an opportunity for the Tribunal to elaborate on the legal status of the precautionary principle in light of the due diligence obligations of the contractor.<sup>96</sup> According to ITLOS, both sponsoring States and the Authority are under an obligation to apply the precautionary 'approach' in respect of activities in the Area which must be observed with due diligence.<sup>97</sup> The Seabed Chamber noted that '... the precautionary approach is an integral part of the general obligation of due diligence of sponsoring States, *which is applicable even outside the scope of the Regulations*' (emphasis added).<sup>98</sup> The due diligence obligation of sponsoring States requires them to take all appropriate measures to prevent environmental damage. This obligation applies in situations where scientific evidence '... is insufficient but where there are plausible indications of potential risks' and

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<sup>91</sup> Principle 15 of the Rio Declaration (n. 87).

<sup>92</sup> K Makuch and R Pereira, 'Introduction' in K Makuch and R Pereira (eds), *Environmental and Energy Law* (Wiley-Blackwell, 2012) 8.

<sup>93</sup> See section 1, para. 7, of the Annex to the 1994 Part XI Implementation Agreement (n. 75); and *Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area* (February 2011) (Request for Advisory Opinion submitted to the Seabed Disputes Chamber) paras. 141–50. See also, *Pulp Mills in the River Uruguay case, (Argentina v Uruguay)* (2010) ICJ Reports, para. 204.

<sup>94</sup> ISBA Legal and Technical Commission, 'Recommendations for the guidance of the contractors for the assessment of the possible environmental impacts arising from exploration for polymetallic nodules in the Area', ISBA/7/LTC/1/Rev.1, 13 February 2002.

<sup>95</sup> See International Tribunal for the Law of the Sea, *Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area* (1 February 2011), Case no. 17 ('Request for Advisory Opinion' submitted to the Seabed Disputes Chamber).

<sup>96</sup> See in particular para. 135, Request for Advisory Opinion (n. 95).

<sup>97</sup> Para. 131. Request for Advisory Opinion (n. 95).

<sup>98</sup> Para. 131. Request for Advisory Opinion (n. 95). See Regulation 31 (2) RPEPN.

where ‘... disregard [for such risks] would amount to a failure to comply with the precautionary approach’.<sup>99</sup> It is the first time that an international tribunal has ruled on the legal status of the precautionary principle (or ‘approach’), explicitly endorsing the view that it forms part of customary international law.<sup>100</sup>

There are a number of important implications of the recognition of the precautionary principle and the due diligence obligation of the contractor in the Area regime. For example, under the RPEPN and the Standard Clauses, the contractor is required to submit a detailed contingency plan to respond effectively to pollution incidents.<sup>101</sup> In the event of an accident, the contractor is obliged to notify the ISBA immediately.<sup>102</sup> Further, the Regulations require that each contractor use, as far as reasonably possible, the best technology available in order to prevent, reduce, and control pollution and other hazards.<sup>103</sup> Another consequence of application of the precautionary principle is to shift the burden of proof to the person who seeks to conduct the activities.<sup>104</sup> This means that the contractor must demonstrate that the project will have no detrimental effect on the environment.<sup>105</sup> This suggests that an environmental impact assessment is required prior to the commencement of extractive activities in the Area.<sup>106</sup> In this vein, the contractor is required by the RPEPN to gather environmental baseline data, including a reference area, against which to assess the likely effects of its activities on the marine environment.<sup>107</sup>

## 4.4 Liability and Compensation for Environmental Damage

### 4.4.1 State liability for pollution from seabed activities

A major oil-rig blow out such as the *Deepwater Horizon* raises the question of the potential liability of the State for its failure to regulate effectively and to prevent drilling activities from causing environmental damage to other States or to areas beyond national jurisdiction. As the principal subjects of international law, States have the primary role in promoting the implementation and in enforcing rules of

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<sup>99</sup> See para. 135 of Request for Advisory Opinion (n. 95).

<sup>100</sup> Compare it with, ICJ *Nuclear Tests Case (Australia v. France)*, 20 December 1974, ICJ Reports 253; WTO AB 16 January 1998, European Communities—Measures Concerning Meat and Meat Products, WT/DS26/AB/R (*EC-Hormones* case’); WTO DS 21 November 2006, European Communities—Measures Affecting the Approval and Marketing of Biotech Products, WT/DS291/R, WT/DS292/R, WT/DS293/R (*EC Biotech* case’).

<sup>101</sup> Regulation 18 RPEPN.

<sup>102</sup> Regulation 32 RPEPN. See also, Regulation 32 (6) and (7) RPEPN.

<sup>103</sup> See Regulation 31 (1) and (3) RPEPN.

<sup>104</sup> See Regulation 31 (1) and (3) RPEPN.

<sup>105</sup> Regulations 2.3. and 21.6 (c) RPEPN.

<sup>106</sup> See Regulation 18 (c) RPEPN.

<sup>107</sup> Regulation 18 (b) RPEPN.



international environmental law.<sup>108</sup> This allows the ‘injured State’ to invoke the responsibility of another State if the obligation breached is owned to other States, or when the obligation affects the collective interest of a group of States or is owned to the international community as a whole.<sup>109</sup>

Although under customary international law coastal States have a duty to exercise reasonable care in protecting the interests of other states from pollution damage arising from exploration and exploitation of their continental shelf,<sup>110</sup> this general duty under customary law does not clarify the scope and limits of liability and compensation for environmental damage. UNCLOS only contains general standards for the liability of the State for its failure to control and prevent the pollution incident, and a general requirement that coastal States prevent, reduce, and control pollution of the marine environment ‘arising in connection with seabed activities subject to their jurisdiction and from artificial islands, installations and structures under their jurisdiction’.<sup>111</sup> This provision addressing specifically pollution from seabed activities needs to be read in the context of the other more general provisions under UNCLOS recognizing the liability of States for damage to the marine environment,<sup>112</sup> and establishing an obligation on States to pay ‘prompt and adequate’ compensation for environmental damage.<sup>113</sup> However, UNCLOS leaves the elaboration of legal provisions laying down compensation rules to be adopted in future agreements.<sup>114</sup> The adoption of rules on liability and compensation for environmental damage are thus dependent on the international rules and standards adopted by international organizations. This regulatory technique suggests that the UNCLOS legal regime is neither fully developed nor static, but can be subsequently developed and strengthened by the adoption of future international environmental agreements.

The rules of international law on State responsibility are further elaborated by the 2001 Draft Articles of the International Law Commission (ILC) on the Responsibility for Wrongful Acts (‘The ILC Draft Articles’). The ILC Draft Articles state that ‘every internationally wrongful act of a State entails the international responsibility of that State’, and this rule applies ‘regardless of [the] origin or character’ of the wrongful act.<sup>115</sup> It also recognizes that State

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<sup>108</sup> See ILC Articles on State Responsibility, Report of the ILC to the United Nations General Assembly, UN Doc. A/56/10 (2001), Art. 48.

<sup>109</sup> 2001 ILC Articles on State Responsibility (n. 108), Art. 48.

<sup>110</sup> See Svensen (n. 1); and R Pereira, ‘The Exploration and Exploitation of Energy Resources in International Law’ in K Makuch and R Pereira (eds), *Environmental and Energy Law* (Wiley-Blackwell, 2012).

<sup>111</sup> Art. 208 (1) and (2) UNCLOS.

<sup>112</sup> Art. 235 (1) UNCLOS.

<sup>113</sup> Art. 235 (2) UNCLOS.

<sup>114</sup> Art. 235 (3) and Art. 208 (4) UNCLOS.

<sup>115</sup> 2001 ILC Articles on State Responsibility, Report of the ILC to the United Nations General Assembly, UN Doc. A/56/10 (2001), Art. 48.

responsibility can arise for the breach an international obligation from the breach of a treaty norm or the breach of a norm of customary international law. Moreover, a breach of such an obligation is serious if it involves a gross or systematic failure by the responsible State to fulfil its obligation.<sup>116</sup> On the other hand, under international law, the principle of *criminal* responsibility of States has not yet been fully accepted, despite an earlier proposal by the International Law Commission to make the ‘massive pollution of the atmosphere and high seas’ an international crime.<sup>117</sup>

Further standards on state responsibility for transboundary damage are found in the ILC draft Articles on the Prevention of Transboundary Harm adopted in 2001.<sup>118</sup> Although the Draft ‘Transboundary Harm’ Articles attempts to codify the international legal framework for regulation of activities which pose a risk of transboundary harm,<sup>119</sup> one of its main weaknesses is that it does not address liability issues, including the issue of compensation for transboundary harm.<sup>120</sup>

There has been consistent State practice consolidating the principle of State liability for environmental damage, including in soft-law instruments adopted in major intergovernmental environmental conferences, such as the Stockholm Declaration on Human Environment<sup>121</sup> and the Rio Declaration on Environment and Development.<sup>122</sup> State liability for transboundary environmental damage is based on the no-harm customary rule, under which no State can allow its territory to be used for causing harm to the environment of other States or to areas beyond national jurisdiction.<sup>123</sup> Yet only a few treaties recognize State liability for environmental damage.<sup>124</sup> The responsibility of States for

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<sup>116</sup> Art. 40 (2) of ILC Draft Articles.

<sup>117</sup> See Art. 19 (3) (d) of the ILC Draft Articles. However, this provision was not included in the final draft of the ILC articles adopted in 2001.

<sup>118</sup> International Law Commission, ‘Draft Articles on the Prevention of Transboundary Harm from Hazardous Activities’, adopted by the International Law Commission at its fifty-third session, 2001 (‘Draft Articles on the Prevention of Transboundary Harm’).

<sup>119</sup> It contains rules dealing inter alia with authorization (Art. 6); assessment of risk (Art. 7); notification and information (Art. 8) and consultations (Art. 9), ‘Draft Articles on the Prevention of Transboundary Harm’ (n. 118).

<sup>120</sup> See also AE Boyle, ‘Globalising Globalising Environmental Liability: The Interplay of National and International Law’ (2005) 17 *Journal of Environmental Law* No. 1, 3–26.

<sup>121</sup> See Principle 22 of the Stockholm Declaration on Human Environment, *Report of the United Nations Conference on the Human Environment*, UN Doc A/CONF.48/14/Rev.1 (1 January 1973).

<sup>122</sup> See Principle 13 of the Rio Declaration (n. 87).

<sup>123</sup> See eg the *Trail Smelter*, (*United States v Canada*), Reports of International Arbitration Awards, 16 April 1938 and 11 March 1941 Vol. III, 1905–82; Principle 21 of the Stockholm Declaration on the Human Environment (n. 121) and Principle 2 of the Rio Declaration on the Environment and Development (n. 87). See further R Pereira, *Environmental Criminal Liability and Enforcement in European and International Law* (Brill, 2015).

<sup>124</sup> See eg the Convention on International Liability for Damage Caused by Space Objects, 961 UNTS 187 (adopted 29 March 1972; in force 1 September 1972) (‘Space Liability Convention’) Art. II. See further P-M Dupuy, ‘The International Law Of State Responsibility: Revolution Or Evolution?’ (1989–1990) 11 *Mich J Int’l L* 105, 106.

transboundary environmental damage is also recognized in the jurisprudence of international courts and tribunals—in particular the International Court of Justice, the International Tribunal on the Law of the Sea, and international arbitration.<sup>125</sup>

Regarding the level of environmental damage that could give rise to State liability, there is substantial State practice and jurisprudence of international tribunals holding that environmental damage must be ‘significant’, ‘appreciable’, or ‘substantial’.<sup>126</sup> Moreover, there is no one single standard of care (ie strict liability, absolute liability, or fault based liability, recklessness or negligence) set in international environmental agreements applicable to all types of environmental damage in international law, so it will depend on the type of obligation (eg whether the activity is ultra-hazardous or not).<sup>127</sup>

It is clear from the foregoing discussion that States can be held liable for transboundary environmental damage if they fail to perform their due diligence obligations to prevent or control pollution from economic operators operating in their continental shelf. However, there are considerable shortcomings in relying on State liability in cases involving marine pollution. One of the limitations is that, as a general rule, only governments can bring international claims before international tribunals against another state for environmental damage.<sup>128</sup> And even if they are willing to proceed with such claims, finding a forum with jurisdiction will as a general rule depend on the consent of the other State.<sup>129</sup> Evidence of this is that, in practice, there have been very few cases involving interstate claims aiming to establish State liability for transboundary environmental damage.<sup>130</sup> Therefore, it has been suggested that state liability is and should continue to be no more than a residual source of redress.<sup>131</sup>

#### 4.4.2 Civil liability regimes

Civil liability regimes represent an alternative approach to state liability for transboundary damage. Instead of relying on the responsibility of States in

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<sup>125</sup> See eg *Gabcikovo-Nagymoros (Hungary v Slovakia)* [1997] ICJ Reports 7; *Pulp Mills in River Uruguay (Argentina v Uruguay)* [2010] ICJ Reports 18; ITLOS Seabed Chamber Advisory Opinion (n. 95). As regards the principle of state responsibility for transboundary damage more generally, see eg *Corfu Channel (United Kingdom v Albania)* [1949] ICJ Reports 4; *Lake Lanoux* Arbitration [1957] (*Spain v France*), 24 ILR 101.

<sup>126</sup> See n. 125.

<sup>127</sup> See Dupuy (n. 124).

<sup>128</sup> See Boyle (n. 120).

<sup>129</sup> Boyle (n. 120). This stems from the fact that the jurisdiction of the ICJ is, as a rule, consensual. See Art. 36 of the ICJ Statute. For a list of the countries which have recognized the compulsory jurisdiction of the ICJ, see *International Court of Justice, Jurisdiction: Declarations Recognizing the Jurisdiction of the Court as Compulsory* <<http://www.icj-cij.org/jurisdiction/?p1=5&p2=1&p3=3>> (accessed on 26 February 2016). In contrast, ITLOS and the WTO accept the rule of compulsory jurisdiction.

<sup>130</sup> Boyle (n. 120). See eg *Gabcikovo-Nagymoros* (n. 125); *Pulp Mills in the River Uruguay* (n. 125).

<sup>131</sup> See Boyle (n. 120).

international law, a number of international agreements have been adopted to address the civil liability of the economic operators, often under the legal bases established in multilateral environmental agreements (MEAs).<sup>132</sup> However, no such regime has been adopted in the context of seabed activities. In general, there is a noticeable lack of political will for States to implement the provisions under these MEAs calling for the establishment of civil liability regimes which commonly lead to no effective initiatives and often become 'dead letter'.<sup>133</sup>

The current lack of a global regime on safety and liability in the context of seabed activities is in spite of the fact that UNCLOS expressly calls on States to adopt such rules.<sup>134</sup> UNCLOS leaves the 'establish(ment) of detailed global and regional rules; and standards and recommended practices'<sup>135</sup> to be adopted at a later stage, that is, in future agreements or treaty renegotiations conferences. Yet despite the well-established regime for compensation for pollution from ships, at the time of writing there has been no political will for States to implement an equivalent global scheme adopted in the context of seabed activities, even after the Macondo oil spill in the Gulf of Mexico in 2010.

It could be argued that an international civil liability regime for pollution from context seabed activities, similar to that adopted under the 1992 Oil Pollution Civil Liability Convention ('Oil Pollution CLC')<sup>136</sup> regime, would bring more certainty to economic operators, investors, and States, as well as to those directly or indirectly impacted by pollution incidents. A future convention on civil liability for pollution from seabed activities could establish compensation funds or schemes, the designation of forums under which claims could be brought, as well as the harmonization of the technical and safety standards in order to prevent pollution from seabed activities. Because of the constraints highlighted above for claims to be brought against States for environmental damage, it could be argued that it would be normally simpler, quicker, and more efficient to

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<sup>132</sup> See eg Basel Convention on Transboundary Movement on Hazardous Wastes (Basel, 22 March 1989, entered into force 5 May 1992) 1673 UNTS 126, Art. 12; and Convention for the Protection of the Mediterranean Sea against Pollution (Barcelona, 16 February 1976, entered into force 2 December 1978) 1102 UNTS 27 ('Barcelona Convention'), Art. 16.

<sup>133</sup> See eg Liability Protocol to Basel Convention on transboundary pollution, UN Doc. UNEP/CHW.1/WG.1/9/2 (adopted 10 December 1999, not yet in force). The Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety (adopted 15 October 2010, not yet in force). See also Pereira (n. 123).

<sup>134</sup> Art. 208 (5) UNCLOS.

<sup>135</sup> Art. 208 (5) UNCLOS.

<sup>136</sup> International Convention on Civil Liability for Oil Pollution Damage (Brussels, 27 November 1992; entered into force 30 May 1996) 1956 UNTS 255 ('Oil Pollution CLC 1992') and the International Convention on the Establishment of an international Fund for Compensation for Oil Pollution Damage (Brussels, 27 November 1992, entered into force 30 May 1996) 1953 UNTS 330 ('Oil Pollution Fund').

make those who cause pollution or other forms of damage pay, rather than States.<sup>137</sup>

The civil liability regime for marine oil pollution was the first of these regimes to broaden compensation obligations beyond personal injury and property damage provisions, to also include environmental impairment.<sup>138</sup> The 1969 Convention on Civil Liability for Oil Pollution Damage and the 1971 Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage were amended by Protocols adopted in 1992,<sup>139</sup> one of the principal effects of which was to raise liability and compensation limits. Moreover, the amended 1992 Oil Pollution Liability Convention channels liability to the shipowner who may be sued in accordance with the Convention, and who is required to carry out insurance for that purpose (so, not the operator or cargo owner). According to the CLC 1992 regime, the liability of the shipowner is strict (ie no evidence of fault is required). This method of compensation entitlement based on strict liability has become the norm for pollution damage liability rules found in other treaty regimes.<sup>140</sup>

Despite successive treaty amendments, the compensation limits found in the shipping pollution regime are currently still too low to cover all the costs of a major oil spill, such as the *Deepwater Horizon* oil rig disaster.<sup>141</sup> Indeed, although the adoption of the Supplementary Fund Protocol in 2003 (which entered into force in March 2005) has increased the compensation limit to 750 million SDRs (or about US\$1165 million)—an amount which could be considered high in absolute terms—the BP/Transocean oil-rig spill in the Gulf of Mexico, for example, could cost those companies US\$40 billion, including clean-up costs.<sup>142</sup> Yet because this accident involved oil pollution from an offshore platform and not a vessel, victims of the *Deepwater Horizon* disaster are not eligible to make claims from the Supplementary Fund under the Oil Pollution CLC regime. In fact, the

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<sup>137</sup> Boyle (n. 120); see also M Jacobsson, 'Dispute Resolution in Oil Pollution Cases: Are there alternatives to litigation in national courts?' in *Serving the Rule of International Maritime Law: Essays in Honour of Professor David Joseph Attard* (Routledge, 2010) and United Nations Conference on Trade and Development, 'Liability and Compensation for Ship-Source Pollution: Overview of the International Legal Framework for Oil Pollution Damage from Tankers', *Studies in Transport Law and Policy*—2012 no. 1.

<sup>138</sup> See further G Gaetano Librando, 'Influence of the Torrey Canyon incident on the liability and compensation regimes developed under the auspices of the IMO' in *Serving the Rule of International Maritime Law: Essays in Honour of Professor David Joseph Attard* (Routledge, 2010).

<sup>139</sup> See Oil Pollution CLC and Oil Pollution Fund (n. 136).

<sup>140</sup> See eg the Vienna Convention on Civil Liability for Nuclear Damage (Vienna, 21 May 1963, entered into force 17 November 1977) 1063 UNTS 265; the Paris Convention on Third Party Liability in the Field of Nuclear Energy (Paris, 29 July 1960, entered into force 1 April 1968) 956 UNTS 251; Council of Europe Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment (Lugano, 21 June 1993, not yet in force) CETS no. 150.

<sup>141</sup> See further eg, Pereira (n. 110); Birnie et al (n. 13).

<sup>142</sup> See BBC News, 21 April 2011, 'Gulf of Mexico oil spill: BP sues Transocean for \$40bn', available at <<http://www.bbc.co.uk/news/world-us-canada-13152270>> (accessed on 22 February 2016).

relatively low cap under the 1992 Oil Pollution CLC regime was one of the reasons given by the US Government for not ratifying (yet) the convention.<sup>143</sup> Possible avenues for compensation claims beyond the compensation caps would be for affected States and victims to bring claims before international courts or tribunals against the State that has failed to prevent and control the pollution based on its objective responsibility.<sup>144</sup> So although transboundary environmental problems tend to be caused by and affect private parties, rather than States as such, the liability of the source State could be complementary to the liability of the operator, based on the State's failure to effectively regulate and control the activities leading to transboundary pollution. So despite the difficulties in holding States responsible for environmental damage, State liability could yield important additional compensation for the victims of pollution beyond the amount recovered from the ship owner, operator, or interstate fund.

The limitations of compensation caps to provide an effective remedy for major oil spills arguably call into question their feasibility in the context of oil pollution from fixed or floating platforms. In particular, critics point out that liability caps fail to take into account the deterrent effect that an unlimited liability regime would bring.<sup>145</sup> However, a liability cap is arguably justifiable in order to reduce risks to the industry and to ensure that pollution from shipping activities are insurable risk. As regards the deterrent impact of liability regimes, it is to be noted that civil liability regimes are normally complementary to any criminal liabilities that may be applicable under the national laws of the coastal State for marine pollution. As the liability caps and compulsory insurability might in some circumstances lead to less incentive for effective and diligent pollution prevention and control by the ship owner or operator, it could be argued that criminal sanctions are a necessary additional enforcement tool available to regulators, with the ultimate aim to increase the deterrent effect of any applicable penalties and to ensure the accountability of the responsible parties. Unlike civil damages, criminal fines are generally non-insurable and the penalty of imprisonment is generally applicable in criminal prosecutions only. An example of deterrent criminal penalty was applied in November 2012 against BP for the *Deepwater Horizon* disaster. The company was fined US\$4.5 billion (the highest in US history) as part of a

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<sup>143</sup> The US Oil Pollution Act (OPA) (1990), adopted after the *Exxon Valdez* disaster, allows for unlimited liability in the case of oil pollution cause by gross negligence. 33 USC §§ 2704(c)(1)(A) and (B). A legislative proposal for amendment of OPA in June 2010 following the *Deepwater Horizon* spill aimed to raise the basic liability cap of the operator to US\$ 10 billion; see S. 3305 of the US Big Oil Bailout Prevention Liability Act of 2010.

<sup>144</sup> See Birnie et al (n. 13). In this vein, it should be noted that under the CLC 1992 regime, if the total amount of claims exceeds the amount of compensation available, the amount paid to each claimant will be reduced proportionately. See also Schoenbaum (n. 6).

<sup>145</sup> See Smith (n. 15).

settlement related to the crimes of involuntary manslaughter and for violations of the Clean Water Act.<sup>146</sup>

Yet one of the main difficulties in cases involving oil pollution damage is to establish a definition of environmental damage. Oil spills from tankers or offshore platforms give rise to compensation claims for damage to property; costs of clean-up and measures to prevent or minimize pollution damage; loss of income in the fisheries, mariculture and tourism sectors; as well as environmental damage.<sup>147</sup> The 1992 Oil Pollution CLC contains a relatively broad definition of 'pollution damage' to include both compensation for impairment of the environment and reinstatement thereof 'other than loss of profit', and for the costs of preventive measures.<sup>148</sup> While it is clear that this definition should include economic losses connected with property damage or personal injury, it is not clear whether the definition of 'pollution' should also include 'devaluation of land' and the loss of 'use and enjoyment of land', leaving this question largely to the interpretation of national courts.<sup>149</sup> Another significant limitation of the Oil Pollution CLC regime is that it does not cover environmental damage in the high seas.<sup>150</sup>

The definition of 'ships' under the 1992 Oil Pollution CLC regime is also crucial, as it could potentially attract the applicability of the shipping pollution global regime to certain mobile crafts used for exploration and exploitation activities. For example, there are floating production, storage, and offloading units which could fall within the definition of an installation or a ship. The 1992 Oil Pollution CLC regime defines ships as 'any seagoing vessel' and 'sea-borne craft of any type whatsoever', but only when they are used to transport oil in bulk as cargo.<sup>151</sup> An expansive and generous interpretation of these agreements might possibly allow mobile oil rigs and certain mobile drafts used in the exploration and exploitation of oil to be regarded as ships under the convention.<sup>152</sup> Like ships, mobile oil rigs may be considered to be 'seagoing' and as having the 'ability to navigate'. For example, certain types of drilling units, such as drilling ships, semi-submersibles, and jack-up units normally go to sea or are capable of going to sea. In that they can move through the sea from one location to another, they have the typical characteristics

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<sup>146</sup> See BBC News, 'BP Gets Record Criminal Fine over Deepwater Disaster', 15 November 2012, <<http://www.bbc.co.uk/news/business-20336898>> (accessed 22 February 2016); in turn, Transocean, a Swiss-based company which acted as the operator of the Macondo oil rig, has agreed to a settlement with the US government to pay \$400m (£248m) in criminal penalties and a \$1bn civil fine after pleading guilty to violating the Clean Water Act. See 'Transocean agrees to pay \$1.4bn oil spill fine', <<http://www.bbc.co.uk/news/business-20905472>> (accessed on 22 February 2016).

<sup>147</sup> See also, K Noussia, 'BP Oil Spill – Environmental Pollution Liability and Other Legal Ramifications' (2011) 20 *European Energy and Environmental Law Review* 3, 98.

<sup>148</sup> See Art. I (6) CLC 1992.

<sup>149</sup> See Noussia (n. 147).

<sup>150</sup> See Oil Pollution CLC 1992 (Art. II) and the Oil Pollution Fund Convention (Art. 3).

<sup>151</sup> Art. 1 (1) CLC 1992.

<sup>152</sup> The definition of 'ship' is not consistent in either municipal or international law. See H Esmaeili, *The Legal Regime of Offshore Oil Rigs in International Law* (Ashgate, 2001) 20.

of vessels and some countries in fact regard them as vessels.<sup>153</sup> However, once on station, they have little connection with ships. As the 1992 Oil Pollution CLC 1992 limits its scope of application to ‘ships’ transporting ‘oil in bulk as cargo’, the treaty drafters clearly intended to leave mobile drilling units and offshore platforms as falling outside of the scope of that convention.

#### **4.4.3 State responsibility and contractor’s liability for activities in the Area**

The legal regime applicable to the Area demonstrates how the liability of the sponsoring State and that of the contractor can be closely interlinked. UNCLOS sets the contractor’s liability and responsibility for environmental pollution in mining activities in the Area. Under Annex III UNCLOS, mining companies bear liability for any damage arising from wrongful acts in the conduct of their operations in the Area.<sup>154</sup> In addition to the liability of contractors for pollution damage, UNCLOS recognized the potential liability of the ‘sponsoring’ (or ‘controlling’) State both for its direct obligations under the Convention<sup>155</sup> as well as for the actions of the contractors. In this context, the sponsoring State or States have the responsibility to ensure that their legal systems recognize that the sponsored contractor must carry out its activities in accordance with international law and its contractual obligations.<sup>156</sup> While under Article 139 UNCLOS States are responsible for ensuring that activities in the Area are conducted in conformity with Part XI, they are only liable for damage caused by their nationals if they fail to carry out their own responsibilities—for example, if the State has not taken all necessary and appropriate measures to secure effective compliance by the contractors that it sponsors.

Therefore the sponsoring State does not bear strict liability for environmental damage in the Area: it shall not be liable for environmental damage caused by the failure of the sponsored contractor if the State has adopted laws, regulations or adopted administrative measures reasonably appropriate to ensure compliance by persons under its jurisdiction.<sup>157</sup> As the sponsoring State will not be automatically responsible for environmental damage caused by the operator,<sup>158</sup> this reduces the risks for States sponsoring activities in the Area as long as they have adopted effective regulations and measures to ensure compliance by operators with pollution prevention and control standards.<sup>159</sup> A contractor, however, is liable for the

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<sup>153</sup> See Esmaeilli (n. 152).

<sup>154</sup> UNCLOS, Annex III, Art. 22.

<sup>155</sup> *Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area* (Feb 2011) (Request for Advisory Opinion submitted to the Seabed Disputes Chamber), (hereinafter ‘Seabed Disputes Chamber Advisory Opinion’) paras. 206–7.

<sup>156</sup> See Art. 4 (4), Annex III, UNCLOS.

<sup>157</sup> Art. 139 UNCLOS. Seabed Disputes Chamber Advisory Opinion paras. 189 and 201.

<sup>158</sup> Art. 139 (1) and (2) UNCLOS.

<sup>159</sup> Art. 4 (4), Annex III, UNCLOS. See also, D French, ‘From the Depths: Rich Pickings of Principles of Sustainable Development and General International Law on the Ocean Floor—the Seabed Disputes Chamber’s 2011 Advisory Opinion’ (2011) 26 *The International Journal of Marine and Coastal Law* 525–68.



actual amount of any damage arising out of wrongful acts in the conduct of its operations.<sup>160</sup>

The failure of a sponsoring State to carry out its responsibilities may consist of an act or an omission that is contrary to that State's own responsibilities under the deep seabed mining regime.<sup>161</sup> In order to determine whether a State has fulfilled its responsibilities, one must look at the requirements which the sponsoring State is said to have breached (ie direct obligations of their own or obligations in relation to activities carried out by sponsored contractors).<sup>162</sup> The liability of the sponsoring State for its failure to comply with its due diligence obligations requires that a causal link be established between such failure and the damage caused by the contractor.<sup>163</sup>

The liability of the sponsoring State and that of the sponsored contractor exist in parallel and are not joint and several.<sup>164</sup> The sponsoring State has no residual liability in case the contractor does not fulfil its obligations.<sup>165</sup> The ITLOS Seabed Chamber reasoned that this is because under international law, in general, the acts of private parties are not directly attributable to States, except where the entity in question is empowered to act as a state organ or its conduct is acknowledged and adopted by a State as its own.<sup>166</sup> In this vein, the Chamber noted that 'if the contractor has paid the actual amount of damage . . . there is no room for reparation by the sponsoring States'.<sup>167</sup> In contrast, multiple sponsors incur, as a rule, joint and several liability.<sup>168</sup> It is also notable that under the RPEPN and RPEPS, the contractor remains liable for damage even after the completion of the exploration phase,<sup>169</sup> and this extended liability also applies to the sponsoring State.<sup>170</sup>

Despite the guidance given by the Seabed Disputes Chamber of ITLOS in its 2011 advisory opinion on the responsibilities of the sponsoring State and the contractor for activities in the Area, no compensation scheme or interstate fund has yet been established to address pollution claims arising from activities in the Area. In this regard, the ITLOS advisory opinion recommends that the Authority

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<sup>160</sup> Art. 4 (4), Annex III, UNCLOS. Seabed Disputes Chamber Advisory Opinion paras. 193–5.

<sup>161</sup> Seabed Disputes Chamber Advisory Opinion paras. 181, 182, and 189.

<sup>162</sup> Seabed Disputes Chamber Advisory Opinion, paras. 206–7.

<sup>163</sup> Seabed Disputes Chamber Advisory Opinion, paras. 181–4.

<sup>164</sup> Seabed Disputes Chamber Advisory Opinion, paras. 201 and 204.

<sup>165</sup> Seabed Disputes Chamber Advisory Opinion, paras. 200 and 201.

<sup>166</sup> Seabed Disputes Chamber Advisory Opinion, para. 182.

<sup>167</sup> Seabed Disputes Chamber Advisory Opinion, para. 202.

<sup>168</sup> Seabed Disputes Chamber Advisory Opinion, para. 192. Moreover, the Chamber noted that States Parties or international organizations acting together shall bear joint and several liability.

<sup>169</sup> Regulation 30 RPEPN (n. 76); and Regulation 32 RPEPS (n. 76). See also Seabed Disputes Chamber Advisory Opinion, para. 198.

<sup>170</sup> Regulation 30 RPEPN (n. 76); and Regulation 32 RPEPS (n. 76). See also Seabed Disputes Chamber Advisory Opinion, para. 198.

consider the establishment of a trust fund to compensate for environmental damage beyond the liability of the contractor, in cases where the State cannot be held responsible.<sup>171</sup> The advisory opinion has also clarified that the compensation for environmental damage may be claimed by the Authority or a State Party on behalf of the international community in light of the *erga omnes* character of the obligations of States in the Area.<sup>172</sup>

## 4.5 Regional Developments

UNCLOS encourages States to harmonize national policies in relation to pollution from seabed installations at an appropriate regional level, and to this end several regional regimes for environmental protection have emerged.<sup>173</sup> These initiatives launched at the regional level could be regarded as a way to compensate for the shortcomings and fill in the regulatory gaps under international law. Despite a number of important regional developments on interstate cooperation to control and prevent pollution from offshore activities, only in a few regional legal frameworks is the issue of liability and compensation from continental shelf exploration and exploitation activities addressed.<sup>174</sup>

### 4.5.1 The 1977 Convention on Civil Liability for Oil Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources (CLEE)

The regional 1977 Convention on Civil Liability for Oil Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources ('CLEE')<sup>175</sup> was the first attempt to adopt a comprehensive legal regime dealing with environmental damage from offshore installations at the regional level. The 1977 CLEE would be applicable only to coastal States in the North Sea, Baltic Sea, and North Atlantic Ocean. Yet there was no enthusiasm by the nine participating States to ratify that convention, hence it never entered into force. Although the agreement remains in principle open for accession or ratification, this now seems unlikely considering the momentum for ratification has now ceased, and given that OSPAR, OPOL, and the Helsinki Convention regimes, discussed below, cover pollution incidents in the regulated area of the 1977 CLEE. Despite this and

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<sup>171</sup> Seabed Disputes Chamber Advisory Opinion, para. 205.

<sup>172</sup> Seabed Disputes Chamber Advisory Opinion, para. 180. '... entities engaged in deep seabed mining, other users of the sea, and coastal states' may also make claims (para. 179).

<sup>173</sup> Art. 208 (4) UNCLOS.

<sup>174</sup> See discussion of specific regional agreements in this section. See also Schoenbaum (n. 6).

<sup>175</sup> Convention of Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources (London 1 May 1977, not yet in force) 16 *ILM* 1451 ('CLEE').

its limited geographical application, the CLEE provides an interesting model that could potentially be replicated in a future global agreement aimed to address safety and liability for pollution from seabed activities.

The Convention applies to pollution from both fixed platforms and mobile crafts.<sup>176</sup> It holds the oil platform operators strictly liable for environmental damage caused by oil from an offshore installation. If an installation has more than one operator, they shall be joint and severally liable.<sup>177</sup> Under the CLEE the operator is recognized to have only a limited number of defences and only in exceptional circumstances.<sup>178</sup>

The 1977 CLEE establishes an interesting model for compensation caps which might be replicated in an eventual global or in other regional treaties. There are a number of important differences between the compensation schemes established under the CLEE and the 1992 Oil Pollution CLC framework for shipping pollution, though. Firstly, unlike the 1992 CLC which only recognizes the limited liability of the shipowner, the CLEE allows for unlimited liability to be implemented by the Contracting Parties.<sup>179</sup> Moreover, it places the liability on the operators of an installation (who are jointly and severally liable where the installation has more than one operator), rather than the owner of the rig or oil platform (equivalent to the shipowner under the 1992 Oil Pollution CLC regime). This means that in the scenario of the *Deepwater Horizon* disaster, the company that owned the Macondo oil rig (ie Transocean) would not incur liability under the CLEE.<sup>180</sup> Another important feature of the Convention is that it allows the ceiling of liability to vary from State to State. Hence, although the operator's standard liability cap set under the convention at 40 million SDRs is very low,<sup>181</sup> the convention does not prevent a State from providing unlimited liability for operators of installations in which it acts as the controlling State, so long as there is no discrimination based on nationality.<sup>182</sup> Similar to the CLC 1992 regime, the 1977 CLEE recognizes that the liability caps are not always applicable depending on the degree of fault of the operator. The Convention holds that 'the operator is not entitled to limit his liability if it is proved that pollution damage occurred as a result of an act of omission by the operator himself, done deliberately with actual knowledge that pollution damage would result'.<sup>183</sup>

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<sup>176</sup> See Art. 1 (2) of the CLEE, which defines 'installation' as 'any well or other facility, *whether fixed or mobile*, which is used for the purpose of exploring for . . . crude oil from the seabed or its sub-soil' (emphasis added).

<sup>177</sup> Art. 3 (2) CLEE.

<sup>178</sup> Art. 15 CLEE.

<sup>179</sup> Art. 15 (1) CLEE.

<sup>180</sup> See Art. 15 (1) CLEE.

<sup>181</sup> Art. 6 (1) CLEE.

<sup>182</sup> Art. 15 (1) CLEE.

<sup>183</sup> Art. 6 (4) CLEE.

The Convention would require that a fund is established by the operator(s) in order to administer the compensation claims.<sup>184</sup> The Convention also foresees the creation of a committee which might propose at any time to increase these liability caps.<sup>185</sup> This innovative provision under the Convention would allow for an 'adaptive amendment structure' to develop, making it easier for the compensation limits to be amended. Hence, arguably one of the advantages of the CLEE is that the flexibility in the liability caps could ensure that the responsible parties are held fully liable for environmental damage caused by their installations, thus in line with the polluter-pays principle.<sup>186</sup>

#### 4.5.2 The 1974 Offshore Pollution Liability Agreement (OPOL)

As the 1977 CLEE regional treaty was not ratified, the UK Government and other States operating in the North Sea decided to continue working through the OPOL Agreement, which is a voluntary oil pollution compensation scheme in relation to pollution caused by offshore installations operating in the North Sea.<sup>187</sup> The OPOL Agreement came into effect on 1st May 1975, and was initially an interim regime whilst awaiting the adoption of a regional treaty. All offshore operators currently active in exploration and production on the continental shelf of coastal States in the North Sea take part in OPOL.<sup>188</sup> Importantly, the OPOL regime is not based on an interstate treaty, but instead on an agreement among current and future operators of offshore facilities maintained for the exploration or production of oil.<sup>189</sup> The OPOL regime is thus an important example of how the oil and gas industries can recognize their responsibilities for the marine environmental damage caused by their operations.

OPOL holds the operators strictly liable for damage caused by their offshore facilities.<sup>190</sup> The claim for pollution damage may be brought by governments, public authorities, and private actors against the operator with respect to reasonable remedial measures to prevent, mitigate, eliminate, and for compensation for pollution damage. One of the significant limitations of the OPOL Agreement is that it currently sets a cap on any party's liability at \$250 million per incident. This is an increase from the previous liability caps, and was adopted in response to the *Deepwater Horizon* oil spill in 2010. However, the current liability cap on the operators is still too low to cover a major oil spill. The Agreement also

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<sup>184</sup> Art. 6 (5) CLEE.

<sup>185</sup> Art. 6 (5) CLEE. The committee would be composed of one representative from each State Party. A vote by three-fourths of the State Party members would be required for amendment of the liability caps.

<sup>186</sup> See also Esmacilli (n. 152).

<sup>187</sup> The Offshore Pollution Liability (OPOL) agreement can be found at <[http://www.opol.org.uk/downloads/OPOL\\_Agreement%20-%201\\_Jan\\_16.pdf](http://www.opol.org.uk/downloads/OPOL_Agreement%20-%201_Jan_16.pdf)> (accessed on 26 February 2016).

<sup>188</sup> See also Pereira (n. 110).

<sup>189</sup> Schoenbaum (n. 6).

<sup>190</sup> Schoenbaum (n. 6).

states that no party shall be liable to pay more than \$500 million per year in claims.<sup>191</sup> In the event that a party fails to pay any claim required by OPOL, the remaining parties to OPOL must contribute to the unresolved claim in an amount proportionate to the number of offshore facilities that each one of them operates.<sup>192</sup> Since OPOL is an agreement between the oil companies and not an interstate agreement, there is no provision for establishment of an interstate fund for meeting the compensation claims beyond the liability cap of the operators. Therefore, the victims of pollution damage caused by oil operators in the North Sea would need to bring legal proceedings before the national courts of the coastal states in order to recover any compensation and for reinstatement of the environment beyond the liability caps established under OPOL.

#### 4.5.3 1992 Convention for the protection of the marine environment of the North-East Atlantic (OSPAR)

In the North-East Atlantic, interstate cooperation for marine environmental protection is governed by the 1992 Convention for the protection of the marine environment of the North-East Atlantic (the 'OSPAR Convention').<sup>193</sup> There are considerable environmental pressures arising from offshore oil and gas operations in the North Sea.<sup>194</sup>

The Ministerial Meeting of the OSPAR Commission adopted the 'Environment Strategy'<sup>195</sup>, which contains a thematic strategy on 'Offshore Oil and Gas Industry' ('Offshore Industry Strategy') aimed to 'prevent and eliminate pollution and take the necessary measures to protect the OSPAR maritime area against the adverse effects of offshore activities'.<sup>196</sup> The OSPAR Commission has adopted a number of decisions and recommendations dealing, inter alia, with the discharges of chemicals and oil<sup>197</sup> and the decommissioning of disused offshore installations.<sup>198</sup> Following the *Deepwater Horizon* accident, the Commission adopted a

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<sup>191</sup> See 'OPOL—Guidelines for Claimants' at <<http://www.opol.org.uk/downloads/opol-guide-lines-oct10.pdf>> (accessed on 22 February 2016).

<sup>192</sup> OPOL—Guidelines for Claimants (n. 191).

<sup>193</sup> The 1992 Convention for the Protection of the Environment of the North-East Atlantic (Paris, 22 September 1992, entered into force 25 March 1998) 2354 UNTS 67 (OSPAR).

<sup>194</sup> OSPAR Commission—Offshore Oil and Gas Industry, available at <[http://qsr2010.ospar.org/en/ch07\\_01.html](http://qsr2010.ospar.org/en/ch07_01.html)> (accessed 22 February 2016).

<sup>195</sup> *Strategy of the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic* (2010–2020) (OSPAR Agreement 2010-3). <[http://www.ospar.org/site/assets/files/1413/10-03e\\_nea\\_environment\\_strategy.pdf](http://www.ospar.org/site/assets/files/1413/10-03e_nea_environment_strategy.pdf)> (accessed on 26 February 2016).

<sup>196</sup> *Strategy of the OSPAR Commission for the Protection of the Marine Environment* (n. 195).

<sup>197</sup> See eg *OSPAR Guidelines for Toxicity Testing of Substances and Preparations Used and Discharged Offshore* (Reference number: 2005-12) and OSPAR Recommendation 2006/3 on Environmental Goals for the Discharge by the Offshore Industry of Chemicals that Are, or Which Contain, Substances Identified as Candidates for Substitutions.

<sup>198</sup> OSPAR Decision 98/3 on Disposal of Disused Offshore Installations, Basic Documents no. 51. This decision sets a permanent moratorium on the dumping of offshore installations, subject to a few exceptions.

recommendation on the prevention of significant acute oil pollution from offshore drilling activities.<sup>199</sup>

OSPAR contains obligations for State Parties to prevent and eliminate pollution and conserve marine ecosystems; on the precautionary principle and polluter-pays principles; and on best available techniques. It contains five annexes which form an integral part of the Convention, laying down technical, scientific, and administrative provisions.<sup>200</sup> Of particular relevance is Annex III dealing with the prevention of pollution from offshore installations, which requires authorization and regulation by the competent authority of the State for the decommissioning or abandonment of oil platforms.<sup>201</sup> In June 2007 the OSPAR Commission adopted two decisions relating to the geological storage of carbon dioxide (effective from 15 Jan 2008).<sup>202</sup>

So far, no liability protocol has been adopted under OSPAR to address compensation claims in the context of dumping. In general, the enforcement and compliance mechanisms under the Convention remain weak to date.<sup>203</sup>

#### 4.5.4 The 1976 Barcelona Convention and the 1994 Offshore Protocol

In 1975, sixteen Mediterranean countries and the European Community adopted the Mediterranean Action Plan (MAP), the first Regional Seas Programme under UNEP's umbrella.<sup>204</sup> In 1976 these Parties adopted the Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona Convention).<sup>205</sup> Seven Protocols addressing specific aspects of Mediterranean environmental conservation complete the MAP legal framework.<sup>206</sup> The Barcelona Convention, as

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<sup>199</sup> OSPAR Recommendation 2010/18 *on the prevention of significant acute oil pollution from offshore drilling activities*. OSPAR 10/23/1-E, Annex 46.

<sup>200</sup> Art. 14 OSPAR.

<sup>201</sup> See the OSPAR Decision 98/3 on disposal of offshore installations (n. 198).

<sup>202</sup> OSPAR Commission Decision 2007/1 on the prohibition of placement of CO<sub>2</sub> streams in water column or seabed; and OSPAR Commission Decision 2007/2 providing a legal framework for CO<sub>2</sub> storage.

<sup>203</sup> See Art. 21 OSPAR.

<sup>204</sup> See further <<http://www.unepmap.org/index.php?module=content2&catid=001001004>> (accessed on 22 February 2016).

<sup>205</sup> Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona, 16 February 1976, entered into force 12 February 1978) 1102 UNTS 27 ('Barcelona Convention').

<sup>206</sup> Dumping Protocol (from ships and aircraft) (date adopted: 16 February 1976; in force: 12 February 1978). Prevention and Emergency Protocol (pollution from ships and emergency situations) (date adopted: 25 January 2002; entered into force: 17 March 2004). Land-based Sources and Activities Protocol (adopted on 17 May 1980; entered into force: 17 June 1983); Specially Protected Areas and Biological Diversity Protocol (date adopted: 10 June 1995; entered into force: 12 December 1999); Offshore Protocol (pollution from exploration and exploitation) (date adopted: 14 October 1994, in force: 24 March 2011); Hazardous Wastes Protocol (date adopted: 1 October 1996); Protocol on Integrated Coastal Zone Management (ICZM) (date adopted: 21 January 2008; in force: 24 March 2011).

amended, applies without distinction to all the 'maritime waters' of the Mediterranean Sea,<sup>207</sup> including the high seas waters.<sup>208</sup>

The Barcelona Convention calls for the development of an international liability regime 'as soon as possible'.<sup>209</sup> The 1994 Offshore Protocol<sup>210</sup> was the first step by the State parties to the Barcelona Convention towards a liability and compensation regime. As a result of a number of regional initiatives adopted since the BP *Deepwater Horizon* accident, the protocol entered into force on 24 March 2011. Following the initial six ratifications,<sup>211</sup> the European Union ratified the Protocol on 27 February 2013.

The Protocol aims to cover the full range of activities concerning exploration and exploitation of resources in the Mediterranean. It includes a general obligation that 'the contracting parties shall take all appropriate measures to prevent, abate and combat pollution of the Mediterranean sea area resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil'.<sup>212</sup> Regarding the safety of offshore installations, the Protocol sets a number of important requirements. It states that all activities, including erection on site of installations, shall be subject to the prior written authorization for exploration or exploitation from the competent authority. The authorization shall be refused if there are indications that the proposed activities are 'likely to cause significant adverse effects on the environment that could not be avoided by compliance with the conditions laid down in the authorization'.<sup>213</sup>

The Offshore Protocol requires the parties to cooperate in good faith to formulate appropriate 'rules and procedures' relating to liability and compensation for damages 'as soon as possible'.<sup>214</sup> Hence the Protocol does not establish liability rules, but calls on the parties to develop further rules on liability. Yet unlike the 1976 Barcelona Convention itself, the Offshore Protocol contains a provision calling on the

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<sup>207</sup> See Barcelona Convention, Art. 1, para. 1.

<sup>208</sup> The geographical scope of application of the protocols may be extended, depending on their subject matter (Art. 1, para. 3). See T Scovazzi, 'Mediterranean Guidelines for Determination of Environmental Liability and Compensation: The Negotiations for the Instrument and the Question of the Damage that can be compensated' in A von Bogdandy and R Wolfrum (eds), *Max Planck Yearbook of United States Law*, Vol. 13, 2009, 183–212.

<sup>209</sup> See Barcelona Convention, Art. 12. Following a 1995 amendment, Art. 16 of the Convention no longer includes a reference to 'as soon as possible', which reflects the considerable lapse of time since the Convention's adoption in 1976.

<sup>210</sup> 1994 Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil (known as the 'Madrid' or 'Offshore' Protocol) (adopted on 14 October 1994).

<sup>211</sup> The six States to have first ratified the Convention are Albania, Cyprus, Libya, Morocco, Syria, and Tunisia.

<sup>212</sup> 1994 Offshore Protocol, Art. 7.

<sup>213</sup> 1994 Offshore Protocol, Art. 4 (2).

<sup>214</sup> 1994 Offshore Protocol, Art. 27.

parties to introduce certain specific measures relating to liability, pending the adoption of procedures for liability and compensation. This provision calls on the parties to establish under national law the liability of the operator for damage and to pay ‘prompt and adequate compensation,’<sup>215</sup> and to introduce financial security.<sup>216</sup>

A further step towards adoption of a comprehensive liability regime for the Mediterranean Sea followed the adoption on 18 January 2008 of the Guidelines for the Determination of Liability and Compensation for Damage resulting from Pollution of the Marine Environment in the Mediterranean Sea Area (2008).<sup>217</sup> Although the Guidelines are not legally binding,<sup>218</sup> they contain a number of relevant provisions relating to compensation for environmental damage,<sup>219</sup> including compensation for the costs of activities and studies to assess damages; costs of preventive measures; and costs of clean-up and reinstatement of the environment;<sup>220</sup> as well as ‘traditional damage’, including damage to property and to natural and juridical persons.<sup>221</sup> Like the international and regional treaties dealing with oil pollution, the basic standard of liability under the guidelines is strict liability.<sup>222</sup> Moreover, the liability is channelled to the operator,<sup>223</sup> who can avail himself of limitations of liability on the basis of international treaties or relevant domestic legislation.<sup>224</sup>

Although the Mediterranean Guidelines may have the positive effect in driving the parties to implement a compensation scheme for seabed pollution damage (in particular the North African and Middle Eastern States which are not bound by the EU Offshore Safety directive, discussed below), the regime governing liability for offshore pollution remains underdeveloped under the Offshore Protocol. It thus calls on State parties to seek further cooperation towards the adoption of a binding liability regime for marine pollution caused by offshore installations operating in the Mediterranean Sea.

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<sup>215</sup> 1994 Offshore Protocol, Art. 27 (a).

<sup>216</sup> 1994 Offshore Protocol, Art. 27 (b).

<sup>217</sup> Guidelines for the Determination of Liability and Compensation for Damage resulting from Pollution of the Marine Environment in the Mediterranean Sea Area (2008) (22 Doc UNEP(DEPI)/MED. IG.17/10) of 18 January 2008, adopted at the 15th ordinary meeting of the Parties. For a detailed analysis of the Guidelines, see Scovazzi (n. 208).

<sup>218</sup> Guideline A, para. 3.

<sup>219</sup> Guideline D, para. 9.

<sup>220</sup> Guideline D, para. 10.

<sup>221</sup> For the purposes of the Guidelines, traditional damage is defined as ‘loss of life or personal injury; b) loss of or damage to property other than property the property held by the person liable; loss of income directly deriving from an impairment of a legally protected interest in any use of the marine environment for economic purposes (. . .)’. See Guideline D, para. 14. Guideline D, para. 8.

<sup>222</sup> Guideline G, para. 19.

<sup>223</sup> Guideline F, para. 17.

<sup>224</sup> Guideline I, para. 25. On the other hand, the guidelines do not address the question of compulsory insurance. Scovazzi (n. 208).



#### 4.5.5 The European Union

Following the explosion of the *Deepwater Horizon* drilling rig in April 2010, the European Commission has prepared a review to the European Parliament and the Council on the European Union regulations of offshore oil and gas activities within the EU envisaging safety rules. However, this review fell short of adopting a moratorium on drilling, which would be regarded as economically prohibitive.<sup>225</sup> The Communication deals with a wide range of issues including technology, safety, and liability regime for international cooperation in the case of offshore accidents and environmental pollution. It also contemplates new EU standards, including criteria for granting drilling permits, controls of the rigs, and safety control mechanisms.

In October 2011, the European Commission proposed a Regulation of the European Parliament and of the Council on Safety of Offshore Oil and Gas.<sup>226</sup> This proposed regulation aimed to extend the provisions of the existing EU Environmental Liability Directive<sup>227</sup> to the continental shelf of the EU Member States. Although originally proposed in the form of a regulation, the proposal was finally adopted in the form of a directive, with the view of ensuring more flexible implementation by the Member States.<sup>228</sup> The EU Directive on offshore safety<sup>229</sup> was adopted on 12 June 2013 and needed to be implemented by the Member States by 19 July 2015. It contains technical and financial capability of the licensee aimed to set rules that cover the whole lifecycle of all exploration and production activities from design to the final removal of an oil or gas installation. The Directive covers a number of important standards on the prevention of pollution, the response and the financial liability in relation to granting permits, controls, standards for safety equipment, damages and responses to it, as well as ways to better address international response and measures.<sup>230</sup> The Directive also requires equipment for oil platforms and mobile offshore drilling rigs, in particular blow-out preventers, to meet the highest safety standards.<sup>231</sup> It introduces the requirement that the Member States establish appropriate governance structures in the form of designated national authorities which must oversee safety inspections and requires

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<sup>225</sup> Communication from the Commission to the European Parliament and the Council: Facing the challenge of the safety of offshore oil and gas activities/\* COM/2010/0560 final.

<sup>226</sup> European Commission proposal for a Regulation of the European Parliament and of the Council on Safety of Offshore Oil and Gas, COM(2011) 688 final.

<sup>227</sup> Directive 2004/35/EC on Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage, 21 April 2004.

<sup>228</sup> See Art. 288 of the Treaty on the Functioning of the European Union (TFEU) (former Art. 249 EC).

<sup>229</sup> Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC Text with EEA relevance, in force on 18th July 2013 (hereinafter 'Directive 2013/30/EU').

<sup>230</sup> Directive 2013/30/EU.

<sup>231</sup> Recital 40 Directive 2013/30/EU.

continuous expert regulatory oversight and evaluation, in order to prevent major accidents, and limiting their impacts to persons, the environment, and security of energy supply.<sup>232</sup> This should include independent expert examination and effective response to emergencies.

The EU Directive contains a number of other innovations. It aims to raise standards to the highest level possible by requiring companies seeking drilling permits to have response plans in case spills occur; and that they must prove that they have the means to pay for the clean-up costs and for compensation for environmental damage.<sup>233</sup> Regarding liability for environmental damage, the directive establishes the obligation of operators to compensate for pollution pursuant to the EU civil liability directive.<sup>234</sup> Overall the EU offshore directive represents an advanced model for interstate cooperation aimed at attaining a high level of safety in the offshore industry. It could provide thus a model that could be replicated in other regional treaties.

#### 4.5.6 The Nordic Convention

The Convention on the Protection of the Environment<sup>235</sup> between Denmark, Finland, Norway, and Sweden provides an interesting model for the design of compensation schemes and for addressing the jurisdictional issues in interstate claims. The objective of the Convention is to safeguard environmental interests in the case of nuisances arising from environmentally harmful activities implemented in other Contracting States. The Convention applies to the continental shelf areas of the Contracting States<sup>236</sup> and includes provisions concerned with compensation for environmental damage resulting from the discharge of oil from offshore platforms.<sup>237</sup>

Under the Convention, ‘any person’ affected by a nuisance caused by environmentally harmful activities may raise proceedings to address claims for compensation for damage suffered in the State in which the activity is conducted.<sup>238</sup> Moreover, the Supervisory Authority of the State, which shall be appointed by each Contracting Party, may institute proceedings against another Contracting State in the interest of the general environmental protection objective.<sup>239</sup> Therefore, a significant achievement of the Nordic Convention regime is to

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<sup>232</sup> Arts 8 and 9 Directive 2013/30/EU.

<sup>233</sup> Art. 7 Directive 2013/30/EU.

<sup>234</sup> Civil Liability Directive (n. 227).

<sup>235</sup> Nordic Convention on the Protection of the Environment (Stockholm, 19 February 1974, entered into force 5 October 1976) UNE EPL, Vol. 1, (1975–1976) 44 (‘Nordic Convention’).

<sup>236</sup> See T Koivurova, ‘The Future of the Nordic Environment Protection Convention’ (1997) 66 *Nordic Journal of International Law* 505–26; Esmaeilli (n. 152).

<sup>237</sup> Art. 13 Nordic Convention.

<sup>238</sup> See Art. 1 Nordic Convention.

<sup>239</sup> Art. 4 Nordic Convention.

facilitate interstate compensation claims by establishing a right for any person who suffers injury as result of environmentally harmful activities in a neighbouring State to institute proceedings for compensation before a court or administrative authority of that State.<sup>240</sup>

#### 4.5.7 The Persian Gulf

In the Persian Gulf, the 1989 Kuwait Protocol Concerning Marine Pollution resulting from Exploration and Exploitation of the Continental Shelf<sup>241</sup> complements the general regime for controlling marine pollution resulting from exploration and exploitation of the continental shelf for the region under the UNEP Regional Seas Convention.<sup>242</sup>

The objective of the Protocol is to coordinate regional activities towards protection of the marine environment against pollution from exploration and exploitation of oil and gas in the continental shelf. The Protocol aims to provide a broad legal framework for the development of comprehensive action plans delineating the obligations of Contracting States at the national and regional levels for sound environmental practices in offshore exploration and production activities.<sup>243</sup>

The Kuwait Regional Convention stipulates that the Contracting States shall take all appropriate measures to prevent, abate, and combat pollution in the sea area of Gulf States resulting from exploration and exploitation of the bed of the territorial sea and its sub-soil and the continental shelf.<sup>244</sup> A number of Guidelines to the Protocol were adopted by the Seventh Meeting of the Regional Organization for the Protection of the Marine Environment (ROPME) Council on 21 February 1990 in order to strengthen the parties' original commitments under the Protocol.<sup>245</sup> The Guidelines are aimed to assist Contracting States in developing their specific plans and measures in compliance with the provisions of the Protocol. Moreover, the Guidelines recognize as key objectives the application of common standards, criteria and regulations, as well as the harmonization of environmental

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<sup>240</sup> Art. 3 Nordic Convention.

<sup>241</sup> Kuwait Protocol Concerning Marine Pollution resulting from Exploration and Exploitation of the Continental Shelf (adopted 29 March 1989, entered into force on 17 February 1990).

<sup>242</sup> Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution (adopted 24 April 1978; entered into force 1 July 1979) (UNEP 2001) 1140 UNTS 133 ('Kuwait Convention'). The Contracting Parties are the State of Bahrain, Iran, Republic of Iraq, State of Kuwait, Sultanate of Oman, State of Qatar, Kingdom of Saudi Arabia, and the United Arab Emirates.

<sup>243</sup> See Regional Organisation for Protection of the Marine Environment, *ROPME Protocols*, at <[http://ropme.org/ROPME\\_Protocols.clx](http://ropme.org/ROPME_Protocols.clx)> (accessed 22 February 2016).

<sup>244</sup> Art. 7 Kuwait Convention.

<sup>245</sup> See Guidelines on requirements for environmental impact surveys and assessments; Guidelines on the use and storage of chemicals in offshore operations; Guidelines on the conduct of seismic operations; and Guidelines on disposal of drill cuttings on the seabed ('Kuwait Guidelines') (adopted by the Seventh Meeting of ROPME Council on 21 February 1990).

policies, programmes, administration, and legislation of Contracting States for the fulfilment of their obligations under the Protocol.<sup>246</sup>

Although the Kuwait Protocol expressly calls on the parties to cooperate to develop a liability regime,<sup>247</sup> no such regime has been adopted to date.

#### 4.5.8. West Africa

Offshore oil and gas activities in Western Africa account for a significant share of production in the countries in the region.<sup>248</sup> The legal basis for the regional cooperation is the Convention for co-operation in the protection and development of the marine and coastal environment of the West and Central African Region (the 'Abidjan Convention'), adopted in 1981.<sup>249</sup> In the ninth conference of the parties (COP-9) meeting held in Accra, Ghana, the contracting parties<sup>250</sup> to the Abidjan Convention made important steps to address oil spills, including pollution arising from offshore seabed activities, and this issue remained an important item in the agenda of subsequent COP meetings, including the COP-11 meeting in March 2014 in South Africa.

According to the Abidjan Convention 'contracting parties shall take all appropriate measures to prevent, reduce, combat and control pollution resulting from or in connection with activities relating to the exploration and exploitation of the seabed and its subsoil subject to their jurisdiction and from artificial islands, installations and structures under their jurisdiction'.<sup>251</sup> Yet, as has been the case with most other regional treaties discussed above, the Convention leaves to a later stage the adoption of appropriate rules and procedures for the determination of liability and payment of adequate and prompt compensation for damage resulting from pollution of the Convention area.<sup>252</sup>

A number of advanced provisions concerning cooperation in combating pollution in cases of emergency can be found in a 1985 Protocol to the Abidjan Convention.<sup>253</sup> The Protocol creates the Regional Centre for Cooperation in Case of

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<sup>246</sup> Kuwait Guidelines (n. 245).

<sup>247</sup> Art. 8 Kuwait Protocol.

<sup>248</sup> Nigeria, Angola, and Equatorial Guinea are the regional leaders in production; See further, UNEP: *The Abidjan Convention*, at <<http://abidjanconvention.org>> (accessed on 22 February 2016).

<sup>249</sup> Convention for co-operation in the protection and development of the marine and coastal environment of the West and Central African Region (the 'Abidjan Convention') (adopted in 1981, in force in 1984). UNEP acts as the Secretariat for the Convention.

<sup>250</sup> The Contracting Parties are Angola, Benin, Cameroon, Cape Verde, Congo, Côte d'Ivoire, Democratic Republic of Congo, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mauritania, Namibia, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, and Togo.

<sup>251</sup> Art. 8 Abidjan Convention.

<sup>252</sup> Art. 15 Abidjan Convention.

<sup>253</sup> 1985 Protocol to the Abidjan Convention concerning cooperation in combating pollution in cases of emergency. Adopted on the basis of Art. 12 of the Convention.

Emergency<sup>254</sup> and establishes a Regional Contingency Plan has also been adopted in order to organize a prompt and effective response to oil spills affecting or likely to affect the region.<sup>255</sup> Lastly, the contracting parties committed themselves to 'build national capacity in oil and gas development to manage the sector, elaborate and adopt appropriate national policies, conduct strategic environmental assessments and social/environmental Impact Assessments . . . , enact national legislation to address liability, compensation, safety and security-related matters for offshore platforms'.<sup>256</sup>

#### 4.5.9 The Baltic Sea

The 1974 Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea Area ('the Helsinki Convention')<sup>257</sup> was the first 'comprehensive regional approach to the protection of marine environment from pollution of all sources'.<sup>258</sup> In 1992, the Baltic coastal States, together with the EC, adopted a new Convention which entered into force in 2000.<sup>259</sup> Reflecting the evolution of international environmental law, the new Convention refers to the precautionary principle, best environmental technologies and the polluter pays principle.<sup>260</sup>

The convention defines ships as including both floating and fixed oil rigs.<sup>261</sup> The parties to the Helsinki Convention are required to take all appropriate measures in order to prevent pollution of the Baltic Sea resulting from exploration and exploitation of the seabed and sub-soil resources.<sup>262</sup> This obligation is extended by Annex VI, which requires the contracting parties to use the best available technology and best available practice in order to prevent and eliminate pollution from offshore activities;<sup>263</sup> to carry out an environmental impact assessment before an offshore activity is initiated;<sup>264</sup> and establishes requirements with regard to discharges during the exploration and exploitation phases.<sup>265</sup> The parties are also

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<sup>254</sup> Art. 7 of the Protocol; and Decision CP.9/5 Creation of a Regional Centre for Cooperation in Case of Emergency.

<sup>255</sup> Decision CP 9/6 Adoption of the Regional Contingency Plan.

<sup>256</sup> Decision CP 9/3 on the protection of the marine and coastal environment from oil spills emanating from offshore and coastal oil exploration and exploitation.

<sup>257</sup> Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki, 22 March 1974, entered into force 3 May 1980) 13 *ILM* 546 (1974).

<sup>258</sup> M Fitzmaurice, *International Legal Problems of the Environmental Protection of the Baltic Sea* (Springer, 1992) 19.

<sup>259</sup> 1992 Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki, 9 April 1992, entered into force 7 January 2000) 1507 UNTS 167.

<sup>260</sup> See T Koivurova, *Introduction to International Environmental Law* (Routledge, 2014) 154.

<sup>261</sup> Art. 2 (3) Helsinki Convention.

<sup>262</sup> Art. 12 Helsinki Convention. See further Fitzmaurice (n. 258).

<sup>263</sup> Regulation 2 Helsinki Convention.

<sup>264</sup> Regulation 3 Helsinki Convention.

<sup>265</sup> Regulations 4 and 5 Helsinki Convention. See also Y Tanaka, *The International Law of the Sea* (Cambridge University Press, 2010) 303.

required to ensure that adequate equipment is at hand to start immediate abatement of pollution. The Baltic Sea cooperation on pollution preparedness and response is carried out by the Baltic Marine Environment Protection Commission (HELCOM) Response Group which consists of the competent pollution response authorities of all the Baltic Sea countries, usually the national coastguard or navy.<sup>266</sup>

In addition, the Helsinki Convention prohibits or restricts dumping of dangerous substances into the sea.<sup>267</sup> Under the Convention 'dumping' is broadly defined as any deliberate disposal at sea of wastes or other matter from vessels, aircrafts, platforms, or other man-made structures.<sup>268</sup>

#### 4.5.10 The polar regions

In recent years there has been an increasing interest by States to explore and exploit oil, gas and mineral resources in the polar regions, in particular in the Arctic. This is in light of the impacts of climate change and the consequent ice melting facilitating access to natural resources which were previously locked in the ice shelves.<sup>269</sup> The 2000 United States Geological Survey (USGS) estimates that the Arctic may hold as much as 25 per cent of the world's undiscovered resources.<sup>270</sup>

The 1991 Antarctic Environment Protocol ('Madrid Protocol') to the 1959 Antarctic Treaty<sup>271</sup> contains some of the most stringent rules on environmental protection in a treaty, which is explained by the fragile and isolated ecosystem of the region. It prohibits any mining activities, other than scientific research, in the continent until at least fifty years since the entry into force of the Protocol.<sup>272</sup> Although the 1988 Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA)<sup>273</sup> would have permitted limited mining activities in Antarctica subject to stringent conditions (including application of the precautionary

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<sup>266</sup> The HELCOM Response manual, adopted in 1983, include the agreed operational procedures of contracting parties in the case of a major international oil or HNS accident. See HELCOM: *Response to Spills*, at <<http://helcom.fi/action-areas/response-to-spills>> (accessed 22 February 2016).

<sup>267</sup> Art. 11 Helsinki Convention.

<sup>268</sup> Art. 2 (3) Helsinki Convention.

<sup>269</sup> The European Space Agency in its 2004 Arctic Climate Impact Assessment (14 September 2007), estimated that in light of the current projections for global warming, the rapid loss of sea ice could result in a sea ice-free summer by 2030. See further, T Potts and C Schofield, 'Current Legal Developments: The Arctic' (2008) 23 *Int'l J Marine & Coastal L* 151; R Rayfuse, 'Melting Moments: The future of polar ocean governance in a warming world' (2007) 16 *Review of European Community and International Environmental Law* (RECIEL) (2): 196–216, 210.

<sup>270</sup> United States Geological Survey (USGS, 2000).

<sup>271</sup> 1959 Antarctic Treaty (Washington, DC, 1 December 1959, entered into force 23 June 1961) 402 UNTS 71. Under Art. 1 of the Treaty, Antarctica 'shall be used for peaceful purposes only' and as an area for scientific research.

<sup>272</sup> Art. 7 Madrid Protocol.

<sup>273</sup> Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA) (Wellington, 2 June 1988, not yet in force) 27 *ILM* 868.

principle), the CRAMRA is unlikely to enter into force after the Madrid Protocol has effectively implemented a moratorium on mining.

In contrast to the situation in Antarctica, there is no broad treaty framework governing environmental governance in the Arctic, which remains largely regulated by UNCLOS and the national laws of the eight Arctic States.<sup>274</sup> Moreover, the Arctic-specific environmental protection regime is largely based on soft-law initiatives adopted by the Arctic Council, in particular the Arctic Environmental Strategy (AEPS)<sup>275</sup> and the Action Plan to Eliminate Pollution of the Arctic (ACAP).<sup>276</sup> In light of the growing interest of oil and mining companies to increase exploration and exploitation activities in the Arctic region, and their potential adverse impacts on the Arctic ecosystems, it appears imperative that the Arctic States adopt a regional agreement governing safety and liability for environmental damage arising from offshore activities in the region.<sup>277</sup> One important step in this direction was the adoption of the Nuuk Declaration by the Arctic Council on 12 May 2011, which established a task force to develop an international instrument on marine oil pollution preparedness and response in the Arctic.<sup>278</sup> It is also important to note that under the 2013 EU Offshore Safety Directive, offshore companies registered in the EU Member States must attain the highest standards of safety when operating in the Arctic.<sup>279</sup>

#### 4.5.11 Other regional developments

Other relevant regional developments include measures adopted under UNEP's regional sea programme. This includes environmental protection conventions adopted for the South-East Pacific,<sup>280</sup> the Red Sea, and the Gulf of Eden,<sup>281</sup> the

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<sup>274</sup> See the Ilulissat Declaration (May 2008) in which five of the Arctic coastal States agreed that there was no need for development of an overarching Arctic-specific convention for the Arctic Ocean. They further declared that they will remain committed to the UNCLOS as the solid foundation for responsible management and settlement of overlapping claims. See further T Potts and C Schofield, 'Current Legal Developments: The Arctic' (2008) 23 *Int'l J Marine & Coastal L* 151; and R Rayfuse, 'Melting Moments: The future of polar ocean governance in a warming world' (2007) 16 *Review of European Community and International Environmental Law* (RECIEL) (2): 196–216, 210.

<sup>275</sup> Arctic Environmental Strategy (1991) 30 *ILM* 1, 624.

<sup>276</sup> 2000 Action Plan to Eliminate Pollution of the Arctic ('ACAP').

<sup>277</sup> To the concern of environmentalists, Gazprom has been actively pursuing oil and gas extraction in Russia's Arctic continental shelf. Shell has recently suspended plans to drill in the Arctic off the coast of Alaska largely due to pressure of environmental groups. See M Kavanagh, *Royal Dutch Shell suspends Arctic drilling*, *The Financial Times*, 30 January 2014.

<sup>278</sup> Nuuk Declaration, on the Occasion of the Seventh Ministerial Meeting of the Arctic Council, 12 May 2011, Nuuk, Greenland.

<sup>279</sup> Recital 52, Directive 2013/30/EU.

<sup>280</sup> Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific (12 November 1981, entered into force 19 May 1986) 1648 UNTS 3 ('Lima Convention').

<sup>281</sup> Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment (Jeddah, 1982, entered into force 10 August 1985) ('Jeddah Convention').

Caribbean,<sup>282</sup> Eastern Africa,<sup>283</sup> South Pacific,<sup>284</sup> the Black Sea,<sup>285</sup> the North East Pacific,<sup>286</sup> as well as the Caspian Sea.<sup>287</sup>

Yet with the exception of the Protocol Concerning Co-operation in Combating Oil Spills in the Wider Caribbean Region to the Cartagena Convention,<sup>288</sup> the regulation of dumping,<sup>289</sup> and specific measures to combat oil pollution in emergency situations,<sup>290</sup> these regional agreements could not be said to considerably develop the State Parties' environmental protection obligations in the context of offshore exploration and exploitation activities. In particular, one of the key weaknesses of those regional agreements is that they do not establish liability and safety regimes in connection with pollution from seabed activities.

#### **4.6 The Case for a Global Convention Establishing Liability and Safety Standards for Offshore Activities**

The first attempt to codify international rules governing the activities of offshore installations was by the Committee Maritime International ('CMI'), which produced a Draft International Convention on Offshore Mobile Craft ('CMI Draft Offshore Convention'), was in 1977.<sup>291</sup> Unlike the 1977 CLEE for Northern Europe, the Draft Mobile Craft Convention was to apply beyond the borders of Northern Europe, and was intended to become ultimately a global agreement. The

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<sup>282</sup> Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena, 24 March 1983, entered into force 11 October 1986) 1506 UNTS 157 ('Cartagena Convention').

<sup>283</sup> The Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (Nairobi, 21 June 1985, entered into force 29 May 1996) ('Nairobi Convention').

<sup>284</sup> Convention for the Protection of Natural Resources and Environment of the South Pacific Region (Noumea, 25 November 1986, entered into force 22 August 1990) ('Noumea Convention').

<sup>285</sup> Convention on the Protection of the Black Sea Against Pollution (Bucharest, 21 April 1992, entered into force 15 January 1994) 1784 UNTS 3 ('Bucharest Convention').

<sup>286</sup> The Convention for Cooperation in the Protection and Sustainable Development of the Marine and Coastal Environment of the Northeast Pacific (Antigua, 18 February 2002) ('Antigua Convention').

<sup>287</sup> Framework Convention for the Protection of the Marine Environment of the Caspian Sea ((Tehran, 4 November 2003, entered into force 12 August 2006) ('Tehran Convention'). The Tehran Convention was adopted outside UNEP's regional seas programme).

<sup>288</sup> Protocol concerning Co-operation in Combating Oil Spills in the Wider Caribbean Region (adopted 24 March 1983, in force 11 October 1986).

<sup>289</sup> See eg the Protocol on the Protection of the Black Sea Marine Environment Against Pollution by Dumping to the Bucharest Convention.

<sup>290</sup> See Supplementary Protocol to the Agreement on Regional Co-operation in Combating Pollution of the South-East Pacific by Hydrocarbons or Other Harmful Substances in Cases of Emergency; and Protocol Concerning Regional Co-Operation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency to the Jeddah Convention.

<sup>291</sup> Draft International Convention on Offshore Mobile Craft, IMO Doc LEG/34/6(b), 19 December 1977 (not in force) ('CMI Draft Offshore Convention').



intention of the drafters of the convention was to establish a legal regime for the offshore sector, including environmental liability.<sup>292</sup> It aimed to regulate mobile crafts used in offshore activities, which encompasses most types of drilling units discussed in previous sections. However, one of its main weaknesses is that the CMI Draft Offshore Convention only aimed to apply to mobile crafts, and therefore permanent installations such as production platforms were excluded.<sup>293</sup> Another weakness of the draft Convention is that it appears to exclude liability for blow-outs,<sup>294</sup> which are potentially the most serious accidents arising from oil rigs. These gaps in the draft Convention would need to be filled in any future global regulation modelled on the CMI Draft Offshore Convention.

The controversy surrounding the case for a global treaty governing safety and liability in seabed activities was illustrated in recent discussions within the IMO.<sup>295</sup> The issue of liability and compensation for oil pollution damage resulting from offshore oil exploration and exploitation was brought to the attention of IMO in March 2010 at the 60th session of the Marine Environment Protection Committee (MEPC).<sup>296</sup> The Indonesian delegation made a statement regarding an accident at the Montara offshore oil platform located in Australian waters, which resulted in significant release of oil into the Timor Sea.<sup>297</sup> The Montara platform, located in the Australian exclusive economic zone (EEZ), blew out during the drilling of a new well. According to the Indonesian delegation, the oil slick caused marine environmental damage in Indonesian waters in the Timor Sea and caused socio-economic damage to coastal communities.<sup>298</sup> The Indonesian Government then called for the adoption of uniform international standards which could apply to all incidents of this nature.<sup>299</sup> The Indonesian proposal has subsequently passed to the IMO Legal Committee which has considered the proposal at successive sessions.<sup>300</sup> A number of arguments were raised for including the item in the Committee's agenda with the view of eventually adopting a global treaty under the auspices of the IMO, including that: (i) it is appropriate at this time for the organization to discuss this issue in light of recent accidents; (ii) the Committee should not wait for

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<sup>292</sup> Svensen (n. 1).

<sup>293</sup> The CMI Draft Offshore Convention applies to 'craft', defined under Art. 1 to mean mobile structures, whether during operation they are floating or fixed to the seabed, for use in offshore operations.

<sup>294</sup> See Esmacilli (n. 152).

<sup>295</sup> J Rochette, 'Towards an international regulation of offshore oil exploitation' Report of the experts workshop held at the Paris Oceanographic Institute, Working Paper, 30 March 2012 (IDDRI).

<sup>296</sup> As liability and compensation issues are generally under the remit of the Legal Committee, the MEPC agreed that this matter be discussed by the Legal Committee. Rochette (n. 295).

<sup>297</sup> Legal Committee (LEG)—97th Session, 15–19 November 2010; LEG 97/15, of 1 December 2010.

<sup>298</sup> LEG 97/15, of 1 December 2010 (n. 297).

<sup>299</sup> LEG 97/15, of 1 December 2010 (n. 297).

<sup>300</sup> LEG 97/15, of 1 December 2010 (n. 297).

another serious incident to occur before acting; (iii) the IMO is the only reliable and appropriate forum to address this issue due to its characteristics, experience and expertise as a specialized agency of the United Nations; (iv) incidents involving transboundary pollution damage from offshore platforms might occur in any part of the world . . . (v) the potential transboundary impacts of oil pollution require a mechanism in place to compensate victims'.<sup>301</sup>

The main arguments raised against including the item in the IMO agenda include that the IMO's competence is mainly concerned with the regulation of vessel-source pollution<sup>302</sup> and 'offshore oil exploration activities only exceptionally have an international impact while shipping normally involves many jurisdictions and may potentially affect any country'.<sup>303</sup> Moreover, it was suggested that a regional or bilateral treaty would better address transboundary pollution damage arising from offshore oil activities.<sup>304</sup> So far the Indonesian proposals have not led to any specific initiative by the IMO Legal Committee towards adoption of a global agreement. Instead, the Legal Committee suggested that further study was needed to investigate the effectiveness of national and regional measures to combat pollution from seabed activities.<sup>305</sup> Another important post-*Deepwater Horizon* development was the adoption by the G20 of a 'Global Marine Environment Protection' (GMEP) initiative, based on a Russian proposal of July 2010. This soft-law initiative has established a global mechanism for sharing of best practices aimed at preventing offshore accidents and for protection of the marine environment.<sup>306</sup>

It could be argued that the regional developments discussed above could be regarded as alternatives to a global regulation of safety and liability in offshore activities. That is, since the interests and impacts pertaining to safety and pollution from offshore installations tend to be regional or national, concerted action at the regional or national levels would better respond to these challenges. Moreover, the existence of regional machineries established under existing regional seas programmes, such as those governed by UNEP for marine environment protection, arguably weaken the case for a global treaty. These regional machineries are already in place and could better address the intricacies and balance the relevant interests pertaining to specific regions.

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<sup>301</sup> LEG 97/15, of 1 December 2010 (n. 297).

<sup>302</sup> LEG 97/15, of 1 December 2010 (n. 297). A counterargument to this is that the IMO has already adopted other treaties concerning offshore installations, see eg the Convention for the Suppression of Unlawful Acts Against Safety of Maritime Navigation (adopted 10 March 1988, entered into force 1 March 1992); Protocol for the Suppression of Unlawful Acts Against the Safety of Fixed Platforms Located on the Continental Shelf (adopted 14 October 2005, entered into force 28 July 2010).

<sup>303</sup> LEG 97/15, of 1 December 2010 (n. 297).

<sup>304</sup> LEG 97/15, of 1 December 2010 (n. 297).

<sup>305</sup> LEG 97/15, of 1 December 2010 (n. 297) 29.

<sup>306</sup> See further, *G20 Global Marine Environment Initiative*, at <<http://www.g20gmep.org>> (accessed on 22 February 2016).

On the other hand, it could be argued that there may be a need for a global treaty negotiated under the auspices of an international organization—potentially the IMO or the UNEP or both—with the view of harmonizing the technical, health, safety and liability standards relating to offshore activities. A global treaty could reflect the interests and concerns of the global community that the marine environment is effectively protected. The potential transboundary impacts arising from a major blow-out accident in production platforms or oil rigs are also a strong rationale for a global treaty. Moreover, as with the shipping industry, a level-playing field created by a global agreement on safety and liability would reduce risks and increase legal certainty for energy and mining companies operating in the offshore sector. Indeed, the lack of a global treaty means that a significant regulatory gap remains. In particular, existing regional seas' environmental protection regimes do not cover many parts of the ocean space. Hence heavy reliance on these regional seas programmes would mean that many areas of the ocean space might not be covered by a liability regime in the event of transboundary accidents. What is more, as was discussed above, even when these regional legal frameworks are in place, there has been considerable reluctance on the part of States to negotiate and eventually adopt regional standards of liability and safety to prevent and control seabed pollution.

Yet with the notable exception of recent initiatives at EU level, the existing regional initiatives aimed to regulate pollution from offshore activities do not always provide a particularly strong template to be replicated in a global treaty. In particular, the flexible caps permissible under the 1977 Offshore CLEE arguably would not be particularly suitable for a global treaty, given that one of the main objectives of such a treaty would be to create an effective regime with deterrent effects. On the other hand, if the minimum compensation caps were to be set at a sufficiently high level (which might not be achievable politically), then this would add value to a global framework. Moreover, one of the main features of existing compensation schemes for shipping pollution—the adoption of interstate funds to meet claims beyond the liability of the shipowner—has not featured in any of the existing regional legal frameworks concerning pollution from seabed activities, so it is even less likely that it would be introduced in an eventual global level. Still, one of the potential advantages of a global treaty would be to achieve wider acceptance of strict liability standards, as well as the harmonization of relevant definitions which have implications for the assignment of liability, such as 'offshore platforms' and 'environmental harm'. This level of harmonization could ensure that economic operators are held accountable for environmental damage caused by oil spills and other pollutants from offshore installations. A global treaty would hence better reflect the implementation of the 'polluter pays' and 'sustainable development' principles which are at the heart of international environmental law and policies.

On the other side of the spectrum, it is important to note that existing regional liability regimes do provide for a number of important features which should be

replicated in a global treaty. This includes the jurisdictional provisions of the Nordic treaty, which allows for compensation claims to be made ‘by any person’ in the State where pollution damage occurs, and the provisions on pollution emergency under the Abidjan Convention. In particular, it has been suggested that ‘the global and regional approaches can supplement each other, while . . . the regional approaches take into account specific circumstances of a particular region’.<sup>307</sup> Depending on the type of pollution and area of pollution, a regional approach would be regarded as appropriate.<sup>308</sup> In this vein, the UN Commission on Sustainable Development, which acts within the UN Economic and Social Council (ECOSOC), after noting the outcome of an international expert meeting on environmental practices in offshore oil and gas activities held in 1997, recommended that the primary focus of action on the environmental aspects of offshore oil and gas operations should continue to be at the national, subregional, and regional level.<sup>309</sup>

Although a number of potential benefits arising from a global treaty can be identified, it does not appear likely that States would be particularly enthusiastic to adopt—and eventually ratify—such a treaty, considering recent State practices, as evidenced by the lack of enthusiasm for the Indonesian 2010 proposal before the IMO. Despite this, it would not be advisable for the IMO and national governments to completely discard the possibility of eventually adopting a global treaty. Indeed, as pointed out above, a global treaty could have a number of advantages. This includes, for example, the fact that a global regime could act to prevent the fragmentation of the safety and liability rules concerning seabed activities; to establish sufficient deterrence against oil spills; to incentivize investment in pollution prevention technologies; as well as to ensure effective remediation of the environment and compensation of victims for pollution damage. In the short term, however, it appears appropriate that States continue to collaborate towards strengthening the existing regional frameworks for marine environmental protection in order to better tackle the specific concerns pertaining to the offshore sector in specific regions.

## 4.7 Conclusions

The existing global civil liability regimes apply primarily or exclusively to accidents involving tankers and largely fail to take account of pollution from fixed

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<sup>307</sup> Fitzmaurice (n. 258) 17.

<sup>308</sup> This includes land-based pollution and marine environment protection of semi-enclosed seas which are often better addressed at the regional level. See Fitzmaurice (n. 258) 17.

<sup>309</sup> Decision 7/1, Report of the IMO to the Conference on Sustainable Development at its seventh session, A/53/456, para. 258. See also, Report of the Secretary General on the Oceans and the Law of the Sea, UN Doc. A/57/57 (2002) para. 406.

platforms, such as the *Deepwater Horizon*.<sup>310</sup> Although this contribution has suggested that regional agreements could provide an effective alternative to a global treaty on liability and safety for seabed pollution, it has also found that there would be value to a global treaty that complements existing regional initiatives. With the prospects of other serious oil spills of the same magnitude of the *Deepwater Horizon* re-occurring, a reactive approach to regulation by States is no longer acceptable.

It is arguable that any global liability treaty should encompass all forms of pollution from seabed activities—and not only pollution from offshore installations, which was the focus of this chapter. It ideally should also address pollution from pipelines and environmental damage arising from geological storage projects. Moreover, dumping from oil platforms and environmental damage in the Area should also be subject to effective compensation and remediation regimes. It is also submitted that State liability has an important role to play as a supplementary measure of redress which could act to complement an eventual global treaty, as well as regional and national initiatives establishing compensation schemes for seabed pollution.

The oil, gas, and mining industries themselves need to take a more proactive approach, and pursue the implementation of effective measures (including under industry-wide soft-law initiatives) aimed to prevent oil spills from occurring in the first place. In fact, it could be argued that a global agreement setting a cap on liability of the operator would best serve the interests of the industry (rather than necessarily the environment), given the prospects of the offshore industry facing unlimited liabilities under the laws of some States.

To conclude, although a number of benefits can be identified for the establishment of a global treaty addressing safety and liability standards for environmental damage in the context of seabed activities, it seems crucial in the short term that existing regional approaches to regulation of seabed activities are also strengthened. Moreover, a more preventative approach to regulation is needed, with the view of improving technologies, safety standards and information sharing in the offshore sector.

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<sup>310</sup> Smith (n. 15).

## REGULATION OF LAND-BASED MARINE POLLUTION

*Yoshifumi Tanaka*

### 5.1 Introduction

Land-based pollution represents the most serious source of marine pollution.<sup>1</sup> In fact, it is estimated that land-based pollution, including air pollution, contributes approximately 80 per cent of marine pollution.<sup>2</sup> Pollutants resulting from land-based activities include sewage, industrial discharges, and agricultural run-off. Major contaminants include plastic litter, nutrients, heavy metals, sediments, oil, persistent organic pollutants, and radioactive wastes.<sup>3</sup> Some of the contaminants produce eutrophication and oxygen depletion, resulting in loss of marine life and biological diversity. Other substances are directly toxic to humans. Harmful substances arising from land-based activities run into the oceans: (i) from the coast, including from outfalls discharging directly into the marine environment and through run-off, (ii) through rivers and canals of other watercourses, including underground watercourses, and (iii) via the atmosphere.<sup>4</sup>

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<sup>1</sup> The author examined this issue in the following article: Y Tanaka, 'Regulation of Land-Based Marine Pollution in International Law: A Comparative Analysis between Global and Regional Legal Frameworks' (2006) 66 *ZaōRV* 535–74. The present chapter relies on the results of this study with modifications and updates. All websites are current as of 19 November 2015.

<sup>2</sup> UN General Assembly, *Oceans and the Law of the Sea: Report of the Secretary-General*, 18 August 2004, A/59/62/Add.1, 29, para. 97.

<sup>3</sup> D Hassan, *Protecting the Marine Environment from Land-Based Sources of Pollution: Toward Effective International Cooperation* (Ashgate, 2006) 23–35; D Osborn, 'Land-based Pollution and the Marine Environment' in R Rayfuse (ed.), *Research Handbook on International Marine Environmental Law* (Edward Elgar, 2015) 81–4. See also the 2012 Manila Declaration on Furthering the Implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, UNEP/GPA/IGR.3/CRP.1/Rev.1, 26 January 2012, preamble para. 7, available at: <<http://www.unep.org/regionalseas/globalmeetings/15/ManillaDeclarationREV.pdf>>.

<sup>4</sup> In the 1985 Montreal Guidelines, sources of land-based marine pollution also include sources of marine pollution from activities conducted on offshore fixed or mobile facilities within the limits of national jurisdiction, save to the extent that these sources are governed by appropriate international agreements. See Para. 1 (b)(ii) of the 1985 Montreal Guidelines for the Protection of the

The threat of land-based pollution to the marine environment is a serious one since it mainly affects coastal waters, which are sites of high biological productivity.<sup>5</sup> Minamata Disease exemplified the seriousness of adverse impacts of land-based marine pollution upon human health. This disease, which was first discovered in 1956 around Minamata Bay in Kumamoto Prefecture, and in 1965, in the Agano River basin in Niigata Prefecture, Japan, was caused by the consumption of fish and shellfish contaminated by methylmercury compound discharged from a chemical plant. Methylmercury damages the human nervous system, and a considerable number of people have suffered from serious health problems.<sup>6</sup> Further to this, the nuclear power plant accident in 2011 at Fukushima, Japan, demonstrated the serious risk of contamination of the offshore environment by radioactive substances released from the power plant on land. It would be no exaggeration to say that the welfare of coastal populations essentially relies on a sound marine environment. In light of the vital importance of a sound marine environment, it may be said that the protection of the marine environment involves a common interest of the international community as a whole, which transcends the interests of each State and involves the vital needs for the survival of mankind.<sup>7</sup> In a broad context, the regulation of land-based marine pollution, which is discussed in this chapter, should be considered as part of the protection of community interests at sea.

Land-based marine pollution is a result of the imbalance between human populations and industrial activities and the limited capacity of the marine environment to absorb the wastes they produce. Considering that approximately 40 per cent of the world's population live within 100 km of the coast,<sup>8</sup> there is a concern that,

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Marine Environment against Pollution from Land-Based Sources, reproduced in H Hohmann (ed.), *Basic Documents of International Environmental Law* (Graham and Trotman, 1992), Vol. I, 130–47.

<sup>5</sup> S Kuwahara, *The Legal Regime of Protection of the Mediterranean Against Pollution from Land-Based Sources* (Tycooly International Publishing Limited, 1984) xvii; A Nollkaemper, 'Balancing the Protection of Marine Ecosystems with Economic Benefits from Land-Based Activities: the Quest for International Legal Barriers' (1996) 27 *Ocean Development and International Law (ODIL)* 154.

<sup>6</sup> Concerning the explanation on Minamata Disease by Japanese Ministry of the Environment, see <<http://www.env.go.jp/en/chemi/hs/minamata2002/index.html>>. In 2013, the Minamata Convention on Mercury was adopted to protect the human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds. Not entered into force. The electronic text is available at: <<http://www.mercuryconvention.org/Convention/tabid/3426/Default.aspx>>.

<sup>7</sup> The protection of community interests at sea is increasingly important in the international law of the sea. The author has examined this subject in the following article. Y Tanaka, 'Protection of Community Interests in International Law: the Case of the Law of the Sea' (2011) 15 *Max Planck Yearbook of International Law* 329–75. Whilst the 'common interest of the international community as a whole' or 'community interests' is an elusive concept, Simma tentatively defines 'community interests' as 'a consensus according to which respect for certain fundamental values is not to be left to the free disposition of States individually or *inter se* but is recognized and sanctioned by international law as a matter of concern to all State'. B Simma, 'From Bilateralism to Community Interest in International Law' (1994-IV) 250 *RCADI* 233.

<sup>8</sup> Socioeconomic Data and Application Centre, *Percentage of Total Population Living in Coastal Areas*, available at: <[http://sedac.ciesin.columbia.edu/es/papers/Coastal\\_Zone\\_Pop\\_Method.pdf](http://sedac.ciesin.columbia.edu/es/papers/Coastal_Zone_Pop_Method.pdf)>.

with rapid population growth, marine pollution from land-based activities will become more problematic. In relation to this, it must be noted that land-based pollution is closely linked to the widespread poverty in developing countries. In this respect, the 1972 Stockholm Declaration already pointed out that: 'In the developing countries most of the environmental problems are caused by under-development'.<sup>9</sup> More specifically, the 1995 Washington Declaration on the Protection of the Marine Environment from Land-based Activities clearly recognized that the alleviation of poverty is an essential factor in addressing the impacts of land-based activities on coastal and marine areas.<sup>10</sup> Likewise, the 2001 Montreal Declaration on the Protection of the Marine Environment from Land-Based Activities made it clear that poverty, particularly in coastal communities of developing countries, contributes to marine pollution through lack of basic sanitation. Marine degradation generates poverty by depleting the very basis for social and economic development.<sup>11</sup> This is a vicious circle. Hence the regulation of land-based pollution should be addressed in the global context of the struggle to combat poverty in developing countries.

The activities which may cause land-based pollution are closely bound up with crucial national programmes for the economic, industrial, and social development of States. The economic costs of measures to regulate land-based pollution are seen as unacceptably high, and inevitably affect economic development.<sup>12</sup> Accordingly, States are usually unwilling to take strong measures to regulate land-based activities. Nonetheless, as explained earlier, the regulation of land-based pollution is highly important in order to prevent the adverse impacts of harmful substances upon marine species and human health. A fundamental issue thus arises of how it is possible to strike a balance between the requirement of environmental protection and the need for the economic, social, and political development of each State. Against this background, this chapter will particularly address the following issues:

- (i) What are the limitations associated with principle of *sic utere tuo ut alienum non laedas* in the regulation of land-based marine pollution?
- (ii) What are the difficulties associated with the regulation of land-based marine pollution at the global level?
- (iii) What are the approaches relevant to the regulation of land-based marine pollution that have appeared in regional treaties?
- (iv) How is it possible to ensure effective compliance with relevant treaties in this field?

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<sup>9</sup> Para. 4 of the Preamble.

<sup>10</sup> Para. 5 of its Preamble. The Washington Declaration is available at: <<http://unep.org/gpa/documents/meetings/Washington/WashingtonDeclaration.pdf>>.

<sup>11</sup> Para. 3. (2002) 48 *Law of the Sea Bulletin* 58.

<sup>12</sup> P Birnie, A Boyle, and C Redgwell, *International Law and the Environment*, (3rd edn, Oxford University Press, 2009) 454; Nollkaemper (n. 5) 154.



## 5.2 Global Legal Framework for Regulating Land-Based Marine Pollution

### 5.2.1 Customary law: the principle of *sic utere tuo ut alienum non laedas*

The principle of *sic utere tuo ut alienum non laedas*—which means ‘use your own property so as not to injure that of another’—is the fundamental principle of international environmental law and also applies to the regulation of land-based marine pollution. The origins of this principle can be traced to the 1941 *Trail Smelter* arbitration, in which the tribunal held that:

[U]nder the principles of international law, as well as of the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.<sup>13</sup>

This principle was later elaborated in Principle 21 of the Stockholm Declaration of 1972, and confirmed by the 1992 Rio Declaration adopted in the United Nations Conference on Environment and Development.<sup>14</sup> Principle 2 of the Rio Declaration stated that:

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

It may be relevant to note that the formulation set out in Principle 2 requires States to protect the environment beyond the limits of national jurisdiction, whilst the older formulation stated in the *Trail Smelter* arbitration dealt only with trans-boundary harm to other States. It follows that the obligation not to cause environmental damage is no longer solely bilateral in nature, but relates to the protection of the common interests of the international community as a whole.<sup>15</sup> Presently it is generally recognized that the principle of *sic utere tuo ut alienum non laedas* reflects customary international law.<sup>16</sup> This point was clearly confirmed by the International Court of Justice (ICJ) in the *Advisory Opinion concerning Legality of the Threat or Use of Nuclear Weapons*,<sup>17</sup> as well as in the *Gabčíkovo-Nagymaros*

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<sup>13</sup> The *Trail Smelter* arbitration. Award of Arbitral Tribunal, 11 March 1941. 3 *Reports of International Arbitral Awards* 1965.

<sup>14</sup> UN General Assembly, A/CONF.151/26 (Vol. I), 12 August 1992. The text is available at: <<http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm>>.

<sup>15</sup> Birnie et al (n. 12) 145.

<sup>16</sup> Birnie et al (n. 12) 137.

<sup>17</sup> [1996] ICJ Reports 241–2, para. 29.

*Project* case of 1997.<sup>18</sup> Nonetheless, it should not pass unnoticed that this principle contains some limitations with respect to its practical application. In particular, three difficulties must be noted.

A first difficulty involves the concept of 'due diligence'.<sup>19</sup> It is generally understood that this principle involves the obligation to use 'due diligence' to not cause transfrontier damage.<sup>20</sup> Thus a State is not responsible for damage if it has paid such 'due diligence'. However, 'due diligence' is a very vague concept. Indeed, the degree of 'due diligence' may vary depending on the nature of specific activities, technical and economic capabilities of States, and the effectiveness of territorial control, etc.<sup>21</sup> Furthermore, a reasonable standard of 'due diligence' may change with time and the development of science and technology.<sup>22</sup> Hence the general formulation of 'due diligence' is not very helpful, since it offers little guidance with respect to the specific measures which should be taken by each State. The identification of a breach of 'due diligence' encounters considerable difficulty in the context of the regulation of land-based marine pollution because it involves various substances, sources and actors. This is particularly true in the situation where marine contaminations may be produced by activities in more than one State in the same region. In this case, shared responsibility of multiple States may arise. Yet, the determination of the breach of the obligation of due diligence by multiple States will be difficult in reality. Hence an injured State may encounter

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<sup>18</sup> [1997] ICJ Reports 41, para. 53.

<sup>19</sup> Generally on this issue, see T Koivurova, 'Due Diligence' in R Wolfrum (ed.), *Max Planck Encyclopedia of Public International Law* (Oxford University Press, 2012), <<http://opil.ouplaw.com/home/EPIL>> accessed on 13 November 2015; Birnie et al (n. 12) 147–50; ILC Study Group on Due Diligence, First Report, 7 March 2014, available at: <<http://www.ila-hq.org/en/study-groups/index.cfm/cid/1045>>.

<sup>20</sup> PH Okowa, 'Procedural Obligations in International Environmental Agreements' (1996) 67 *BYIL* 332; R Pisillo-Mazzeschi, 'The Due Diligence Rule and the Nature of the International Responsibility of States' (1992) 35 *German Yearbook of International Law* 38.

<sup>21</sup> On this point, *ILC Commentaries on Draft Articles on Prevention of Transboundary Harm from Hazardous Activities* enumerates factors to be considered in determining the due diligence requirement in each instance. Such factors include: the size of the operation, its location, special climate conditions, materials used in the activity, and whether the conclusions drawn from the application of these factors in a specific case are reasonable. ILC, *Draft Articles on Prevention of Transboundary Harm from Hazardous Activities with Commentaries, Commentary to Article 3*, (2001) 2 *Yearbook of International Law Commission*, Part 2, 154, para. 11. In a general context, Pisillo-Mazzeschi pointed to a series of objective factors, which must be considered in order to establish the degree of diligence required of the State: (i) the degree of effectiveness of the State's control over certain areas of its territory, (ii) the importance of the interest to be protected, (iii) the degree of predictability of the harm. Pisillo-Mazzeschi (n. 20) 44.

<sup>22</sup> ILC, *Draft Articles on Prevention of Transboundary Harm*, 154, para. 11. See also *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, Advisory Opinion, Seabed Disputes Chamber of the International Tribunal for the Law of the Sea, Case No. 17, 1 February 2011, [2011] *ITLOS Reports* 43, para. 117.

considerable difficulties in invoking responsibility of multiple States on the basis of the breach of the principle of *sic utere tuo ut alienum non laedas*.<sup>23</sup>

Second, the principle of *sic utere tuo ut alienum non laedas* does not mean an absolute prohibition of environmental damage.<sup>24</sup> It is suggested that the harm must be significant or substantial in order to have recourse to this rule. However, it is less easy to define the concept of the 'significant or substantial harm' in a precise manner.<sup>25</sup>

Third, and more fundamentally, the principle of *sic utere tuo ut alienum non laedas* essentially functions after damage has been caused in the other State's territory in terms of establishing State responsibility. In other words, this principle relates to the law of State responsibility concerning already caused damage, and it does not directly oblige States to protect the marine environment or to regulate specific sources of marine pollution.<sup>26</sup> Considering that environmental damage is often irreversible, however, much weight should be given to the prevention of such damage. In fact, the ICJ, in the *Gabčíkovo-Nagymaros Project* case, held that: 'in the field of environmental protection, vigilance and prevention are required on account of the often irreversible character of damage to the environment and of the limitations inherent in the very mechanism of reparation of this type of damage'.<sup>27</sup> In its Commentary to the Draft Convention on the Prevention of Transboundary Harm from Hazardous Activities, the International Law Commission (ILC) also stated that: 'Prevention should be a preferred policy because compensation in case of harm often cannot restore the situation prevailing prior to the event or accident'.<sup>28</sup> In conclusion, it may have to be admitted that the customary principle of *sic utere tuo ut alienum non laedas* alone is inadequate to protect the marine environment from land-based marine pollution.<sup>29</sup> Thus more specific rules regulating land-based marine pollution must be formulated at treaty level.

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<sup>23</sup> On this issue, see Y Tanaka, 'Land-Based Marine Pollution' in A Nollkaemper and I Plakokefalos (eds), *Practice of Shared Responsibility in International Law* (Cambridge University Press, forthcoming).

<sup>24</sup> Birnie et al (n. 12) 146.

<sup>25</sup> O Schachter, *International Law in Theory and Practice* (Nijhoff, 1991) 366. ILC also recognized that the term 'significant' is not without ambiguity and that a determination has to be made in each specific case. ILC, *Draft Articles on Prevention of Transboundary Harm, Commentary to Article 2*, p. 152, para. 4.

<sup>26</sup> Wolfrum has argued that the prime objective of this principle is to protect the economic interests of States or the rights of citizens rather than the environment as such, and the latter is only protected indirectly. R Wolfrum, 'Purposes and Principles of International Environmental Law' (1990) 33 *German Yearbook of International Law* 317.

<sup>27</sup> [1997] ICJ Reports 78, para. 140.

<sup>28</sup> ILC, *Draft Articles on Prevention of Transboundary Harm, General Commentary*, 148, para. 2.

<sup>29</sup> Another possible rule which may be relevant in the regulation of land-based marine pollution is the obligation relating to abuse of rights. However, a fundamental question associated with the doctrine of abuse of rights is that a criterion to identify abuse of a right remains obscure. It appears that currently the criterion to determine abuse of a right is not clearly established in the context of the protection of the marine environment. On this issue, see Tanaka (n. 1) 540–2.

### 5.2.2 The UN Convention on the Law of the Sea

To date, the UN Convention on the Law of the Sea<sup>30</sup> (UNCLOS) is the only treaty which provides general obligations to prevent land-based pollution at the global level. This Convention established the general and comprehensive framework for marine environmental protection.<sup>31</sup> In this regard, Article 192 lays down a general obligation to protect the marine environment, by stating that: 'States have the obligation to protect and preserve the marine environment'. Notably, this provision does not signify that the marine environment must be protected only if failure to do so may harm other States. Furthermore, Article 194(1) holds that:

States shall take, individually or jointly as appropriate, all measures consistent with this Convention that are necessary to prevent, reduce and control pollution of the marine environment from any source, using for this purpose the best practicable means at their disposal and in accordance with their capabilities, and they shall endeavour to harmonize their policies in this connection.

The phrase 'any source' suggests that this provision covers all sources of marine pollution, including land-based pollution. It may be said that the obligation to protect the marine environment under the UNCLOS is comprehensive.

Article 194(2) UNCLOS imposes a duty upon States to take all measures necessary to ensure that activities under their jurisdiction or control are conducted so as not to cause damage by pollution to other States and their environment; and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with the UNCLOS. Under Article 194(3)(a), measures taken pursuant to Part XII shall include, inter alia, those designed to minimize to the fullest possible extent 'the release of toxic, harmful or noxious substances, especially those which are persistent, from land-based sources, from or through the atmosphere or by dumping'. States are also obliged to cooperate for the purpose of promoting studies, undertaking programmes of scientific research and encouraging the exchange of information and data acquired about pollution of the marine environment under Article 200.

More specifically, the UNCLOS provides prescriptive and enforcement jurisdiction with regard to the regulation of land-based pollution. Concerning prescriptive jurisdiction, Article 207(1) calls on States to adopt laws and regulations to prevent, reduce, and control pollution of the marine environment from land-based sources,

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<sup>30</sup> United Nations Convention on the Law of the Sea (Montego Bay, 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS).

<sup>31</sup> Concerning an analysis of the UNCLOS in the context of the marine environmental protection, see Y Tanaka, *The International Law of the Sea* (2nd edn, Cambridge University Press, 2015) 275–8; R Churchill, 'The LSOC Regime for Protection of the Marine Environment' in Rayfuse (n. 3) 3–30.

‘taking into account internationally agreed rules, standards and recommended practices and procedures’. In this regard, it is to be noted that unlike pollution from sea-bed activities subject to national jurisdiction and pollution from dumping and pollution from vessels,<sup>32</sup> States are required only to ‘take into account’ internationally agreed rules, and so forth, when adopting relevant laws and regulations concerning pollution from land-based sources. It follows that States may adopt measures which are either more or less stringent than those embodied in international law. It can be argued, therefore, that under the UNCLOS, the balance between national and international laws on this matter is in favour of national laws. With regard to the enforcement jurisdiction, Article 213 UNCLOS requires States to enforce their laws and regulations adopted under Article 207 and take other measures necessary to implement applicable international rules and regulations. States are also under a duty to take other measures as may be necessary to prevent, reduce, and control such pollution under Article 207 (2). However, the UNCLOS contains no specific machinery for ensuring compliance with rules regulating land-based marine pollution. Overall, it can be concluded that the UNCLOS provides only a general framework for regulating land-based marine pollution.

### 5.2.3 Non-binding instruments

After the adoption of the UNCLOS, overall attempts to regulate land-based marine pollution at the global level have been made in the form of non-binding instruments. Principal instruments on this subject comprise:

- the 1985 Montreal Guidelines for the Protection of the Marine Environment against Pollution from Land-based Sources;<sup>33</sup>
- Agenda 21 of 1992;<sup>34</sup>
- the 1995 Washington Declaration on the Protection of the Marine Environment from Land-based Activities;
- the 1995 Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (1995 Global Programme of Action);<sup>35</sup>
- the 2001 Montreal Declaration on the Protection of the Marine Environment from Land-Based Activities;<sup>36</sup> and

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<sup>32</sup> UNCLOS, Arts 208(3), 210(6), and 211(2).

<sup>33</sup> For a comprehensive analysis of these Guidelines, see M Quing-Nan, *Land-Based Marine Pollution: International Law Development* (Graham & Trotman/Nijhoff, 1987) 163–215.

<sup>34</sup> This document is available at: <<https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>> (accessed on 19 November 2015).

<sup>35</sup> This document is available at: <[http://coralreef.noaa.gov/threats/pollution/resources/unep\\_lb\\_sp\\_prgrm.pdf](http://coralreef.noaa.gov/threats/pollution/resources/unep_lb_sp_prgrm.pdf)> accessed on 19 November 2015. Concerning the implementation of the Global Programme of Action, see DL VanderZwaag and A Powers, ‘The Protection of the Marine Environment from Land-Based Pollution and Activities: Gauging the Tides of Global and Regional Governance’ (2008) 23 *IJMCL* 423–52.

<sup>36</sup> (2002) 48 *Law of the Sea Bulletin* 58–61.

- the 2012 Manila Declaration on Furthering the Implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities.

Among these instruments, the 1985 Montreal Guidelines merit particular attention. The Guidelines enumerate in detail various measures to be taken in order to 'prevent, reduce and control' pollution from land-based sources. Such measures include: environmental impact assessment, monitoring, notification, information exchange and consultation, scientific and technical cooperation, assistance to developing countries, development of control strategies, and so forth. It is of particular interest to note that the 1985 Montreal Guidelines highlight the interlinkage between the protection of the marine environment and that of international watercourses. In UNCLOS, little attention is paid to this subject. In this regard, the Guidelines require that '[i]f discharges from a watercourse which flows through the territories of two or more States or forms a boundary between them are likely to cause pollution of the marine environment, the States concerned should co-operate in taking necessary measures to prevent, reduce and control such pollution'.<sup>37</sup> Considering that rivers are a major contributor to marine pollution, the coordination between a marine pollution regime and the environmental regulation of international watercourses becomes particularly important for preventing land-based marine pollution.<sup>38</sup>

Furthermore, the 1985 Montreal Guidelines introduced the concept of specially protected areas, with a view to protecting fragile ecosystems from land-based pollution. Annex I to the Guidelines states that the strategy on specially protected areas involves the identification of unique or pristine areas, rare or fragile ecosystems, critical habitats and the habitat of depleted, threatened, or endangered species and other forms of marine life. Those areas to be protected or preserved from pollution, including from land-based sources, and are selected on the basis of a comprehensive evaluation of factors, including conservational, ecological, recreational, aesthetic and scientific values. To this end, States are required to notify an appropriate international organization of the establishment of any modification to such areas, with a view to the inclusion of such information in an inventory of specially protected areas.<sup>39</sup>

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<sup>37</sup> Guideline 5(c).

<sup>38</sup> In this regard, it is relevant to note that Article 23 of the 1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses seeks to link the law of international watercourse with the international law of the sea. Convention on the Law of the Non-Navigational Uses of International Watercourses. Text in: (1997) 36 *ILM* 1431. Entered into force 17 August 2014. See also S Vinogradov, 'Marine Pollution via Transboundary Watercourses: An interface of the "Shoreline" and "River-Basin" Regimes in the Wider Black Sea Region' (2007) 22 *IJMCL* 585–620.

<sup>39</sup> Para. 1.3.2.3 of Annex I.

The need for the prevention of degradation of the marine environment from land-based activities was later stressed by Agenda 21 of 1992.<sup>40</sup> In relation to this, it is of particular interest to note that chapter 17 of Agenda 21 highlighted the importance of the precautionary approach as well as a comprehensive approach to the protection of the marine environment:

*A precautionary and anticipatory rather than a reactive approach is necessary to prevent the degradation of the marine environment. This requires, inter alia, the adoption of precautionary measures, environmental impact assessments, clean production techniques, recycling, waste audits and minimisation, construction and/or improvement of sewage treatment facilities, quality management criteria for the proper handling of hazardous substances, and a comprehensive approach to damaging impacts from air, land and water.*<sup>41</sup>

Agenda 21 further required that the United Nations Environmental Programme (UNEP) Governing Council should be invited to convene, as soon as practicable, an intergovernmental meeting on the protection of the marine environment from land-based activities.<sup>42</sup>

The global conference envisaged in Agenda 21 was held in Washington, DC, from 23 October to 3 November 1995, and the 1995 Washington Declaration and the 1995 Global Programme of Action were adopted. Significantly enough, the Global Programme of Action explicitly ensures the application of the precautionary approach to this issue.<sup>43</sup> This instrument also provides measures to be taken with a view to addressing pollution from sources.<sup>44</sup> Further to this, the 2001 Montreal Declaration calls for appropriate action to be taken at the national and regional levels to strengthen institutional cooperation between, inter alia, river-basin authorities, port authorities, and coastal zone managers, and to incorporate coastal management considerations into relevant legislation and regulations pertaining to watersheds management: in particular, transboundary watersheds.<sup>45</sup> Moreover, in the 2012 Manila Declaration, representatives of sixty-five governments and the European Commission stressed the commitment to the implementation of the Global Programme of Action on the Protection of the Marine Environment from Land-based Activities at the international, regional, and national levels as a flexible and effective tool for the sustainable

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<sup>40</sup> Para. 17.24 ff.

<sup>41</sup> Emphasis added. Para. 17.21.

<sup>42</sup> Para. 17.26.

<sup>43</sup> Global Programme of Action, para. 24.

<sup>44</sup> Such sources are: sewage, persistent organic pollutants (POPs), radioactive substances, heavy metals, oils, nutrients, sediment mobilization, litter plastics, and physical alterations and destruction of habitats. Chapter V of Global Programme of Action. Further, see Osborn (n. 3) 96–9.

<sup>45</sup> Para. 9(a).

development of oceans, coasts, and islands, and for human health and well-being.<sup>46</sup>

#### 5.2.4 Limits of the global legal framework

Overall it can be observed that attempts to address land-based marine pollution at the global level have been made only in the form of less formal instruments. In this sense, it may have to be accepted that regulation at the global level remains weak. Given that States are often reluctant to approve any attempts to restrict their economic developments by legally binding instruments, the current legal situation is hardly surprising. Further to this, there exist at least three factors which make it difficult to formulate uniform and detailed rules regulating land-based pollution at the global level.

A first element involves the complexity of sources and substances of land-based pollution. In the case of vessel-source pollution, for instance, sources and substances to be regulated—which are mainly oil and oily mixtures—can be clearly identified. However, the regulation of land-based pollution involves more substances than oil and oily mixtures. Furthermore, in the case of vessel-source pollution, ships are the only actors, and the shipping industry is the major economic sector to be regulated. By contrast, many actors and activities, such as pollution-generating industrial, agricultural, and municipal activities, are involved in pollution from land-based activities. It follows that the regulation of land-based pollution concerns various economic sectors in the State. Thus, arguably the regulation of land-based marine pollution at the global level is more problematic than in the case of vessel-source pollution because it is more difficult to balance the regulation of such pollution with various national economic policies in the former case than the latter.<sup>47</sup>

A second element pertains to geographical and ecological divergences in the oceans. The movement of ocean currents and winds are complex and different and, as a consequence, the degree of marine pollution varies in each coastal region. Usually the affects of land-based pollution are more serious in shallow enclosed or semi-enclosed coastal sea areas than open oceanic areas.<sup>48</sup> Accordingly, more stringent regulation of land-based pollution in such areas than in other marine areas will be needed.

Third, the economic and technological gaps between developed and developing countries should be noted. In reality, developing States do not have adequate

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<sup>46</sup> Para. 1.

<sup>47</sup> Quing-Nan (n. 33) 16.

<sup>48</sup> Birnie et al (n. 12) 455.



technical and financial facilities to prevent marine pollution. In light of such countries' economic and technological difficulties, it is hard to place the same obligations upon them to regulate land-based pollution at the global level as are placed on developed States. In this regard, it appears that the principle of common but different responsibility merits particular attention.<sup>49</sup> Under this principle, developing countries have different and more diminished obligations. This principle is clearly reflected in Principle 7 of the Rio Declaration. Furthermore, in the context of marine environmental protection, Article 207(4) of the UNCLOS requires States to take into account 'characteristic regional features, the economic capacity of developing States and their need for economic development'. In any case, due to the economic, technological and geographical divergences in the international community, there is a need to tailor specific rules preventing marine pollution from land-based activities, by taking account of the particular needs and circumstances of relevant States at the regional level. In fact, marine pollution from land-based sources has primarily been regulated by regional treaties. Thus, the next Part will address how regional agreements regulate land-based marine pollution.

### 5.3 Development of Regional Treaties Regulating Land-Based Marine Pollution

#### 5.3.1 General considerations

At the regional level, there are comparatively many treaties concerning marine environmental protection. In this regard, it is noteworthy that specific protocols on the regulation of land-based marine pollution have been increasingly concluded. In particular, the following instruments are of particular importance (see Table 5.1). The development of regional treaties calls for two observations.

First, the development of these treaties is not uniform. In fact, there is no specific protocol regulating land-based marine pollution in the East Asian Seas, South Pacific, the North-East Pacific, the North-West Pacific, the South Asian Seas, the South-West Atlantic, and the Arctic. As will be seen, the normative strength of regulation also varies depending on conventions.

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<sup>49</sup> Concerning this principle, see D French, 'Developing States and International Environmental Law: The Importance of Differentiated Responsibilities' (2000) 49 *ICLQ* 35–60; Y Matsui, 'The Principle of "Common But Differentiated Responsibilities"' in N Schrijver and F Weiss (eds), *International Law and Sustainable Development, Principles and Practice* (Nijhoff, 2004) 73–96; CD Stone, 'Common but Differentiated Responsibilities in International Law' (2004) 98 *AJIL* 276–301; Y Tanaka, 'Principles of International Marine Environmental Law' in Rayfuse (n. 3) 49–51.

**Table 5.1 Principal regional treaties regulating land-based marine pollution**

Year	Title
1980	Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources (the Athens Protocol), <sup>50</sup>
1983	Protocol for the Protection of the South-East Pacific Against Pollution from Land-Based Sources (the 1983 Quito Protocol), <sup>51</sup>
1990	Protocol to the Kuwait Regional Convention for the Protection of the Marine Environment Against Pollution from Land-Based Sources (the 1990 Kuwait Protocol), <sup>52</sup>
1992	Protocol on Protection of the Black Sea Marine Environment Against Pollution from Land Based Sources (the 1992 Bucharest Protocol), <sup>53</sup>
1992	Convention on the Protection of the Marine Environment of the Baltic Sea (the 1992 Helsinki Convention), <sup>54</sup>
1992	Convention for the Protection of the Marine Environment of the North-East Atlantic (the 1992 OSPAR Convention), <sup>55</sup>
1996	Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources and Activities (the 1996 Syracuse Protocol), <sup>56</sup>
1999	Protocol Concerning Pollution from Land-Based Sources and Activities to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (the 1999 Aruba Protocol), <sup>57</sup>
2005	Protocol Concerning the Protection of the Marine Environment from Land-Based Activities in the Red Sea and Gulf of Aden (the 2005 Jeddah Protocol). <sup>58</sup>
2010	Protocol for the Protection of the Marine and Coastal Environment of the Western Indian Ocean from Land-Based Sources and Activities (the Nairobi Protocols). <sup>59</sup>
2012	Additional Protocol to the Abidjan Convention Concerning Cooperation in the Protection and Development of Marine and Coastal Environment from Land-Based Sources and Activities in the Western Central and Southern African Region (the Abidjan Protocol). <sup>60</sup>

<sup>50</sup> (1980) 19 *ILM* 869. Entered into force on 17 June 1983. In 1996, this protocol was amended and recorded as the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities.

<sup>51</sup> Entered into force in 1986. Text of the Protocol at: <<http://sedac.ciesin.org/entri/texts/pollution.land-based.south-east.pacific.1983.html>>.

<sup>52</sup> Entered into force on 2 January 1993. Text of the Protocol at: <<http://sedac.ciesin.columbia.edu/entri/texts/acrc/kuwaitprot.txt.html>>.

<sup>53</sup> (1993) 32 *ILM* 1122. Entered into force on 15 January 1994.

<sup>54</sup> Entered into force on 17 January 2000. Text of the agreement at: <<http://www.helcom.fi/>>.

<sup>55</sup> Entered into force on 25 March 1998. Text of the Convention at: <<http://www.ospar.org/convention>>.

<sup>56</sup> Entered into force 11 May 2008. Text of the Protocol at: <<http://faolex.fao.org/docs/pdf/mul38141.pdf>>.

<sup>57</sup> Entered into force on 13 August 2010. Text of the Protocol at: <<http://cep.unep.org/repca/lbs-protocol-en.pdf>>.

<sup>58</sup> The original text is written in Arabic. English translation at: <[http://faculty.kfupm.edu.sa/CHEM/thukair/ENVS%20590/Hand%20out/Protocoles/lba\\_protocol\\_persga\\_english.pdf](http://faculty.kfupm.edu.sa/CHEM/thukair/ENVS%20590/Hand%20out/Protocoles/lba_protocol_persga_english.pdf)>.

<sup>59</sup> Not yet in force. Text of the Protocol at: <[http://www.unep.org/NairobiConvention/The\\_Convention/Protocols/Protocol\\_Land\\_Based\\_Sources\\_and\\_Activities.asp](http://www.unep.org/NairobiConvention/The_Convention/Protocols/Protocol_Land_Based_Sources_and_Activities.asp)>.

<sup>60</sup> Not yet in force. Text of the Protocol at: <<http://abidjanconvention.org/media/documents/protocols/LBSA%20Protocol-Adopted.pdf>>.

Second, it is notable that some of the above conventions cover internal waters. The regulation of land-based marine pollution in internal waters is particularly important since the sound environment of coastal areas is fundamental for human health and biological diversity. It is also relevant to note that all documents listed above regard pollution through the atmosphere as land-based marine pollution. While no detailed examination of each and every regional treaty can be undertaken here, the following approaches and procedures in particular deserve further consideration, namely, the uniform approach, the precautionary approach, environmental impact assessment and monitoring.

### 5.3.2 Identification of harmful substances

#### 5.3.2.1 *The black/grey lists approach and its limitations*

A significant development in the field of the regulation of land-based marine pollution involves the change of approach in the identification of harmful substances, from the black/grey lists approach to the uniform approach. Harmful substances are traditionally divided into two categories. With respect to the substances listed in a black list, in principle, States Parties are obliged to eliminate pollution by such substances. Concerning materials enumerated in the grey list, the obligation of States is relaxed, and States are merely required to limit pollution by these materials. This approach may be called the black/grey lists approach. It was adopted by Article 4 of the 1974 Convention for the Prevention of Marine Pollution from Land-Based Sources (the 1974 Paris Convention), Articles 5 and 6 of the 1974 Convention on the Protection of the Marine Environment of the Baltic Sea Area (the 1974 Helsinki Convention), Articles 5 and 6 of the 1980 Athens Protocol, Articles IV and V of the 1983 Quito Protocol, and Article 4 of the 1992 Bucharest Protocol. Nonetheless, the black/grey lists approach is open to criticisms. In particular, two points merit highlighting.

First, an essential problem with the black/grey list approach is that it is contrary to the fundamental goal of preventing all marine pollution since, according to this approach, States are merely under a relaxed obligation with respect to 'grey list' substances. Furthermore, it should not pass unnoticed that, in some cases, the discharge of harmful substances which are enumerated in the black list is not completely prohibited. For example, the Parties to the 1980 Athens Protocol are under an obligation to undertake to 'eliminate' pollution of the Protocol Area from land-based sources by substances listed in Annex I, while they are required to 'strictly limit' pollution from substances or sources listed in Annex II.<sup>61</sup> In accordance with Annex I, section B of this Protocol, '[t]he present annex does not apply to discharges which contain substances listed in section A that are below the limits defined jointly by the Parties'. Furthermore, curiously Annex III of the Athens

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<sup>61</sup> Arts 5 and 6.

Protocol lists factors which will be considered '[w]ith a view to the issue of an authorisation for the discharge of wastes containing substances referred to in annex II or in section B of annex I of this Protocol'. In so doing, even substances listed in Annex I may be subject to authorization for discharge, should such substances be below the limits defined jointly by the Parties. If this is the case, the effect of the distinction between Annex I (the black list) and Annex II (the grey list) becomes obscure.

Second, regulatory measures applicable to the same substances may vary depending on agreements. For instance, mercury and cadmium were listed in Annex II (the grey list) in the 1974 Helsinki Convention, whilst these materials were categorized in the black list in the 1974 Paris Convention, the 1980 Athens Protocol, the 1983 Quito Protocol, as well as the 1992 Bucharest Protocol. While radioactive substances were in Annex I (the black list) in the 1980 Athens Protocol as well as the 1983 Quito Protocol, such substances were listed in Annex II (the grey list) in the 1974 Helsinki Convention.

#### *5.3.2.2 The emergence of the uniform approach*

In response to these problems, some recent conventions tend to replace the black/grey list approach by the uniform approach, which seeks to regulate harmful substances of land-based pollution without any differentiation of obligations in accordance with the category of harmful substances. Examples include: the 1992 OSPAR Convention, the 1992 Helsinki Convention, the 1996 Syracuse Protocol, the 1999 Aruba Protocol, and the 2005 Jeddah Protocol. Among those treaties, the Helsinki and OSPAR Conventions merit particular attention.

The 1992 Helsinki Convention, which replaced the 1974 Helsinki Convention, seeks to regulate pollution from land-based sources without distinguishing black and grey lists. In this respect, Article 2(2) defines land-based pollution as:

pollution of the sea by point or diffuse inputs from *all sources* on land reaching the sea waterborne, airborne or directly from the coast. It includes pollution from any deliberate disposal under the seabed with access from land by tunnel, pipeline or other means.<sup>62</sup>

Article 6 then imposes upon the Contracting Parties to 'undertake to prevent and eliminate pollution of the Baltic Sea Area from land-based sources by using, inter alia, Best Environmental Practice for all sources and Best Available Technology for point sources'.<sup>63</sup> In relation to this, the Helsinki Convention specifies

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<sup>62</sup> Emphasis added.

<sup>63</sup> 'Best Environmental Practice' means 'the application of the most appropriate combination of measures'. 'Best Available Technology' means 'the latest stage of development (state of the art) of process, of facilities or of methods of operation which indicate the practical suitability of a particular measure for limiting discharges'. Regulations 2(1) and 3(1) of Annex II to the 1992 Helsinki Convention.

factors which should be considered in the implementation of Best Available Technology (BAT) and Best Environmental Practice (BEP).<sup>64</sup> Notably, the Convention makes it clear that 'the precautionary principle' should be considered in determining the contents of BAT and BEP. It can be argued that, to some extent, the use of BAT and BEP can contribute to specify regulatory measures which should be taken by each State and the standard of 'due diligence' in this field.<sup>65</sup>

Furthermore, Article 5 places an obligation upon the Contracting Parties to 'undertake to prevent and eliminate pollution of the marine environment of the Baltic Sea Area caused by harmful substances from all sources, according to the provisions of this Convention, and, to this end, to implement the Procedures and measures of Annex I'. Annex I of the 1992 Helsinki Convention contains many harmful substances which were listed in Annex II (grey list) of the 1974 Helsinki Convention. It follows that substances listed in the 'grey list' of the 1972 Helsinki Convention also become objects to be prevented and eliminated in the 1992 Helsinki Convention. On the other hand, Article 6(3) stipulates that: 'Harmful substances from point sources shall not, except in negligible quantities, be introduced directly or indirectly into the marine environment of the Baltic Sea Area, *without a prior special permit*, which may be periodically reviewed, issued by the appropriate national authority in accordance with the principles contained in Annex III, Regulation 3'.<sup>66</sup> Accordingly, it appears that in the 1992 Helsinki Convention the discharge of harmful substances would be possible with a prior special permit. Even so, procedures for issuing permits for industrial plants are provided in some detail in Regulation 3 of Annex III. Moreover, on the request of a Contracting Party or of the Helsinki Commission, the Contracting Parties shall provide information on discharge permits, emission data, or data on environmental quality, as far as available by virtue of Article 16(2). To this extent, the discretion of the Contracting Parties is more limited than before on this matter.

The 1992 OSPAR Convention, which replaced the 1974 Paris Convention, also places an explicit obligation upon the Contracting Parties to take, individually and jointly, all possible steps to prevent and eliminate pollution from land-based sources in accordance with the provisions of the Convention, in particular as provided for in Annex I.<sup>67</sup> To this end, the OSPAR Convention provides a single list of priority pollutants. The criteria setting priorities, and in assessing the nature and extent of the programmes and measures and their time scales, are given in Appendix 2 of the OSPAR Convention.<sup>68</sup> This list is in essence a combination of the

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<sup>64</sup> Regulation 2(1) and Regulation 3(2) of Annex II of the 1992 Helsinki Convention.

<sup>65</sup> Concerning BAT and BEP in more detail, see Tanaka (n. 1) 563–5.

<sup>66</sup> Emphasis added.

<sup>67</sup> Art. 3 OSPAR Convention.

<sup>68</sup> Art. 1 (2) of Annex I and Appendix 2 (1) of the OSPAR Convention.

'black and grey lists' laid down in the annexes of the 1974 Paris Convention. It follows that the 'grey list' substances under the 1972 Paris Convention are also covered by the same obligation of preventing and eliminating these pollutants embodied in the OSPAR Convention.<sup>69</sup>

On the other hand, Article 2(1) of Annex I stipulates that: 'Point source discharges to the maritime area, and release into water or air which reach and may affect the maritime area, shall be strictly subject to authorisation or regulation by the competent authorities of the Contracting Parties'. It would seem to follow that point source discharges would be possible with the authorization or regulation by relevant authorities. At the same time, Article 2(1) of Annex I makes it clear that '[s]uch authorisation or regulation shall, in particular, implement relevant decisions of the Commission which bind the relevant Contracting Party'. Furthermore, as will be seen, the OSPAR Commission, made up of representatives of each of the Contracting Parties, is under an obligation to draw up plans for the reduction and phasing out of hazardous substances in accordance with Article 3(a) of Annex I. Thus the authorization or regulation by the Contracting Parties with respect to emissions of such substances is subject to the control of the OSPAR Commission. Overall, it can be argued that the replacement of the black/grey list approach by the uniform approach, without any differentiation of obligations in accordance with the category of harmful substances, represents an important development in the legal framework for the environmental protection of the North-East Atlantic region.<sup>70</sup>

The uniform approach is in line with the development of international law relating to the marine environment. Traditionally States have enjoyed a large degree of discretion in determining whether, and to what extent, they must regulate marine pollution; and only the law of State responsibility has afforded some general protection in the traditional law of the sea. However, the UNCLOS created a general and comprehensive framework, the primary focus of which was *not* based on obligations of responsibility for damage, but on general and comprehensive regulation to prevent marine pollution. Here one may speak of a paradigm shift in the law from the principle of freedom of pollution to an obligation to prevent pollution. One can argue that the controlling principle of the legal regime for the protection of the marine environment was changed from the discretion of States to a duty of protection by States.<sup>71</sup> It appears that the uniform approach reflects this paradigm shift in marine environmental protection.

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<sup>69</sup> M Pallemmaerts, 'The North Sea and Baltic Sea Land-Based Sources Regimes: Reducing Toxics or Rehashing Rhetoric?' (1998) 13 *IJMCL* 438–9; E Hey, T IJlstra, and A Nollkaemper, 'The 1992 Paris Convention for the Protection of the Marine Environment of the North-East Atlantic: A Critical Analysis' (1993) 8 *IJMCL* 19–20.

<sup>70</sup> Pallemmaerts (n. 69) 438–9.

<sup>71</sup> AE Boyle, 'Marine Pollution under the Law of the Sea Convention' (1985) 79 *AJIL* 350; Tanaka (n. 31) 276.

### 5.3.3 Precautionary approach

Another remarkable development in this field concerns the application of the precautionary approach.<sup>72</sup> This approach is becoming an important element in the context of environmental protection. Although the definition of the precautionary approach varies depending on the instruments concerned, the essence of this approach is that once a serious or irreversible risk has been identified, the lack of scientific proof of cause and effect shall not be used as a reason for not taking action to protect the environment.<sup>73</sup> By way of example, Principle 15 of the Rio Declaration on Environmental and Development formulated this approach as follows:

In order to protect the environment, the precautionary approach shall be widely applied by states according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

In this regard, the Chamber of the International Tribunal for the Law of the Sea (ITLOS), in its Advisory Opinion of 2011, took the view that the Rio Declaration 'has initiated a trend towards making this approach part of customary international law'.<sup>74</sup> Significantly, the precautionary approach is currently enshrined as a legal obligation in some regional agreements regulating pollution from land-based sources. For instance, Article 2(2)(a) of the OSPAR Convention places an explicit obligation upon the Contracting Parties to apply:

(a) the precautionary principle, by virtue of which preventive measures are to be taken when there are reasonable grounds for concern that substances or energy introduced, directly or indirectly, into the marine environment may bring about hazards to human health, harm living resources and marine ecosystems, damage amenities or interfere with other legitimate uses of the sea, even when there is no conclusive evidence of a causal relationship between the inputs and the effects.

With respect to this formulation, it may be noted that unlike a negative formulation which merely states that scientific uncertainty should not delay the taking of preventive measures, the formulation of the OSPAR Convention positively requires that States take preventive measures when there is a reasonable concern of a hazard.<sup>75</sup> As the 'precautionary principle' is considered a general obligation, it is also applicable to the regulation of land-based pollution.

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<sup>72</sup> While the terminology of this concept is not uniform, this chapter uses the term 'precautionary approach'. There are a considerable number of studies on this subject. Concerning the precautionary approach in the law of the sea, see in particular, S Marr, *The Precautionary Principle in the Law of the Sea* (Nijhoff, 2003); Tanaka (n. 49) 40–5.

<sup>73</sup> D Freestone and E Hey, 'Origin and Development of the Precautionary Principle' in D Freestone and E Hey (eds), *The Precautionary Principle and International Law: The Challenge of Implementation* (Kluwer, 1996) 13.

<sup>74</sup> Advisory Opinion, *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, 1 February 2011, 41, para. 135.

<sup>75</sup> L de la Fayette, 'The OSPAR Convention Comes into Force: Continuity and Progress' (1999) 14 *IJMCL* 254–5.

Likewise, Article 3(2) of the 1992 Helsinki Convention explicitly obliges the Contracting Parties to apply the 'precautionary principle'. As this principle is set out as one of the fundamental principles and obligations of the Helsinki Convention, the Contracting Parties are under a duty to apply this principle to the regulation of land-based pollution. In relation to this, it is notable that the Helsinki Convention refers to a lack of conclusive evidence of a causal relationship between the inputs and 'alleged effects', while the OSPAR Convention refers to a lack of such evidence with respect to the inputs and 'the effects'. Accordingly, it may be possible to argue that the Helsinki Convention provides a broader application of the precautionary principle than the OSPAR Convention.<sup>76</sup> The 1996 Syracuse Protocol (Preamble), the 2010 Nairobi Protocol (Article 4(2)(a)), and the 2012 Abidjan Protocol (Article 5(2)) also refer to the precautionary principle.

The precautionary approach must be distinguished from the traditional obligations of prevention in two respects. A first difference involves the standard of proof. In this regard, IUCN explained that:

In international law, the traditional obligation to prevent transboundary harm is triggered after 'convincing evidence' exists that such harm will occur. There is, as such, a focus on foreseeability or likelihood of harm based on knowledge or ability to know. In contrast, the precautionary approach calls for action even when there is scientific uncertainty about the precise degree of risk or the magnitude of potentially significant or irreversible environmental harm. It is based on the assumption that scientific knowledge about the environment is still developing and new activities or substances may be found to be harmful only after irreversible or catastrophic damage occurs.<sup>77</sup>

Second, the obligations of prevention is a corollary of the traditional principle of *sic utere tuo ut alienum non laedas*,<sup>78</sup> and it aims to reconcile the interests of a State involving industrial activities within its territory and the interests of other States which may be affected by such activities. By contrast, the precautionary approach may restrict the exercise of territorial sovereignty involving industrial activities with a view to protecting the common environmental interests of the international community which are beyond the interests of individual States. In this regard, it should be recalled that the Preamble of the OSPAR Convention, which clearly provides the precautionary approach, recognized that 'the marine environment and the fauna and flora which it supports are of vital importance to all nations'. It is beyond serious argument that the application of the precautionary approach is of particular importance in the regulation of the land-based marine pollution. However, this approach seems to leave some room for discussion with regard to its normativity.

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<sup>76</sup> J Ebbesson, 'A Critical Assessment of the 1992 Baltic Sea Convention' (2000) 43 *GYIL* 45.

<sup>77</sup> IUCN, *Draft International Convention on Environment and Development*, 4th edition, *Updated Text, Environmental Policy and Law Paper No. 31, Rev. 3* (Grant, IUCN, 2010) 49–50.

<sup>78</sup> The ICJ, in the *Pulp Mills* case, pointed out that 'the principle of prevention, as a customary rule, has its origins in the due diligence that is required of a State in its territory'. [2012] ICJ Reports para. 101.



A first issue involves the inter-temporality of the precautionary approach. Due to its nature, a need for the application of the precautionary approach is to be determined on the basis of the existence of *probable* or *potential* risks. Nonetheless, the assessment of such risk is often difficult to make since such risk may not be well known or discoverable through present-day science. The results of the assessment of *probable* or *potential* harms may change in accordance with the development of scientific technology.<sup>79</sup> Thus it is not easy to determine the existence of serious or irreversible risks which may trigger the application of the precautionary approach. Furthermore, appropriate preventive measures to respond to potential risks and the level of environmental risks which are socially acceptable varies over time. Inter-temporality poses an inherent difficulty with the application of the precautionary approach.<sup>80</sup>

Second, the precautionary approach contains no legal guidance concerning how to control the environmental risks. The application of the precautionary approach itself does not automatically specify measures that should be taken. The level of environmental risks which are socially acceptable must be determined considering not only scientific factors, but also economic, social and political factors. Thus, the precautionary approach can be applied in different ways in different contexts. In light of the differentiated economic and technological capacities between States, not all States can adopt the same measures with regard to the implementation of the precautionary approach.<sup>81</sup> Furthermore, the decision-making process of the precautionary approach is complicated because there is a need to consider not only scientific factors, but also the cost-effectiveness of proposed measures, their technical capabilities, their economic and social priorities, and so forth.<sup>82</sup> This process essentially involves a matter of national policy, not law. Hence there are considerable uncertainties with regard to the implementation of the precautionary approach.

Third, considering that the decision-making process of the precautionary approach essentially involves national policy, international courts and tribunals seem to encounter considerable difficulties as to its application to a particular case where the application of this approach is at issue. In fact, to date, international courts and tribunals have been wary of applying the precautionary approach in international disputes.<sup>83</sup> In the *MOX Plant* case between Ireland and the UK of 2001, for instance, Ireland argued that the manufacture of MOX fuel at Sellafield

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<sup>79</sup> P Martin-Bidou, 'Le principe de précaution en droit international de l'environnement' (1999) 103 *RGDIP* 647, 651.

<sup>80</sup> Y Tanaka, 'Reflections on Time Elements in the International Law of the Environment' (2013) 73 *ZaōRV (Heidelberg Journal of International Law)* 173.

<sup>81</sup> F González-Laxe, 'The Precautionary Principle in Fisheries Management' (2005) 29 *Marine Policy* 496.

<sup>82</sup> Birnie et al (n. 12) 163–4.

<sup>83</sup> P-M Dupuy, 'Le principe de précaution et le droit international de la mer' in *La mer et son droit, Mélanges offerts à Laurent Lucchini et Jean Pierre Quéneudec* (Pedone, 2003) 215–20; N

involved significant risks for the Irish Sea, since such manufacture would inevitably lead to some discharges of radioactive substances into the marine environment, via direct discharges and through the atmosphere; and that the precautionary principle was to be applicable as a rule of customary international law. Nonetheless, ITLOS did not prescribe the provisional measures requested by Ireland, on the ground that there was no urgency of the situation in the short period before the constitution of the Annex VII arbitral tribunal.<sup>84</sup> It is true that ITLOS considered that prudence and caution required that Ireland and the United Kingdom cooperate in exchanging information concerning risks or effects of the operation of the MOX Plant and in devising ways to deal with them.<sup>85</sup> Nonetheless, no explicit mention was made with respect to the precautionary approach in this case.<sup>86</sup> Likewise, ITLOS, in the 2003 *Land Reclamation* case, made no explicit reference to the precautionary approach, while the application of the 'precautionary principle' was discussed by the disputing Parties. Judicial hesitation can also be seen in the ICJ jurisprudence. In fact, ICJ, in the 1995 *Nuclear Tests II* and 1997 *Gabčíkovo-Nagymaros Project* cases, made no explicit mention of the 'precautionary principle', although the applicability of this principle was at issue in the judicial process. Furthermore, the World Trade Organization (WTO) Appellate Body, in the *Beef Hormones* case, took the view that: 'Whether it [the precautionary principle] has been widely accepted by Members as a principle of *general* or *customary international law* appears less than clear'.<sup>87</sup> Thus the Panel did not make any definitive finding with regard to the legal status of this principle in international law. In the 2006 EC-Approval and Marketing of Biotech Products, the Panel took the view that:

the legal debate over whether the precautionary principle constitutes a recognized principle of general or customary international law is still ongoing. Notably, there has, to date, been no authoritative decision by an international court or tribunal which recognizes the precautionary principle as a principle of general or customary international law.<sup>88</sup>

In summary, it may have to be accepted that the normativity of the precautionary approach is modest as a rule of conduct and a rule for adjudication. It is not

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Schrijver, 'The Status of the Precautionary Principle in International Law and Its Application and Interpretation in International Litigation' in *Liber Amicorum Jean-Pierre Cot: Le procès international* (Bruylant, 2009) 241–53.

<sup>84</sup> (2002) 41 *ILM* 415, para. 81.

<sup>85</sup> (2002) 41 *ILM* 415, para. 84.

<sup>86</sup> See also Separate Opinion of Judge Wolfrum, (2002) 41 *ILM* 428–9; Separate Opinion of Judge Treves, (2002) 41 *ILM* 431.

<sup>87</sup> Report of the Appellate Body, EC Measures Concerning Meat and Meat Products (Hormones), WT/DS26/AB/R, WT/DS48/AB/R, 16 January 1998, 45–6, para. 123 (original footnotes omitted).

<sup>88</sup> WTO Panel Report, *European Communities-Measures Affecting the Approval and Marketing of Biotech Products (EC-Approval and Marketing of Biotech Products)*, WT/DS291/R, WT/DS292/R, WT/DS293/R, 29 September 2006, para. 7.88.

suggested, however, that the precautionary approach has no normative force in international adjudication. There may be scope to argue that the precautionary approach can be used as an element of interpretation of existing rules of international law.<sup>89</sup> In fact, the ICJ, in the 2010 *Pulp Mills on the River Uruguay* case, explicitly stated that ‘a precautionary approach may be relevant in the interpretation and application of the provisions of the Statute [of the River Uruguay]’.<sup>90</sup>

The case in point may be provided by the 1999 *Southern Bluefin Tuna* case. While ITLOS did not explicitly refer to ‘the precautionary principle’, it held that: ‘In the view of the Tribunal, the parties should in the circumstances act with prudence and caution to ensure that effective conservation measures are taken to prevent serious harm to the stocks of southern bluefin tuna’.<sup>91</sup> The Tribunal further stated that ‘although the Tribunal cannot conclusively assess the scientific evidence presented by the parties, it finds that measures should be taken as a matter of urgency to preserve the rights of the parties and to avert further deterioration of the southern bluefin tuna stock’.<sup>92</sup> In so ruling, ITLOS appeared to take account of the precautionary approach as an element of the interpretation of the requirement of urgency under Article 290 of the UNCLOS.<sup>93</sup> Furthermore, by referring to the *Southern Bluefin Tuna* Order, the Chamber of ITLOS in its Advisory Opinion of 2011 highlighted the linkage between an obligation of due diligence and the precautionary approach.<sup>94</sup>

### 5.3.4 Environmental impact assessment and monitoring

With a view to effectively implementing relevant rules respecting land-based marine pollution, there is a need to examine the impact of planned activities upon the marine environment as well as the effectiveness of regulatory measures. In this regard, environmental impact assessment (EIA) and monitoring are of particular importance.<sup>95</sup> By way of example, the 1991 Convention on Environmental

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<sup>89</sup> Y Tanaka, ‘Rethinking Lex Ferenda in International Adjudication’ (2008) 51 *GYIL* 489–93; A Boyle, ‘Further Development of the Law of the Sea Convention: Mechanisms for Change’ (2005) 54 *ICLQ* 573–4.

<sup>90</sup> *Case Concerning Pulp Mills on the River Uruguay (Argentina v Uruguay)* [2010] ICJ Reports 51, para. 164.

<sup>91</sup> The *Southern Bluefin Tuna* Cases (*New Zealand v Japan; Australia v Japan*), Requests for Provisional Measures, (1999) 38 *ILM* 1634, para. 77.

<sup>92</sup> The *Southern Bluefin Tuna* Cases (n. 91) para. 80.

<sup>93</sup> Separate Opinion by Judge Tullio Treves (n. 91), 1645, paras. 8–9. See also Separate Opinion of Judge Laing (n. 91), 1642, para. 19; Separate Opinion of Judge *ad hoc* Shearer (n. 91), 1650.

<sup>94</sup> Advisory Opinion of 1 February 2011, [2011] ITLOS Reports 46, paras. 131–2.

<sup>95</sup> Generally on EIA, see P Sands and J Peel with A Fabra and R Mackenzie, *Principles of International Environmental Law* (Cambridge University Press, 2012) 601–23; Birnie et al (n. 12) 164–75; N Craik, *The International Law of Environmental Impact Assessment: Process, Substance and Integration* (Cambridge University Press, 2008); JH Knox, ‘The Myth and Reality of Transboundary

Impact Assessment in a Transboundary Context (Espoo Convention) defines EIA as 'a national procedure for evaluating the likely impact of a proposed activity on the environment'.<sup>96</sup> An EIA is fundamental to any regulatory system which seeks to identify environmental risk and integrate environmental concerns into decision-making processes with regard to future projects. An EIA introduces public scrutiny and elements of independence and impartiality to the decision-making process.<sup>97</sup> In so doing, an EIA seeks to detect the environmental risks and impacts of a proposed project *before* authorizing or funding the project.

In practice, EIA has been increasingly enshrined in various binding and non-binding instruments respecting environmental protection. In this regard, Judge Weeramantry observed that EIA 'is gathering strength and international acceptance, and has reached the level of general recognition at which this Court [ICJ] should take notice of it'.<sup>98</sup> Later, Judge Weeramantry's view was echoed by the ICJ, in the 2010 *Pulp Mills* case, where it was stated that: 'it may now be considered a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource'.<sup>99</sup> Furthermore, the Seabed Disputes Chamber of ITLOS, in its first advisory opinion, took the view that: '[T]he obligation to conduct an environmental impact assessment is a direct obligation under the Convention and a general obligation under customary international law'.<sup>100</sup>

In the context of marine environmental protection, Article 206 of the UNCLOS provides an obligation to undertake EIA as follows:

When States have reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial pollution of or significant and harmful changes to the marine environment, they shall, as far as practicable, assess the potential effects of such activities on the marine environment and shall communicate reports of the results of such assessments in the manner provided in article 205.<sup>101</sup>

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Environmental Impact Assessment' (2002) 96 *AJIL* 291–319; KR Gray, 'International Environmental Impact Assessment: Potential for a Multilateral Environmental Agreement' (2000) 11 *Colorado Journal of International Environmental Law and Policy* 83–128.

<sup>96</sup> Art. 1(vi). In accordance with 'Goals and Principles of Environmental Impact Assessment' adopted by UNEP in 1987, environmental impact assessment means 'an examination, analysis and assessment of planned activities with a view to ensuring environmentally sound and sustainable development' (Preamble). For the text, see P Birnie and A Boyle, *Basic Documents on International Law and Environment* (Oxford University Press, 1995) 27–30.

<sup>97</sup> Birnie et al (n. 12) 165.

<sup>98</sup> Dissenting Opinion of Judge Weeramantry in the *Nuclear Test Case* of 1995 [1995] ICJ Reports 344.

<sup>99</sup> [2010] ICJ Reports 83, para. 204.

<sup>100</sup> [2011] ITLOS Reports 50, para. 145.

<sup>101</sup> Generally on EIA under the UNCLOS, see L Kong, 'Environmental Impact Assessment under the United Nations Convention on the Law of the Sea' (2011) 10 *Chinese Journal of International Law* 651–69.

This formulation is essentially reflected in Article VII(2) of the 1999 Aruba Protocol. A similar obligation is also provided in Article VIII(1) of the 1990 Kuwait Protocol.

In light of the transboundary nature of marine pollution, the implementation of an effective EIA necessitates international cooperation. In this respect, one will note with interest that the 1992 Helsinki Convention sets out a dual obligation relating to EIA: the obligation to undertake EIA and the obligation to cooperate on this matter. Article 7(1) of the Helsinki Convention calls upon the Contracting Parties to undertake EIA in the Baltic Sea Area. Article 7(3) then requires that:

Where two or more Contracting Parties share transboundary waters within the catchment area of the Baltic Sea, these Parties shall cooperate to ensure that potential impacts on the marine environment of the Baltic Sea Area are fully investigated within the environmental impact assessment referred to in paragraph 1 of this article.

The OSPAR Convention directly obliges the Contracting Parties to ‘undertake and publish at regular intervals joint assessments of the quality status of the marine environment and of its development, for the maritime area or for regions or sub-regions thereof’ pursuant to Article 6(a). Such assessments include both an evaluation of the effectiveness of the measures taken and planned for the protection of the marine environment and the identification of priorities for action under Article 6(b). The OSPAR Commission is also required to cooperate with competent regional organizations, and other competent international organizations, in carrying out quality status assessment under Article 3(d) of Annex IV. Such a collective assessment will be useful in order to enhance the quality of EIA.<sup>102</sup>

As the environment is a dynamic natural system, it will change as time goes by. Accordingly, there is a need to continue monitoring ongoing environmental risks and impacts *after* a project has begun. Thus, EIA must be complemented by an effective monitoring system.<sup>103</sup> In fact, the ICJ, in the *Pulp Mills* case, highlighted that:

The Court also considers that an environmental impact assessment must be conducted prior to the implementation of a project. Moreover, once operations have started and, where necessary, throughout the life of the project, continuous monitoring of its effects on the environment shall be undertaken.<sup>104</sup>

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<sup>102</sup> It may be relevant to note that the Contracting Parties to the OSPAR Convention adopted OSPAR Recommendation 2014/18 on the Strategy for the Joint Assessment and Monitoring Programme, which has effect from 27 June 2014. This Recommendation aims to fulfil the obligation under the Convention in relation to monitoring and assessment. This instrument is available at: <<http://www.ospar.org/convention/agreements?q=monitoring&t=32283&a=&s>>.

<sup>103</sup> Separate Opinion of Judge Weeramantry in the *Gabčíkovo-Nagymaros Project* case [1997] ICJ Reports 111.

<sup>104</sup> *Case Concerning Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, Judgment [2010] ICJ Reports 83–4, para. 205.

The need for monitoring the environment was also highlighted by ITLOS in the 2001 *MOX Plant* case.<sup>105</sup> In fact, the interlinkage between EIA and monitoring can be seen in the provisions of modern treaties involving environmental protection. In this regard, Article 204 of the UNCLOS provides obligations relating to monitoring of the risks or effects of pollution of the marine environment in a general manner. These obligations are also set out in some regional treaties governing land-based marine pollution, such as Article 8 of the 1980 Athens Protocol, Article VI of the Aruba Protocol, Article VIII of the 1983 Quito Protocol, Article 7 of the 1990 Kuwait Protocol, and Article 12 of the 2005 Jeddah Protocol.

This cursory survey shows that EIA and monitoring are enshrined in several regional treaties regulating land-based marine pollution. EIA does not, in itself, prohibit all land-based activities which may cause adverse impacts upon the marine environment.<sup>106</sup> Under those treaties, however, arguably a State whose activities cause serious land-based marine pollution could not deny responsibility on grounds of non-foreseeability if it has not conducted such an assessment.<sup>107</sup> In this sense, it may be said that the EIA can elaborate the standard of due diligence at the procedural level. In relation to this, one may note with interest that the ICJ, in the 2010 *Pulp Mills* case, ruled that:

[D]ue diligence, and the duty of vigilance and prevention which it implies, would not be considered to have been exercised, if a party planning works liable to affect the régime of the river or the quality of its waters did not undertake an environmental impact assessment on the potential effects of such works.<sup>108</sup>

One can also argue that EIA, coupled with monitoring activities, can be a useful tool in assessing the existence of future environmental risks which may trigger the application of the precautionary principle.

## 5.4 Ensuring Compliance

### 5.4.1 Reporting system

Consideration must now be given to procedures for ensuring effective compliance with treaties regulating land-based marine pollution. In this regard, it is important to note that the traditional principle of reciprocity is not seen as being effective in

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<sup>105</sup> The *MOX Plant Case (Ireland v United Kingdom)*, Request for Provisional Measures, para. 89(1)(b). See also Case concerning Land Reclamation by Singapore in and around the Straits of Johor (*Malaysia v Singapore*), Provisional Measures, [2003] ITLOS Reports 27, para. 106(1)(a)(i).

<sup>106</sup> JH Knox, 'The Myth and Reality of Transboundary Environmental Impact Assessment' (2002) 96 *AJIL* 316–19.

<sup>107</sup> AE Boyle, 'Land-based Sources of Marine Pollution: Current Legal Regime' (1992) 16 *Marine Policy* 23.

<sup>108</sup> The *Pulp Mills on the River Uruguay* case (*Argentina v Uruguay*) [2010] ICJ Reports 83, para. 204.

securing compliance with rules governing marine environmental protection. In essence, the principle of reciprocity governs bilateral and contractual relations between atomistic States on the basis of the symmetry of rights and obligations. However, like human rights treaties, treaties respecting marine environmental protection do not provide reciprocal obligations on the basis of mutual advantages. Accordingly, traditional self-regulation on the basis of the principle of reciprocity contains an inherent limit in ensuring compliance with treaties in the field of marine environmental protection. In response, there is a need to create more institutionalised compliance mechanisms. To this end, international supervision or control through international institutions established by a treaty merits particular attention.

While international supervision is a concept with more than one meaning, this concept may be defined as procedures through multilateral international institutions for supervising the compliance of objective obligations in a treaty. The international supervision seeks to supervise the compliance with treaties by a variety of procedures, such as reporting from States Parties, verification, decisions, and recommendations. Such procedures have been developed particularly in international human rights law and international environmental law.<sup>109</sup> It seems that international supervision has also a valuable role to play in the regulation of land-based marine pollution. Among various procedures for international supervision, reporting systems merit particular attention.

Reporting systems oblige the contracting parties to a treaty to make periodic reports on matters affecting the implementation of the treaty.<sup>110</sup> Significantly, regional treaties regulating land-based marine pollution contain an obligation of reporting. For instance, Article 13(1) of the 1996 Syracuse Protocol requires the Parties to submit reports every two years to the meetings of the Contracting Parties of measures taken, results achieved and, if the case arises, of difficulties encountered in the application of the Protocol. Such reports shall include, inter alia: (a) statistical data on the authorizations granted, (b) data resulting from monitoring, (c) quantities of pollutants discharged from their territories, and (d) action plans, programmes and measures implemented under Articles 5, 7, and 15 of this Protocol.<sup>111</sup> The reports submitted by the Parties are to be considered by the meetings of the Parties in accordance with Article 14(2)(f). Likewise, Article 12(1) of the 1999 Aruba Protocol provides that the Contracting Parties shall submit reports to

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<sup>109</sup> Generally on this issue, see in particular, R Wolfrum, 'Means of Ensuring Compliance with and Enforcement of International Environmental Law' (1998) 272 *RCADI* 9–154.

<sup>110</sup> Generally on the reporting system in the context of the marine environmental protection, see Y Tanaka, 'Reflections on Reporting Systems in Treaties Concerning the Protection of the Marine Environment' (2009) 40 *ODIL* 146–70.

<sup>111</sup> Art. 13(2). Art. 5 concerns general obligations to eliminate pollution from land-based sources and activities. Art. 7 relates to the adoption of common guidelines. Art. 15 concerns action plans adopted by the meeting of the Parties.

the UNEP containing information on measures adopted, results obtained, and any difficulties experienced in the implementation of this Protocol. In this regard, the nature of the information to be included, and the collection, presentation and timing of these reports, are to be determined by the Meeting of the Contracting Parties by virtue of Article 12(1). Similar reporting systems or obligations to exchange information through the Organization established by the regional treaty are provided in the 1980 Athens Protocol (Article 13), the 1983 Quito Protocol (Article 9), the 1992 Bucharest Protocol (Article 7), the 1990 Kuwait Protocol (Article 12), the 1999 Aruba Protocol (Article XII), the 2005 Jeddah Protocol (Article 18), the 2010 Nairobi Protocol (Article 16), and the 2012 Abidjan Protocol (Article 17). The reports submitted by parties provide the primary source of information concerning their performance in following the treaty obligations. Furthermore, data submitted by the parties can be used for reviewing the efficacy of conventional measures. Reporting systems provide the basis for international supervision to enhance compliance with relevant treaties.

However, a problem associated with the reporting system is that its effectiveness will depend on the diligence and accuracy of the reporting authorities. In fact, it is said that many States fail to fulfil the reporting obligation, or report merely superficially to the relevant international institutions.<sup>112</sup> In response to this problem, some treaties attempt to reinforce the reporting obligation by specifying the contents for such reports in some detail, or providing commitments of Contracting Parties or commissions to information. The 1992 Helsinki Convention is an example. Article 16(1) of the Convention obliges the Contracting Parties to report not only the measures taken for the implementation of the provisions of this Convention, but also assessments of the effectiveness of such measures and problems encountered in implementing them. Article 16(2) further provides that, on the request of a Contracting Party or of the Commission, Contracting Parties shall provide information on discharge permits, emission data, or data on environmental quality as far as available. Annex III calls upon the operator of an industrial plant to submit data and information to the appropriate national authority using a form of application. At least the following data and information shall be included in the application form: general information, actual situation and/or planned activities, alternatives, and their various impacts concerning ecological, economic, and safety aspects.<sup>113</sup> On the basis of the report from the Contracting Parties, the Baltic Marine Environment Protection Commission is to keep the implementation of the Convention under continuous observation.<sup>114</sup> In this way, the implementation of such treaties is to be supervised by the relevant Commission.

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<sup>112</sup> Tanaka (n. 110) 157–60.

<sup>113</sup> Regulation 3(1) of Annex III.

<sup>114</sup> Art. 20(1)(a). In this respect, HELCOM Ministerial declaration stressed the important role of the Helsinki Commission in supervising the implementation of the Convention and the Recommendations with the aim to ensure that the same environmental measures were implemented in the whole Baltic Sea and its catchment area: HELCOM Ministerial Declaration (HELCOM Bremen



The OSPAR Convention also provides a similar obligation. In this respect, Article 22 of the Convention imposes the Contracting Parties to report to the Commission at regular intervals on:

- (a) the legal, regulatory, or other measures taken by them for the implementation of the provisions of the Convention and of decisions and recommendations adopted thereunder, including in particular measures taken to prevent and punish conduct in contravention of those provisions;
- (b) the effectiveness of the measures referred to in subparagraph (a) of this Article;
- (c) problems encountered in the implementation of the provisions referred to in subparagraph (a) of this Article.

One can argue that these detailed reporting systems are useful in precluding States Parties from failing to fulfil the reporting obligation or from reporting superficially to the relevant international institutions.

#### 5.4.2 Supervision by treaty commissions

On the basis of the reports submitted by the parties, a treaty commission is to examine the effectiveness of the implementation of relevant treaty obligations. Institutionalized supervision by treaty commissions is important for ensuring the effectiveness of environmental treaties.<sup>115</sup> In the context of the regulation of land-based marine pollution, an illustrative example may be provided by the OSPAR Convention. Article 3 of Annex I requires the OSPAR Commission to draw up:

- (a) plans for the reduction and phasing out of substances that are toxic, persistent and liable to bio accumulate arising from land-based sources;
- (b) when appropriate, programmes and measures for the reduction of inputs of nutrients from urban, municipal, industrial, agricultural and other sources.

Furthermore, Article 10 holds that the OSPAR Commission has duties (a) to *supervise* the implementation of the Convention and (b) generally to review the condition of the maritime area, the effectiveness of the measures being adopted, the priorities and the need for any additional or different measures. To this end, Article 23 provides for the compliance procedure that:

The Commission shall:

- (a) on the basis of the periodical reports referred to in Article 22 and any other report submitted by the Contracting Parties, *assess* their compliance with the Convention and the decisions and recommendations adopted thereunder;
- (b) when appropriate, *decide upon and call for steps to bring about full compliance with the Convention*, and decisions adopted thereunder, and promote the

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Declaration), 25 June 2003, 7. The text is available at: <<http://helcom.fi/Documents/About%20us/Convention%20and%20commitments/Ministerial%20declarations/Bremen2003.pdf>> (accessed on 19 November 2015).

<sup>115</sup> Generally on this issue, see Birnie et al (n. 12) 239–41.

implementation of recommendations, including measures to assist a Contracting Party to carry out its obligations.<sup>116</sup>

It may be argued that this provision further reinforces the supervision and control power of the Commission. Furthermore, Article 23 refers to measures 'to assist a Contracting Party'. Although the meaning of the 'measures' remains obscure, it is conceivable that they could include administrative or technical or scientific help.<sup>117</sup> On the basis of those mechanisms, the compliance of the OSPAR Convention, including rules concerning land-based marine pollution, is to be supervised by the OSPAR Commission.<sup>118</sup> International supervision by the OSPAR Commission provides a useful insight into effective compliance with treaty provisions in the field of environmental protection.

## 5.5 Conclusions

The regulation of land-based marine pollution at the global level remains a weak one in the sense that attempts to address land-based marine pollution have been made solely in the form of non-binding documents. Thus marine pollution from land-based sources is regulated mainly by regional treaties. It can be observed that these treaties contain several approaches and legal procedures for tightening obligations to regulate land-based marine pollution. For instance, the uniform approach makes it possible to regulate marine pollution from land-based sources in a more comprehensive manner. The precautionary approach requires States to take measures necessary to prevent marine pollution from land-based activities before damage has been caused. The obligation to undertake EIA as well as monitoring may serve to incorporate full environmental awareness into the process of environmental policy making. International supervision on the basis of reporting and treaty commissions can also be a useful tool to secure compliance with treaty obligations. While the effectiveness of these approaches and techniques must be verified through State practice, it may at least be said that these legal techniques contribute to strengthening the regulation of land-based marine pollution.

However, the normative level of regional treaties is not uniform. For instance, while the 1992 OSPAR Convention, the 1992 Helsinki Convention and the 1996 Syracuse Protocol replace the black/grey list approach by the uniform approach, the 1983 Quito Protocol and the 1992 Bucharest Protocol maintain the black/

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<sup>116</sup> Emphasis added.

<sup>117</sup> R Lagoni, 'Monitoring Compliance and Enforcement of Compliance Through the OSPAR Commission' in P Ehlers, E Mann-Borgese and R Wolfrum (eds), *Marine Issues* (Kluwer, 2002) 161.

<sup>118</sup> However, this does not mean that the OSPAR Commission has enforcement jurisdiction against a Contracting Party. Art. 13(2) seems to suggest that a Contracting Party which has voted against a decision is not bound by it: Lagoni (n. 117) 161–2. See also J Hilf, 'The Convention for the Protection of the Marine Environment of the North-East Atlantic—New Approaches to an Old Problem?' (1995) 55 *ZaöRV* 593.

grey list approach. The use of the Best Available Techniques as well as the Best Environmental Practice is reflected only in the OSPAR Convention, the Helsinki Convention, the 1996 Syracuse Protocol, the 2005 Jeddah Protocol, the 2010 Nairobi Protocol, and the 2012 Abidjan Protocol. Equally, the precautionary approach is enshrined only in the OSPAR Convention, the Helsinki Convention, the Nairobi Protocol, the Abidjan Protocol, and the Syracuse Protocol.

The development of regional treaties respecting marine environmental protection relies essentially on economic, political, and technological situations in regions. If a treaty regulating land-based marine pollution is concluded, its application is qualified by economic, political and technical elements. In relation to this, it must be remembered that many developing States lack adequate financial, technical, and human resources to combat land-based marine pollution. Thus, the development of the capacity of these States in this field is a prerequisite for effectively regulating land-based pollution. In this regard, further efforts will be needed in order to promote international cooperation in financial and technological assistance to these States in this field. In conclusion, the regulation of land-based marine pollution should be examined in a global perspective and acted on at the regional level. 'Think globally and act regionally'. Arguably, this approach is essential to combating land-based marine pollution.

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## POLLUTION OF THE MARINE ENVIRONMENT FROM OR THROUGH THE ATMOSPHERE

*James Harrison*

### 6.1 Introduction

Parties to the 1982 United Nations Convention on the Law of the Sea (UNCLOS) are under an obligation to take measures to prevent, reduce and control 'all sources of pollution of the marine environment'.<sup>1</sup> The term 'marine environment' is not explicitly defined by the Convention and the scope of this provision is ambiguous. On one reading of the term, it includes the air space above the water column and therefore pollution of the air is itself pollution of the marine environment.<sup>2</sup> Yet, even if one accepts that the Convention 'does not address directly the problem of pollution of the atmosphere itself',<sup>3</sup> it is clear that polluting substances can enter the water column from the atmosphere, either through precipitation or through the direct deposit of particulates.<sup>4</sup> Indeed, the Convention explicitly covers 'pollution of the marine environment from or through the atmosphere',<sup>5</sup> thereby recognizing the complex interactions between the air and the sea.

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<sup>1</sup> 1982 United Nations Convention on the Law of the Sea (Montego Bay, 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS), Art. 194(3).

<sup>2</sup> Several proposals advanced during the negotiating process included air space above the water column within the definition of the marine environment and one leading commentary concludes that 'the term "marine environment" will include the atmosphere where relevant'. MH Nordquist et al (ed), *United Nations Convention on the Law of the Sea 1982—A Commentary* (Martinus Nijhoff, 1991) vol. IV, para. 192.11(a).

<sup>3</sup> Nordquist et al (n. 2), vol. IV, para. 212.9(d).

<sup>4</sup> See the Group of Experts on Scientific Aspects of Marine Environmental Protection (GESAMP), *The State of the Marine Environment* (United Nations, 1990) para. 134.

<sup>5</sup> UNCLOS, Arts 194(3)(a), 212, 222.

This chapter considers the international law that is applicable to pollution of the marine environment from or through the atmosphere. It will start by explaining the way in which this issue is addressed in UNCLOS. It will then analyse other relevant instruments that have been adopted to combat air pollution. The chapter will cover both general treaties on air pollution, as well as the specific regime for the prevention of air pollution from ships. It will pay particular attention to the nature of the international regulations and the extent to which they balance the various interests of different States. It will also consider the manner in which the international emissions standards have evolved in response to technological developments and the challenges for future evolution.

## 6.2 Scope and Nature of the Problem

Air-borne pollutants are a significant threat to human health, causing premature mortality, cardiopulmonary disease, lung cancer, and chronic respiratory ailments. However, they can also cause damage to the environment more generally. One study notes that 'acid deposition [through precipitation] has been blamed for increased acidity of soil, lakes, and rivers and for other effects including reduced crop growth, death or degradation of forests, and the disappearance of fish and wildlife'.<sup>6</sup> Nor are these effects limited to the terrestrial environment.

Whilst precise figures remain uncertain, it is estimated that the atmosphere is the source of many contaminants in the marine environment, including nitrogen, sulphur, carbon, heavy metals, and other organic compounds.<sup>7</sup> These substances contribute to pollution of the marine environment when they are absorbed into the water column. Sulphur, nitrogen, and carbon deposits can all lower pH levels of seawater causing ocean acidification, which is thought to 'have a considerable impact on calcifying organisms and the food-webs of which they are part'.<sup>8</sup> Furthermore, CO<sub>2</sub> emissions also contribute to climate change, which has additional negative effects on the oceans, such as sea-level rise and water warming.<sup>9</sup>

There are various sources of pollution from or through the atmosphere. Clearly, land-based activities, such as factories or other industrial facilities, are a major source of such pollution as fumes can be blown over the seas by winds, depositing pollutants into the water column. The seriousness of this problem will depend on

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<sup>6</sup> P Birnie, A Boyle, and C Redgwell, *International Law and the Environment* (3rd edn, Oxford University Press, 2009) 343.

<sup>7</sup> See GESAMP, *The State of the Marine Environment*, paras 132–41.

<sup>8</sup> GESAMP, *Pollution in the Open Oceans: A Review of Assessment and Related Studies* (United Nations, 2009) 26–7.

<sup>9</sup> See M Allsopp et al, *State of the World's Oceans* (Springer, 2009) ch. 5. See further Section 6.6.

a number of factors including meteorological conditions and the atmospheric residence time of a contaminant.<sup>10</sup> As noted by one scientific study:

Since source of contaminants are mainly in mid-latitudes in the northern hemisphere, materials tend on balance to move from west to east, although in the case of specific events (e.g. the Chernobyl accident) weather conditions at the time of release determine the paths of the emissions. In general, North America contributes to the North Atlantic Ocean, and the Asian continent influences the North Pacific and Arctic Oceans. On the other hand, movement in the trade wind zone is from east to west so that the flow from southern North America is across the north Pacific and from north Africa across the north Atlantic.<sup>11</sup>

Alongside land-based sources, ships are also a source of air pollution. Indeed, shipping is becoming a more serious source of air pollution as emissions from land-based sources become subject to increasingly strict regulation at the national and international level.<sup>12</sup> Emissions from shipping include sulphur dioxide, nitrogen oxide, and other particulate matter. Furthermore, the International Maritime Organization (IMO) has estimated that ships engaged in international trade contribute about 2.1 per cent of global greenhouse gas emissions on a CO<sub>2</sub> equivalent basis.<sup>13</sup>

By its very nature, air pollution is easily transferred across international boundaries. Therefore it is a topic that has long been subject to international rules and regulations. Over time, the body of law in this area has shifted from ascribing responsibility for transboundary air pollution<sup>14</sup> to trying to limit the production of air pollutants at source.<sup>15</sup> International cooperation is also important in the case of air pollution from ships, given that they travel around the world and they are subject to numerous jurisdictions.<sup>16</sup> The following sections will explain and evaluate the legal framework for the regulation of air pollution, with a particular focus on ships given their close link with pollution of the marine environment.

### 6.3 Pollution from or through the Atmosphere under UNCLOS

Pollution of the marine environment from or through the atmosphere is expressly regulated by Article 212 of UNCLOS. First and foremost, Article 212(1) requires

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<sup>10</sup> GESAMP, *Pollution in the Open Oceans: A Review of Assessment and Related Studies*, 20.

<sup>11</sup> GESAMP, *The State of the Marine Environment*, para. 133.

<sup>12</sup> See eg House of Commons Transport Select Committee, *Sulphur Emissions by Ships* (UK Parliament, 2012) para. 7.

<sup>13</sup> IMO, *Third IMO GHG Study* (IMO, 2014) para. 1.1.

<sup>14</sup> See eg the seminal arbitral award in *Trail Smelter Arbitration*, Decision of 16 April 1938. On the importance and implications of the case, see RB Bratspies and RA Miller (eds), *Transboundary Harm in International Law: Lessons from the Trail Smelter Arbitration* (Cambridge University Press, 2006).

<sup>15</sup> Birnie et al (n. 6) 343.

<sup>16</sup> See A K-J Tan, *Vessel-Source Marine Pollution* (Cambridge University Press, 2006) 156.

states to 'adopt laws and regulations to prevent, reduce and control pollution of the marine environment from or through the atmosphere, applicable to the air space under their sovereignty and to vessels flying their flag or vessels or aircraft of their registry'.<sup>17</sup> It is apparent that Article 212(1) has a broad scope and it covers both air pollution produced by all activities within the sovereign territory of a state, as well as air pollution from ships and aircrafts of their nationality, wherever they are in the world. All parties to the Convention are expected to control these sources through legislation, as well as to take 'other measures as may be necessary to prevent, reduce and control such pollution'.<sup>18</sup>

Recognizing the need for international cooperation, Article 212(3) encourages states to 'establish global and regional rules, standards and recommended practices and procedures' to prevent, reduce and control pollution of the marine environment from or through the atmosphere, applicable to inter alia air space under their sovereignty and vessels flying their flag.<sup>19</sup> Given the breadth of Article 212, it is not surprising that paragraph 3 makes reference to international organizations in the plural.<sup>20</sup> There is no single organization which has responsibility for air pollution issues at the international level. The UN Division for Ocean Affairs and the Law of the Sea has identified a range of instruments as relevant for the purposes of Article 212, including the Vienna Convention for the Protection of the Ozone Layer<sup>21</sup> and its Montreal Protocol<sup>22</sup>, the United Nations Framework Convention on Climate Change<sup>23</sup> and its Kyoto Protocol<sup>24</sup>, and relevant regional agreements.<sup>25</sup>

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<sup>17</sup> UNCLOS, Art. 212(1).

<sup>18</sup> UNCLOS, Art. 212(2). Art. 222 of the Convention further requires states to enforce any national rules and regulations adopted in accordance with Art. 212(1).

<sup>19</sup> UNCLOS, Art. 212(3).

<sup>20</sup> See Nordquist et al (n. 2) vol. IV, para. XII.17.

<sup>21</sup> Convention for the Protection of the Ozone Layer (Vienna, 22 March 1985, entered into force 22 September 1988) 1513 UNTS 293.

<sup>22</sup> Protocol on Substance that Deplete the Ozone Layer (Montreal, 16 September 1987, entered into force 1 January 1989) 1522 UNTS 3.

<sup>23</sup> United Nations Framework Convention on Climate Change (New York, 9 May 1992, entered into force 21 March 1994) (UNFCCC) 1771 UNTS 107.

<sup>24</sup> Protocol to the United Nations Framework Convention on Climate Change (Kyoto, 11 December 1997, entered into force 16 February 2005) 2303 UNTS 162.

<sup>25</sup> Division for Ocean Affairs and the Law of the Sea, *Obligations of States Parties under the United Nations Convention on the Law of the Sea and Complementary Instruments* (United Nations, 2004) 52–3. The following regional seas agreements all deal with pollution from or through the atmosphere: the Convention for the Protection of the Marine Environment of the North-East Atlantic (Paris, 22 September 1992, entered into force 25 March 1998) 2354 UNTS 67, Art. 1(e); the Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki, 9 April 1992, entered into force 17 January 2000) 2099 UNTS 195, Art. 2(2); the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona, 16 February 1976, entered into force 12 February 1978, amended in 1995) 1102 UNTS 27, Art. 8(b); the Convention for Cooperation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region (Abidjan, 23 March 1981, entered into force 5 August

Indeed, potential overlaps may arise. This is particularly the case when it comes to the regulation of air pollution from ships. Many of the general air pollution treaties discussed below potentially apply to ships, particularly when they are within the jurisdiction of a State. At the same time, the IMO itself claims that it is 'the appropriate forum for States to establish global and regional rules, standards and recommended practices and procedures applicable to vessels to prevent, reduce and control pollution of the marine environment from or through the atmosphere'.<sup>26</sup> The need for specific regulations to address the prevention of air pollution from ships was first recognized in Resolution A.719(17) adopted by the IMO Assembly in November 1991, in which the Organization agreed to negotiate a new annex to the International Convention for the Prevention of Pollution from Ships (MARPOL)<sup>27</sup> to address this issue.<sup>28</sup> MARPOL Annex VI was ultimately adopted in 1997. Although the IMO has taken into account many of the existing international instruments addressing air pollution in negotiating its own response to air pollution,<sup>29</sup> questions about the interrelationship between the IMO and other relevant bodies may arise. The following sections will therefore consider both the general air pollution treaties, as well as the relevant provisions of MARPOL Annex VI.

The scope of Article 212 covers any potential pollutant of the marine environment from or through the atmosphere. However, due to space constraints, this chapter will focus on three of the most important atmospheric pollutants, namely sulphur oxides, nitrogen oxides, and carbon dioxide.

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1984) 20 *ILM* 746, Art. 9; the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena de Indias, 24 March 1983, entered into force 11 October 1986) 1506 UNTS 157, Art. 9; the Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (Nairobi, 21 June 1985, entered into force 29 May 1996, amended in 2010) 1986 OJ C253, 10, Art. 10; the Convention on the Protection of the Black Sea Against Pollution (Bucharest, 21 April 1992, entered into force 15 January 1994) 1764 UNTS 3, Art. 12; the Convention for Cooperation in the Protection and Sustainable Development of the Marine and Coastal Environment of the Northeast Pacific (Antigua, 18 February 2002) Art. 6(1)(ii); the Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment (Jeddah, 14 February 1982, entered into force 20 August 1985) Art. 6; the Convention for the Protection of the Marine Environment and Coastal Areas of the South-East Pacific (Lima, 12 November 1981, entered into force 19 May 1986) 1648 UNTS 3, Art. 4(a)(ii); the Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution (Kuwait, 24 April 1978, entered into force 1 July 1979) 1140 UNTS 133.

<sup>26</sup> See IMO, *Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization*, Document LEG/MISC.7 (2012) 72.

<sup>27</sup> International Convention for the Prevention of Pollution from Ships (London, 2 November 1973, entered into force 12 October 1983) 1340 UNTS 184 (MARPOL).

<sup>28</sup> *Prevention of Air Pollution from Ships*, Resolution A.719(17), adopted 6 November 1991.

<sup>29</sup> See *Prevention of Air Pollution from Ships*, IMO Resolution A.719(17), adopted 6 November 1991.



## 6.4 Regulation and Control of Sulphur Oxides and Particulate Matter

Sulphur Oxides (SO<sub>x</sub>) are caused by a number of anthropocentric activities, particularly the burning of fossil fuels. Emissions of SO<sub>x</sub> were first regulated at the regional level in North America and Europe by a Protocol adopted in 1985 under the 1979 Convention on Long-Range Transboundary Air Pollution<sup>30</sup> which committed the parties to 'reduce their national annual sulphur emissions or their transboundary fluxes by at least 30%'.<sup>31</sup> The precise scope of the Protocol was not specified, but it potentially included emissions from shipping.<sup>32</sup> Nine years later, parties to the 1979 Convention adopted an additional Protocol on Further Reduction of Sulphur Emissions.<sup>33</sup> This instrument set individual targets for states to meet. Although some of the provisions of the Protocol could potentially apply to shipping when within the jurisdiction of a party<sup>34</sup>, States chose to adopt a global response to counter sulphur emission from ships at the IMO, in order to avoid unequal adverse effects on the economic operators in affected regions.<sup>35</sup>

Regulation 14 of MARPOL Annex VI addresses SO<sub>x</sub> emissions from international shipping by setting standards for the sulphur content of fuel oils used on board ships. In the original text, a single standard was set for the sulphur content of fuel.<sup>36</sup> However, amendments agreed in 2008 introduced incremental standards as follows:<sup>37</sup>

- 4.5 per cent m/m prior to 1 January 2012
- 3.5 per cent m/m on and after 1 January 2012
- 0.5 per cent m/m on and after 1 January 2020

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<sup>30</sup> Convention on Long-Range Transboundary Air Pollution (Geneva, 13 November 1979, entered into force 16 March 1983) 1302 UNTS 217.

<sup>31</sup> 1985 Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at Least 30% (Helsinki, 8 July 1985, entered into force 2 September 1987) 1480 UNTS 215, Art. 2.

<sup>32</sup> 'Long-range transboundary air pollution' is defined by the 1979 Convention as 'air pollution whose physical origin is situated wholly or in part within the area under the national jurisdiction of one State . . . '.

<sup>33</sup> Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Further Reductions of Sulphur Emissions (Oslo, 14 June 1994, entered into force 5 August 1998) 2030 UNTS 122.

<sup>34</sup> 1994 Protocol to the 1979 Convention, Art. 2(4): 'the Parties shall make use of the most effective measures for the reduction of sulphur emissions, appropriate in their particular circumstances, for new and existing sources, which include, inter alia . . . measures to reduce the sulphur content of particular fuels and to encourage the use of fuel with a low sulphur content . . . '.

<sup>35</sup> See Tan (n. 16) 156.

<sup>36</sup> See the original text of Regulation 14(1) which set a sulphur content standard of 4.5% m/m.

<sup>37</sup> MARPOL Convention, Annex VI, Regulation 14(1).

This provision directly addresses the reduction of SO<sub>x</sub> emissions by reducing the sulphur content of marine fuel. However, parties are also permitted to allow other abatement techniques to be used in place of the standards prescribed by the Annex, provided they are 'at least as effective in terms of emissions reductions'.<sup>38</sup>

The Regulation also includes the possibility of applying higher standards for specific areas which are designated as SO<sub>x</sub> Emission Control Areas (ECAs). The premise behind the ECAs is that certain geographical areas are more vulnerable to ambient concentrations of air pollution and therefore stricter standards should be applied.<sup>39</sup> Thus, in designated areas, all ships must comply with stricter fuel content requirements:<sup>40</sup>

- 1.5 per cent m/m prior to 1 July 2010
- 1.0 per cent m/m on and after 1 July 2010
- 0.1 per cent m/m on and after 1 January 2015

The inclusion of ECAs was also, however, intended to achieve a compromise between those states that wanted high levels of reductions and those actors that were resistant to regulation.<sup>41</sup> Thus, it is an example of how the IMO has balanced the various interests of different states in order to achieve global regulation of shipping emissions.

In the original text, the Baltic Sea was specifically designated as a SO<sub>x</sub> ECA and a power was conferred on the Marine Environmental Protection Committee (MEPC) of the IMO to designate additional ECAs. In making a designation, the MEPC shall take into account, inter alia, the human populations and environmental areas at risk, the nature of ship traffic in the area, the meteorological conditions in the area, as well as existing control measures taken by the proposing state to address land-based sources of pollutants.<sup>42</sup> Three additional SO<sub>x</sub> ECAs have since been designated: the North Sea SO<sub>x</sub> ECA;<sup>43</sup> the North American SO<sub>x</sub> ECA;<sup>44</sup> and the United States Caribbean Sea SO<sub>x</sub> ECA.<sup>45</sup>

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<sup>38</sup> MARPOL Convention, Annex VI, Regulation 4(1). Flag States permitting alternative measures must communicate the particulars thereof to the IMO. For the details of such communications, see MEPC.1/Circ.279 (Denmark, 5 July 2010); MEPC.1/Circ.789 (Bahamas, 7 September 2012); MEPC.1/Circ.798 (Bahamas, 27 November 2012); MEPC.1/Circ.799 (Malta, 13 December 2012).

<sup>39</sup> MARPOL Convention, Annex VI, Appendix III, para. 1.3.

<sup>40</sup> MARPOL Convention, Annex VI, Regulation 14(4).

<sup>41</sup> Tan (n. 16) 155–62.

<sup>42</sup> MARPOL Convention, Appendix III, para. 3.1.

<sup>43</sup> *Amendments to MARPOL Annex VI and the NO<sub>x</sub> Technical Code*, Resolution MEPC.132(53), Annex. See also 1997 Air Pollution Conference, *Resolution 5 – Consideration of Measures to Address Sulphur Deposition in North West Europe*.

<sup>44</sup> See *North American Emission Control Area*, Resolution MEPC.190(60), adopted 26 March 2010. The amendment entered into force on 1 August 2011.

<sup>45</sup> See *Designation of the United States Caribbean Sea Emission Control Area and exemption of certain ships operating in the North American Emission Control Area and the United States Caribbean Sea*

There has been some resistance to the designation of ECAs, largely because of the increased costs that they will impose on ships operating in the designated areas. In 2012, the State of Alaska sought to challenge in the United States courts the validity of the amendment to MARPOL Annex VI designating the North American SOx ECA. According to the claimants, the effect of the ECA's low sulphur requirements would be to increase shipping costs by 8 per cent, thereby increasing the costs of goods shipped into the state. The claimants argued, inter alia, that the designation of the ECA was invalid because it did not comply with the requirements of Appendix III of Annex VI as the effects of air pollution in Alaska had not been properly quantified.<sup>46</sup> The claims were eventually dismissed by the District Court for the District of Alaska due to lack of jurisdiction.<sup>47</sup> In any case, the claimants would seem to have overstated the role of the criteria contained in Annex III and the MEPC would seem to have a broad degree of discretion in designating ECAs as it must only 'take into account' the Annex III criteria.<sup>48</sup>

The principal means of enforcing Regulation 14 is through port State control of relevant documentation. To this end, suppliers are required under the Regulation to document the sulphur content of fuel provided by them<sup>49</sup> and 'details of fuel oil for combustion purposes delivered to and used on board shall be recorded by means of a bunker delivery note (BDN)'.<sup>50</sup> The BDN must also be accompanied by a fuel sample which must be retained onboard the ship.<sup>51</sup> Port States are explicitly empowered to inspect the BDN.<sup>52</sup> Yet, it has been pointed out that there are problems with relying on these documents, as they were not originally designed to perform a regulatory function.<sup>53</sup> In particular, the BDN is not always written in English and it often takes the form of a carbon copy which may not be legible. A controversy has also arisen over whether port States are able to test the fuel samples accompanying the BDN. Whilst some states do carry out this practice, it has been

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*Emission Control Area under regulations 13 and 14 and Appendix VII of MARPOL Annex VI*, Resolution MEPC.202(62), adopted 15 July 2011. This amendment entered into force on 1 January 2013.

<sup>46</sup> On this basis, it was argued that the Secretary of State had exceeded their authority under the Act for the Prevention of Pollution from Ships, s. 1909(b); see *State of Alaska v Hillary Rodham Clinton and others*, Complaint for Declaratory and Injunctive Relief, filed 13 July 2012, paras 20, 24.

<sup>47</sup> See *State of Alaska et al v John F Kerry et al*, Case No: 3:12-cv-00142-SLG, Order re Pending Motions, 17 September 2013.

<sup>48</sup> MARPOL Convention, Appendix VI, Annex III, para. 4.2.

<sup>49</sup> MARPOL Convention, Regulation 14.5.

<sup>50</sup> MARPOL Convention, Regulation 18.5. Such notes shall contain the information set out in Appendix V of the Annex. The notes must be kept on board and be retained for 3 years.

<sup>51</sup> MARPOL Convention, Regulation 18.8.1. See also *Guidelines for the Sampling of Fuel Oil for Determination of Compliance with Annex VI of MARPOL 73/78*, Resolution MEPC.182(59), adopted 17 July 2009, replacing Resolution MEPC.96(47).

<sup>52</sup> MARPOL Convention, Appendix VI, Regulations 18.7.1 and 18.8.2. See also Appendix VI of the Annex which contains a verification procedure.

<sup>53</sup> M Bloor, S Baker, H Sampson, and K Dahlgren, *Effectiveness of International Regulation of Pollution Controls: the case of the governance of ship emissions* (Seafarers International Research Centre, 2013) 12.

pointed out by some delegates in the MEPC that ‘under regulation 14 of MARPOL Annex VI, sampling of fuel oil used on board ships is not identified as a means to determine compliance and that there was potential for the ship to be unduly delayed for fuel oil sampling and analysis’.<sup>54</sup> There was no consensus on how to proceed with this issue and the MEPC has called for further consideration of the matter.<sup>55</sup> Yet, this is a matter that the shipping industry has flagged as being of major importance, expressing a particular concern about the potential for inconsistent implementation, leading to unfair competition between operators.<sup>56</sup> Another problem arises when fuel is purchased in countries which are not a party to MARPOL Annex VI. Although this issue was raised at the MEPC, the Committee took no action apart from confirming that it is the ship that is responsible for documenting compliance with Regulations 14 and 18 and also ‘inviting’ non-parties to institute measures to ensure that ships are provided with the necessary BDN and representative samples of fuel oil delivered.<sup>57</sup> This issue highlights the difficulty of implementing shipping regulations at the international level in a comprehensive and consistent manner.

In recognition of the fact that compliance relies upon the availability of compliant fuel, a shipowner is permitted to defend a claim of non-compliance by showing that they made best efforts to purchase fuel in compliance with the regulations but it was not available.<sup>58</sup> Although there is no objective definition of ‘best efforts’, the regulation does clarify that ‘[a] ship should not be required to deviate from its intended voyage or to delay unduly the voyage in order to achieve compliance’.<sup>59</sup> This provision puts the impetus on port States to ensure that sufficient supplies of fuel are available at all of their international ports.<sup>60</sup> In order to avoid bad faith claims by shipowners, they are required to inform their flag State and the port State when they cannot purchase compliant fuel oil at a particular port.<sup>61</sup> The Annex also requires a review of fuel oil availability to be carried out by the MEPC<sup>62</sup> in

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<sup>54</sup> IMO, *Report of the 64th Meeting of the Marine Environment Protection Committee*, Document MEPC 64/23, para. 4.21. Indeed, Regulation 18.8.2 only refers to the Administration (ie the flag State) being able to require the representative sample to be analysed. There was further discussion in 2014 when the Committee agreed to develop possible quality control measures prior to fuel oil being delivered to a ship and invited Member Governments and international organizations to submit concrete proposals; see IMO, *Report of the 65th Meeting of the Marine Environment Protection Committee*, Document MEPC 66/21, para. 4.18.

<sup>55</sup> IMO, *Report of the 64th Meeting of the MEPC*, para. 4.112.9.

<sup>56</sup> See eg International Chamber of Shipping, *Annual Review 2015*, 13.

<sup>57</sup> See IMO, *Report of the 53rd Meeting of the Marine Environment Protection Committee*, Document MEPC 53/24, paras 4.18–4.21.

<sup>58</sup> MARPOL Convention, Appendix VI, Regulation 18.2.1.

<sup>59</sup> MARPOL Convention, Appendix VI, Regulation 18.2.

<sup>60</sup> MARPOL Convention, Annex VI, Regulation 18.1.

<sup>61</sup> MARPOL Convention, Annex VI, Regulation 18.2.4.

<sup>62</sup> MARPOL Convention, Annex VI, Regulation 14.8. The MEPC will consider the issue at its 66th session; see IMO, *Report of the 64th Meeting of the Marine Environment Protection Committee*, para. 4.36.

order to determine whether the stricter standards due to be applied in January 2020 should be implemented at that time or delayed until January 2025.<sup>63</sup> This emphasizes the close interrelationship between economic and technological developments and the successful reduction of emissions.

## 6.5 Regulation and Control of Nitrogen Oxides

Nitrogen Oxides (NO<sub>x</sub>) are formed, *inter alia*, through the combination of Nitrogen and Oxygen during the combustion process. This gas is produced both through land-based industrial activity and through ship engines. Like SO<sub>x</sub>, NO<sub>x</sub> pollution was also initially addressed at a regional level in North America and Western Europe under the auspices of the 1979 Convention on Long-Range Transboundary Air Pollution. A 1988 Protocol required states to 'take effective measures to control and/or reduce their national annual emissions of nitrogen oxides or their transboundary fluxes' and it introduced targets for the contracting parties to meet.<sup>64</sup> How states were to meet these targets was left to their discretion.

The 1988 Protocol applies to both stationary and mobile sources of NO<sub>x</sub> emissions and it therefore potentially applies to ships.<sup>65</sup> However, as noted by the Technical Annex to the Protocol, 'until other data become available this annex concentrates on road vehicles only'<sup>66</sup> and therefore parties are not obliged to take measures relating to shipping in order to meet their commitments under the Protocol. Moreover, it was generally recognized that NO<sub>x</sub> emissions from shipping were best addressed at the global level, as opposed to through a regional treaty. The issue was therefore addressed by the IMO in the negotiation of MARPOL Annex VI.

Regulation 13 of MARPOL Annex VI addresses the emission of NO<sub>x</sub> by marine diesel engines. Generally speaking, this is achieved through the establishment of technical standards to be applied to the design and construction of ship engines. As a result, the regulations are largely prospective, only applying to newly constructed ships, although a major exception to this principle will be noted below.

The original text of Regulation 13 established limits for the emission of NO<sub>x</sub> for marine diesel engines installed on a ship constructed on or after 1 January 2000. The standards also apply where a marine diesel engine undergoes a major

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<sup>63</sup> MARPOL Convention, Annex VI, Regulation 14.10.

<sup>64</sup> Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes (Sofia, 31 October 1988, entered into force 14 February 1991) 1593 UNTS 287, Art. 2.

<sup>65</sup> See 1988 Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution, Technical Annex, para. 41, identifying 'ships and other marine craft' as a mobile source for the purposes of the Protocol.

<sup>66</sup> 1988 Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution, Technical Annex, para. 44.

conversion after that date.<sup>67</sup> Amendments to Annex VI agreed in 2008 further decreased limits for NOx emissions that apply to ships built on or after 1 January 2011.<sup>68</sup> The 2008 amendments also created an exception to the general rule of non-retroactivity in the emissions standards. This additional regulation sought to alleviate the concerns of some states that the long life of many ships could mean that improvements in air quality would not be achieved, despite the introduction of standards for new ships. The change was possible because it had been discovered since the adoption of the original Annex VI that reductions in emissions may be achieved in existing engines through relatively minor adjustments.<sup>69</sup> Thus, a new provision was inserted into Regulation 13 that requires ships built on or after 1 January 1990 but prior to 1 January 2000 to comply with the emissions standards for certain types of engines,<sup>70</sup> if an 'Approved Method' has been certified by the flag State.<sup>71</sup> Ship owners have 12 months from the notification of the Approved Method to make changes to their engines. However, the standards that apply in

**Table 6.1 NOx Emissions Standards under MARPOL Annex VI, Regulation 13**

	Ships constructed before 1 January 2000 and for which there is an Approved Method certified by the flag State	Ships constructed or subject to major conversion on or after 1 January 2000 but before 1 January 2011	Ships constructed or subject to major conversion on or after 1 January 2011	Ships constructed or subject to major conversion on or after 1 January 2016 and operating within an Emission Control Area
Rpm less than 130 rpm	17.0 g/kWh	17.0 g/kWh	14.4 g/kWh	3.4 g/kWh
Rpm is between 130 and 1999 rpm	$45 \cdot n^{(-0.2)}$ g/kWh where n=rated engine speed (crankshaft revolutions per minute)	$45 \cdot n^{(-0.2)}$ g/kWh where n=rated engine speed (crankshaft revolutions per minute)	$44 \cdot n^{(-0.23)}$ g/kWh where n=rated engine speed (crankshaft revolutions per minute)	$9 \cdot n^{(-0.2)}$ g/kWh where n=rated engine speed (crankshaft revolutions per minute)
Rpm is 2000 rpm or more	9.8 g/kWh	9.8 g/kWh	7.7 g/kWh	2.0 g/kWh

<sup>67</sup> The Annex uses the term 'major conversion' which is defined in MARPOL Convention, Annex VI, Regulation 13.2.1.

<sup>68</sup> MARPOL Convention, Annex VI, Regulation 13.4.

<sup>69</sup> *MARPOL Annex VI—Proposal to Initiate Review Process, submitted by Finland, Germany, Italy, the Netherlands, Norway, Sweden and the United Kingdom*, Document MEPC 53/4/4 (2005) para. 7.

<sup>70</sup> This rule applies to marine diesel engines with a power output of more than 5,000 kW and a per cylinder displacement at or above 90 litres.

<sup>71</sup> MARPOL Convention, Annex VI, Regulation 13.7. See further MEPC.1/Circ.738 (Denmark, 19 October 2010); MEPC.1/Circ.742 (Germany, 17 February 2011); MEPC.1/Circ.764/Add.1 (Denmark, 15 September 2011); MEPC.1/Circ.770 (Denmark, 10 October 2011); MEPC.1/Circ.738/Add.2 (Denmark, 31 January 2013).

this case are lower than the standards that apply to new ships.<sup>72</sup> Table 6.1 above summarizes the NOx emissions standards for ships.

Regulation 13 also allows for the possibility for NOx ECAs.<sup>73</sup> Ships built on or after 1 January 2016 will therefore also have to comply with stricter standards when operating in a NOx ECA designated by the IMO.<sup>74</sup> There are currently two NOx ECAs that have been designated: the North American NOx ECA<sup>75</sup> and the Caribbean United States NOx ECA.<sup>76</sup>

To assist engine manufacturers and shipowners to comply with Regulation 13, the IMO has produced a Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines.<sup>77</sup> The NOx Technical Code is mandatory for all marine diesel engines with a power output of more than 130 KW installed on ships subject to Regulation 13.<sup>78</sup> According to the Code, engines must be pre-certified as complying with its requirements. Engines must then be tested again once they have been installed onboard a vessel to ensure that any adjustments that have been made in the installation process have not affected the ability of the engine to meet the emissions standards. Ships meeting the requirements of Annex VI must carry an International Air Pollution Certificate issued by the flag State after a survey of the ship's equipment, systems and fittings.<sup>79</sup> Certificates last up to five years, at which time the ship must undergo a renewal survey and receive a new certificate.<sup>80</sup> The certificate must also be presented to port State control officers who may verify that it is valid and, if the evidence so warrants, carry out more detailed inspections.<sup>81</sup>

Recognizing that the NOx limits will only be met by the development of appropriate technology, the Regulation provides that 'beginning in 2012 and completed no later than 2013, the Organization shall review the status of the technological developments to implement the standards set forth in paragraph 5.1.1 of this regulation and shall, if proven necessary, adjust time periods set forth in that paragraph'.<sup>82</sup> Any adjustments may be made using the tacit amendment procedures

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<sup>72</sup> See MARPOL Convention, Annex VI, Regulation 13.7.4.

<sup>73</sup> The rationale for this provision is the same as the SOx ECAs and the same designation procedure and criteria apply.

<sup>74</sup> Subject to a number of exceptions.

<sup>75</sup> See Resolution MEPC.190(60).

<sup>76</sup> See Resolution MEPC.202(62).

<sup>77</sup> The NOx Technical Code was originally contained in Resolution 2 of the 1997 Air Pollution Conference.

<sup>78</sup> MARPOL Convention, Annex VI, Regulation 13.8. A New NOx Code was adopted at the same time as the amended Annex VI.

<sup>79</sup> See MARPOL Convention, Annex VI, Regulations 5 and 6.

<sup>80</sup> MARPOL Convention, Annex VI, Regulation 9.

<sup>81</sup> MARPOL Convention, Art. 5. See also Annex VI, Regulation 10; *Guidelines for Port State Control under MARPOL Annex VI*, Document MEPC.1/Circ.472 (29 July 2005).

<sup>82</sup> MARPOL Convention, Annex VI, Regulation 13.10.

found in the MARPOL Convention.<sup>83</sup> In other words, once adopted, amendments will automatically become binding on parties, unless they make an express declaration to the contrary.<sup>84</sup> This procedure facilitates the rapid development of the Convention to meet contemporary challenges. Whilst this mechanism could be used to delay the introduction of higher standards if the technology was not in place, it could also potentially be used to strengthen them. Indeed, Resolution 3 adopted at the 1997 Air Pollution Conference explicitly calls upon MEPC to review the NO<sub>x</sub> limits at five-year intervals 'with the aim of prescribing more stringent emission limits, taking into account the adverse effects of such emissions on the environment and any technological developments in marine engines'.<sup>85</sup> This anticipates a progressive strengthening of the regulations, although its actualization depends upon mobilizing sufficient political will of IMO Member States.

## 6.6 Regulation and Control of Greenhouse Gas (GHG) Emissions

The contribution to climate change by anthropogenic emissions of greenhouse gases, such as carbon dioxide, is today well-documented. The IPCC has stated that 'most of the observed increase in global average temperature since the mid-20th century is very likely due to the observed increase in anthropogenic GHG concentrations'.<sup>86</sup> The effects of such a temperature increase would be profound for the whole planet, including for the oceans. As one study says, 'present and predicted effects include increases in sea-surface temperature; increases in sea level; and, decreases in sea-ice cover. Changes in salinity and ocean circulation may also occur'.<sup>87</sup> All kinds of human activities contribute to GHG emissions.

The international community has responded to this threat by the adoption of the UN Framework Convention on Climate Change (UNFCCC) that seeks to achieve 'stabilization of [GHG] concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system'.<sup>88</sup> An important feature of the UNFCCC is that it is based upon the principle of common but differentiated responsibilities, meaning that 'developed country Parties should take the lead in combatting climate change and the adverse effects thereof'.<sup>89</sup> Thus, whilst all parties to the UNFCCC are required to develop

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<sup>83</sup> MARPOL Convention, Art. 16.

<sup>84</sup> MARPOL Convention, Art. 16(2)(g)(ii).

<sup>85</sup> See 1997 Air Pollution Conference, *Resolution 3 – Review of Nitrogen Oxides from Marine Diesel Engines*.

<sup>86</sup> IPCC, *Fourth Synthesis Report—Summary for Policymakers*, approved at IPCC Plenary XXVII, 5 November 2007.

<sup>87</sup> Allsop et al (n. 9) 158–9.

<sup>88</sup> UNFCCC, Art. 2.

<sup>89</sup> UNFCCC, Art. 3.



national inventories of GHG emissions and take measures to mitigate climate change from anthropocentric sources, only the developed country parties have binding commitments to meet specific GHG targets, as set out in the Kyoto Protocol.

Unlike the general air pollution treaties discussed above, the Kyoto Protocol explicitly addresses shipping emissions. It provides that ‘the Parties included in Annex I (ie developed countries) shall pursue limitation or reduction of emissions of greenhouse gas emissions not controlled by the Montreal Protocol from . . . marine bunker fuels, working through . . . the International Maritime Organization’.<sup>90</sup>

In furtherance of this mandate, the issue of GHG emissions from ships was first raised at the IMO in 1997.<sup>91</sup> The first step by the Organization was to undertake a study on GHG emissions from ships.<sup>92</sup> This initiative was followed by a resolution on ‘IMO Policies and Practices Related to the Reduction of Greenhouse Gas Emissions from Ships’, stressing the pre-eminent role of the IMO in addressing GHG emissions from ships in cooperation with the UNFCCC.<sup>93</sup> The resolution also urged ‘the [MEPC] to identify and develop the mechanism or mechanisms needed to achieve the limitation or reduction of GHG emissions from international shipping’.<sup>94</sup> In particular, the Resolution called for the establishment of a GHG emission baseline and the development of a methodology to describe the GHG efficiency of a ship in terms of a GHG emission index.<sup>95</sup> The introduction of new regulations dealing with energy efficiency of ships was achieved at the 62nd session of the MEPC in July 2011 when amendments were adopted, inserting a new Part IV into Annex VI.<sup>96</sup>

The first requirement imposed by the new Part IV is the duty on all ships of 400 gross tonnes or above engaged in international voyages to ‘keep on board a ship specific Ship Energy Efficiency Management Plan (SEEMP)’.<sup>97</sup> The overall purpose of a SEEMP is ‘for monitoring ship and fleet efficiency performance over time and some options to be considered when seeking to optimize the performance of the ship’.<sup>98</sup> However, it is only the development of a SEEMP that is compulsory

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<sup>90</sup> Kyoto Protocol, Art. 2(2).

<sup>91</sup> 1997 Air Pollution Conference, *Resolution 8—CO<sub>2</sub> Emissions from Ships*.

<sup>92</sup> The first study was prepared in 2000. It has since been updated in 2009 and 2014.

<sup>93</sup> *IMO Policies and Practices Related to the Reduction of Greenhouse Gas Emissions from Ships*, IMO Resolution A.23/Res.963, para. 1.

<sup>94</sup> *IMO, Reduction of Greenhouse Gas Emissions from Ships*, para. 1.

<sup>95</sup> *IMO, Reduction of Greenhouse Gas Emissions from Ships*, para. 2.

<sup>96</sup> For a more detailed drafting history, see J Harrison, ‘Recent Developments and Continuing Challenges in the Regulation of Greenhouse Gas Emissions from International Shipping’ (2013) *Ocean Yearbook* 359.

<sup>97</sup> MARPOL Convention, Annex VI, Regulation 22.1.

<sup>98</sup> 2012 *Guidelines for the Development of a Ship Energy Efficiency Management Plan (SEEMP)*, Resolution MEPC.213(63), adopted 2 March 2012, para. 1.2.

and shipowners have a large degree of discretion in deciding what energy efficiency measures, if any, to adopt for their ship. Indeed, Guidelines adopted by the MEPC in March 2012 make clear that ‘goal setting is voluntary’ and ‘there is no need to announce the goal or the result to the public, and that neither a company nor a ship are subject to external inspection’.<sup>99</sup> Thus, the only real incentive for adopting energy efficiency measures under this scheme arises from the economic gains that can be achieved through energy efficiency, rather than a prescriptive requirement in the Regulations. It is for this reason that calls have been made to introduce stricter requirements for the SEEMP that would demand energy efficiency savings from ships.<sup>100</sup>

The second requirement of Part IV is the introduction of binding obligations to limit the GHG emissions of ships. However, this obligation only applies to newly constructed ships, which are defined as those ‘whose building contract is placed on or after 1 January 2013; or in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2013; or the delivery of which is on or after 1 July 2015’.<sup>101</sup> The obligations are also imposed on existing ships to the extent to which they undergo a major conversion that is so extensive that the ship is regarded to be a newly constructed ship by the flag State.<sup>102</sup>

Ships falling within this scheme must meet particular targets based on the Energy Efficiency Design Index (EEDI). Each ship must calculate its individual energy efficiency targets according to a formula contained in the Regulations. While the Regulations set the required EEDI, it is left to individual shipbuilders and shipowners to decide how to meet these targets. The stringency of the energy efficiency targets set by EEDI varies depending on the size and type of the ship.<sup>103</sup> Originally, the EEDI applied to Bulk Carriers, Gas Carriers, Tankers, Container Ships, General Cargo Ships, Refrigerated Cargo Carriers, and Combination Carriers<sup>104</sup> and it has since been extended to LNG Carriers, Ro-Ro Vehicle Carriers, Ro-Ro

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<sup>99</sup> 2012 Guidelines for the Development of a SEEMP, para. 4.1.7.

<sup>100</sup> See eg *Proposed elements for enhancing implementation requirements for SEEMP and SEEMP Guidelines, submitted by the World Wide Fund for Nature and the Clean Shipping Coalition*, IMO Document MEPC 64/4/33 (27 July 2012). However, see *Report of the 64th Meeting of the Marine Environment Protection Committee*, para. 4.97.

<sup>101</sup> MARPOL Convention, Annex VI, Regulation 2.3.

<sup>102</sup> MARPOL Convention, Annex VI, Regulation 20.1. Major conversion is defined in Regulation 2.3. MEPC agreed at its 63rd session that there was a need for a Unified Interpretation of this term and it asked the International Association of Classification Societies to develop a draft Unified Interpretation and submit it to the 64th session.

<sup>103</sup> MARPOL Convention, Annex VI, Regulation 21.2. See also *2012 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships*, Resolution MEPC.212(63), adopted 2 March 2012; *2012 Guidelines for the calculation of reference lines for use with the Energy Efficiency Design Index (EEDI)*, Resolution MEPC.215(63), adopted 2 March 2012.

<sup>104</sup> See Table 1 in MARPOL Convention, Annex VI, Regulation 21.

Cargo Ships, Ro-Ro Passenger Ships, and Cruise passenger ships having non-conventional propulsion.<sup>105</sup> On the other hand, some vessels have been exempted completely from the EEDI, such as icebreakers and platforms.<sup>106</sup>

The requirements of the EEDI are also progressive so that they increase energy efficiency targets over time.<sup>107</sup> The application of the Regulation is divided into four phases<sup>108</sup> with the rates for reducing greenhouse gas emissions increasing in each phase. The assumption behind the progressive nature of the Regulations is that technology will improve over time that will allow ships to emit lower and lower emissions. Indeed, the parties to Annex VI are under a duty to promote the development of technology to this end.<sup>109</sup> However, as with the NOx standards, a safety valve built into the Regulations allows the formula to be changed if this assumption proves to be false.<sup>110</sup> Equally, it is also open to the parties to increase the reduction rates if it proves that technology so permits and there is sufficient political will.

One issue that arose during the negotiations was how to address the participation of developing countries. Some countries argued that the IMO should follow the principle of common but differentiated responsibilities, as formulated in the UNFCCC, so that GHG reductions should only apply to ships built in developed countries.<sup>111</sup> This proposal was resisted by the majority of IMO Members, but it was agreed that some states may need additional time to phase in the requirements of the EEDI. Therefore, an exception was built into the regulations that allows states to 'waive the requirement for a ship of 400 gross tonnage and above from complying with regulation 20 and 21'<sup>112</sup> for up to four years. Although this provision was adopted on the understanding that it was primarily aimed at the Administrations of developing countries,<sup>113</sup> there is nothing in the text of the Regulation to prevent a developed country from also relying on this exception. At the sixty-third session of the MEPC in March 2012, an issue arose as to whether states which had taken advantage of the waiver would apply the first phase of the reduction targets after the expiry of the waiver or whether they would still be bound by the targets which were applicable to all other states. The MEPC

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<sup>105</sup> See Amendments to MARPOL Annex VI adopted by MEPC at its 66th session; Resolution MEPC.25(66), 4 April 2014.

<sup>106</sup> See Amendments to MARPOL Annex VI and MEPC.1/Circ.795.

<sup>107</sup> MARPOL Convention, Annex VI, Regulation 21.2.

<sup>108</sup> Phase 0 runs from 1 January 2013 until 31 December 2014; Phase 1 runs from 1 January 2015 until 31 December 2019; Phase 2 runs from 1 January 2020 until 31 December 2024; Phase 3 runs from 1 January 2025.

<sup>109</sup> MARPOL Convention, Annex VI, Regulation 23.2. There is also a duty to transfer technology which will be addressed below.

<sup>110</sup> MARPOL Convention, Annex VI, Regulation 21.6.

<sup>111</sup> See IMO, *Report of the 61st Meeting of the Marine Environment Protection Committee*, Document MEPC 61/24, para. 5.46.

<sup>112</sup> MARPOL Convention, Annex VI, Regulation 19.4.

<sup>113</sup> See the original proposal from Singapore, Document MEPC 61/24, para. 54.7.

preferred the latter view noting that a waiver under Regulation 19/4 should only be granted to individual ships being built during the waiver period and it did not apply as 'a general waiver to postpone the implementation of the EEDI requirements for four years'.<sup>114</sup> This interpretation would appear to be in line with both the ordinary meaning and the spirit of the provision, although it significantly limits the benefits of the waiver.

Another way in which the new Regulations seek to address the concerns of developing countries is through the introduction of obligations on financial and technical assistance.<sup>115</sup> Yet, the language of these provisions is so weak that they would not appear to place any stringent obligations on developed countries to provide specific assistance. The Regulation is supplemented by a Resolution, which was adopted in March 2013, following protracted negotiations.<sup>116</sup> The Resolution establishes an Ad hoc Expert Working Group on facilitation of Transfer of Technology for Ships, which is mandated to, inter alia, create an inventory of energy efficiency technologies for ships and possible sources of funding.<sup>117</sup> It also calls for the working group to develop a model agreement enabling the transfer of financial and technological resources and the IMO Secretary-General is invited to make provisions related to energy efficiency of ships in the integrated Technical Cooperation Programme of the Organization.<sup>118</sup> In addition, the Resolution commits 'Member States with the ability to do so' to provide support to developing countries with regard to capacity building in relation to energy efficiency for ships.<sup>119</sup> Yet, it must be noted that the Resolution is a non-binding instrument and it is worded so as to preserve the discretion of developed countries, making clear that measures to be taken by states are 'subject to their respective national laws, regulations and policies'.<sup>120</sup> Thus, states are not compelled to take any specific action and there remain obstacles to technology transfer, such as intellectual property rights.<sup>121</sup> The operationalization of this provision will therefore depend upon further steps being taken by developed states.

The regulations to address energy efficiency of ships are an important milestone in the regulatory framework for combating pollution of the marine environment

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<sup>114</sup> IMO, *Report of the 63rd Session of the Marine Environment Protection Committee*, Document MEPC 63/23, para. 4.27.

<sup>115</sup> MARPOL Convention, Annex VI, Regulation 23.

<sup>116</sup> See Statement by the Chairman of the Committee, in MEPC/65/22, Annex 5.

<sup>117</sup> *Promotion of Technical Cooperation and Transfer of Technology relating to the Improvement of Energy Efficiency of Ships*, Resolution MEPC.229(65), adopted 17 May 2013, para. 2.

<sup>118</sup> Resolution MEPC.229(65), para. 7.

<sup>119</sup> Resolution MEPC.229(65), para. 6.

<sup>120</sup> Resolution MEPC.229(65), para. 6.

<sup>121</sup> See Y Shi, 'Greenhouse Gas Emissions from International Shipping: The Response from China's Shipping Industry to the Regulatory Initiatives of the International Maritime Organization' (2014) 29 *IJMCL* 77, 96–7. See also N Singh Ghaleigh, 'Barriers to Climate Technology Transfer—the Chimera of Intellectual Property Rights' (2011) *CCLR* 220–33.

from or through the atmosphere, but they do not represent the conclusion of discussions on air pollution from ships at the IMO. Many states and some industry representatives<sup>122</sup> are adamant that more needs to be done on this topic, particularly to fill the current lacuna in relation to existing ships. There are a number of options available.

On the one hand, states may negotiate further technical and operational standards for all shipping. This could be achieved through strengthening of the existing regulations through the introduction of stricter requirements for the SEEMP that would demand energy efficiency savings from ships.<sup>123</sup> Such measures may fall short of setting targets for existing ships, but they would require shipowners to demonstrate improvements in energy efficiency over time. Alternatively, the IMO could develop mandatory attained efficiency standards for all vessels.<sup>124</sup>

On the other hand, states may prefer a market-based approach to the issue. Market-based Measures (MBMs) would apply to all ships, creating a further economic incentive for ship owners to reduce their emissions. The main two types of MBM under discussion at the IMO, both of which have a number of variants, are an international Greenhouse Gas Fund for Shipping and a Maritime Emissions Trading Scheme. Both of these options have been reviewed in general terms and it has been ascertained that they potentially provide very high environmental effectiveness and very good cost-effectiveness.<sup>125</sup>

An International GHG Fund would work by placing a levy on bunker fuel purchases. The increase in price would create an incentive for shipowners to operate more efficiently by reducing fuel consumption. The creation of an International GHG Fund would not by itself guarantee a reduction in emissions, although the revenues from the Fund could be used to buy offset emissions credits from other sectors. Moreover, the advantage of this option is that costs of ensuring compliance for individual shipowners would be predictable, given that the bunker fuel levy would be fixed for a certain period.<sup>126</sup> Flag States and port States would be responsible for ensuring that individual ships complied with the requirements to pay the bunker fuel levy. In addition, an international organization may have to be created to manage the Fund.

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<sup>122</sup> See Clean Shipping Coalition, *The Case for further measures to tackle the climate impacts of shipping*, Document MEPC 67/5/9, 22 August 2014; see also International Chamber of Shipping, *Annual Review 2015*, 16–18.

<sup>123</sup> See eg *Proposed elements for enhancing implementation requirements for SEEMP and SEEMP Guidelines, submitted by the World Wide Fund for Nature and the Clean Shipping Coalition*, IMO Document MEPC 64/4/33 (27 July 2012). However, see *Report of the 64th Meeting of the Marine Environment Protection Committee*, para. 4.97.

<sup>124</sup> See Proposal of the United States to enhance energy efficiency in international shipping, Document MEPC/65/4/19, 8 March 2013.

<sup>125</sup> See IMO, *Second IMO GHG Study* (2009), paras 6.129–6.130.

<sup>126</sup> IMO, *Second IMO GHG Study* (2009), para. 6.67.4.

A Maritime Emissions Trading Scheme (ETS) would also operate by increasing the price of bunker fuel. Rather than paying a fixed levy, however, shipowners would have to surrender emissions credits to cover their emissions. More energy-efficient ships will therefore have to surrender fewer credits than less energy-efficient ships. Nevertheless, given that the price of credits may fluctuate depending upon supply and demand, the cost of complying for shipowners may be more unpredictable.<sup>127</sup> At the same time, by limiting the number of credits that are allocated to the shipping sector, an ETS can in theory limit the net emissions of the shipping sector.<sup>128</sup> It is envisaged in some of the proposals for ETS that shipowners will be able to purchase additional credits from other existing emissions trading schemes. This will allow emissions from shipping to potentially grow, but only through the achievement of reductions in other sectors. It will be up to flag States to manage the surrender of emissions credits by ships flying their flag. However, an international organization may have to be set up to manage the setting of the emissions cap and the distribution of credits. There are several ways in which credits can be distributed. Either they can be allocated to ships based upon former emissions or they can be auctioned. If the latter option is pursued, an ETS could also potentially raise funds for other purposes through the proceeds of the auction.

In relation to both schemes, there are questions about what to do with the collected revenue. Several options have been identified, including:<sup>129</sup>

- offsetting through the purchase of approved carbon reduction credits;
- providing a rebate to developing countries;
- directly financing mitigation and adaptation activities in developing countries;
- directly financing improvement of maritime transport infrastructure in developing countries;
- supporting research and development in the field of energy efficiency of shipping;
- contributing towards the IMO's International Technical Cooperation Programme.

At the fifty-ninth Meeting of the MEPC, it was suggested that there was 'a general preference for the greater part of any funds generated by an MBM under the auspices of IMO to be used for climate change purposes in developing countries, through existing or new funding mechanisms under the UNFCCC or other international organizations'.<sup>130</sup> Indeed, it has been suggested that the distribution of

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<sup>127</sup> IMO, *Second IMO GHG Study* (2009), para. 6.67.4.

<sup>128</sup> IMO, *Second IMO GHG Study* (2009), para. 6.67.1.

<sup>129</sup> IMO, *Report of the 63rd Meeting of the Marine Environment Protection Committee*, para. 5.34.7.

<sup>130</sup> IMO, *Report of the 59th Meeting of the Marine Environment Protection Committee*, para. 4.129; IMO, *Report of the 63rd Meeting of the Marine Environment Protection Committee*, para. 5.31.

funds in this way would satisfy the principle of common but differentiated responsibilities.<sup>131</sup> Nevertheless, there were still divergent views on the precise use of revenues.<sup>132</sup> In particular some delegations were opposed to revenues from international shipping being distributed through the Green Climate Fund established under the UNFCCC, as they were of the opinion that this source of funding should come exclusively from developed countries.<sup>133</sup> Indeed, representatives of the shipping industry have vehemently argued that ‘shipping should not be a “cash cow” in the context of generating funds to counter climate change; . . . any financial contribution should be no more than shipping’s share of the total GHG emissions’.<sup>134</sup> Given that climate finance is a rapidly evolving issue, this is clearly a subject on which the IMO must work closely with other international organizations. Moreover, it would appear that the IMO is still a long way from achieving agreement on the best way to balance the interests of developed and developing countries in the further development and strengthening of the international regime to control GHG emissions from shipping.

## 6.7 Application and Enforcement of the International Regulations on Air Pollution from Ships

It has been seen in the previous sections that the international community has responded to evidence of air pollution from ships with the adoption of international regulations. However, it must be noted that Annex VI is an optional protocol to the MARPOL Convention and it is therefore necessary to consider the scope of its application.

MARPOL Annex VI entered into force in 2005 and it currently has eighty-six parties representing 95.34% of gross tonnage of the world’s merchant fleet.<sup>135</sup> This makes it the least accepted of the annexes to the MARPOL Convention.<sup>136</sup> There

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<sup>131</sup> See eg IMO, *Report of the third Intersessional Meeting of the working group on greenhouse gas emissions from ships*, IMO Document MEPC 62/5/1 (2011) paras 3.60. See also Chamber of Shipping, *Shipping’s Carbon Emissions: Design and implementation of market-based measures Part 1: a cap-and-trade emissions trading system* (2011) 12.

<sup>132</sup> IMO, *Report of the 63rd Meeting of the Marine Environment Protection Committee*, para. 5.34.1.

<sup>133</sup> IMO, *Report of the 63rd Meeting of the MEPC*, para. 5.34.3. See also statements of Brazil and Korea in Annex 16.

<sup>134</sup> T Skaanild, ‘Emissions Reduction and Emissions Trade Systems in Shipping: A BIMCO Perspective’ in H-J Koch, D Koenig, J Sanden and R Verheyen (eds), *Climate Change and Environmental Hazards related to Shipping* (Martinus Nijhoff, 2013) 162.

<sup>135</sup> See IMO, *Status of Multilateral Convention and Instruments in respect of which the International Maritime Organization or its Secretary-General performs depositary functions (as at 05 November 2015)*, 161.

<sup>136</sup> This begs the question of what is meant by ‘generally accepted’ international rules and standards. There is no agreed definition to this term and commentators take a variety of views. For a summary of the debate, see Report of the Committee on Coastal State Jurisdiction over Marine Pollution,

are, moreover, some objections to the Regulations on energy efficiency for ships, which mean that they do not apply to the objecting states. Nevertheless, it remains an important instrument. Indeed, the Convention is not only implemented by flag States, but also by port States and coastal States. Both of these mechanisms present the possibility that the standards found in MARPOL Annex VI may be applied to non-parties to that instrument.

As noted above, one of the more important ways in which the regulations are enforced is through port State control<sup>137</sup> and this is an important mechanism through which the regulations can be applied not only to the ships of parties, but also to non-parties. Indeed, parties to the MARPOL Convention are under an obligation to apply its requirements in a non-discriminatory manner.<sup>138</sup> Furthermore, Annex VI is enforced through a number of regional port State control agreements, including the Paris Memorandum of Understanding<sup>139</sup> and the Abuja Memorandum of Understanding.<sup>140</sup>

Coastal States may also take some measures to enforce Annex VI against vessels in adjacent waters. Indeed, the MARPOL Convention requires parties to prohibit violations of its provisions 'within their jurisdiction'.<sup>141</sup> This provision allows coastal States to enforce Annex VI of the MARPOL Convention against ships within their territorial sea where they have the authority to prescribe discharge standards, provided that they don't interfere with innocent passage.<sup>142</sup> On the other hand, whether coastal States can enforce the regulations in Annex VI against ships in their exclusive economic zone (EEZ) depends on whether the regulations qualify as 'generally accepted international rules and standards'.<sup>143</sup> Whilst this term remains the subject of controversy,<sup>144</sup> it can be asked whether Annex VI qualifies as generally accepted given that only eighty-six states have accepted the regulations therein, which is only just over half of the parties to the MARPOL Convention. It follows that there remains some uncertainty about the extent of coastal State jurisdiction over air pollution in the EEZ.

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available in *Report of the London Conference of the International Law Association* (ILA, 2000) 476–8. The Report itself concludes that 'the central element . . . appears to be the practice of states . . . [and] quantitative as well as functional majorities appear to be important': 479–80.

<sup>137</sup> MARPOL Convention, Art. 5(2).

<sup>138</sup> MARPOL Convention, Art. 5(4).

<sup>139</sup> Paris Memorandum of Understanding on Port State Control, para. 2.1.6.

<sup>140</sup> Abuja Memorandum of Understanding on Port State Control for West and Central African Region, para. 2.1.6.

<sup>141</sup> MARPOL Convention, Art. 4(2).

<sup>142</sup> UNCLOS, Art. 211(4). See also Art. 21(2).

<sup>143</sup> UNCLOS, Art. 211(5).

<sup>144</sup> For a summary of the debate, see Report of the Committee on Coastal State Jurisdiction over Marine Pollution, in *Report of the London Conference of the International Law Association* (International Law Association, 2000) 476–8; J Harrison, *Making the Law of the Sea* (Cambridge University Press, 2011) 171–9.



## 6.8 Conclusion and Challenges for the Future

The regulation of pollution of the marine environment from or through the atmosphere has achieved increasing attention over the past two decades and a number of international treaties have been negotiated in order to implement the general provisions on cooperation in UNCLOS. In particular, the IMO has taken the lead in ensuring that emissions from shipping are subject to international regulation. The adoption of MARPOL Annex VI in 1997 was described by several delegates as ‘a historical response by the IMO to address air emissions from ships and their contribution to air pollution and other environmental problems’,<sup>145</sup> although it was only the first step in addressing pollution of the marine environment from or through shipping emissions.

Throughout this chapter, it has been seen that the international regulatory response to air pollution in general and air pollution from ships has been evolutionary in nature. Many of the standards are designed to be incremental, so that the permitted level of emissions will reduce over time. It is recognized that meeting these standards will depend upon there being sufficient developments in pollution control technology and appropriate review mechanisms are built into the regulations in order to ensure that this condition has been satisfied. At the same time, it has been suggested that the promulgation of regulations itself creates an incentive for such technological development.<sup>146</sup>

One of the questions that arise in this context is whether the international standards achieve a sufficient balance between the interests of various states. It has been seen that there is some flexibility in Annex VI that allows the regulatory environment to evolve at different speeds depending on regional differences in air pollution. To this end, a number of regional ECAs have been approved by the IMO in order to speed up the reduction in NO<sub>x</sub> and SO<sub>x</sub> emissions compared to the general standards found in MARPOL Annex VI and it has been suggested that the number of ECAs may proliferate to apply to areas where there are large centres of population close to busy shipping routes, such as the Pearl River Delta or Shanghai.<sup>147</sup>

There is also pressure from individual states or regions to further increase standards without waiting for international agreement. For example, EU Directive 1999/32/EC (as amended by EU Directive 2005/33/EC) on the sulphur content

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<sup>145</sup> MARPOL Annex VI—*Proposal to Initiate Review Process, submitted by Finland, Germany, Italy, the Netherlands, Norway, Sweden and the United Kingdom*, Document MEPC 53/4/4 (15 April 2005) para. 4.

<sup>146</sup> H Hyvättinen and M Hildén, ‘Environmental Policies and Marine Engines— Effects on the Development and Adoption of Innovations’ (2004) 28 *Marine Policy* 491. See also House of Commons Transport Select Committee, *Sulphur Emissions by Ships*, para. 28.

<sup>147</sup> See discussion in International Chamber of Shipping, *Annual Review 2015*, 12.

of marine fuels requires ships at berth in European ports and inland waterway vessels to use fuel with a maximum sulphur content of 0.1 per cent.<sup>148</sup> Thus, on berthing at an EU port for more than two hours, ships are given a reasonable period of time to carry out the necessary fuel-changeover operation.<sup>149</sup> The same Directive also requires Member States to take 'necessary measures to ensure that marine fuels are not used in their territorial seas, exclusive economic zones and pollution control zones by passenger ships operating on regular services to or from any Community port if the sulphur content of those fuels exceeds 1.5% by mass'.<sup>150</sup> The rationale for this requirement is that 'passenger ships need tighter emissions limits because they typically operate close to shore where health effects of emissions are most damaging'.<sup>151</sup>

Another example is the Californian legislation adopted in 2009, requiring the use of 'low sulfur marine distillate fuels . . . on ocean-going vessels' <sup>152</sup> when they are intending to call at Californian ports or entering Californian internal or estuarine waters.<sup>153</sup> Under the Vessel Fuel Rules, such ships are prohibited from operating in the Regulated California Waters after 1 August 2012 with marine gas oil with over 1.0 per cent sulphur by weight or marine diesel oil with over 0.5 per cent sulphur by weight.<sup>154</sup> On 1 January 2014, these limits reduce to 0.1 per cent for both types of fuel. This timetable has the effect of accelerating the requirements that will be imposed by the North American SO<sub>x</sub> ECA from 1 January 2015 by a year.

Such unilateralism is not a problem in itself, provided that states do not exceed the scope of their legislative and enforcement powers under international law.<sup>155</sup> However, unilateralism is often resisted by certain interests groups, particularly industry and shipping representatives, because of the increased costs it imposes but also because it complicates the regulatory framework for shipping.<sup>156</sup> As noted by Tan, 'a proliferation of controlled areas can only be a burden for ship-owners as it is they who will have to bear the direct costs and inconvenience of storing different grades of fuel when entering such areas'.<sup>157</sup> Furthermore, it is possible that such

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<sup>148</sup> Directive 1999/32/EC, as amended by EU Directive 2005/33/EC, Art. 4b.1. There are exceptions in Art. 4b.2.

<sup>149</sup> Directive 1999/32/EC, as amended by EU Directive 2005/33/EC, Art. 4b.1.

<sup>150</sup> Directive 1999/32/EC, as amended by Directive 2005/33/EC, Art. 4a.4. It has been proposed to lower this limit to 0.1% from 1 January 2020; see Proposal for a Directive amending Directive 1999/32/EC as regards the sulphur content of marine fuels, Document COM(2011) 439 final, 15 July 2011.

<sup>151</sup> House of Commons Transport Committee, *Sulphur Emissions by Ships*, para. 31.

<sup>152</sup> Fuel Sulfur and Other Operational Requirements for Ocean-Going Vessels within California Waters and 24 Nautical Miles of the California Baseline, 17 CCR, section 93118.2.

<sup>153</sup> CCR, section 93118.2(c)(1).

<sup>154</sup> Fuel Sulfur and Other Operational Requirements for Ocean-Going Vessels within California Waters and 24 Nautical Miles of the California Baseline, 17 CCR, section 93118.2(e)(1)(A).2.

<sup>155</sup> See generally A Boyle, 'EU Unilateralism and the Law of the Sea' (2006) 21 *IJMCL* 15.

<sup>156</sup> House of Commons Transport Select Committee, *Sulphur Emissions by Ships*, paras 29–33.

<sup>157</sup> Tan (n. 16) 160.

action will simply divert polluting ships to other locations not covered by the legislation, thereby shifting the environmental problems onto others.

There are also aspects of air pollution from ships on which strong divisions remain between different interest groups on the right regulatory response. This is the case with the ongoing negotiations on what steps are necessary to further reduce GHG emissions from shipping. Developing countries and developed countries continue to disagree about how the principle of common-but-differentiated responsibilities should be incorporated, if at all, into international regulations. Whilst failure to reach consensus may itself prompt unilateralism,<sup>158</sup> this is an issue that can only really be effectively addressed at the multilateral level and therefore international cooperation is vital.

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<sup>158</sup> For example, the unilateral expansion of existing market mechanisms, such as emissions trading schemes, to international shipping by individual states or groups of states; see EU Press Release, *Commission launches consultation to address greenhouse gas emissions from ships*, 19 January 2012; available online: <[http://ec.europa.eu/clima/news/articles/news\\_2012011901\\_en.htm](http://ec.europa.eu/clima/news/articles/news_2012011901_en.htm)>.

## SECTION C

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### RESPONSE TO MARINE POLLUTION CASUALTIES



## CONVENTIONS RELATING TO POLLUTION INCIDENT PREPAREDNESS, RESPONSE, AND COOPERATION

*Gabino Gonzalez and Frédéric Hébert*

### Preface

This chapter has been prepared by the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) with a view to providing an updated worldwide outlook of the conventions relating to pollution incident preparedness, response and co-operation and the related institutional arrangements. The information set out in this document has been reviewed by the majority of the international and regional organizations concerned, however, some data validation has not been received prior to its publication.

REMPEC is grateful to the International Maritime Organization (IMO), the United Nations Environment Programme (UNEP) and its Regional Seas Programme Coordinating Office, the Caribbean Regional Co-ordinating Unit (CAR/RCU), the Regional Marine Pollution Emergency, Information and Training Centre (REMPEITC-Caribe), the East Asian Seas Regional Coordinating Unit, the Eastern African Regional Coordinating Unit (EAF/RCU), the Western Indian Ocean Marine Pollution Regional Coordination Centre), the Marine Environmental, the Northwest Pacific Action Plan (NOWPAP) Regional Coordinating Unit and the Marine Environmental Emergency Preparedness and Response Regional Activity Centre (MERRAC), the Regional Organization for the Protection of the Marine Environment (ROPME) Sea Area, the Marine Emergency Mutual Aid Centre (MEMAC), the Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden, the Marine Emergency Mutual Aid Centre (EMARSGA), the Permanent Commission for the South Pacific (CPPS), the Secretariat of the Pacific Regional Environment Programme (SPREP), the Pacific Regional Environment Programme South Asia Co-operative Environment Programme (SACEP), the Central American Commission on

Maritime Transport (COCATRAM), the Arctic Council Emergency Prevention, Preparedness and Response Working Group (EPPR), the Secretariat of the Antarctic Treaty, the Secretariat of Helsinki Commission (HELCOM), the Secretariat of the Convention for the Protection of the Marine Environment of the Caspian Sea (Teheran Convention), the Secretariat of OSPAR Commission, the Global oil and gas industry association for environmental and social issues (IPIECA), the Global Initiative for West and Central Africa (GI-WACAF) and the International Tanker Owner Pollution Federation (ITOPF) for their contributions in the preparation of this review.

## 7.1 Introduction

In March 1967, the tanker *Torrey Canyon* ran aground off the coast of Cornwall in the southwest of England, spilling some 121,000 tonnes of oil into the sea. It was the biggest marine pollution disaster in history at the time. Perhaps for the first time, the general public was made aware of the threat the marine transport of oil and other products poses to the marine environment.

Since the *Torrey Canyon* spill, the spate of accidents that have occurred shows that the threat from accidental marine pollution remains (*Amoco Cadiz*, 1978, off Brittany, France; *Kark V*, 1989, off the Atlantic coast of Morocco; *Exxon Valdez*, 1989, Prince William Sound, Alaska, USA; *Haven*, 1991, Genoa, Italy; *Braer*, 1993, Shetland Islands, UK; *Sea Empress*, 1996, Milford Haven, Wales, UK; *Nakhodka*, 1997, off Honshu Island, Japan; *Erika*, 1999, off Brittany, France; *Prestige*, 2002, off Galicia, Spain; and *Hebei Spirit*, 2007, south of Seoul, South Korea).

The International Maritime Organization (IMO) is the United Nations (UN) specialized agency with responsibility for the safety and security of shipping and the prevention of marine pollution by ships. The IMO has for decades established international conventions and protocols focusing on the governance of the maritime sector, including specific instruments relating to pollution incident preparedness, response and cooperation such as the International Convention on Oil Pollution, Preparedness, Response and Co-operation (OPRC Convention). On the other hand, the United Nations Environment Programme (UNEP), very active at regional level through the Regional Seas Programmes, was established to manage global environmental challenges, including, inter alia, marine environmental pollution. Within the framework of the Regional Seas Programmes, regional legal instruments concerning pollution incident preparedness, response and cooperation have been adopted, taking into account regional specificities.

This chapter sets out the timeline and evolution of the international and regional regulatory regime governing marine environment protection and provides information on the landmark conventions that have, over time, served to first establish

and then further strengthen and improve the protection of the marine environment from the adverse effects of shipping.

An analysis of the content of these instruments and their geographical coverage identifies areas requiring further development. It also highlights the complementarity of international (OPRC Convention) and regional frameworks (eg Regional Seas Programmes) and the importance of common efforts, approaches, and initiatives engaged by their respective governing bodies, in close cooperation with other stakeholders.

Since 1969, several mechanisms have been established with a view to assisting governments around the globe. This chapter presents how international and regional legal instruments are implemented, taking into account regional specificities, and provides an outlook of inter-governmental coordination bodies, programmes, and initiatives involving other non-governmental stakeholders, including the oil and shipping industry, that support governments in meeting the requirements established under international and regional legal instruments.

## **7.2 International Legal Framework Overview**

### **7.2.1 Background**

It has always been recognized that the best way of improving safety at sea is by developing international regulations that are followed by all shipping nations and from the mid-19th century onwards a number of such treaties were adopted. Several countries proposed that a permanent international body should be established to promote maritime safety more effectively, but it was not until the establishment of the United Nations itself that these hopes were realized. In 1948 an international conference in Geneva adopted a convention formally establishing the International Maritime Organization (IMO) (originally named Inter-Governmental Maritime Consultative Organization, or IMCO, which was changed in 1982 to IMO). The IMO Convention entered into force in 1958 and the new Organization met for the first time the following year.

As the UN-specialized agency responsible for the safety and security of shipping and the protection of the marine environment from its adverse effects, headquartered in London, United Kingdom, the IMO has 169 Member States and 3 Associate Members. The IMO's primary purpose is to develop and maintain a comprehensive regulatory framework for shipping and its remit today includes safety, environmental concerns, legal matters, technical cooperation, maritime security and the efficiency of shipping. The work of the IMO is conducted through five committees and these are supported by a number of technical subcommittees.



### 7.2.2 IMO Conventions

The IMO is the source of approximately sixty legal instruments that guide the regulatory development of its Member States to improve safety at sea, facilitate trade among seafaring states, and protect the marine environment.

Following its establishment, the IMO initially introduced a series of measures designed to prevent tanker accidents and to minimize their consequences. The Organization also tackled the environmental threat caused by routine operations, such as the cleaning of oil cargo tanks and the disposal of engine room wastes, which, in tonnage terms, is a bigger menace than accidental pollution.

In 1954, the first international treaty that aimed to protect the sea from pollution by oil tankers, the International Convention for the Prevention of Pollution of the Sea by Oil, 1954 (OILPOL), was adopted, with the IMO taking over responsibility for it in 1959. However, it was not until 1967, when the *Torrey Canyon* ran aground off the coast of the United Kingdom, that the enormity and scale of the problem was fully understood, serving as a driver for change. Until then, many people had believed that the seas were big enough to cope with any pollution caused by human activity.

The *Torrey Canyon* incident raised certain questions about the measures then in place to prevent oil pollution from ships. It also made the world aware of the inadequacies for providing compensation to those affected, following accidents at sea. For the next several years, initiatives were taken to find solutions to these questions, mainly through the IMO.

In the aftermath of the *Torrey Canyon* incident, which revealed the need to set up a regime for the coastal States responding to an oil pollution accident on the high sea, the IMO introduced the International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (1969 Intervention Convention), adopted on 29 November 1969 and in force since 6 May 1975.

The Convention affirms the right of a coastal State to take such measures on the high seas as may be necessary to prevent, mitigate or eliminate danger to its coastline or related interests from pollution by oil, or the threat thereof, following from a maritime casualty. The coastal State is, however, empowered to take only such action as is necessary and, after due consultations with appropriate interests, including, in particular, the flag State or States of the ship or ships involved, the owners of the ships or cargoes in question and, where circumstances permit, independent experts appointed for this purpose.

A coastal State which takes measures beyond those permitted under the Convention is liable to pay compensation for any damage caused by such measures. Provision is made for the settlement of disputes arising from the application of the Convention. The Convention applies to all seagoing vessels, except warships or

other vessels owned or operated by a State and used on Government non-commercial service. The 1969 Intervention Convention also applied to casualties involving pollution by oil, but did not cover casualties involving other types of substances. In view of the increasing quantity of other substances, mainly chemical, carried by ships, some of which would, if released, cause serious hazard to the marine environment, the 1969 Brussels Conference recognized the need to extend the Convention to cover substances other than oil. The 1973 London Conference on Marine Pollution therefore adopted the Protocol relating to Intervention on the High Seas in Cases of Marine Pollution by Substances other than Oil. This extended the regime of the 1969 Intervention Convention to substances which are either listed in the Annex to the Protocol or which have characteristics substantially similar to those substances. The 1973 Protocol entered into force in 1983 and was amended in 1996 and 2002, to update the list of substances attached to it.

The *Torrey Canyon* was also a major driver for the establishment of the International Convention for the Prevention of Pollution from Ships (MARPOL), the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes, which was adopted on 2 November 1973 at the IMO. As the 1973 MARPOL Convention had not yet entered into force, the MARPOL Protocol adopted in 1978 absorbed the parent Convention. The combined instrument entered into force on 2 October 1983. In 1997, a Protocol which entered into force on 19 May 2005, was adopted to amend the Convention and a new Annex VI addressing air pollution from ships was added. MARPOL has been updated by amendments through the years. The Convention includes regulations aimed at preventing and minimizing pollution from ships—both accidental pollution and that from routine operations—and currently includes six technical Annexes. Special Areas with strict controls on operational discharges are included in most Annexes. MARPOL regulates the discharges at sea of harmful substances from ships and covers pollution of the sea by oil (Annex I), by noxious liquid substances in bulk (Annex II), by harmful substances carried by sea in packaged form (Annex III), by sewage from ships (Annex IV), and by garbage from ships (Annex V). This much amended instrument remains the flagship pollution prevention treaty amongst the array of IMO instruments.

Regulation 37 of Annex I of MARPOL with regards to oil pollution prevention, in particular, requires that oil tankers of 150 tons gross tonnage or more and all ships of 400 tons gross tonnage or more carry an approved shipboard oil pollution plan (SOPEP). The International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990, further detailed below also requires such a plan for certain ships. Regulation 17 of Annex II of MARPOL makes similar stipulations for all ships of 150 tons gross tonnage and above carrying noxious liquid substances in bulk, which are required to carry on board an approved marine pollution emergency plan for noxious liquid substances. The latter should be combined with a SOPEP, since most of their contents are the same and the combined plan is more

practical than two separate ones in case of an emergency. To make it clear that the plan is a combined one, it should be referred to as a shipboard marine pollution emergency plan (SMPEP).

The *Torrey Canyon* incident also provided a major stimulus to the establishment of a regime providing compensation to those who had suffered financially as a result of oil pollution. As a result, two treaties were adopted, in 1969 and 1971, which enabled victims of oil pollution to obtain compensation much more simply and quickly than had ever been possible before. The original Conventions were the 1969 International Convention on Civil Liability for Oil Pollution Damage ('1969 CLC') and the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage ('1971 Fund Convention'). Both treaties were amended in 1992, and in October 2000, in the wake of the *Erika* accident off the coast of France, the limits of both the 1992 CLC and 1992 Fund Convention were further increased. Discussions on the establishment of a regime offering an even higher level of compensation continued after the *Erika* incident. The need for such a fund was confirmed by the *Prestige* incident that occurred in Spain. As a result, a new Protocol creating the International Supplementary Fund for Compensation for Oil Pollution Damage ('Supplementary Fund'), was adopted in May 2003. This new 'third tier' Fund, which was closely modelled on the 1992 Fund, was designed to address the concerns of those States that were of the view that the enhanced 1992 CLC and Fund limits were still insufficient to meet in full all valid claims arising from a major tanker accident. The Supplementary Fund substantially increased the limits of compensation available to Parties to roughly one billion US dollars.

As MARPOL came into being in the 1970s and as the international compensation regime was established and matured, there was still little attention to the role, responsibilities and needs for cooperation in preparing for and responding to incidents of major pollution.

In the aftermath of the *Torrey Canyon*, the IMO urged governments to establish arrangements for dealing with oil pollution accidents. In November 1968, the IMO Assembly adopted three important interrelated resolutions:

- Resolution A.148 (ES.IV), National Arrangements for Dealing with Significant Spillages of Oil
- Resolution A.149 (ES.IV), Regional Co-operation in Dealing with Significant Spillages of Oil
- Resolution A.150 (ES.IV), Research and Exchange of Information on Methods for Disposal of Oil in Cases of Significant Spillages

The concern that pollution arising from maritime accidents should be mitigated by cooperative action between neighbouring States was again reiterated by the IMO in its November 1979 Assembly Resolution A.448 (XI), by which governments were

urged first to develop or improve national contingency arrangements to the extent feasible and, secondly, to develop, as appropriate, joint contingency arrangements at a regional, subregional, or sectoral level or on a bilateral level.

The first regional agreements for cooperation in combating oil pollution in case of emergency were adopted:

- by the coastal States of the North Sea (Agreement for Cooperation in Dealing with Pollution of the North Sea by Oil and Other Harmful Substances, ie Bonn Agreement), in 1969,
- by the Mediterranean coastal States (The Protocol concerning Co-operation in Combating Pollution of the Mediterranean Sea by Oil and other Harmful Substances in Cases of Emergency to the Barcelona Convention) in 1976, and
- by Bahrain, I.R. Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates, in 1978 (The Protocol concerning Regional Co-operation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency).

These instruments prepared with the support of IMCO (IMO), preceded the International Convention on Oil Pollution, Preparedness, Response and Co-operation (OPRC) and were used as references for the drafting of this international instrument.

The 1989 *Exxon Valdez* incident that occurred in Alaska was an important driver for change. Within one year of its occurrence, Governments came together and the OPRC Convention was adopted in November 1990 and came into force in May 1995. This Convention provided an international framework for cooperation and mutual assistance in preparing for and responding to major oil pollution incidents and required States to plan and prepare by developing national emergency response structures in their respective countries, and by maintaining adequate capacity and resources to address oil pollution emergencies.

Specifically, the OPRC Convention includes requirements for oil pollution emergency plans for ships, offshore units, sea ports and oil handling facilities operating in State waters, and procedures for reporting oil pollution incidents when these occur. The Convention also requires the establishment of national emergency system, including the development of a national contingency plan and the designation of a competent national authority and a national operational contact points. Possibly the most important aspect of the OPRC Convention is the international cooperation dimension, which enables a Party to request international assistance from other State Parties. Through the provisions concerning regional arrangements, States are urged to develop bilateral and multilateral agreements for preparedness and response to increase national capacity in the event of major pollution incidents.

Although oil spills remain the largest threat due to the volumes transported, the risk of incidents involving chemicals or ‘hazardous and noxious substances’ (HNS) continued to increase steadily with the increasing volume of chemicals transported by sea. These substances also often represent a higher degree of hazard than petroleum products, not only to the marine environment, but also to human health. Acknowledging the growing threat from the carriage of HNS by sea, in 2000, the IMO adopted the Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances, 2000 (OPRC-HNS Protocol), which applies to hazardous and noxious substances other than oil, that is, chemical substances. The OPRC-HNS Protocol, which entered into force in 2007, follows the principles and provides the same basic framework for cooperation and mutual assistance as provided by the OPRC Convention.

During this same general timeframe the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996 (HNS Convention), which extended the compensation and liability framework to chemical substances, was adopted in May 1996. The Convention aims to ensure adequate, prompt, and effective compensation for damage to persons and property, costs of clean-up and reinstatement measures and economic losses caused by the maritime transport of hazardous and noxious substances (HNS), but has yet to enter into force, as of November 2015.

To overcome this challenge and some of the other issues thought to be acting as barriers to ratification of the HNS Convention, a draft Protocol was adopted in 2010 to address the practical problems that were believed to have prevented States from ratifying the Convention. In spite of the new measures introduced to facilitate and promote the ratification of the HNS Convention, as of November 2015, it has yet to meet its entry into force conditions.

The liability and compensation regime was extended once more through the introduction of the International Convention on Civil Liability for Bunker Oil Pollution Damage (Bunkers Convention), that for the first time, following its entry into force in 2008, provided compensation from spills of bunker fuel from vessels other than tankers carrying persistent oils (as represented by the CLC and Funds Conventions).

### **7.2.3 The OPRC Convention main requirements**

The OPRC Convention encompasses ten key elements which are also found in other regional instruments as further detailed in the following chapters:

- **Oil pollution emergency plans** (Article 3): Operators of offshore unit, authorities in charge of ports, and oil handling facilities under the jurisdiction of the Party to the Convention are required to have an oil pollution emergency plan. Such plans shall be coordinated with the national system. Ships are also required

to have on board an oil pollution emergency plan in accordance with practices provided for in existing international Conventions (Regulation 37 of Annex I of MARPOL and Regulation 17 of Annex II of MARPOL requiring shipboard oil pollution plans (SOPEP)).

- **Oil pollution reporting procedures** (Article 4): Persons in charge of ships, off-shore units, sea ports and oil handling facilities, maritime inspection vessels or aircraft, and pilots of civil aircraft are requested to report any discharge of probable discharge of oil or the presence of oil.
- **Action on receiving an oil pollution report** (Article 5): Upon receipt of the pollution report, immediate assessment is required. Information on the assessment and action taken shall be communicated to States whose interests are affected or likely to be affected. This information shall also be communicated directly to the IMO or through the relevant regional organization or arrangements, when the severity of such oil pollution incident so justifies.
- **National and regional systems for preparedness and response** (Article 6): Designation of competent authorities for oil spill preparedness and response, receipt and transmission of pollution report and for deciding to render assistance are minimum requirements of the Convention together with the establishment of a national contingency plan. In addition, this Article call for a minimum level of pre-positioned oil spill combating equipment, a programme of training and exercise, a communication plan, and a mechanism to coordinate response.
- **International Co-operation in pollution response** (Article 7): Subject to capabilities and availability of resources, Parties agree to cooperate and provide advisory services, technical support, and equipment upon the request of the affected country.
- **Research and development** (Article 8): The Convention calls for exchange of information on research and development relating to the enhancement of the state-of-the-art of oil pollution preparedness and response and encourages dialogue and the development of standards for compatible techniques and equipment.
- **Technical cooperation** (Article 9): Parties are required to provide support on training personnel, transfer of technology, equipment and facilities, and joint research and development programmes.
- **Promotion of bilateral and multilateral cooperation in preparedness and response** (Article 10): The Convention call for the establishment of bilateral and multilateral agreements for oil pollution preparedness and response.
- **Institutional arrangements** (Article 12): the IMO is designated to perform functions and activities related to information services, education and training, technical services and technical assistance.
- **Reimbursements of cost of assistance** (Annex): Guidance is provided on the reimbursement of costs of assistance in accordance with the provisions of the International Oil Pollution Compensation Funds Conventions.

#### **7.2.4 UNCLOS**

The United Nations Convention on the Law of the Sea (UNCLOS), which entered into force on 16 November 1994, provides the umbrella or common framework for the development of laws and policies for managing the world's oceans. This Convention expressly recognizes regional cooperation on marine environmental protection and management in cases of accidental marine pollution. Article 198 requires that if a State becomes aware of cases in which the marine environment is in danger of being damaged or has been damaged by pollution, it must immediately notify other States likely to be affected by such damage and the competent international organizations. Article 199 requires that affected States shall cooperate with the competent international organizations, to the extent possible, in eliminating the effects of pollution and preventing or minimizing the damage. States are further required to jointly develop and promote contingency plans for responding to marine pollution incidents. The regional agreements developed for combating accidental marine pollution use these principles.

### **7.3 Regional Legal Framework Overview**

#### **7.3.1 Background**

By the early 1970s, the world became increasingly aware of environmental issues and as a consequence, environmental concerns were also increasing. There was also a general feeling that pollution, in particular marine pollution, should be tackled at an international level. This global concern culminated in the organization of the United Nations Conference on the Human Environment in Stockholm in 1972. Of particular relevance to the issue of international cooperation and mutual assistance to combat marine pollution, was the recommendation for governments to take early action to adopt 'effective national measures for the control of all significant sources of marine pollution and concentrate and coordinate their actions regionally and where appropriate on a wider international basis'.

A direct result of the Stockholm Conference was the December 1972 decision of the United Nations General Assembly to establish, in 1973, the United Nations Environment Programme (UNEP). The Governing Council of UNEP subsequently identified 'Oceans' as one of its priority areas in which efforts would be focused and activities developed.

The UNEP Governing Council also endorsed a regional approach to the control of marine pollution and management of marine coastal resources and requested that regional action plans be developed. As a consequence, UNEP's Regional Seas Programme was initiated in 1974.

The Regional Seas Programme (RSP) aims to address the accelerating degradation of the world's oceans and coastal areas through the sustainable management and use of the marine and coastal environment, by engaging neighbouring countries in comprehensive and specific actions to protect their shared marine environment. It has accomplished this by stimulating the creation of Regional Seas programmes sound environmental management, to be coordinated and implemented by countries sharing a common body of water.

The major objective of the setting up of the RSP was to promote regional marine pollution control programmes in areas that, for geographical, ecological, or political reasons, were perceived to have common elements and interest.

The programme has steadily grown and today covers eighteen regions of the world, representing virtually all the world's oceans and seas.

The following six of the individual RSPs are directly administered by the UNEP Division of Environmental Policy Implementation (DEPI), meaning that UNEP has been given responsibility for secretariat functions, usually through a Regional Coordinating Unit established in the region. The six RSPs are as follows:

- Mediterranean Region
- Caribbean Region
- Eastern Africa Region
- Western Africa Region
- East Asian Seas
- Northwest Pacific Region

For these RSPs, UNEP is also accountable for administering the Trust Funds and provides financial and budgetary services, as well as technical backstopping and advice, and hence is more closely and directly involved in all their projects and activities.

For the following Non-UNEP administered RSPs, other independent (regional) organizations host and/or provide the Secretariat function:

- Black Sea Region
- ROPME Sea Area
- Red Sea and Gulf of Aden
- South-East Pacific Region
- Pacific Region
- North-East Pacific Region
- South Asian Seas

In these cases, their financial and budgetary services (Trust Funds) are managed by the programmes themselves. However, the regional activities continue to form a



part of the global RSP, which in turn continues to act as a platform for cooperation and coordination.

Another category of RSP includes the following independent programmes, which have not been established under the auspices of a UNEP RSP:

- Arctic Region
- Antarctic Region
- Baltic Sea
- North-East Atlantic Region
- Caspian Sea

These entities nevertheless participate in the global meetings of the Regional Seas (RS), share experiences and exchange policy advice and support to the developing RSPs.

The role of the global RSP is to enhance linkages, coordination, and synergies within and amongst global, regional, and partner programmes, organizations, and actors. In return, the regional programmes support the implementation of the global RS strategic directions, and report regularly on progress.

The approach taken in developing UNEP's RSP is an action plan tailored to the needs and priorities of a region, but it can also be applied to other regions.

In most cases the Action Plan is underpinned by a legal framework, in the form of a regional Convention and associated Protocols on specific problems.

Implementation should be tailored to the regional and local specificities. The holistic approach defined by UNEP addresses all sources of pollution affecting the marine environment. Consequently, all programmes reflect a similar approach, yet each has been tailored by its own governments and institutions to suit their particular environmental challenges.

A regional Sea Programme Action Plan is built on five interdependent components:

- An environmental assessment: the state of the marine environment is monitored through a continuous coordinated pollution research programme and exchange of information to identify the problems that need priority attention in the region.
- An environmental management component, involving integrated planning of activities related to developing and managing coastal areas, aimed at controlling and preventing pollution.
- A legal component consisting of an umbrella convention embodying the general commitments of the Parties to the Convention, supported by technical and specific Protocols dealing with specific issues such as: land based pollution;

preparedness and response to accidental marine pollution; dumping, and seabed activities, all of which are aimed at strengthening cooperation among States in managing the regional pollution problems identified and committing the States to an active programme.

- An institutional component, consisting of regular meetings of Contracting Parties to the regional convention, which provides an intergovernmental forum for consultation and decision-making and a regional coordinating mechanism consisting of a Regional Coordinating Unit and/or Regional Activity Centres that service specific programmes and act as a secretariat for the Action Plan or parts of it.
- A financial instrument that underpins the other four parts and ensures the financing for the implementation of the Action Plan.

The UNEP's Regional Seas Branch based at the Nairobi Headquarters provides the oversight of the RSPs. Regional Coordination Units (RCUs), often aided by Regional Activity Centres (RACs), oversee the implementation of the programmes and aspects of the regional Action Plans, such as marine emergencies, information management, and pollution monitoring.

As the United Nations' specialized agency concerned with the prevention of pollution from ships, the IMO plays an important contributory role in UNEP's RSP. A strong relationship has been established between the two entities as set out in chapter IV.1.

The regions where action plans and conventions have or are being developed are set out below in Table 7.1 and are further detailed in the following sections.

**Table 7.1 Regional Action Plans and Conventions adopted**

Region	Convention and Action Plan	Adoption
The Baltic Region	Helsinki Convention	1974
	HELCOM Baltic Sea Action Plan	2007
The Mediterranean Region	Barcelona Convention	1975
	Mediterranean Action Plan	
The ROPME Area	Kuwait Convention	1978
	Action Plan for the Protection and Development of the Marine Environment and the Coastal Areas	
The West and Central African Region	Abidjan Convention	1981
	Action Plan for the West and Central African Region	
The Wider Caribbean Region	Cartagena Convention	1983
	Action Plan for the Caribbean Environment Programme	
The East Asian Seas Region	No Convention	1981
	East Asian Seas Action Plan	

*Continued*

**Table 7.1** *Continued*

Region	Convention and Action Plan	Adoption
The South-East Pacific Region	Lima Convention South-East Pacific Action Plan	1981
The Red Sea and Gulf of Aden Region	Jeddah Convention Action Plan for the Conservation of the Marine Environment and Coastal Areas in the Red Sea and Gulf of Aden	1982
The South Pacific Region	Noumea Convention SPREP Action Plan	1986 1991
The Eastern African Region	Nairobi Convention East African Action Plan	1985
The North-East Atlantic Region	OSPAR Convention OSPAR Convention Action Plan	1992
The Black Sea Region	Bucharest Convention Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea	1992 1996
The Northwest Pacific Region	No Convention Northwest Pacific Action Plan	1994
The South Asian Seas Region	No Convention Action Plan for the South Asian Regional Seas Programme	1995
Caspian Sea Region	Tehran Convention Action Plan for the protection and sustainable development of the marine environment of the Caspian Sea	2003
North-East Pacific Region	Antigua Convention Northeast Pacific Action Plan	2002
South-West Atlantic Region		-
Arctic Region		-

### 7.3.2 Regional Seas Programmes administered by UNEP

#### 7.3.2.1 Mediterranean Sea

Following the establishment of the UNEP Regional Seas Programme in 1974, the Mediterranean became the first region to adopt a Regional Action Plan (Mediterranean Action Plan (MAP)) in 1975. This was quickly followed by the adoption of the Convention for the Protection of the Mediterranean Sea against Pollution (Barcelona Convention) in 1976, which entered into force in 1978, and a succession of seven landmark Protocols.

In 1976, a Conference of Plenipotentiaries representing sixteen Mediterranean coastal States and the European Communities adopted the Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona Convention),

which aims at protecting the marine environment and coastal zones through prevention and reduction of pollution, and as far as possible, elimination of pollution, whether land or sea-based. The Barcelona Convention was adopted together with two specific Protocols:

- The 1976 Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft, which was amended in 1995. It became known as The Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft or Incineration at Sea (Dumping Protocol); and
- The 1976 Protocol concerning Co-operation in Combating Pollution of the Mediterranean Sea by Oil and other Harmful Substances in Cases of Emergency (Emergency Protocol) in force since 12 February 1978. The 1976 Protocol was replaced by the Protocol concerning Co-operation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea (Prevention and Emergency Protocol) to include the prevention of pollution by ships, it was adopted in 2002 and entered into force on 17 March 2004.

The MAP legal framework was enriched over the years with five additional Protocols addressing specific aspects of Mediterranean environmental conservation as follows:

- The Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-based Sources, adopted in 1980, and amended in 1996 and now known as The Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-based Sources and Activities (LBS Protocol), in force since 11 May 2008;
- The Protocol Concerning Mediterranean Specially Protected Areas (SPA Protocol), adopted in 1982, and replaced by the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA and Biodiversity Protocol), adopted in 1995 and in force since 12 December 1999;
- The Protocol on the Prevention of Pollution of the Mediterranean Sea by Transboundary Movements of Hazardous Wastes and their Disposal (Hazardous Wastes Protocol), adopted in 1996 and in force since 18 January 2008;
- The Protocol for the Protection of the Mediterranean Sea Against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil (Offshore Protocol), adopted in 1994, in force since 23 March 2011;
- The Protocol on Integrated Coastal Zone Management (ICZM Protocol), adopted in 2008 and in force since 24 March 2011.

The introduction of the concept of sustainable development with the approach of the Rio Conference in 1992 led the Member States of the Barcelona Convention to draw up an Agenda 21 for the Mediterranean. This concept, adapted to the Mediterranean context, forms an integral part of the objectives of the MAP. In June 1995, the Mediterranean Action Plan, which was adopted in 1975, was

replaced by the Action Plan for the Protection of the Marine Environment and the Sustainable Development of the Coastal Areas of the Mediterranean (renamed MAP Phase II). The legal instruments were updated to reflect and ensure coherence with the progress made in international environmental law, and are set forth in Table 7.2.

The Secretariat's functions were assigned to UNEP, which subsequently established a coordinating unit in July 1982 for the Mediterranean Action Plan, hosted by Greece in Athens. Apart from its secretariat function, it is also responsible for planning, organization, information, and cooperation with intergovernmental and non-governmental organizations. In addition, Regional Activity Centres (RACs)

**Table 7.2 Ratifications of the Barcelona Convention its 1976 Emergency and 2002 Prevention and Emergency**

Contracting Parties	1976 Barcelona Convention 1/	Emergency Protocol 3/	Prevention and Emergency Protocol 4/	
	Ratification	Acceptance of 1995 Amendments	Ratification	Ratification
Albania	May 1990/AC	July 2001	May 1990/AC	–
Algeria	Feb 1981/AC	June 2004	March 1981/AC	–
Bosnia & Herzegovina	Oct 1994(SUC)	–	Oct 1994/SUC	–
Croatia	June 1992(SUC)	May 1999	June 1992/SUC	Nov 2003
Cyprus	Nov 1979	July 2003	Nov 1979	Dec 2007
European Union	March 1978/AP	Nov 1999	Aug 1981/AP	May 2004
Egypt	Aug 1978/AP	Feb 2000	Aug 1978/AC	–
France	March 1978/AP	March 2001	March 1978/AP	July 2003
Greece	Jan 1979	March 2003	Jan 1979	Nov 2006
Israel	March 1978	Sep 2005	March 1978	Sept 2014
Italy	Feb 1979	Sep 1999	Feb 1979	–
Lebanon	Nov 1977/AC	*	Nov 1977/AC	–
Libya	Jan 1979	Jan 2009	Jan 1979	–
Malta	Dec 1977	Oct 1999	Dec 1977	Feb 2003
Monaco	Sep 1977	April 1997	Sep 1977	Apr 2002
Montenegro	Nov 2007	Nov 2007	–	Nov 2007
Morocco	Jan 1980	Dec 2004	Jan 1980	Apr 2011
Slovenia	Sep 1993/AC	Jan 2003	Sep 1993/AC	Feb 2004
Spain	Dec 1976	Feb 1999	Dec 1976	July 2007
Syria	Dec 1978/AC	Oct 2003	Dec 1978/AC	Apr 2008
Tunisia	July 1977	June 1998	July 1977	–
Turkey	Apr 1981	Sep 2002	Apr 1981	June 2003

The Contracting Parties to the Barcelona Convention consist of all twenty-one Mediterranean coastal States and the European Union. The status of ratification the Convention and its 1976 Emergency and 2002 Prevention and

Emergency Protocols is set out in Table 7.2.

Accession = AC Approval = AP Succession = SUC

dealing with specific components of the Mediterranean Action Plan have been set up. The Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), formerly the Regional Oil Combatting Centre (ROCC), was established in Malta in 1976 to support Contracting Parties in the implementation of the Emergency Protocol and, since 2002, the Prevention and Emergency Protocol.

#### *7.3.2.2 The wider Caribbean region*

The Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region, also called the Cartagena Convention, was adopted in Cartagena, Colombia, on 24 March 1983 and entered into force on 11 October 1986, for the implementation of the Action Plan for the Caribbean Environment Programme (CEP).

The Convention is supplemented by three Protocols:

- Protocol Concerning Co-operation in Combating Oil Spills in the Wider Caribbean Region which was also adopted in 1983 and entered into force on 11 October 1986.
- Protocol Concerning Specially Protected Areas and Wildlife (SPA) in the Wider Caribbean Region which was adopted on 18 January 1990. The Protocol entered into force on 18 June 2000.
- Protocol Concerning Pollution from Land-Based Sources and Activities which was adopted on 6 October 1999 and entered into force on 13 August 2010.

Although the Contracting Parties designated the Caribbean Coordination Unit (UNEP-CAR/RCU) as Secretariat to the Cartagena Convention, Contracting Parties may use Regional Activity Centres (RACs) for the coordination and implementation of activities in support of the Cartagena Convention and its Protocols and Regional Activity Networks (RANs) for the provision of additional expertise and technical support.

The Cartagena Convention has been ratified by twenty-five Member States in the Wider Caribbean Region, as listed in Table 7.3.

The Assessment and Management of Environmental Pollution (AMEP) Sub-Programme of the Caribbean Environment Programme coordinates activities related to the Protocol Concerning Cooperation in Combating Oil Spills in collaboration with the Regional Marine Pollution Emergency, Information and Training Centre (REMPEITC-Caribe), the regional activity centre, established under the Cartagena Convention to address issues related to oil pollution and response. The Centre was established in Curaçao in 1995 within the framework of the Caribbean Environmental Programme and has been supported by the host Government (Netherlands Antilles and from 2011, Curaçao), as well as continuous secondments from United States and from France and temporary secondments from the

**Table 7.3 Status of ratification of the Cartagena Convention and the Oil Spill Protocol**

Contracting Parties	Cartagena Convention and its Oil Spill Protocol Ratified/Acceded
Antigua and Barbuda	Sept 1986
Bahamas	June 2010
Barbados	May 1985
Belize	Sept 1999
Colombia	March 1988
Costa Rica	Aug 1991
Cuba	Sep 1988
Dominica	Oct 1990
Dominican Republic	Nov 1998
France	Nov 1985
Grenada	Aug 1987
Guatemala	Dec 1989
Guyana	July 2010
Haiti	—
Honduras	—
Jamaica	Apr 1987
Mexico	Apr 1985
Netherlands	Apr 1984
Nicaragua	Aug 2005
Panama	Nov 1987
St. Kitts and Nevis	June 1999
Saint Lucia	Nov 1984
St. Vincent and the Grenadines	July 1990
Suriname	—
Trinidad and Tobago	Jan 1986
United Kingdom	Feb 1986
United States of America	Oct 1984
Venezuela	Dec 1986
European Union	—

Netherlands and Venezuela. Additional financial support for projects and activities has been provided by the IMO and UNEP-CAR/RCU.

REMPEITC-Caribe developed two Regional oil pollution contingency plans, the Caribbean Island OPRC Plan and the Central America OPRC Plan.

### *7.3.2.3 The Eastern Africa region*

The Conference of Plenipotentiaries on the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region held at UNEP headquarters in Nairobi from 17 to 21 June 1985, adopted the Final Act of the conference, which included:

- Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (Nairobi Convention).
- Protocol Concerning Co-operation in Combating Marine Pollution in Cases of Emergency in the Eastern African Region, and
- Protocol Concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region.

The 1985 Convention and its Protocols entered into force on 30 May 1996.

The Conference of Plenipotentiaries and the Sixth Conference of Parties to the Nairobi Convention, which took place at the United Nations Environment Programme (UNEP) Offices at Gigiri in Nairobi Kenya, adopted on 31 March 2010:

- Amended Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean, and
- Protocol for the Protection of the Marine and Coastal Environment of the Western Indian Ocean from Land-Based Sources and Activities.

The ten countries of the region ratified the 1985 Nairobi Convention, whilst the Amended Nairobi Convention and the Marine Pollution Protocol have only been signed by some of the countries as set out in Table 7.4 below.

The East African Action Plan was adopted in 1985 and came into force in 1986. It has since been ratified by all ten Eastern African countries. The Eastern African Regional Coordinating Unit, (EAF/RCU) located in the Seychelles, formally adopted in 1997, is responsible for the coordination of actions related to the protection of the marine environment.

Article 9 of the Emergency Protocol designates the Executive Director of the United Nations Environment Programme (UNEP) to carry out those functions and activities.

**Table 7.4 Status of ratification of the 1985 Nairobi Convention, the 2010 Amended Nairobi Convention and the Marine Pollution Protocol**

Contracting Parties	1985 Nairobi Convention ratified	Amended 2010 Nairobi Convention signed	Marine Pollution Protocol signed
Comoros	Sep 1994	March 2010	-
France	Aug 1989	March 2010	June 1985
Kenya	Sep 1990	March 2010	-
Madagascar	June 1990	-	June 1985
Mauritius	July 2000	March 2010	-
Mozambique	March 1999	March 2010	-
Seychelles	June 1990	March 2010	June 1985
Somalia	March 1988	March 2010	June 1985
Tanzania	March 1996	March 2010	-
South Africa	May 2003	-	-



On 26 October 2004, a National Centre, known as ‘Organe de Lutte contre l’Evènement de Pollution marine par les hydrocarbures’ (OLEP) was established in Madagascar. OLEP assumed responsibility for the coordination of the marine pollution emergency plan for the countries of the Western Indian Ocean.

As an outcome of the Western Indian Ocean Global Environment Facility (GEF) Marine Highway and Coastal and Marine Contamination Prevention Project (WIOMHCCP), implemented by the Indian Ocean Commission (IOC), a Workshop on the Regional Oil Spill Contingency Plan was held in Mauritius in October 2010 and the establishment of a Regional Coordination Centre was agreed. As of February 2013, seven Western Indian Ocean States, including Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles and Tanzania have signed the ‘Agreement on the Regional Contingency Plan for Preparedness for and Response to major Marine Pollution Incidents in the Western Indian Ocean’ and adopted the relevant Regional Contingency Plan.

The bid for South Africa to host the Regional Coordination Centre for Marine Pollution and Hazardous and Noxious Substances Preparedness and Response in the Western Indian Ocean Region was approved in 2011 to support the implementation of the Emergency Protocol.

#### *7.3.2.4 West and Central Africa region*

The Conference of Plenipotentiaries on Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region held in Abidjan, in March 1981 adopted the Action plan for the West and Central African Region as well as:

- The Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region known as the ‘Abidjan Convention’, and
- The Protocol concerning Co-operation in combating pollution in cases of emergency.

The Abidjan Convention and its Protocol came into force in 1984 following the ratification of these instruments as shown in Table 7.5.

**Table 7.5 Status of ratification of the Abidjan Convention the Protocol concerning Co-operation in combating pollution in cases of emergency**

Contracting Parties	Abidjan Convention and its Protocol ratified
Benin	Oct 1997
Cameroon	March 1983
Congo	Dec 1987
Côte d’Ivoire	Jan 1982

**Table 7.5** *Continued*

Contracting Parties	Abidjan Convention and its Protocol ratified
Gabon	Dec 1988
Gambia	Dec 1984
Ghana	July 1989
Guinea	March 1982
Guinea Bissau	Feb 2012
Liberia	March 2005
Mauritania	Apr 2012
Nigeria	June 1984
Senegal	May 1983
Sierra Leone	June 2005
South Africa	May 2002
Togo	Nov 1983

Other Member States in the Convention area which are in the process of or have yet to ratify the Convention include Angola, Cape Verde, Democratic Republic of the Congo, Equatorial Guinea, Namibia, and Sao Tome & Principe. The Contracting Parties of the Convention designated the United Nations Environment Programme Regional Coordinating Unit based in Abidjan as the Secretariat.

The activities of the Abidjan Convention are coordinated directly by the Nairobi-based Joint Implementation Unit of the Nairobi and Abidjan Conventions and the Abidjan-based Regional Coordination Unit.

At the regional level collaborations and partnerships have been established between the Convention and the GEF-sponsored Large Marine Ecosystem projects under implementation in the Convention area. At the international level, the Global Initiative (GI) coordinated by the IMO and the Global oil and gas industry association for environmental and social issues (IPIECA), supports the implementation of the Protocol through the Global Initiative for West and Central Africa (GI WACAF) as further detailed in chapter IV.3.3.

#### *7.3.2.5 The East Asian Sea (EAS)*

The Coordinating Body on the Seas of East Asia (COBSEA) was formed in 1981 as a UNEP Intergovernmental regional organization under the umbrella of the UNEP Regional Seas Programme. COBSEA consists of nine member countries. Initially, five countries from the Association of Southeast Asian Nations (ASEAN) formed COBSEA—Indonesia, Malaysia, Philippines, Singapore, and Thailand. In 1994, Australia, Cambodia, China, Republic of Korea, and Vietnam also joined. Australia left COBSEA in 2011.

Unlike most other Regional Seas programmes, COBSEA does not have a legally binding convention. It operates based on the East Asian Seas Action Plan adopted in 1981 and amended in 1994.

The budget and programme of the COBSEA are adopted by the Inter-Governmental Meeting (IGM), which meets every two years. The last meeting, the 20th IGM, was held in November 2009 in Vietnam.

UNEP supported COBSEA's activities staff costs until 2006. The staff costs and Secretariat premises are now covered mostly by the COBSEA Trust Fund composed of voluntary contributions by Member States.

The Partnerships in the Environmental Management for the Seas of East Asia (PEMSEA) is also very active in the regional and support activities related to oil spill preparedness and response. PEMSEA is a partnership arrangement involving various stakeholders of the Seas of East Asia, including national and local governments, civil society, the private sector, research and education institutions, communities, international agencies, regional programmes, financial institutions, and donors. It is also the regional coordinating mechanism for the implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA).

#### *7.3.2.6 Northwest Pacific region*

The Northwest Pacific Action Plan (NOWPAP) was adopted in 1994 by four Member States, namely the People's Republic of China, Japan, the Republic of Korea, and the Russian Federation, under the UNEP Regional Seas Programme. There is no regional convention adopted for this region, whilst the implementation of the Action Plan is mainly financed by voluntary contributions from the Member States.

The Intergovernmental Meeting, held annually and attended by senior government officials, serves as the governing body of NOWPAP that provides policy guidance and decisions.

At the Sixth Intergovernmental Meeting, the NOWPAP Members agreed in principle to establish a split NOWPAP Regional Coordinating Unit (RCU) in Toyama, Japan, and in Busan, Republic of Korea, respectively. Subsequently, the NOWPAP Members reached an agreement regarding responsibilities for both the Toyama and Busan Offices at the Seventh Intergovernmental Meeting. The respective Toyama and Busan RCU Offices were established in November 2004.

The RCUs have overall responsibility for the implementation of the NOWPAP Member States' decisions regarding the implementation of the Action Plan and maintain close contacts with and support the work of the different Regional Activity Centres (RACs) responsible for the implementation of the Action Plan in their respective area of competence.

The Marine Environmental Emergency Preparedness and Response Regional Activity Centre (MERRAC) is the RAC responsible for regional cooperation in the field of marine pollution prevention and response in the Northwest Pacific region and is supported by UNEP and the IMO.

The Centre was established on 22 March 2000 within Maritime & Ocean Engineering Research Institute (MOERI)/Korea Institute of Ocean Science and Technology (KIOST, former KORDI) in Daejeon, Republic of Korea, following the decision of the Fourth NOWPAP Intergovernmental Meeting (April 1999). The Memorandum of Understanding relating to the establishment and operation of MERRAC was duly signed by the UNEP, IMO, and MOERI/KORDI in July 2000.

MERRAC is currently functioning as secretariat for the NOWPAP MERRAC Focal Points Meetings, Competent National Authorities Meetings, Expert Meetings, and is in charge of maintaining the NOWPAP Regional Oil and HNS Spill Contingency Plan.

The operation of MERRAC is financially supported by the Government of the Republic of Korea, whilst specific projects are funded through the NOWPAP Trust Fund.

### **7.3.3 Non-UNEP Administered Regional Seas Programmes**

#### *7.3.3.1 The Black Sea*

The Convention on the Protection of the Black Sea against Pollution was adopted in Bucharest in April 1992, and ratified by all six Black Sea countries in 1994. Also referred to as the 'Bucharest Convention', it is the basic framework of agreement with three specific Protocols, entered into force on 15 January 1994 which are:

- 1992 Protocol on Cooperation in Combating Pollution of the Black Sea Marine Environment by Oil and other Harmful Substances in Emergency Situations.
- 1992 Protocol on the Protection of the Black Sea Marine Environment against Pollution from Land-based Sources.
- 1992 Protocol on the Protection of the Black Sea Marine Environment against Pollution by Dumping.

The status of ratification of the Convention for the Protection of the Black Sea against Pollution is reported in Table 7.6 below.

The implementation of the Convention is managed by the Commission for the Protection of the Black Sea against Pollution (Black Sea Commission) as defined in Article XVII of the Convention. Its Permanent Secretariat is established in Istanbul, Turkey.

**Table 7.6** Status of ratification of the Convention for the Protection of the Black Sea Against Pollution and the Protocol on Cooperation in Combating Pollution of the Black Sea Marine Environment by Oil and other Harmful Substances in Emergency Situations

Contracting Parties	Convention ratified	Protocol on joint action in case of accidents ratified
Bulgaria	Feb 1993	Feb 1993
Georgia	Sep 1993	Sep 1993
Romania	Nov 1993	Nov 1993
Russian Federation	Nov 1993	Nov 1993
Turkey	March 1994	March 1994
Ukraine	Apr 1994	Apr 1994

The objective of the Convention is to meet the general obligations of the Contracting Parties to prevent, reduce and control the pollution in the Black Sea in order to protect and preserve the marine environment and to provide legal framework for cooperation and concerted actions to fulfil this obligation. In particular as oil and noxious and hazardous substances is concerned:

- To prevent, reduce, and control the pollution of the marine environment from vessels in accordance with the generally accepted rules and standards;
- To prevent, reduce, and control the pollution of the marine environment resulting from emergency situations;
- To prevent, reduce, and control the pollution caused by or connected with activities on the continental shelf, including exploration and exploitation of natural resources;
- To provide framework for scientific and technical cooperation and monitoring activities.

The Black Sea Environment Programme was established in 1993 and the Strategic Action Plan for the Rehabilitation and Protection of the Black Sea was adopted in 1996 and revised by all Member States in April 2009. The Black Sea Strategic Action Plan 1996 defines the Advisory Groups/Activity Centres in the seven strategic sectors of the Black Sea Strategic Action Plan.

The Advisory Group on the Environmental Safety Aspects of Shipping coordinates the regional approach to emergency response, particularly the international response to accidents involving the extraction, maritime transport, handling and storage of oil and, where relevant, hazardous chemicals. The Advisory Group on the Environmental Safety Aspects of Shipping is supported by the Activity Centre on Environmental Safety Aspects of Shipping (AC ESAS), which formulates and proposes regional policies and specific actions for all environmental safety aspects of shipping in the region. The AC ESAS is based in Varna, Bulgaria, in the Marine

Environment Pollution and Control Department of the Bulgarian Maritime Administration (BMA), Varna Directorate which was established in 1999. The Centre coordinates inter alia a regional approach to emergency response, particularly the international response to accidents involving the extraction, maritime transport, handling, and storage of oil and hazardous chemicals.

In 2003 The Black Sea Contingency Plan to the Protocol on Co-operation in Combating Pollution of the, Black Sea Marine Environment by Oil and Other Harmful Substances in Emergency Situations (Emergency Protocol), Volume I, Response to Oil Spills, 2003 was approved by the Black Sea Commission.

#### *7.3.3.2 ROPME Sea Area*

The Regional Conference of Plenipotentiaries on the Protection and Development of the Marine Environment and the Coastal Areas of Bahrain, Islamic Republic of Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates held in Kuwait, was adopted on 23 April 1978:

- Action Plan for the Protection and Development of the Marine Environment and the Coastal Areas,
- Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution, and
- Protocol concerning Regional Co-operation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency.

The Convention which was signed on 24 April 1978, entered into force on 1 July 1979. The eight Governments of the Region adopted the Convention and its Protocols as listed in Table 7.7 below.

**Table 7.7 Status of ratification of the Kuwait Convention and its Protocol**

Contracting Parties	Kuwait Convention its Protocol (1978)
Bahrain	Apr 1979
Iran	March 1980
Iraq	Feb 1979
Kuwait	Nov 1978
Oman	March 1979
Qatar	Jan 1979
Saudi Arabia	Dec 1981
UAE	Dec 1979

Subsequently, the Kuwait Convention developed supplementary Protocols in accordance with the recommendations of the Legal Component of the Kuwait Action Plan. These protocols include:

- Protocol concerning Marine Pollution resulting from Exploration and Exploitation of the Continental Shelf (1989)
- Protocol for the Protection of the Marine Environment against Pollution from Land-Based Sources (1990)
- Protocol on the Control of Marine Trans-boundary Movements and Disposal of Hazardous Wastes and Other Wastes (1998)
- Protocol concerning the conservation of biological diversity and the establishment of protected areas. The final text of the draft Protocol is at the time of writing the document, awaiting endorsement of National Authorities of some ROPME Member States.

The Regional Organization for the Protection of the Marine Environment (ROPME) Sea Area (former Kuwait Action Plan) is the sea area surrounded by the eight Member States of ROPME: Bahrain, I.R. Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. The term 'ROPME Sea Area' was attributed by Plenipotentiaries of the Member States to achieve unanimity in denoting the area covered by the Kuwait Regional Convention of 1978.

ROPME, as defined in Article XVI of the Convention, was established on 1 July 1979 to implement the Kuwait Action Plan, as well as the Kuwait Regional Convention and its Protocols. Based on the arrangements adopted at the Conference of Plenipotentiaries, a UNEP Interim Secretariat administered the programmes and activities of the Organization until the establishment of the ROPME Secretariat in Kuwait on 1 January 1982.

On 4 August 1982, the Marine Emergency Mutual Aid Centre (MEMAC) was established in Manama, Bahrain under the framework of Kuwait Convention and its Protocol concerning Co-operation in Combating Pollution by Oil & other Harmful Substances in Cases of Emergency.

The 15th ROPME Council meeting convened in Jeddah, Kingdom of Saudi Arabia on 12 January 2011 agreed to adopt and commence the implementation of the Maritime Emergency Response and Salvage Co-ordination Unit (MERCU). MERCU will consist of adequately equipped and manned Maritime Emergency Response Centres (MERCs) which are to be established in Kuwait, Bahrain, Fujairah (the United Arab Emirates), and Bandar Abbas (the Islamic Republic of Iran). This will include the permanent availability of Pollution Response Vessels (PRVs) for shallow and deep-water areas and the 24/7 stationing of multi-purpose Emergency Towing Vessels (ETVs) at strategic sea positions, thus covering the most endangered 'hot spot areas' in the ROPME Sea Area (RSA).

### *7.3.3.3 Red Sea and Gulf of Aden*

The Regional Intergovernmental Conference held in Jeddah City, Kingdom of Saudi Arabia, in February 1982, adopted the 'Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment' (Jeddah Convention).

The Regional Intergovernmental Conference also adopted a 'Programme for the Environment of the Red Sea and Gulf of Aden (PERSGA)' initiated in 1974 in collaboration with the Arab League Educational, Cultural and Scientific Organization (ALECSO) and the support of UNEP.

The same Conference established in Jeddah the Secretariat of the Programme and signed along with the Jeddah Convention two important instruments:

- Action Plan for the Conservation of the Marine Environment and Coastal Areas in the Red Sea and Gulf of Aden, 1982; and
- Protocol Concerning Regional Cooperation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency, 1982.

The Convention, the Action Plan and the Protocol entered into force on 20 August 1985 and were ratified by its Contracting Parties as follows in Table 7.8.

**Table 7.8 Status of ratification of the Jeddah Convention and its Protocol Concerning Regional Cooperation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency**

Contracting Parties	Jeddah Convention and the Oil and HNS Protocol ratified
Djibouti	March 1998
Egypt	May 1990
Jordan	Sept 1988
Saudi Arabia	May 1985
Somalia	March 1988
Sudan	June 1984
Yemen, Arab Republic	May 1982

According to Article XVI in the Jeddah Convention, the Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA) was established in 1995. In 2005, two additional protocols were formulated in agreement with Article III of the Jeddah Convention:

- Protocol concerning the Conservation of Biological Diversity and the Establishment of Network of Protected Areas in the Red Sea and Gulf of Aden, 2005 and
- Protocol Concerning the Protection of the Marine Environment from Land-Based Activities in the Red Sea and Gulf of Aden, 2005.



Both Protocols have been signed by all Contracting Parties to the Jeddah Convention. Whilst some Member States have ratified it three others are in the process of ratification.

In July 2009, the 'Protocol Concerning Technical Cooperation to Facilitate Exchange and Transfer Experts, Technicians, Equipment and Materials in Cases of Emergency' was signed in Jeddah by all Member States but has not yet been ratified by any Contracting Party.

By adopting the 'Protocol Concerning Regional Co-operation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency (1982)', the Contracting Parties endorsed the establishment of a Marine Emergency Mutual Aid Centre (EMARSGA) whose objectives and functions are set out in Article III of the Protocol. A meeting in Alexandria in November 1989 endorsed the decision to establish EMARSGA in Hurgada, Egypt. A Regional Action plan was prepared in cooperation with the IMO and was subsequently endorsed by PERSGA Member States.

PERSGA has signed several Memoranda of Understanding for cooperation with relevant regional and international organizations, including the Arab League, Educational, Cultural and Scientific Organization (ALECSO), ROPME, the Islamic Educational, Scientific and Cultural Organization (ISESCO), the UNEP Global Programme of Action (GPA), and the IMO.

#### *7.3.3.4 South-East Pacific*

The South-East Pacific Action Plan was adopted in 1981 together with the Convention for the Protection of the Marine Environment and Coastal Zones of the South-East Pacific (Lima Convention) and its associated protocols:

- Agreement on Regional Cooperation in Combating Pollution in the South East Pacific by Hydrocarbons and other Harmful Substances in cases of Emergency;
- Protocol for the Protection of the South East Pacific Against Pollution from Land- Based Sources;
- Protocol for the Conservation and Management of Protected Marine and Coastal Areas of the South East Pacific; and
- Protocol for the Protection of the South East Pacific from Radioactive Pollution.

The Supplementary Protocol on the Agreement for Regional Cooperation in Combating Pollution in the South East Pacific by Hydrocarbons and other Harmful Substances in Cases of Emergency was adopted in Quito, Ecuador on 22 July 1983.

The Action Plan is implemented within the framework of inter-agency cooperation between the Permanent Commission for the South Pacific (CPPS), UNEP and other agencies, programmes, and Convention Secretariats.

The five Governments of the region who ratified the Lima Convention and the Agreement are listed in Table 7.9 below.

**Table 7.9 Status of ratification of the Lima Convention, its Agreement on Regional Cooperation in Combating Pollution in the South East Pacific by Hydrocarbons and other Harmful Substances in cases of Emergency and its Supplementary Agreement**

Contracting Parties	Convention ratified	Agreement ratified	Supplementary Agreement ratified
Ecuador	Oct 1983	Oct 1983	Nov 1987
Colombia	Aug 1985	Aug 1985	Aug 1985
Chile	March 1986	May 1986	Feb 1987
Panamá	July 1986	July 1986	July 1986
Peru	Dec 1988	Feb 1988	Feb 1989

### *7.3.3.5 Pacific*

The Agreement establishing the Pacific Regional Environment Programme (SPREP—formally known as the South Pacific Regional Environmental Programme) entered into force in August 1995. SPREP is the competent intergovernmental organization for environmental management and sustainable development in the Pacific region. SPREP serves as the Secretariat of the following regional conventions and protocols:

- The 1995 Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region (the Waigani Convention) which entered into force in 2001.
- The 1986 Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (the Noumea Convention) which entered into force in 1990 and its two Protocols:
- The Protocol Concerning Co-operation in Combating Pollution Emergencies in the South Pacific Region (the Pollution Emergencies Protocol) which entered into force in 1990 and
- The Protocol for the Prevention of Pollution of the South Pacific Region by Dumping (the Dumping Protocol) which also entered into force in 1990.

During the 17th SPREP Meeting of Officials and Environment Ministers' held in Noumea, New Caledonia, in 2006, one amending instrument and two new instruments were adopted, in order to comply with the International Convention on Oil Pollution Preparedness, Response and Cooperation and its Hazardous and Noxious Substances Protocol as well as the 1996 Protocol to the London Dumping Convention. As of February 2013, none of these instruments had entered into force. These instruments are:

- the Protocol on Oil Pollution Preparedness, Response and Cooperation in the Pacific Region (the Oil Protocol)
- the Protocol on Hazardous and Noxious Substances Pollution Preparedness, Response and Cooperation in the Pacific Region (the HNS Protocol)
- the (amended) Protocol for the Prevention of Pollution of the South Pacific Region by Dumping

The first two instruments, once ratified or acceded to in force, will supersede the Pollution Emergencies Protocol.

The Cook Islands, Federated States of Micronesia, France, Marshall Islands, Samoa, and the United States have signed but not ratified the Oil Protocol. The same countries except the United States have signed but not ratified the HNS Protocol. Currently no countries have accepted the amendments to the Dumping Protocol. The status of membership of the Noumea Convention and (current) Protocols is noted in Table 7.10 below.

Shipping is a significant source of marine pollution which has to date been the main focus of SPREP's Pacific Oceans Pollution Prevention Programme (PACPOL) Strategy for 2010 to 2014, developed in partnership with the IMO and approved at the 20th SPREP Meeting in Apia, Samoa, in November 2009.

**Table 7.10 Status of ratification of the Noumea Convention, the Pollution Emergencies, Oil Pollution, and the HNS Protocols**

Contracting Parties	Noumea Convention ratified/acceded	Pollution Emergencies Protocol ratified/acceded
Australia	July 1989	July 1989
Cook islands	Sept 1987	Sept 1987
FSM	Nov 1988	Nov 1988
Fiji	Sept 1989	Sept 1989
France	July 1990	July 1990
Kiribati	—	—
Marshall islands	May 1987	May 1987
Nauru	Aug 1995	Aug 1995
New Zealand	May 1990	May 1990
Niue	—	—
Palau	—	—
PNG	Sept 1989	Sept 1989
Samoa	July 1990	July 1990
Solomon islands	Aug 1989	Aug 1989
Tonga	—	—
Tuvalu	—	—

**Table 7.10** *Continued*

Contracting Parties	Noumea Convention ratified/acceded	Pollution Emergencies Protocol ratified/acceded
UK (for Pitcairn island)	–	–
United States	June 1991	June 1991
Vanuatu	–	–

In compliance with Article 2, 8, and 9 of the 1986 ‘Pollution Emergencies Protocol’, the PACPLAN Pacific Island Regional Marine Spill Contingency Plan was endorsed at the 11th SPREP Meeting, in Guam, in October 2000.

The PACPLAN endorsed by the 24th SPREP Meeting in September 2013 aims at preventing and minimizing damage to the marine and coastal environments from major marine spills from shore and offshore-based facilities from pollutants, including oil and hazardous and noxious materials, as defined in the OPRC-HNS Protocol.

### *7.3.3.6 North East Pacific*

During the Conference of Plenipotentiaries on the Convention for Cooperation in the Protection and Sustainable Development of the Marine and Coastal Environment of the North-East Pacific (The Antigua Convention) held in Guatemala, on 18 February 2002, the Convention was signed by representatives of the following States and regional integration organizations signed the Final Act: Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Central American Integration System (SICA). To date only Panama ratified the Convention, in 2003.

During the same Conference, the governments approved the Plan of Action for the Protection and Sustainable Development of the Marine and Coastal Areas of the North-East Pacific (Northeast Pacific Action Plan (NEP)).

Key parts of the plan included inter alia setting up national contingency plans to deal with accidental spills caused by oil prospecting, drilling, transport, and refining activities, including the preparation of maps of critical areas, vulnerable resources, and priorities for protection in the event of accidental oil pollution, establishment of a system of regional assessment and cooperation for emergency action to deal with oil spills, and so forth. No particular protocol was prepared on cooperation, preparedness for, and response to marine pollution from ships.

On 7 March 2003, the Second Intergovernmental Meeting of the Plan of Action for the Protection and Sustainable Development of the Marine and Coastal Environment of the Northeast Pacific, held in Managua, Nicaragua accepted the offer

of Guatemala to designate the Central American Commission on Maritime Transport (Comisión Centroamericana para Transporte Marítimo (COCATRAM)) as Regional Coordination Unit (UCR) to facilitate the implementation of the Plan and administer the related Trust Fund.

Since 2006 the IMO and COCATRAM, as permanent secretariat of the Operative Network of Regional Co-operation of Maritime Administrations in Central America (Red Operativa de Cooperación Regional de las Administraciones Marítimas de Centro América (ROCRAM-CA)), have in place a Memorandum of Understanding (MOU), whose terms meet the purposes of IMO and member countries ROCRAM-CA regarding cooperation between Governments for effective implementation of global maritime standards of IMO and the maritime strategies adopted by ROCRAM-CA.

#### *7.3.3.7 South Asian Seas*

The Meeting of Ministers to Initiate the South Asia Co-operative Environment Programme (SACEP) held at Colombo, Sri Lanka on 25 February 1981 approved the Colombo Declaration and the Articles of Association for the initiation of SACEP. In 1982, SACEP became a legal entity and was established in Colombo when Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka ratified the Articles of Association.

In 1984, at the National Focal Points Meeting held in Bangkok, the five maritime nations of SACEP committed themselves to develop an action plan to protect and manage the marine environment of the South Asian Seas region. In 1992, the First Strategic Plan for SACEP was approved for the period 1992–1996.

The Meeting of Plenipotentiaries of the concerned countries held in New Delhi, on 24 March 1995 adopted the Action Plan for the South Asian Regional Seas Programme along with two resolutions in respect of the implementation, Institutional Arrangements, and Financial Arrangements of the Action Plan. No regional convention has been adopted by the Governments of the region.

The Action Plan identifies priority activities in the following four specific areas:

- Integrated Coastal Zone Management,
- Development and Implementation of National and Regional Oil and Chemical Spill Contingency Planning,
- Human Resources Development through Strengthening Regional Centres of Excellence, and
- Protection of the Marine Environment from Land Based Sources of Marine Pollution.

The SACEP Secretariat was established in Colombo, Sri Lanka in 1982 and the host facility is provided by the Government of Sri Lanka. The Secretariat is comprised of the Director General, Technical, and Administrative Staff.

The High Level Meeting held in Colombo, Sri Lanka, in December 2000 approved the Regional Oil and Chemical Marine Pollution Contingency Plan for South Asia. Among the five maritime nations of the South Asian Seas region, three member countries, notably Bangladesh, Maldives, and Pakistan have signed the Regional Oil and Chemical Pollution Spill Contingency Plan and the associated MoU.

### **7.3.4. Independent Regional Seas Programmes**

#### *7.3.4.1 Arctic Region*

The Arctic Environmental Protection Strategy (AEPS), founded at the first ministerial conference in Rovaniemi, Finland, in June 1991, is a non-binding environmental protection agreement among the eight Arctic nations (Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States).

On 19 September 1996, the eight Arctic nations signed a declaration creating the Arctic Council to foster international cooperation on environmental protection and sustainable development in the Arctic.

Subsequently the Council established six working groups in charge of conducting its programme of activities:

- Arctic Contaminants Action Programme (ACAP)
- Arctic Monitoring and Assessment Programme (AMAP)
- Conservation of Arctic Flora and Fauna (CAFF)
- Emergency Prevention, Preparedness and Response (EPPR)
- Protection of the Arctic Marine Environment (PAME)
- Sustainable Development Working Group (SDWG)

National representatives from organizations in these countries form the EPPR Working Group. EPPR reports to the Arctic Council and Ministers through Senior Arctic Officials (SAOs). The EPPR Working Group receives its direction from Ministerial meetings held every two years.

EPPR focuses on the environmental implications of emergencies involving oil, hazardous and noxious substances (HNS), radioactive substances, and natural disasters in the Arctic.

In the Nuuk Declaration, in May 2011, the Ministers of the Arctic Council Member States decided to establish a Task Force to develop an international instrument on Arctic marine oil pollution preparedness and response, and called for the EPPR and other relevant working groups to develop recommendations and/or best

practices in the prevention of marine oil pollution; the preliminary or final results of both were presented jointly at the Ministerial meeting in 2013.

#### *7.3.4.2 Antarctic Region*

The Antarctic Treaty was signed in Washington on 1 December 1959 by the twelve countries whose scientists had been active in and around Antarctica during the International Geophysical Year (IGY) of 1957–58. It entered into force on 23 June 1961 following the signature of Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, Russian Federation, South Africa, United Kingdom, and United States. These Parties have the right to participate in the meetings provided for in Article IX of the Treaty (Antarctic Treaty Consultative Meetings, ATCM).

Since 1959, thirty-eight other countries have acceded to the Treaty. According to Article IX.2, State Parties are entitled to participate in the Consultative Meetings during such times as they demonstrate their interest in Antarctica by ‘conducting substantial research activity there’. Sixteen of the acceding countries (Brazil, Bulgaria, China, Ecuador, Finland, Germany, India, Italy, Korea (ROK), Netherlands, Peru, Poland, Spain, Sweden, Ukraine, and Uruguay) have had their activities in Antarctica recognized according to this provision, and consequently there are now twenty-eight Consultative Parties in all.

The other twenty-two Non-Consultative Parties are invited to attend the Consultative Meetings but do not participate in the decision-making.

The Protocol on Environmental Protection to the Antarctic Treaty was signed in Madrid on 4 October 1991 and entered into force in 1998. Annex IV to the Protocol sets the basis for prevention of marine pollution. Article 11 established the Committee for Environmental Protection (CEP) whose functions are provided by Article 12 ‘to provide advice and formulate recommendations to the Parties in connection with the implementation of this Protocol’. Article 12 also underpins preventive and emergency preparedness and response measures including the development of contingency plans for marine pollution response in the Antarctic Treaty area and the establishment of procedures for cooperative response to pollution emergencies.

The Antarctic Treaty operated without any continuing institution until 1 September 2004, when the Secretariat of the Antarctic Treaty was established in Buenos Aires, Argentina.

#### *7.3.4.3 Baltic Sea*

During the Diplomatic Conference on the Protection of the Marine Environment of the Baltic Sea Area, 22 March 1974, Helsinki, Finland, the seven Baltic coastal States (Denmark, Finland, the German Democratic Republic, the Federal Republic

of Germany, the Polish People's Republic, Sweden, the Union of Soviet Socialist Republics) signed the Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention). The 1974 Convention entered into force on 3 May 1980 once it had been ratified by all the coastal countries. The entry into force also established the permanent governing body—the Helsinki Commission (HELCOM), with the secretariat hosted by Finland (Helsinki), replacing the Interim Commission.

In the light of political changes in the region (independence of Estonia, Latvia, and Lithuania, and the strengthening of the European Community), and developments in international environmental and maritime law, a new Convention was signed by all the nine states bordering on the Baltic Sea, during the Diplomatic Conference on the Protection of the Marine Environment of the Baltic Sea Area, 9 April 1992 Helsinki, Finland. The new Convention entered into force on 17 January 2000, once all Baltic coastal countries and the EC had ratified the treaty.

The 1992 Helsinki Convention covers all sources of pollution on land, as well as at sea. It includes specific Articles 13, 14 and Annex VII which target preparedness and response to pollution incidents, Article 8 and Annex IV on Prevention of pollution from ships as well as Article 12 and Annex VI on pollution from offshore activities, which are particularly relevant to this review. Preparedness and response were also central topics in the 1974 Convention, with similar targeted Articles and Annexes.

Further to the entry into force of the 1974 Convention in 1980, a regular cooperation on preparedness and response to pollution incidents between competent authorities of the coastal countries within the Baltic Sea was established through a permanent HELCOM working group, today named HELCOM Response. The work is centred around ensuring swift response and adequate response capacity, coordinating exercise and surveillance activities, as well as monitoring and analysing risks related to maritime traffic in the region. The HELCOM Response Group works with other relevant international and regional bodies including the European Maritime Safety Agency (EMSA), BONN Agreement (North East Atlantic), REMPEC (Mediterranean), and IMO.

Based on its early work, the Response Group a series of Recommendations dealing with regional warning, reporting, communication, and command systems were adopted by the Commission in 1980 and 1981, and later compiled in a targeted HELCOM Manual on Co-operation in Combatting Marine Pollution (see Table 7.11), adopted in 1983, which remains the key working tool of the Baltic cooperation on response issues. Annual joint alarm and operational combating exercises, testing the regional cooperation in practice (eg HELCOM BALEX DELTA), as well as joint airborne surveillance activities (HELCOM CEPSCO), were respectively established in the mid and late 1980s. The procedures related to



**Table 7.11 Content of the HELCOM Manual on Co-operation in Response to Marine Pollution Volume 1**

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HELCOM Manual on Co-operation in Response to Marine Pollution Volume 1

Table of Contents

1. Information by the Contracting Parties
  2. Response Regions
  3. Reporting Procedures
  4. Requesting and Providing Assistance
  5. Operational Co-operation
  6. Oil Sampling
  7. Co-operation on Aerial Surveillance over the Baltic Sea Area
  8. Administrative and Organizational Aspects
  9. Financial Aspects
  10. Exercises and Related Guidelines
  11. Oiled Wildlife Response
  12. The Helsinki Convention
  13. HELCOM Recommendations and Related Guidelines
- 

requesting and receiving assistance, included in the Manual, also requires a common understanding of the financial matters involved, which expedites international assistance considerably. A separate volume 2 of the manual, focusing on the response to accidents at sea involving spills of hazardous substances and loss of packaged dangerous goods, was adopted in 2002.

In 2001, the HELCOM Copenhagen Declaration further strengthened cooperation on the safety of navigation and swift national and trans-national response to maritime pollution incidents in the region. Along with a number of other measures related to the safety of navigation, as well as pollution preparedness and response, it established the HELCOM Automatic Identification System (AIS) which became operational in 2005 and enables regional real-time monitoring of maritime traffic in the Baltic Sea region. The regional drift model HELCOM SeaTrackWeb ensures a common understanding of drift forecasting of pollution and, combined with the regional AIS and airborne surveillance/remote sensing, enables amongst other things identification of illegal polluters.

Convention amendments, new Recommendations and other commitments taken by the Contracting Parties in a series of Ministerial Meeting Declarations in 2003, 2007, 2010 have further developed the cooperation amongst HELCOM States on preparedness and response. Since the launch of the ecosystem approach concept in 2003 (Bremen), the HELCOM Baltic Sea Action Plan (BSAP) was, adopted in 2007 (Krakow) and was followed up in 2010 (Moscow). New issues emerging from these meetings include the Recommendation on a Mutual Plan for Places of Refuge (Rec. 31E/5 of 2010), which aims to ease granting the most suitable place of refuge to a ship in need of assistance, irrespective of countries' borders. Other examples are the expansion of the HELCOM response cooperation to cover shore-line (Rec. 33/2 of 2012) and oiled wildlife response issues (Rec. 31E/6 of 2010). Fields of continuing development also include work to increase capabilities for

response in ice, which is especially important in the northern parts of the Baltic, and in darkness.

#### *7.3.4.4 North-East Atlantic Region*

The Ministerial Meeting of the Oslo and Paris Commissions, held in Paris on 22 September 1992, adopted the Convention for the Protection of the marine Environment of the North-East Atlantic ('OSPAR Convention'), together with the Action Plan. The OSPAR Convention replaced the Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft, 1972 ('Oslo Convention') and the Convention for the Prevention of Marine Pollution from Land-Based Sources ('Paris Convention').

The Convention has been signed and ratified by all of the Contracting Parties to the original Oslo or Paris Conventions as detailed in Table 7.12 and entered into force on 25 March 1998.

The OSPAR Convention consists of thirty-four Articles, five Annexes and three Appendixes. The Annexes cover the following topics. Annex 1: the prevention and elimination of pollution from land-based sources; Annex 2: the prevention and elimination of pollution by dumping or incineration; Annex 3: the prevention and elimination of pollution from offshore sources; Annex 4: the assessment of the quality of the marine environment; and Annex 5: (added in 1998) the protection and conservation of the ecosystems and biological diversity of the maritime area.

**Table 7.12 Status of ratification and approval of the OSPAR Convention**

Contracting Parties	OSPAR Convention	
	Ratification	Approval
Belgium	Sept 1996	
Denmark	Dec 1995	
European Community		Oct 1997
Finland	June 1995	
France	Feb 1998	
Germany	Oct 1994	
Iceland	May 1997	
Ireland	July 1997	
Luxembourg	Sept 1997	
Netherlands	Jan 1994	
Norway	June 1995	
Portugal	Dec 1997	
Spain		Jan 1994
Sweden	May 1994	
Switzerland	Apr 1994	
United Kingdom	June 1997	

The OSPAR Commission ('OSPAR'), established by Article 10 of the OSPAR Convention, is the means by which fifteen governments of the western coasts and catchments of Europe, together with the European Commission, representing the European Union, cooperate to protect the marine environment of the North-East Atlantic.

Taking into account scientific information on the state of the North-East Atlantic, the OSPAR Commission has formulated strategic objectives at the ministerial level in 1998 and 2003 and updated them in 2010, with the adoption of the Strategy of the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic 2010–2020 ('the North-East Atlantic Environment Strategy'). The OSPAR Strategies have provided the reference framework, the objectives and political commitment that guide all OSPAR Committee work programmes and are supported by the Joint Assessment and Monitoring Programme (JAMP), a cross cutting programme designed to assess the quality of the marine environment and progress in implementing the thematic strategies, providing that way the framework to prepare Quality Status Reports, the most recent one delivered in 2010.

In the aftermath of the *Torrey Canyon* incident in 1967, Belgium, Denmark, France, Germany, the Netherlands, Norway, Sweden, and the United Kingdom adopted the Agreement for Co-operation in Dealing with Pollution of the North Sea by Oil, signed at Bonn, Germany, on 9 June 1969 ('The Bonn Agreement'). The Bonn Agreement was first revised in 1983 to include harmful substances other than oil, and then in 1987 to cover cooperation in surveillance and in 2002 to enable the Accession of Ireland to the Agreement.

The Bonn Agreement is the mechanism by which the North Sea and Irish Sea States, and the European Commission, representing the European Union, work together to help each other in combating pollution in the North Sea and Irish Sea Area from maritime disasters and chronic pollution from ships and offshore installations; and to carry out surveillance as an aid to detecting and combating pollution at sea.

The Bonn Agreement has been the first established regional initiative on cooperation in dealing with marine pollution by oil and other harmful substances. The Bonn Agreement Secretariat duties are performed by the Executive Secretary of the OSPAR Commission.

#### 7.3.4.5 *Caspian Sea*

The Conference of Plenipotentiaries for Adoption and Signature of the Framework Convention for the Protection of the Marine Environment of the Caspian

**Table 7.13 Status of ratification of the Tehran Convention and the Aktau Protocol**

Contracting Parties	Tehran Convention ratified	Aktau Protocol ratified
Azerbaijan	Apr 2006	
Islamic Republic of Iran	Apr 2005	Aug 2012
Kazakhstan	Dec 2004	
Russian Federation	Sep 2004	
Turkmenistan	Aug 2004	

Sea (Teheran Convention), Teheran, 3–4 November 2003 adopted the Convention along the Action Plan for the protection and sustainable development of the marine environment of the Caspian Sea. Following the ratification of the Tehran Convention by all five Governments of the Caspian littoral states as listed in Table 7.13, the Convention entered into force on 12 August 2006.

The Framework Convention envisages a number of protocols dealing with the prevention, reduction, and control of pollution as well as the protection, preservation, and restoration of the marine environment. Under the second phase of international support to the Convention, the Caspian littoral countries have assigned priority to the following four protocols:

- The Protocol on Land-Based Sources of Pollution;
- The Protocol Concerning Regional Cooperation in Case of Emergency;
- The Protocol on Environment Impact Assessment in a Transboundary Context, and
- The Protocol on Protection of the Caspian Biodiversity.

The Protocol Concerning Regional Cooperation in Case of Emergency was finalized and agreed upon in principle at the second expert meeting in Tehran in September 2005. It was renamed as the Protocol Concerning Regional Preparedness, Response and Cooperation in Combating Oil Pollution Incidents ('Aktau Protocol'). The Protocol was adopted and signed at the Third Meeting of the Conference of the Parties in Aktau, Kazakhstan on 12 August 2011. The Protocol on Land-Based Sources of Pollution has been adopted and signed at the Fourth Meeting of the Conference of the Parties in Moscow, Russian Federation on 12 December 2012.

The establishment of a Secretariat of the Convention is stipulated in Part VI of the Tehran Convention. The first meeting of the Conference of the Parties to the Tehran Convention in 2007 requested UNEP to carry out the functions of the Convention Secretariat ad interim until a Convention permanent Secretariat was put in place. This request was reconfirmed by the second and third Meeting of the Conference of the Parties in 2008 and 2011, respectively. Until the Contracting

Parties have decided where to locate the Secretariat, the UNEP Regional Office for Europe in Geneva, functions as the secretariat, ad interim.

## **7.4. Cooperation**

### **7.4.1. Cooperation between IMO and UNEP**

During the early days of the establishment of UNEP, it was recognized that, whereas UNEP has a catalytic and coordinating role in defining general environmental objectives and in formulating environment programmes, the IMO has substantive responsibility for the implementation of programmes in its field of competence.

Consequently, UNEP and the IMO signed on 9 November 1976 the Memorandum of Understanding (MoU) concerning cooperation between the two institutions. The areas of mutual interest and cooperation relating to Pollution Incident Preparedness, Response and Co-operation defined in the MoU were:

- the support to the entry into force and implementation of International Conventions relating to prevention of marine pollution from ships;
- the development and implementation of regional Action Plans for the Protection of the Marine Environment (eg development of regional legal instruments, organization of programmes for combating marine pollution);
- the prevention and combat of oil spillage resulting from marine accidents (eg preparation of contingency plans);
- the support to governments for the preparation of marine legislations for the protection of the marine environment against pollution from ships; and
- technical assistance, education and training in the area of prevention of marine pollution from ships through consultancy services, technical workshops/seminars and national/regional training programmes.

Since then the IMO and UNEP have contributed the establishment of various regional centres such as the REMPEC in 1976, RAC/REMPEITC-Caribe in 1995 and more recently in 2012 the Regional Coordination Centre for Marine Pollution and Hazardous and Noxious Substances Preparedness and Response in the Western Indian Ocean Region. The IMO has also established agreement with regional organizations such as COCATRAM to enhance cooperation between Governments for effective implementation of global maritime standards of the IMO. Through its International Technical Cooperation Division, the IMO has been financially and technically supporting the implementation of the Regional Seas Programmes.

In the front of emergency support, the IMO signed a Memorandum of Understanding with the UNEP/United Nations Office for Coordination of Humanitarian Affairs (OCHA) Joint Environment Unit to cooperate in responding to the humanitarian consequences of natural disasters and other emergencies by coordinating international efforts and mobilizing partners to assist affected countries requesting assistance. The European Commission and UN OCHA also concluded an agreement on cooperation and coordination in disaster response.

The Rosersberg Initiative initiated in 2007 by the Advisory Group on Environmental Emergencies (AGEE) established by UNEP and OCHA, aimed at strengthening the global regime that governs environmental emergency response and preparedness. The Rosersberg Initiative recognized the importance of regional agreements and mechanisms to coordinate regional emergency situation and strongly recommended making use of existing mechanisms which have established a network of national contact points for managing emergency situations.

In terms of exchange of information and regional cooperation, in 2002 and 2006, IMO and UNEP organized jointly the IMO/UNEP Research and Development (R&D) Forum. The 2002 R&D Forum, the first of its kind, was an important step in bringing together Regional Seas Programmes, regional and international organizations, UN agencies and other relevant stakeholders to initiate a dialogue on the requirements and modalities for effective regional cooperation and the ingredients for its success. The objective of the last R&D Forum organized in 2006 was to critically examine the current status of regional cooperation four years later by examining progress, challenges faced, and the critical factors and innovative approaches for ensuring successful and sustainable mechanisms for regional cooperation in the longer term.

#### **7.4.2 Bilateral and multilateral agreements**

A number of bilateral and multilateral operational agreements based on the same principles found in regional agreements have been established between neighbouring countries. Table 7.14 and Table 7.15 set out, respectively, examples of bilateral and multilateral arrangements or agreements which have been identified.

By pooling resources and expertise, these types of agreements provide a cost-effective, immediate way of responding to a major spill that cannot be dealt with by any one country on its own.

**Table 7.14 Examples of bilateral agreements/arrangements**

Region/Sea Area		States involved
Rio Plata	Convenio de Cooperación con la República Oriental del Uruguay para Prevenir y Luchar contra Incidentes de Contaminación del Medio Acuático producidos por Hidrocarburos y otras Sustancias Perjudiciales	Argentina and Uruguay
Timor Sea	Memorandum of Understanding (MOU)	Australia and Indonesia
Tasman Sea	Memorandum of Understanding	Australia and New Zealand
Torres Strait	Memorandum of Understanding	Australia and Papua New Guinea
China Sea and Brunei Bay	Standard Operating Procedure for Joint Oil Spill Combat in the South China Sea including Brunei Bay between Brunei Darussalam and Malaysia	Brunei, Darussalam, and Malaysia South
Baffin Bay, Davis Strait	Canada/Denmark Agreement (1983)	Canada and Denmark
Waters of mutual interest to Canada and the USA	Canada/US Joint Marine Pollution Contingency Plan for Spills of Oil and other Noxious Substances	Canada and USA
Gulf of Venezuela and Southern Caribbean Sea	Plan Bilateral de Contingencia entre ECOPETROL y PDVSA para la Protección de las Cuencas Hidrográficas – Caracas	Colombia and Venezuela
Wadden Sea, Southern Baltic Sea	DenGer Agreement	Denmark and Germany
Gulf of Finland	Agreement between the Government of the Republic of Estonia and the Government of the Republic of Finland on cooperation in combating pollution in the marine environment	Estonia and Finland
Gulf of Finland	Agreement between the Government of the Republic of Finland and the Government of the Russia on cooperation in combatting pollution of the Baltic Sea in accidents involving oil and other harmful substances	Finland and Russia
Bay of Biscay, North-West Mediterranean	Biscay Plan	France and Spain
Gulf of Lion	Franco. Spanish Agreement: Lion Plan/Plan Leon	France and Spain
Manche Channel	Anglo-French Joint Maritime Contingency Plan (Manche Pan)	France and UK
Pomeranian Bay and Pomorska Bay	Operational Agreement (working level) on Cooperation and Response Activities between the Public Services of the Republic of Poland and of the Federal Republic of Germany responsible for those activities concerning marine accidents and combating marine pollution by oil and other harmful substances	Germany and Poland

**Table 7.14** *Continued*

Region/Sea Area		States involved
Ionian Sea	Cooperation agreement between Greece and Italy for the protection of the marine environment of the Ionian Sea and its coastal area	Greece and Italy
Irish Sea	UK/Ireland Agreement (UK/Ireland joint contingency plan for counter pollution and search and rescue operations in the Irish Sea under negotiation)	Ireland and UK
Straits of Malacca	Standard Operating Procedure (SOP) for Joint Oil Spill Combat in the Straits of Malacca	Indonesia, Malaysia and Singapore
Sulawesi Sea and Lombok–Macassar Straits	Sulawesi Sea Oil Spill Network Response Plan	Indonesia, Malaysia and Philippines
Sea of Japan/East Sea	Memorandum of Understanding	Japan and South Korea
North Pacific	Memorandum of Understanding	Japan and USA
Mexican Gulf	Joint Contingency Plan between the United Mexican States and the United States of America regarding Pollution of the Marine Environment by Discharges of Hydrocarbons or other Hazardous Substances (MEXUS Plan)	Mexico and USA
Southern Caribbean Sea	Bilateral MOU ‘Oil Pollution Contingency Agreement’ New status to be clarified since the dissolution of Netherlands Antilles	Netherlands Antilles and Venezuela
North Sea	The Norway–UK Joint Contingency Plan (NorBrit Agreement)	Norway and UK
Barents Sea	Bilateral Cooperation between Russia and Norway in Oil Spill Prevention and Response	Norway and Russian Federation
Bering and Chukchi Seas	US/Russia Joint Contingency Plan: ‘Joint Contingency Plan Against Pollution in the Bering and Chukchi Seas’	USA and Russia
Gulf of Aden	L’Accord de Djibouti	Djibouti, Somalia and Yemen
Gulf of Paria and Southern Caribbean Sea	Bilateral Oil Spill Contingency Plan (BOSP)	Trinidad and Tobago and Venezuela

**Table 7.15** *Examples of multilateral agreements*

Region/Sea Area	Operational Agreement	States involved
North Sea	Agreement for cooperation in dealing with pollution of the North Sea by oil and other harmful substances (Bonn Agreement), 1983	Belgium, Denmark, France, Germany, Netherlands, Norway, Sweden, UK, and EC



**Table 7.15** *Continued*

Region/Sea Area	Operational Agreement	States involved
North-East Atlantic	Agreement for the Protection of the Coasts and Waters of the North-East Atlantic against Pollution (Lisbon Agreement)	France, Spain, Morocco, and Portugal
Southern North Sea	Joint Danish–German–Dutch Response Plan to maritime incidents involving Oil and other Harmful Substances and Co-operation in Aerial Surveillance (DENGERNETH Plan)	Germany, Denmark, and Netherlands
Nordic Sea	Agreement between Denmark, Finland, Iceland, Norway and Sweden about Cooperation concerning Pollution Control of the Sea after Contamination by Oil or other Harmful Substances (Copenhagen Agreement)	Denmark, Finland, Iceland, Norway, and Sweden
Western Baltic Sea area	Joint Swedish–Danish–German Response Plan to maritime incidents involving Oil and other Harmful Substances and Cooperation in Aerial Surveillance (SWEDENGER)	Sweden, Denmark, and Germany
The eastern Gotland Basin and Gulf of Riga	Sub regional plan for Estonia, Latvia and Sweden, common waters in the northern part of the Baltic Sea (SWEESTLAT)	Sweden, Estonia, and Latvia
Saint Raphaël (West), and Monaco and Genoa (East)	Accord Relatif à la Protection de L'environnement Marin et Côtier d'une Zone de la Mer Méditerranée (Accord RAMOGE)	Italy, Monaco, and France
Adriatic Sea	Agreement on the Sub regional Contingency Plan for prevention of, preparedness for and response to major marine pollution incidents in the Adriatic Sea	Croatia, Italy, and Slovenia
Southeast Mediterranean area	Agreement on the Sub regional Contingency Plan for Preparedness and Response to Major Marine Pollution Incidents in the Mediterranean	Cyprus, Egypt, and Israel
South-western Mediterranean area	Accord Portant Plan D'urgence Sous Régional entre l'Algérie, le Maroc et la Tunisie pour la Préparation à la Lutte et la Lutte contre la Pollution Marine Accidentelle dans la Zone de la Méditerranée du Sud Ouest	Algeria, Morocco, and Tunisia

**Table 7.15** *Continued*

Region/Sea Area	Operational Agreement	States involved
Black Sea	Black Sea Contingency plan to the Protocol on Cooperation in Combating Pollution of the Black Sea by Oil and other Harmful Substances in Emergency Situations	Bulgaria, Georgia, Romania, Russian Federation, Turkey, and Ukraine
Central America	Central America Oil Pollution Response and Cooperation Plan (CAOP)	Belize, Costa Rica, El Salvador, Honduras, Nicaragua, Panama, and Guatemala
Island States and Territories of the Wider Caribbean Region	Regional Caribbean Island Oil Pollution Response and Cooperation Plan (Caribbean Islands OPRC Contingency Plan)	Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, British Virgin Islands, Cayman Islands, Cuba, Commonwealth of Dominica, Dominican Republic, French Antilles, Grenada, Haiti, Jamaica, Montserrat, Netherlands Antilles, Puerto Rico, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos, US Virgin Islands, and Venezuela
East Asian Sea	Regional Oil and Chemical Pollution Contingency Plan for South Asia and associated MoU	Indonesia, Malaysia, Philippines, Singapore, Thailand, Australia, Cambodia, People's Republic of China, Republic of Korea, and Vietnam
Western Indian Ocean Islands	Agreement on the Regional Contingency Plan for Preparedness for and Response to major Marine Pollution Incidents in the Western Indian Ocean	Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, South Africa, France (La Réunion), and Tanzania
Northwest Pacific Region	NOWPAP Regional Oil and Hazardous and Noxious Substances Spill Contingency Plan and associated MoU	People's Republic of China, Japan, Republic of Korea, and Russian Federation

The case of the European Union, which has established its own set of legislation and mechanisms adopted by its Member States, is introduced as an example of interaction between regional Agreements. The EU and its Member States are Parties to the Helsinki Convention, the Barcelona Convention, the Bonn Agreement, and the Lisbon Agreement.

Since 2005, EMSA has taken the initiative to convey once a year an 'Inter-Secretariat Meetings' with the Secretariats of the various Regional Agreements (HELCOM, OSPAR, the Bonn Agreement, the Lisbon Agreement, the Barcelona Convention and the Bucharest Convention) and the European Commission (EMSA and DG ECHO) have taken place once a year since 2005. These

meetings aim at exchanging information among the different parties regarding on-going activities linked to marine pollution preparedness and response, as well as to identify common activities to be undertaken in this field.

#### **7.4.3 Cooperation with the oil & shipping industry**

According to the resolution 5 of the Conference which adopted the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 (the OPRC Convention) the Secretary-General of the Organization, in consultation with the Executive Director of the United Nations Environment Programme, are invited to approach the oil and shipping industries with a view to:

- encouraging further cooperation in order to assist developing countries to implement article 6 of the OPRC Convention, including an assessment of the need for oil spill combating equipment stockpiles on a regional or subregional basis in addition to those already established;
- developing a plan on the establishment of oil spill combating equipment stockpiles on a regional or subregional basis, in order to assist developing countries in implementing article 6(2)(a) of the OPRC Convention.

In this respect, the Global Initiative (GI) was officially launched in Cape Town in 1996. The GI is an umbrella programme under which governments, through IMO, and the oil industry, through IPIECA, the global oil and gas industry association for environmental and social issues, work together to assist countries in developing national structures and capability for oil spill preparedness and response.

The GI Programme aims at enhancing global preparedness and capacity to respond to oil spills, with strong participation from the International Tankers Owners Pollution Federation (ITOPF), industry-funded Tier 3 oil spill centres, as well as the leveraged contributions of the industry members themselves.

This broad stakeholder base enables the promotion of good practice and a collaborative approach to oil spill preparedness and response to a wide audience.

The GI activities include workshops, training courses, and exercises designed to encourage better communication and cooperation between government and industry. These events also support the development and implementation of regional, sub-regional, and national oil spill contingency plans and encourage the ratification and implementation of the relevant international Conventions. Achievements in the GI regions include:

- Ratification and implementation of the relevant international conventions,
- Identification of responsible government agencies in charge of oil spill preparedness and response at national level,
- Approval of national oil spill contingency plans and regional plans,

- Regular training and exercises, and
- Improved communications between government and industry at national and regional levels.

The GI activities currently focus on the Caspian and Black Seas, West and Central Africa, South East Asia and China. The GI adopts an adaptive approach in accordance with the regional frameworks and therefore the model are distinct from one region to another.

#### *7.4.3.1 Caspian, Black Sea and Central Eurasia—OSPRI*

The Oil Spill Preparedness Regional Initiative (OSPRI) was established by eight companies under the IPIECA umbrella in 2003, with an emphasis on participation from the regions' business units. Since then, the relations with governmental regional bodies (the Black Sea Commission and the Caspian Environment Programme) have been established, bringing clear and recognized support to the development of sustainable oil spill preparedness and response.

#### *7.4.3.2 West and Central Africa—GI WACAF*

The GI partners, IPIECA and IMO, set up the Global Initiative for West, Central and Southern Africa (GI WACAF Project) which was launched in April 2006 in Gabon. Since then, the programme of activities is regularly reviewed with the participation of all stakeholders and based on agreed objectives and on the achievements of the previous programmes.

The project is jointly funded by IPIECA through seven oil company members, and by the IMO through its Integrated Technical Co-operation Programme (ITCP). The project is implemented in partnership with the UNEP Regional Seas programme, the Large Marine Ecosystem Projects and various bilateral cooperation initiatives.

#### *7.4.3.3 South East Asia*

Throughout 2012 IPIECA worked with its international and regional partners to ensure the successful establishment of a new programme in South East Asia. The culmination of these activities was the launch of the Global Initiative for South East Asia (GI SEA) in March 2013. Some of the issues identified in South East Asia include increased shipping traffic, increased exploration and production activities, a lack of consistency in the application of international legislation, effectiveness of regional agreements, and the effectiveness of national plans.

#### *7.4.3.4 China*

In 2012 IPIECA and the IMO, working with key stakeholders in the region, explored the possibility of establishing a GI Level 1 programme to address oil spill risks in China. The GI China programme was officially launched in May 2014.

## **7.5 Analysis of International and Regional Legal Instruments on Pollution Incident Preparedness, Response, and Cooperation**

In most sea areas covered by UNEP's action plans, a technical protocol, an agreement, or an annexe to a broader legal instrument have been adopted providing the legal basis for international cooperation and mutual assistance in combating pollution aimed at mitigating the effects of accidents involving spills.

These instruments provide a legal framework that facilitates:

- Early notification of a pollution incident
- Continuous exchange of information at the preparedness and response phases
- Mutual assistance between neighbouring countries

The common elements of these regional legal instruments, also found in the OPRC Convention detailed in chapter II.3, are briefly described below under the following headings:

- Pollution reporting
- Operational measures
- Mutual assistance
- National response capability and emergency plans
- Information exchange
- Institutional arrangements
- Bilateral or multilateral agreements

### **7.5.1. Pollution reporting**

A fundamental feature for the success of a regional agreement is the notification between Contracting Parties of incidents that may affect some of them. All regional agreements include this obligation. They also include the undertaking that a State Party to the Agreement will instruct masters of ships flying its flag, pilots of aircraft, and, in some cases, offshore operators under its jurisdiction to report to it marine pollution incidents, or to other Contracting States likely to be affected by such incidents.

Pollution incident reporting procedures, as well as the standard message formats, have to be established to ensure the rapid transmission of information and requests for assistance.

With a view to harmonizing pollution reporting systems, a standard alert message format (POLREP) has been developed, and is used within a number of regional agreements.

### **7.5.2 Operational measures**

Upon receipt of the pollution report, obligations concerning the actions upon receipt of a pollution report to be undertaken by the Parties to the regional agreements include assessing the nature, extent and possible consequences, taking every practicable measure to prevent, reduce and, to the fullest possible extent, eliminate the effects of the pollution incident, informing all Parties likely to be affected by the pollution incident of these assessments and of any action which it has taken or intends to take and safeguarding human lives.

### **7.5.3 Mutual assistance**

Regional agreements contain an undertaking that coastal States Parties to the agreement use their best endeavour to assist other parties that may request assistance in a marine pollution incident. The term best endeavour is generally found to avoid creating a binding obligation for assistance. Binding obligations could be seen as unlimited and therefore would be refused in most national legal regimes. This is important in regions where the national response capabilities are limited and there is an imbalance in response capacity among coastal States. This caveat also implies that an affected State has to assess the situation and determine the kind of assistance that should be requested.

Obligations of Parties to the regional agreements concerning the reimbursement of the costs of assistance are in most the agreements detailed in a dedicated article based on the principle that the requesting State should reimburse the relevant expenditure.

### **7.5.4 National response capability and emergency plans**

A national response capability is a prerequisite without which regional agreements and mutual assistance would be ineffective. Many agreements require contracting States to establish and maintain the means to respond to accidental marine pollution.

In some regional agreements, the obligation related to the establishment of national contingency plans remains vague. For instance, it was recognized in 1993 that the Agreement on Regional Cooperation in Combating Pollution in the South East Pacific by Hydrocarbons and other Harmful Substances in cases of Emergency establishes general principles on the subject; whereas it was considered necessary to supplement these rules, by outlining requirement for national contingency plans and by specifying cooperation mechanisms in case of major incident.

The Supplementary Agreement covering these issues was adopted to seal this identified gap in the legal instrument.

Ships, ports and offshore terminals under the jurisdiction of a Party are generally required to have a contingency plan, which is coordinated with the national system.

#### **7.5.5 Information exchange**

Regional agreements provide that contracting States exchange information and keep each other informed on:

- The competent national authorities responsible for implementing the regional agreement and in charge of preparedness for and response to accidental marine pollution and for providing mutual assistance, which could be different from the former authority
- Means available for international assistance
- Technological developments in the field of responding to accidental marine pollution
- Operational procedures, guidelines, and regulations put in place relating to preparedness for and response to marine pollution incidents

#### **7.5.6 Institutional arrangements**

Institutional arrangements vary from a small secretariat such as the Helsinki Convention whose tasks defined by the Contracting Parties, are implemented through the active participation of national experts; to heavy institutional arrangements such as the Barcelona Convention composed of a Secretariat and several Regional Activity Centres which are requested by the Contracting Parties to carry on numerous tasks on their behalf and therefore with a lesser involvement in the implementation of the activities. All Regional Agreements on cooperation on preparedness and response are embodied by a treaty that is either an independent legal instrument (eg the Bonn Agreement) or part of a comprehensive umbrella Convention, as is the case with UNEP's Regional Seas Programme (eg Protocol to the Cartagena Convention). All Agreements provide for regular meetings of Contracting Parties, the purpose of which is to monitor the implementation of the Agreement, decide on financial matters related to its implementation, consider revisions or amendments to it, and provide guidance to the Secretariat.

Functions of the Secretariat are provided primarily by existing organizations, eg, UNEP in the case of the Barcelona and Cartagena Conventions, or by a regional organization either established or designated by the Convention, eg, Helsinki Commission; Regional Organization for the Protection of the Marine Environment (ROPME).

In some instances, to support the operational and technical aspects of the Regional Agreement, a Regional Centre or coordinating unit has also been established (eg Marine Emergency Mutual Aid Centre (MEMAC), established in 1983 in Bahrain for the Gulf Region). Centres of this type generally do not have response equipment and would rather support the coordination of the response and provide technical assistance. However, the recent development linked to the establishment of the Marine Emergency Response and Salvage Co-ordination Unit (MERCU) in the ROPME Area has become the first exception.

However, certain regional centres may be requested with the approval of the relevant authorities to coordinate response operations as stated for instance in Article III.4 of the Protocol Concerning Regional Cooperation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency to the Jeddah Convention and in Article 12.2 of the 2002 Prevention and Emergency Protocol to the Barcelona Convention.

A few of the regional agreements have established permanent working groups of experts for the exchange of information on scientific operational and technical matters. These working groups meet periodically or work by correspondence (eg the Bonn Agreement Working Group on Operational, Technical and Scientific Questions concerning Counter Pollution Activities (OTSOPA), the REMPEC Mediterranean Technical Working Group (MTWG)). Conclusions from such meetings are reported to the Meetings of Contracting Parties or to the Centre's Focal Points Meeting for approval and any action are incorporated in the work-plan of the regional agreement.

#### **7.5.7 Promotion of bilateral and multilateral cooperation in preparedness and response**

The development of regional agreements as listed in Table 7.16, has served to encourage the development of national response systems and contingency plans of Contracting Parties, with regional agreements serving as a supplement to, rather than a substitute for, the national response capability of an individual coastal state.

Regional agreements provide that Parties shall endeavour to conclude bilateral or multilateral agreements at sub-regional level for oil pollution preparedness and response and to communicate such agreements to the Regional agreement coordination body.

Table 7.16 highlights the above five elements contained in each of the international and regional legal instruments detailed in Chapter III. The list below covers the main umbrella legal instruments and is not exhaustive, for instance the bilateral and multilateral agreements set out in Table 7.14 and Table 7.15 are not considered.



**Table 7.16 Analysis of international and regional legal instruments on pollution incident preparedness, response and cooperation**

Legal instrument	Pollution reporting	Operational measures	Mutual assistance	National response capability & emergency plans	Information exchange	Institutional arrangements	Bilateral Multilateral Agreement
OPRC Convention	Art 4	Art 5	Art 7 & Annex	Arts 3 & 6	Arts 8 & 9	Art. 12: IMO	Art 10
OPRC. HNS Protocol	Art 3	N/A	Art 5 & Annex	Arts 3 & 4	Arts 6 & 7	Art. 10: IMO	Art 8
Protocol concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea	Arts 8 & 9	Art 10	Arts 12 & 13	Arts 4 & 11	Art 7	Art 18: UNEP MAP & REMPEC	Art 17
Protocol Concerning Cooperation in Combating Oil Spills in the Wider Caribbean Region	Art 5	Art 7	Art 6	Art 3	Art 4	Art 9: UNEP RCU	Art 8
Protocol Concerning Cooperation in Combating Marine Pollution in Cases of Emergency in the Eastern African Region	Art 5	Art 7	Art 6	Art 3	Art 4	Art 9: UNEP EAF/RCU	Art 8
The Protocol concerning Cooperation in combating pollution in cases of emergency (West & Central Africa)	Art 7 & Annex	Art 10	Art 8	Art 5	Arts 5 & 6	Arts 12 & 16 Convention: UNEP RCU	Art 9

**Table 7.16** *Continued*

Legal instrument	Pollution reporting	Operational measures	Mutual assistance	National response capability & emergency plans	Information exchange	Institutional arrangements	Bilateral Multilateral Agreement
1992 Protocol on Cooperation in Combating Pollution of the Black Sea Marine Environment by Oil and other Harmful Substances in Emergency Situations	Arts 3, 4 & 6 Annexe	N/A	Art 1	Art 2	Arts 3 & 5	Arts 7 & 8 Convention	Art 2
Protocol concerning Regional Cooperation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency. (ROPME Sea Area)	Arts 7, 8 & Art 9	Art 10	Arts 11 & 12	Art 2	Arts 5 & 6	Art 3	Art 2
Protocol Concerning Regional Cooperation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency. (Red Sea & Gulf of Aden)	Arts 7, 8 & 9	Art 10	Arts 11 & 12	Art 2	Arts 5 & 6	Art 3	Art 2

Table 7.16 *Continued*

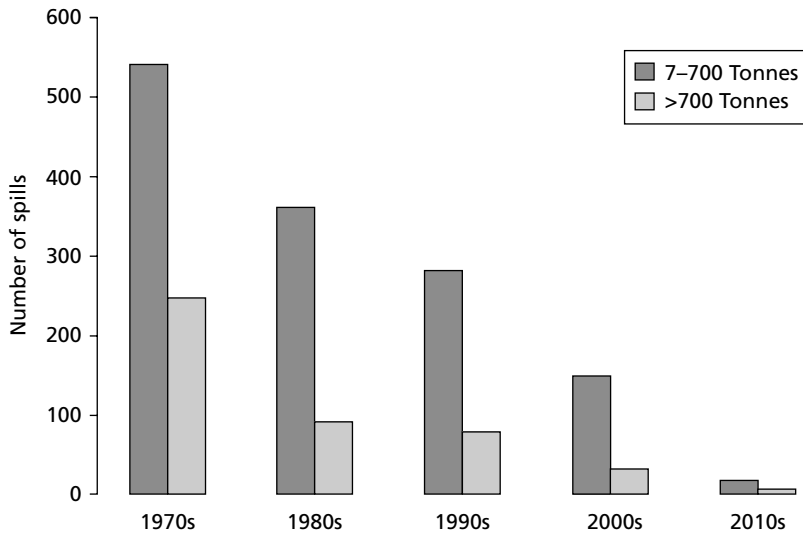
Legal instrument	Pollution reporting	Operational measures	Mutual assistance	National response capability & emergency plans	Information exchange	Institutional arrangements	Bilateral Multilateral Agreement
Agreement on Regional Cooperation in Combating Pollution in the South East Pacific by Hydrocarbons and other Harmful Substances in cases of Emergency	Arts 8, 9 & Annex	Art 10	Art 11	Art 4	Art 7	Art 13	Arts 4 & 5
Supplementary Protocol on the Agreement for Regional Cooperation in Combating Pollution in the South East Pacific by Hydrocarbons and other Harmful Substances in Cases of Emergency	N/A	N/A	Art 1	Art 2	N/A	Art 4	N/A
Protocol on oil pollution preparedness, response and cooperation in the Pacific Region	Art 5	Art 6	Arts 7 & 8	Art 3	Art 4	Art 10	Art 9
Protocol on oil hazardous and noxious substances pollution preparedness, response and cooperation in the Pacific Region	Art 5	Art 6	Arts 7 & 8	Art 3	Art 4	Art 10	Art 9

**Table 7.16** *Continued*

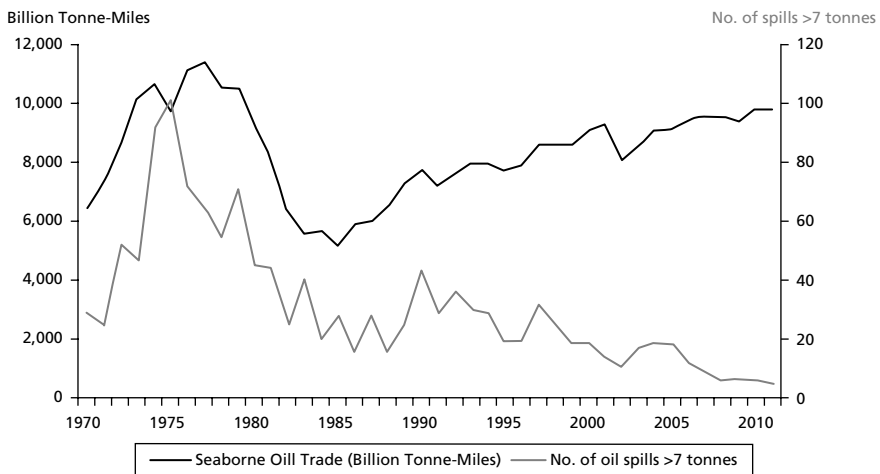
Legal instrument	Pollution reporting	Operational measures	Mutual assistance	National response capability & emergency plans	Information exchange	Institutional arrangements	Bilateral Multilateral Agreement
Annex IV to the Protocol on Environmental Protection to the Antarctic Treaty Prevention of Marine Pollution	N/A	N/A	N/A	Art 12	N/A	N/A	N/A
Annex VII to the Convention on the Protection of the Marine Environment of the Baltic Sea Area	Regulation 5	Regulation 7	Regulation 8 & Regulation 9	Regulation 2 & Regulation 6	Regulation 10	Arts 20, 21 & 22 of Convention	Regulation 4
Protocol Concerning Regional Preparedness, Response And Cooperation in Combating Oil Pollution Incidents to the Framework Convention on the Protection of the Marine Environment of the Caspian Sea	Art 7	Art 8	Arts 10 & 11	Arts 5 & 9	Art 6	Arts 12, 13 & 14	Art 5

## 7.6 Conclusions

The establishment of international and regional legal instruments to prevent pollution from shipping activities since 1969 and the subsequent global and regional initiatives implemented by various institutions worldwide have had a reckonable impact on the number of major spills (Figure 7.1).



**Figure 7.1** Number of medium (7–700 tonnes) and large (>700 tonnes) spills per decade from 1970 to 2012 (ITOPF, Oil Tanker Spill Statistic 2012)



**Figure 7.2** Seaborne oil trade and number of tanker spills over 7 tonnes, 1970 to 2011 (Crude Oil Product) \* Product vessels of 60,000 DWT and above (ITOPF, Oil Tanker Spill Statistic 2011)

Apart from a fall in the early 1980s during the worldwide economic recession, seaborne oil trade has grown steadily from 1970 (Figure 7.2). While increased movements might imply increased risk, it is encouraging to observe however that downward trends in oil spills continue despite an overall increase in oil trading over the period.

Following the review of international and regional legal instruments on Pollution Incident Preparedness, Response and Co-operation, as detailed in Table 7.16, the eighteen Regional Agreements can be classified in the following three categories, as depicted in Table 7.17:

- The Regional Agreements having adopted a common legal framework or umbrella (Convention or Treaty) embodying a specific legal instrument (Protocol, Agreement, Action Plan or Annex) relating to marine pollution incident preparedness, response and cooperation;
- The Regional Seas Programmes not having adopted a regional convention or protocol on marine pollution incident preparedness, response, and cooperation but instead having established a regional programme aimed at promoting compliance with existing environmental treaties on the basis of member country goodwill; or
- The Regional Sea Programme having agreed on a non-binding environmental agreement.

**Table 7.17 Classification of regional legal instruments**

Region	Common framework legal		Embodied specific legal instrument				Non-binding Agreement	No instrument or agreement in place
	Convention	Treaty	Protocol	Agreement	Action Plan	Annex		
Mediterranean Sea, the Wider Caribbean Region, Eastern Africa Region, West And Central Africa Region, Black Sea, ROPME Sea Area, Red Sea and Gulf of Aden, Pacific and Caspian Sea	✓		✓					
South-East Pacific	✓			✓				
North East Pacific	✓				✓			
Baltic Sea, North-East Atlantic	✓					✓		
Antarctic Region		✓				✓		
East Asian Seas, South Asian Seas, Northwest Pacific,					✓			
Arctic							✓	
South-West Atlantic								✓

The legal instruments have been established over time under different contexts and subsequently their format and content vary from one region to another, but they also vary according to the time when they were prepared and by whom they were prepared. From the comparative analysis shown in Table 7.16, one can identify similarities in these legal instruments which have been drafted with the same format (eg The Wider Caribbean and the Eastern African Protocols or the ROPME Sea Area and the Gulf of Aden Protocols). In some regional legal instruments, reference to the establishment of national contingency plans remains generic and may require further specification through the amendment or complement of the existing regulation. The South-East Pacific region overcame this legal gap by adopting the Supplementary Agreement, which outlines requirements for national contingency plans and specifies cooperation mechanisms in case of major incident. The specific issue of reimbursement of the cost of assistance is not always covered whilst other instruments such as the recent Pacific region Protocol reproduces all requirements drawn in the OPRC Convention.

The only two regions which still remain outside of the Regional Seas Programmes concept are the Southwest and the Northwest Atlantic Regions. As far as the Northwest Atlantic Region is concerned bilateral agreements between Canada and the United States of America have been signed by both Parties and cover similar obligations raised by the OPRC Conventions through the Canada–United States Joint Marine Pollution Contingency Plan. Hence, the only region which does not have a regional instrument such as the other regions is the Southwest Atlantic Region composed of Argentina, Brazil, and Uruguay. These countries, however, have ratified the OPRC Convention and have national contingency plans. Despite the absence of a formal regional operational agreement between these countries in the event of major oil spills, cooperation exists between them through the Operative Network for Regional Coordination among Maritime Authorities of the Americas (Red Operativa de Cooperación Regional de las Autoridades Marítimas de las Américas (ROCRAM)). Expressions of interest to UNEP for the establishment of a Regional Sea Programme in the Southwest Atlantic Region were made in the past; however, so far the willingness of the concerned States has not yet materialized.

Bilateral and multilateral agreements strengthen national capacity to face major pollution and require that national systems are operational and compatible with these agreements. These agreements are not reviewed in this document and neither is the comparison of their content with the conventions and protocols referred to in the previous chapter. Such agreements are established between neighbouring countries to set up operational procedures and exchange information for efficient response operations in case of emergency. However, in certain cases the adoption of these agreements is not followed up with the implementation of joint activities and updating of their content, which consequently diminishes their efficiency in emergency situations and may undo previous efforts for their establishment.

Marine pollution incident preparedness, response and cooperation mechanisms are established globally and regionally through different approaches. These regulations cover the same area of interest and raised States obligations on the seven issues listed in Chapter V. A strong cohesion is established between these legal instruments whilst at the same time cooperation at international and regional level is further required to ensure coordination of efforts in the preparedness phase and during emergency situation.

Numerous initiatives have been and are being implemented by the various stakeholders to assist developing countries in the implementation of the international and regional legal instrument. To increase the efficiency of such support and avoid duplication of efforts between initiatives implemented simultaneously or consecutively a strong collaboration is required between the relevant national competent authorities and regional and international institutions.

In this regard, it should be recognized that the cooperation between governments and the oil and shipping industry have shown a significant improvement in the last decade and that their combined efforts have improved the assistance to and capacity of developing countries in the implementation of regional and international regulations.

Due to their exposure to several sea or regions, some coastal States are Party to several agreements such as France, which is Party to several sub-regional agreements (eg the Bonn Agreement, Lisbon Agreement, Manche Plan, Accord RAMOGE, Lion Plan, the Agreement on the Regional Contingency Plan for Preparedness for and Response to major Marine Pollution Incidents in the Western Indian Ocean, etc.) and to the respective regional Conventions and Protocols (eg Barcelona Convention, Cartagena Convention, Nairobi Convention, Noumea Convention, the OSPAR Convention, etc.) as well as to the International Conventions. In addition, being a European Member State, France also participates in the European civil protection mechanism. This example highlights the importance of a common approach when regulating oil spill preparedness and response related issues, but it also raises the issue of the superposition of regional legal instruments and mechanisms which may confront certain governments in particular in Europe, to overloaded responsibilities and overlaps with respect to their multiple obligations within the legal frameworks they are Party to.

Being party to several agreements is common to a number of countries which have to comply with their legal commitments on various fronts and therefore forecast the required personnel and financial resources. In addition, the regional agreements and their secretariat are in most cases financed through the contribution of the Contracting Parties. Hence, the financial involvement in several mechanisms may involve a substantial budget which at a time of financial constraints may affect the existence and sustainability of certain mechanisms. The cost of maintenance of institutional arrangements is also an important factor when



considering sustainability of a mechanism as recent examples in COBSEA or the Barcelona Convention have demonstrated. The sustainability of regional agreements may be subject to short-term or local political concerns. Indeed, cooperation enhancement has demonstrated its added value and efficiency, however experience has shown that political interest and the corresponding financial support is generally high after a major incident and then decreases as time passes.

Other non-governmental or mixed funding mechanism alternatives have been established such as the IMO/IPIECA Global Initiative for the West and Central Africa Project co-funded by IMO and the oil industry. The GI WACAF Project have led to a considerable improvement of the level of preparedness and response in the West and Central African region since 2006, however the sustainability of this initiative depends on the continuity of the support of the oil industry which has currently important offshore exploration and production activities in the region. Another example is the establishment of the Marine Emergency Response and Salvage Co-ordination Unit, MERCU in the ROPME Sea Area dominated by offshore exploitation and transport of oil and gas products. The achievements of MERCU's targets will be co-financed by implementing a contribution from the shipping industry, based on the cost-sharing-by-beneficiaries arrangements. The shares would be exclusively devoted to contribute to the costs for safety and environmental protection infrastructure and services in the ROPME Sea Area. However, it has to be noted that this initiative has just been launched and time will be needed to assess its workability and success.

International and regional legal and institutional frameworks relating to marine pollution incident preparedness, response and cooperation have evolved and continue to adapt as lessons learnt from incidents raised new concerns and highlighted gaps in the legislation in place.

Over the past twenty years deepwater production has grown from virtually nothing to more than five percent of the global supply today as shown in Figure 7.3, and that contribution is expected to more than double by 2030 to reach almost 14 Million Barrels per Day Oil Equivalent.

The Montara platform incident that occurred in the Timor Sea, off the northern coast of Western Australia in August 2009 and the subsequent Macondo blowout and oil spill that took place in the Gulf of Mexico off the southeast coast of United States of America, and which continued over a period of four months from April to July 2010, garnered the world's attention and raised significant concerns with regard to the systems in place to prevent and respond effectively to major pollution incidents emanating from offshore exploration activities.

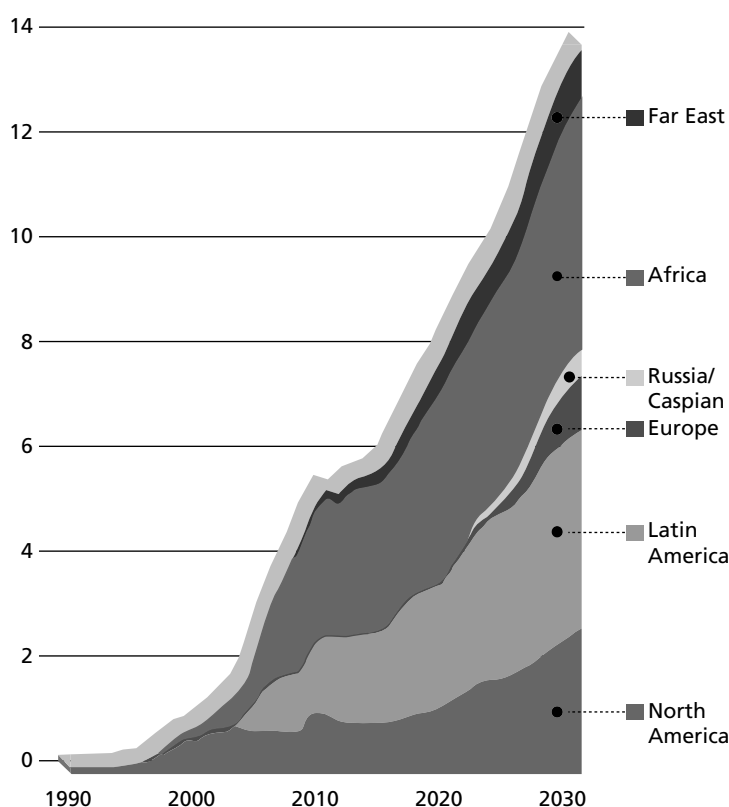


Figure 7.3 Deepwater outlook by region (ExxonMobile 2010 Outlook for Energy)

These incidents have resulted in a proposal submitted by Indonesia in the aftermath of the Montara incident to the IMO's Legal Committee for the establishment of an international instrument on liability and compensation for marine environmental damage resulting from offshore oil exploration activities. Discussions are still at a very preliminary stage, and the format, structure, and content of such a framework is still to be determined and it is likely to take years before any such regime is adopted. It has also raised important questions about the IMO's role and responsibilities vis-à-vis oil spills arising from offshore exploration/exploitation activities and also raises some legal issues regarding the rights and obligations of States authorizing such activities on their continental shelves.

The OPRC Convention and regional legal instruments already address the obligation of reporting pollution incident from offshore installations and require the establishment of contingency plan for these installations. However, they do not provide a comprehensive regulatory framework adopted specifically to deal with marine pollution resulting from exploration and exploitation of the continental shelf.

The Contracting Parties to the Barcelona Convention, the Bucharest Convention, and the Kuwait Convention have taken the matter into consideration when adopting the specific protocol on marine pollution resulting from exploration and exploitation of the continental shelf, whilst Contracting Parties to the OSPAR Convention and the Helsinki Convention have established a regional legal framework on this issue respectively through the Annex III and Annex VI to their Convention.

Only five regions amongst the eighteen regions detailed above have established a comprehensive regime dealing with offshore activities. Legal developments on the matter are occurring and will possibly influence other regions.

On 27 October 2011, the European Commission (EC) proposed a new law which will ensure that European offshore oil and gas production will respect high safety, health, and environmental standards everywhere in the EU. Subsequently, the European Parliament and the Council adopted on 12 June 2013 the Directive 2013/30/EU on safety of offshore oil and gas operations and amending Directive 2004/35/EC, which put in place a set of rules to help prevent accidents, as well as providing for a prompt and efficient response should an accident occur.

In July 2010, the International Association of Oil and Gas Producers (OGP) established the Global Industry Response Group (GIRG) to identify, learn from and apply the lessons of Macondo, Montara, and similar well accidents.

Changes and adaptation of international, regional, and national regulations and arrangements built on existing legal instruments and institutions are currently happening to face this new environmental challenge.

International conventions and regional legal instruments relating to marine pollution incident preparedness, response and cooperation, have been forged through decades of efforts to increase international standards with a view to reducing the adverse effect of oil and chemical production and transportation activities. Numerous institutions and cooperative agreements have been established over this period to assist coastal States in implementing these instruments to prevent and combat marine pollutions. However, the technologies and global demand evolves continually and require constant adjustment, proactivity, and cohesion of all regulatory frameworks and stakeholders' involvement.

States have the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

\*All facts and law were accurate at the time of the submission of this Chapter in October 2012. However, at the time of the publication some of it may have become inaccurate or outdated.

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## INTERVENTION IN THE HIGHS SEAS IN CASES OF MARINE POLLUTION CASUALTIES

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### 8.1 Introduction

The right of a coastal State to intervene within its territorial sea to counteract accidental pollution caused by foreign ships is widely accepted as an entitlement related to that State's sovereignty over the belt of sea adjacent to its land territory and its internal waters. In this case, limitations to coastal State sovereignty are drawn by the universally accepted treaty rules governing innocent passage.

However, the right to intervene beyond the territorial sea is acknowledged only as an exceptional remedy related to the concept of self-defence, in this case the need to protect vital maritime living and non-living resources and coastal interests against imminent and grave risks of pollution resulting from an accident involving foreign ships.

Historically, most accidents occurring beyond the territorial sea did not pose a pollution risk justifying intervention by the coastal State on grounds of self-defence against pollution, although this intervention could take place at the request of the flag State of the ship involved in an accident or for overwhelming humanitarian reasons, such as the need to save human lives in danger on board a ship in distress. This situation changed as a result of the risk created by supertankers carrying increasing quantities of heavy crude oil in bulk. If accidentally released in large quantities this type of oil could damage resources within an extensive sea area, including resources within the territorial sea, even if the ship in distress was far beyond its limits.

Oil spill incidents causing massive pollution of sea areas began occurring in the mid- sixties of the twentieth century, but only the *Torrey Canyon* incident (1967) triggered the process towards enshrining in treaty law the right of intervention by a coastal State beyond the boundaries of its territorial sea. The need to adopt treaty regulations in this regard became a pressing one, as a result of the transboundary



damage provoked by this incident along the coasts of the United Kingdom and France. Further incidents affecting the coast of Western Europe have since led to similar interventions by one or more coastal States affected. Among them, mention should be made of the *Amoco Cadiz* (1978), *Erika* (1999), and *Prestige* (2002).

Features of the right to intervene, and procedures for its exercise, were first enshrined in the International Convention relating to the Intervention on the High Seas in cases of Oil Pollution Casualties<sup>1</sup> (the 'Intervention Convention'), adopted in 1969. The scope of this treaty was expanded to substances other than oil by a Protocol adopted in 1973.

The United Nations Convention on the Law of the Sea<sup>2</sup> (UNCLOS) recognizes the right of intervention by a coastal State beyond its territorial sea in its Article 221.

While the legality of the right of intervention is now universally acknowledged by reference to both the Intervention Convention and UNCLOS, its implementation frequently leads to conflicts of interests. Very frequently, measures taken by a coastal State in the face of an emergency have become the source of legal action aimed at establishing whether the authorities and the coastguard services acted correctly and in accordance with international and municipal law in the implementation of intervening measures. Such measures include not only consultation with all States likely to be affected by a contaminating spill, but also private parties directly and indirectly involved in the incident, such as the ship owner, the shipmaster, the crew, the salvors, and the insurer. Following the *Prestige* incident, the question of whether the intervening coastal State should or should not grant refuge to a ship in distress has become a major issue of contention in connection with the exercise of the right of intervention.

The following sections explain the treaty law provisions regulating the exercise of coastal State intervention beyond territorial boundaries. Some comments will then be made regarding the way in which the right of intervention can be regulated into the domestic law of coastal States, so as to ensure that any emergency compelling intervention can be counteracted within the limits of a regulatory framework able to avoid legal uncertainties.

## 8.2 The Intervention Convention and UNCLOS

### Article 221: The EEZ factor

In the field of international law of the sea, the right of a coastal State to intervene beyond its territorial sea was first regulated by the International Convention

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<sup>1</sup> International Convention relating to the Intervention on the High Seas in cases of Oil Pollution Casualties (Brussels, 29 November 1969, entered into force 6 May 1975) 970 UNTS 211.

<sup>2</sup> United Nations Convention on the Law of the Sea (Montego Bay, 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3.

relating to the Intervention on the High Seas in cases of Oil Pollution Casualties (the 'Intervention Convention'). This multilateral treaty was adopted on 29 November 1969 by the International Legal Conference on Marine Pollution Damage convened by IMCO (now IMO) and held in Brussels.

The scope of this treaty was extended to pollution casualties other than oil by the Protocol Relating to the Intervention on the High Seas in Cases of Pollution by Substances other than Oil. The Protocol was adopted on 2 November 1973 by the International Conference on Marine Pollution convened in London by the Inter-Governmental Maritime Consultative Organization (IMCO).

Years later, this right of intervention became regulated by Article 221 (1) of UNCLOS. This provision echoes the main features of the right of intervention by the coastal States regulated by the Intervention Convention of 1969 and its Protocol of 1973, in respect of incidents involving, respectively, a major discharge of oil or of substances other than oil.

A major difference between the Intervention Convention and UNCLOS Article 221 reflects the consequences of the incorporation into UNCLOS of the notion of the Exclusive Economic Zone (EEZ). While the Intervention Convention defines the right to intervene beyond the territorial sea as a right of intervention 'in the high seas', UNCLOS Article 221 defines the right of the coastal State to intervene within a legal and geographical context fundamentally different, namely to intervention 'beyond the territorial sea' without any further distinction, thus including not only the high seas but the EEZ as well.

The importance of this distinction is obvious. In the EEZ the hybrid status of the coexistence of sovereign rights over natural resources with a residual high sea status otherwise, works in favour of a robust type of coastal State intervention: up to 200 miles from the coastline the coastal State can intervene to protect resources which have a similar status as those within the territorial sea. Hence, for most coastal States, the high seas addressed by the Intervention Convention has become, up to 200 miles from the coast, a sea zone over which it has sovereign jurisdiction to exploit and defend its natural resources.

An important question to be considered is whether the Intervention Convention has been superseded by Article 221 of UNCLOS (Measures to avoid pollution arising from maritime casualties) or whether both the Intervention Convention and UNCLOS Article 221 can be read together, so that the old Intervention Convention can provide a residual or added value to the application of UNCLOS Article 221. This question is particularly relevant for any domestic lawmaker in countries party to both treaties.

### 8.3 Historical Background Leading to the Adoption of the Intervention Convention

The Intervention Convention was adopted in the wake of the first major maritime casualty involving a supertanker carrying heavy crude oil. The *Torrey Canyon* ran aground on 18 March 1967 beyond the territorial sea around the Southwest coast of England. The coastal State intervened only ten days later, by means of bombing the wreck and making the oil blaze. By then the oil spill had progressed to become a major environmental catastrophe: nearly 100,000 tonnes of crude oil were estimated to have spilled into the sea, causing the first man-made environmental catastrophe around the South Coast of England and the West Coast of France.

It is difficult to understand today why a treaty was needed to regulate a right that amounted to no more than self-defence. Why, indeed, should States need a treaty to justify intervention beyond their boundaries when the purpose of such intervention was justified by the need to counteract the effects of a catastrophic event threatening to destroy its vital coastal interests? The answer is that the *Torrey Canyon* was the first great man-made catastrophe, and accordingly rights and obligations relating to coastal State intervention had to be balanced with the rights and interests of other parties that would be affected by any intervention. In legal terms these rights and interests could be classified as the subject matter of public and private international law:

- Public international law rules would be required to establish the features and extent of the right of intervention of the coastal State measured against the rights of the flag State of the ship in distress, this being a major public law issue as long as the ship had not been abandoned as a wreck.
- Private international law international rules would be needed to balance the interests of the coastal State with those of the private parties involved in the incident such as the shipowner, master, salvors, and insurers.
- International rules to deal with these vital questions were required in the period of legal uncertainty created by the failure of the 1958 Convention on the Territorial Sea and Contiguous Zone, and the Second United Nations Conference on the Law of the Sea (1960) to define the breadth of the territorial sea and fishery limits.

The right to prompt intervention to neutralize the damage being caused by the continuous leaking of oil from the *Torrey Canyon* was further hindered by an interpretation of admiralty law according to which there should be a waiting period before any party other than the shipowner or the salvors could intervene in cases of a maritime casualty occurred beyond the territorial sea. This meant that the urgent need to prevent damage to the marine environment adjacent to the coast was not

considered as a public law and order issue taking immediate precedence over the deliberations of private parties on how to best deal with their own interests.

Under such circumstances, the obligation not to intervene was associated with the concept of freedom of navigation, which in the view of many should take precedence over any right of the coastal State to take action beyond the limits of its territorial sea: better to suffer some damage than to invade international waters and interfere with the interests of the flag State and the private parties involved, until the inaction of the latter resulted in a catastrophe of major proportions. Only in cases of substantial, grave, and imminent damage could the coastal State interfere with the flag State of a ship in distress, the private domain of shipowners, salvors, and insurers. A conceptual vicious circle could therefore develop: damage would not seem significant in the beginning and, accordingly, reasons for immediate coastal State intervention would not become obvious: the best way forward was to avoid unnecessary interference by the coastal State with the flag State and the private interests involved, and to first allow shipowners, salvors, and insurers to negotiate on how to solve the problem and intervene only when negotiations did not progress as they were expected to do. However, by then it could be too late to avoid catastrophic damage.

A further legal uncertainty that played against prompt intervening action by the coastal State was the geographic position of the casualty. The *Torrey Canyon* ran aground on rocks beyond the 3 miles between Land's End and the Scilly Isles, beyond the British territorial sea but still within the continuous zone set by the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone. However, it was not clear whether the right of the coastal State to intervene in order to stop pollution damage could be exerted as a means to prevent infringement of 'sanitary regulations', referred to in Article 24.1(a) of that treaty as a reason for the coastal State to exert its 'control' over the contiguous zone. This last expression seemed too narrow to cover damage to coastal interests.

The difficulties in assessing the legitimacy of the right of coastal State intervention beyond the territorial sea in the 1960s are illustrated by the language used in the directives issued by the IMCO Council on the tenor of the travaux préparatoires leading to the drafting of the Intervention Convention. Deliberations should consider 'The extent to which a State directly threatened or affected by a casualty which takes place outside its territorial sea can, or should be enabled to, take measures to protect its coastline, harbours, territorial sea, or amenities . . . even when such measures may affect the interests of shipowners, salvage companies and insurers and even of a flag government'.

The caution and care invested in the consideration of such issues is reflected in the clear restrictions imposed on the action to be taken by the coastal State by the Intervention Convention. In accordance with Article I.1, the exercise of the right of intervention is restricted to the need to prevent a grave and imminent danger in

face of a casualty which may be reasonably expected to result in major harmful consequences. Article III (d) imposes upon the intervening State the obligation to consult with other States, in particular the flag State, before the intervention takes place, unless 'extreme urgency' compels intervention without consultation of any kind. Article V provides that intervening measures must be proportionate to actual or threatened damage, shall not go beyond what is reasonably necessary, and shall cease as soon as its end has been achieved. Article V paragraph 2 specifically requires that measures taken by the coastal State 'shall cease as soon as that end has been achieved' and 'shall not unnecessarily interfere with the rights and interests of the flag State, third States and of any persons, physical or corporate concerned'.

#### **8.4 The Right to Intervention in UNCLOS and its Relationship with the Intervention Convention**

Article 221(1) UNCLOS recognizes the rights of States, 'pursuant to international law, both customary and conventional, to take and enforce measures beyond the territorial sea proportionate to the actual or threatened damage to protect their coastline or related interests, including fishing, from pollution or threat of pollution following upon a maritime casualty . . . which may reasonably be expected to result in major harmful consequences'.

Before the pertinent texts of Intervention Convention and UNCLOS are compared in more detail, it is important to establish the way in which the first relates to the second in terms of treaty law.

In its text, UNCLOS not only recognizes the existence of IMO's work through continuous references to the obligation to abide by rules and standards adopted by 'the competent international organization'. It also enhances the effectiveness of these rules and standards by incorporating them into a comprehensive jurisdictional framework. UNCLOS is acknowledged to be an 'umbrella convention' because most of its provisions, being of a general kind, can be implemented only through specific operative regulations contained in other international agreements. There is widespread consensus that references in UNCLOS to generally accepted shipping international rules and standards on safety of navigation and prevention of marine pollution from vessel source means references to IMO rules and standards.<sup>3</sup>

In the case of prevention of marine pollution from vessels' source, the relationship between UNCLOS and IMO rules and standards becomes particularly

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<sup>3</sup> See the IMO document on Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization. Study by the Secretariat of the International Maritime Organization (IMO). LEG/MISC. 8. <<http://www.imo.org>>.

interdependent due to the peculiar features of UNCLOS Part XII, which deals exclusively with the protection and preservation of the marine environment: UNCLOS Part XII is more than an 'umbrella convention' vis-à-vis IMO rules, because it contains provisions which are in themselves of an operative kind: they can be directly implemented and, as such, should be read together with other operative provisions contained in IMO treaties and recommendations dealing with the protection of the marine environment.

The possibility of 'reading together' the Intervention Convention and UNCLOS is further reaffirmed by UNCLOS, Article 237. In accordance with paragraph 1 of this Article, the provisions contained in UNCLOS, part XII are applicable:

without prejudice to the specific obligations assumed by States under special conventions and agreements concluded previously which relates to the protection and preservation of the marine environment and to agreements which may be concluded in furtherance of the general principles set forth in this Convention.

The Intervention Convention should be included among the conventions and agreements concluded before the adoption and entry into force of UNCLOS. Moreover, the correspondence between the text of the Intervention Convention and the general principles set forth in UNCLOS is reaffirmed by the fact that Article 221, paragraph 1 of UNCLOS in fact reproduces the essential features of the right to intervene regulated Article I, paragraph 1 of the Intervention Convention. There is therefore no doubt that the provisions contained in the Intervention Convention can be carried out 'in a manner consistent with the general principles and objectives' of UNCLOS in accordance to its Article 237, paragraph 2.

In spite of this compatibility, the question arises whether in the cases of States Parties to both the Intervention Convention and UNCLOS the exercise of the right to intervene conferred by UNCLOS Article 221 needs to be necessarily complemented with the regulations included in the Intervention Convention. Even a superficial reading of both texts shows that while the Intervention Convention conditions the right to intervention with the application of carefully regulated restrictions, the text of UNCLOS Article 221 is strikingly more flexible and comprehensive. Rather than defining the right of intervention as a treaty law restrictive exception to the rule of non-intervention, UNCLOS appears to acknowledge the existence of such a right in terms of both customary and conventional international law. Certainly, UNCLOS Article 221 implicitly refers to the Intervention Convention when it acknowledges the rights of States to intervene 'pursuant to international law'. However, UNCLOS immediately indicates that international law in this regard can be 'both customary and conventional', thereby indicating the legality of the right to intervene not only in accordance with treaty law but also customary law. It seems as if, unlike the Intervention Convention, UNCLOS explicitly recognized the right to protect coastline or related interests as customary law.

The distinctions made in the preceding paragraph can be easily reconciled in the 'reading together' of both the Intervention Convention and UNCLOS. The first was adopted at a time of legal uncertainty arising not only from the fact that there was no consensus as to the geographical extent of the territorial sea, but also bearing in mind that no consuetudinary practice of intervention had been developed in the face of a phenomena then relatively new, as was the navigation of supertankers carrying oil and the catastrophic risks involved in the occurrence of an accidental oil spill. Against this background, the Intervention Convention could only regulate rights to be exercised under exceptional circumstances that needed to be properly defined. What it could not do was to proclaim the existence of a regime of consuetudinary international law. Only a general treaty regulating fundamental principles of the law of the sea and adopted after coastal State interventions had become customary could do so, and this is what UNCLOS did thirteen years after the birth of the Intervention Convention.

Bearing in mind the preceding distinctions, coastal States may intervene beyond their territorial sea irrespective of whether or not they are party to the Intervention Convention or indeed, to UNCLOS:

- If they are party to the Intervention Convention they may apply the mechanism of consultation and notification regulated by this treaty.
- If they are not party to the Intervention Convention but are party to UNCLOS, coastal States may not consider themselves restricted by procedural regulations contained in the Intervention Convention. However, they should bear in mind the need to consult and cooperate with other States and private parties in accordance with customary law, in this case defined by reference to the provisions of a widely accepted treaty, as is the Intervention Convention. Even if they are not parties to the Intervention Convention, coastal States would also be under the obligation to apply the clear and imperative terms of UNCLOS Article 198 (Notification of imminent or actual damage). In accordance with this Article, 'when a State becomes aware of cases in which the marine environment is in imminent danger of being damaged or has been damaged by pollution, it shall immediately notify other States it deems likely to be affected by such damage, as well as the competent international organization'. It has already been noted that there is a wide, uncontested consensus in the sense that references in UNCLOS to the competent international organization should, when referring to shipping, be interpreted as being references to IMO.
- States not party to UNCLOS or the Intervention Convention could also apply one or both of them in accordance to customary law, in this case defined by reference to widely accepted treaty law rules. Accordingly, not being party to either treaty cannot be used as an excuse to ignore the duties of involving all parties affected by a catastrophic incident caused by either a spill of oil or other contaminating substances.

In conclusion, both the Intervention Convention and UNCLOS Article 221 can be read together and complement one another. While UNCLOS defines the right of the coastal State to intervention in general terms, in order to make this right fit into the context of international law, both consuetudinary and conventional, the Intervention Convention regulates this right in a more precise way, by means of prescribing procedural rules to ensure the enforcement of a process of consultation and cooperation between the intervening coastal States and other persons of public and private law involved such as:

- the flag State of the ship involved in the casualty;
- neighbour states likely to be affected by a spill; and
- private interests represented by the shipowner, ship operator, classification societies, insurers, etc.

Furthermore, the Intervention Convention also prescribes the involvement of the IMO by way of notification to its Secretary-General.

Far from being a theoretical issue, the features of the coastal State's rights to intervention beyond its territorial sea in the case of major maritime casualties became a major issue for conflict, deliberation and negotiations in many incidents occurred after the *Torrey Canyon* incident. How acrimonious and controversial the assessment of the extent and features of the right to intervention by the coastal State can be is exemplified by the still ongoing judicial process following the *Prestige* incident in 2002.

## **8.5 Analysis of UNCLOS Article 221 and the Intervention Convention**

The preceding paragraphs have demonstrated that both Article 221 of UNCLOS and the Intervention Convention have reciprocal complementary roles which enable a unified reading and interpretation as a first step toward their incorporation into the domestic legislation of coastal states. This section aims to analyse the relevant texts of both treaties in order to highlight crucial aspects of this reciprocal interaction.

### **8.5.1 Characterization of the maritime casualty inviting coastal State intervention**

In accordance with Article I, paragraph 1 of the Intervention Convention:

Parties to the present Convention may take such measures on the high seas as may be necessary to prevent, mitigate or eliminate grave and imminent danger to their coastline or related interests from pollution or threat of pollution of the sea by oil,



following upon a maritime casualty or acts related to such a casualty, which may reasonably be expected to result in major harmful consequences.

A similar definition is contained in Article 221.1 of UNCLOS:

Nothing in this Part shall prejudice the right of States, pursuant to international law, both customary and conventional, to take and enforce measures beyond the territorial sea proportionate to the actual or threatened damage to protect their coastline or related interests, including fishing, from pollution or threat of pollution following upon a maritime casualty or acts relating to such a casualty, which may reasonably be expected to result in major harmful consequences.

While both definitions are alike in their content, their context is strikingly different. As a non-self-executing, framework convention, UNCLOS loosely defines the right of intervention by reference to applicable international law, both customary and conventional. It acknowledges and legitimizes existing international law, rather than creating it. There is no need for a coastal State to be party to UNCLOS to legitimately exercise its right of intervention. It suffices to act in accordance to customary and conventional law existing outside the scope of UNCLOS.

Indeed, Article I of the Intervention Convention becomes a source of law in itself. As a multilateral treaty, it defines the circumstances and limitations binding the behaviour of States Parties regarding the performance of concrete rights and obligations. It is in this regard that the Intervention Convention can be considered a 'conventional' source of international law, as referred to in Article 221.1 of UNCLOS.

Both treaties define 'maritime casualty' in a similar way. Article II.1 of the Intervention Convention refers to:

'maritime casualty' means a collision of ships, stranding or other incident of navigation, or other occurrence on board a ship or external to it resulting in material damage or imminent threat of material damage to a ship or cargo;

UNCLOS, Article 221 (2):

For the purposes of this article, 'maritime casualty' means a collision of vessels, stranding or other incident of navigation, or other occurrence on board a vessel or external to it resulting in material damage or imminent threat of material damage to a vessel or cargo.

Intervention by coastal States beyond the territorial sea can in principle be justified only as an expression of the right of self-defence in face of actual or threatened damage arising from a maritime casualty. This actual or threatened damage must be significant. Both the Intervention Convention and UNCLOS Article 221 refer to the actual or threatened damage as involving 'major harmful consequences'.

UNCLOS, Article 221 (2) reproduces the definition of maritime casualty contained in Article II of the Intervention Convention: 'a collision of vessels, stranding or other incident of navigation, or other occurrence on board a vessel or

external to it resulting in material damage or imminent threat of material damage to a vessel or cargo’.

In connection with the definition of the interests to be protected through intervention, Article 221 of UNCLOS uses more general expressions. It simply refers to the defence of coastal and related interests, including fishing. In comparison, the Intervention Convention defines these interests in a more precise and exemplifying way. In accordance with a definition contained in Article II. 4, ‘related interest’ means:

the interests of a coastal State directly affected or threatened by the maritime casualty, such as:

- (a) maritime coastal, port or estuarine activities, including fisheries activities, constituting an essential means of livelihood of the persons concerned;
- (b) tourist attractions of the area concerned;
- (c) the health of the coastal population and the well-being of the area concerned, including conservation of living marine resources and of wildlife.

### **8.5.2 Polluting substances**

UNCLOS Article 221’s acknowledgment of the right of the coastal State to intervene beyond its territorial waters to fight the pollution unleashed by a major maritime casualty should be read together with the comprehensive definition of ‘pollution of the marine environment’ contained in its Article 1(4).

The scope of the Intervention Convention is more restrictive, since it addresses cases of pollution provoked only by oil, which a definition included in Article II. 3 restricts to crude, fuel, diesel, and lubricating oil. Only the release into the sea of large quantities of these types of oil can lead to a major casualty.

As it has already been indicated, the adoption of the Intervention Convention in 1969 was followed in 1973 by that of a Protocol relating to the Intervention on the High Seas in Cases of Pollution by Substances other than Oil. As it is impossible to enumerate the vast amount of substances covered under the new instrument, Article I.1 of the Protocol simply reproduces the characterization of maritime casualty similar the one included in the Intervention Convention. Paragraph 2 of the same Article then adds a comprehensive definition of ‘substances other than oil’ by reference to:

- (a) those substances enumerated in a list which shall be established by an appropriate body designated by the Organization (IMO) and
- (b) those other substances which are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.

The list referred to in (a) is periodically updated by the IMO.

A joint reading and interpretation of the definition of pollution contained in UNCLOS and those of oil and other polluting substances regulated by the

Intervention Convention and its Protocol leads to the conclusion that the coastal State can, in accordance with both customary and conventional international law, intervene beyond its territorial sea in order to counteract pollution provoked by any substance whatsoever, as long as its polluting effect can be reasonably determined.

### **8.5.3 Ships involved in the maritime casualty: exclusion of war ships or ships in government service**

Only the Intervention Convention contains a definition of the ships involved in the maritime casualty:

#### **Article II.2:**

2. 'ship' means:
  - (a) any sea-going vessel of any type whatsoever, and
  - (b) any floating craft, with the exception of an installation or device engaged in the exploration and exploitation of the resources of the sea-bed and the ocean floor and the subsoil thereof.

This definition is wide enough to include all types of crafts engaged in maritime commercial navigation, and is limited by an important exclusion contained in Article I.2:

... no measures shall be taken under the present Convention against any warship or other ship owned or operated by a State and used, for the time being, only on government non-commercial service.

This exclusion is also spelled out in UNCLOS, Part XII, Article 236 (Sovereign immunity). UNCLOS nevertheless contains the proviso that States shall ensure that the vessels excluded by operation of sovereign immunity act in a manner consistent with the Convention.

The reading together of the exclusion provisions contained in both the Intervention Convention and UNCLOS is of great importance to assess the features of a major polluting incident involving a warship or ship on government service flying the flag of a country different than the affected coastal State. The need to prevent pollution will in this case have to be balanced against the paramount aim of ensuring peace and security by avoiding taking any measure likely to be considered a *casus belli* or a hostile act in naval military terms. In such circumstances the coastal State shall be limited in its possibilities of taking over a military ship flying the flag of another State, unless it has previously entered into consultations with that State and is allowed by it to assist the military craft in distress.

### **8.5.4 Main features and limitations of the right of intervention**

The right of a coastal State to intervene beyond its territory in international waters is an exceptional remedy, the legitimacy of which should be counterbalanced with the consideration of other factors.

First and foremost, it should be noted that any act of intervention technically affects the notion of freedom of navigation by extending coastal State jurisdiction over a sea area with an intrinsic international status, and, as such, situated beyond the jurisdiction of any State. Furthermore, the exercise of coastal State jurisdiction may have to be established over persons, goods and ships under the flag of a different State. It is bearing this scenario in mind that the Preamble of the Intervention Convention defines first the need to protect the peoples of the States Parties against the grave polluting consequences of a maritime casualty, and adds that under such circumstances measures to be taken by the coastal State are 'of an exceptional character' and aimed 'to protect such interests might be necessary on the high seas and that these measures do not affect the principle of freedom of the high seas'.

This scope of exceptionality is the reason UNCLOS and the Intervention Convention contain several provisions with the purpose of tailoring the right of intervention to what is strictly necessary to counteract a major polluting incident.

Article 221 (1) of UNCLOS reproduces expressions contained in Article I.1 the Intervention Convention linking the right to intervention with the determination by the coastal State that the maritime casualty 'may be reasonably expected to result in major harmful consequences'.

This criterion of reasonability is further expanded by several provisions of the Intervention Convention contained in Article V, paragraphs 1 and 2:

... measures shall be proportionate to the damage, actual or threatened, and shall not go beyond what is reasonably necessary to achieve the end mentioned in Article I, namely to prevent, mitigate or eliminate grave and imminent danger to their coast-line or related interests from pollution or threat of pollution.

The measures to be taken shall not unnecessarily interfere with the rights and interests of the flag State, third States and of any other persons, physical or corporate, concerned (Article V, paragraph 2).

Article V, paragraph 3, even contains concrete guidelines drawn with the purpose of defining as clearly as possible the relationship of proportionality between the actual or threatened damage and the measures to be taken by the coastal State:

In considering whether the measures are proportionate to the damage, account shall be taken of:

- (a) the extent and probability of imminent damage if those measures are not taken; and
- (b) the likelihood of those measures being effective; and
- (c) the extent of the damage which may be caused by such measures.

#### **8.5.5 Obligation to compensate**

The requirements of reasonability and proportionality regulated in Article V of the Intervention Convention should be related to the important provision contained in Article VI:

Any Party which has taken measures in contravention of the provisions of the present Convention causing damage to others, shall be obliged to pay compensation to the extent of the damage caused by measures which exceed those reasonably necessary to achieve the end mentioned in Article I.

The reference to ‘any Party’ cannot be sufficiently emphasized: while the main responsibility falls upon the coastal State causing the intervention, other State Parties, notably the flag State of the ship or ships involved in a casualty also bear responsibility for measures recognizable as the source of damage.

#### **8.5.6 Procedural requirements governing the right to intervene: notification and consultation**

Article III of the Intervention Convention includes important provisions that condition the right of the coastal State to intervene with an elaborated procedure of notifications and consultations with other States involved.

Certainly, subparagraph (d) acknowledges that ‘in cases of extreme urgency requiring measures to be taken immediately, the coastal State may take measures rendered necessary by the urgency of the situation, without prior notification or consultation or without continuing consultations already begun’. This provision reflects the very nature of some situations of *force majeure*, where procedures of notification or consultation could undermine the effectiveness of any urgent measure. Otherwise, consultation becomes a *sine-qua-non* carefully regulated in Article III:

- Subparagraph (a) imposes upon the coastal State the obligation to proceed with consultations before taking any measures. Such consultations should include other States affected by the maritime casualty, particularly with the flag State or States.
- The measures envisaged by the coastal State should, without delay, be notified to any persons, physical or corporate known, or made known to it during the consultations, that have interests which can reasonably be expected to be affected by the intervening measures. The coastal State should further take into account any views these potentially affected persons may submit before any measure is taken.

Article III (e) of the Intervention Convention includes a paramount provision, the application of which conditions any measure to be taken by the coastal State in the exercise of its right of intervention. The safety of human life and the assistance to persons in distress should override any environmental consideration. A coastal State shall, before taking any measure and during their course ‘use its best endeavours to avoid any risk to human life, and to afford persons in distress any assistance of which they may stand in need, and in appropriate cases to facilitate the repatriation of ships’ crews, and to raise no obstacle thereto’.

Compliance with this obligation is tested every time a coastal State decides to intervene in order to counteract polluting spills from ships grounded or about to break or sink under extreme bad weather conditions. In such cases, instructions by the coastal State to the shipmaster and crew members to operate a ship in distress should not result in exposing the persons involved to risks to their life or physical wellbeing just for the sake of minimizing the polluting effects of any spill. The coastal State should always ensure the safe evacuation of any human being on board, even to the point of having to abandon the ship, thus terminating any operation on board aimed at counteracting pollution.

Although spelled out in a less emphatic way, the repatriation of ships' crews constitutes a paramount obligation for a coastal State, not only bearing in mind the clear wording used by the drafters of the Intervention Convention already in 1969, but also the rules and standards adopted by ILO and the contents of several IMO recommendations adopted in connection with the welfare of seafarers.

#### **8.5.7 Notification to IMO**

Aside from the requirements that all measures involved in the exercise of the right of intervention should be notified to all States and private parties affected by them, article III (f) of the Intervention Convention includes the requirement that such measures be notified without delay to the Secretary-General of IMO.

It is discouraging to note that the Secretary-General has never received prompt formal notification from any coastal State regarding the implementation of the Intervention Convention, perhaps due to the fact that States tend to oversee the need to comply with procedures not directly related to a situation of emergency. In view of this deficiency, it is not redundant to remember that this type of intervention, aside from constituting an obligation under the Convention, also fulfils an important requirement. As depositary of the treaty, the Secretary-General should be notified of its implementation as a way of contributing to ensure the legitimacy of the measures to be taken. It should not be forgotten that after receiving a communication from a coastal State in this regard, the Secretary-General would proceed to circulate this communication among all members of IMO and all Parties to the Convention.

#### **8.5.8 Conciliation and arbitration**

Article VIII of the Intervention Convention regulates the obligation of Parties to submit to conciliation, or if conciliation does not succeed, arbitration, any controversy related to any contravention of the Convention regarding compensation or its amounts in cases referred to in article VI. In such cases, the Party that took the measures shall not be entitled to refuse a request for conciliation or arbitration solely on grounds that any remedies under municipal law in its own courts have not been exhausted.

The Convention includes an annex with two chapters, dealing respectively with conciliation and arbitration, with a proviso included in both chapters to the effect of which the procedures therein indicated shall apply only in cases where the parties concerned do not decide otherwise.

## 8.6 Intervention and Places of Refuge

Important controversies and legal procedures regarding the reasonability of the measures taken by the coastal State in face of a major shipping casualty causing massive oil pollution were brought against Spain in the wake of the last great catastrophe in Europe, namely the *Prestige*.

In connection with that incident, lack of coordination between coastal States existed, so that it is to be wondered whether the system of consultations regulated by the Intervention Convention was properly applied.

In the wake of the incident, important questions were raised as to whether the right of intervention by coastal States should be related to an obligation to provide places of refuge in order to counteract, or at least reduce, the damage a maritime casualty can cause not only to the natural resources and related interest of the intervening coastal State, but also to those of its neighbours and even to the marine environment in general.

In this last regard, it can be suggested that, within the wider environmental context established by UNCLOS, the right of intervention by the coastal State should not only be exercised in consideration of the protection of its own natural resources and those of its neighbours, but also bearing in mind the wider environmental context of the high seas and its natural resources. In some cases, it may be less damaging for the marine environment if a ship in distress is brought to a place of refuge where contamination of a semi-enclosed sea area or internal waters prevents the contamination of a much wider area.

The question of how to relate the right of intervention by the coastal State to the granting of a place of refuge has occupied the IMO since the *Erika* incident, and became a pressing issue following the *Prestige* casualty. The Guidelines on places of refuge for ships in need of assistance adopted by the IMO Assembly in 2003 clearly reflect the will of the IMO's membership to restrict the issue, at least at present, to the domain of soft law.

Not so the Comité Maritime International (CMI), a leading organization with consultative status at the IMO. At the ninetieth session of the Legal Committee in April 2005, the CMI submitted a document suggesting the adoption of a treaty aimed at effectively obliging coastal states to provide refuge under certain circumstances. In considering this document, the IMO Legal Committee noted that the

subject of places of refuge was a very important one and needed to be kept under review. It nevertheless agreed that rather than adopting a draft convention dedicated to places of refuge, a more urgent priority would be to implement all the liability and compensation conventions adopted by the IMO. A more informed decision as to whether a convention was necessary might best be taken in the light of the experience acquired through their implementation.

In spite of this decision, the CMI decided to produce a draft instrument dealing with the topic of Places of Refuge. The draft was approved at the CMI Conference held in Athens in October 2008. In commending the draft to the attention of the IMO Legal Committee at its 96th session, the CMI suggested that it might be unrealistic to wait for the effective and world-wide implementation of all existing liability conventions, and also referred to the fact that the European Union was contemplating regional legislation in this regard.

The alternative of linking the exercise of intervention by the coastal State with an obligation to grant refuge to ships in distress involves several considerations of *jus equum*.

To begin with, the obligation of the coastal State to provide refuge to ships in distress should be counterbalanced with the right of the coastal States to protect coastal interests. In this regard, the coastal State's right of self defence should be recognized: if the de facto assessment of a distress situation indicates that the granting of refuge would result in serious environmental damage to the interests of the coastal State, then the coastal State would be entitled to deny the ship access to places of refuge. However, under such circumstances it should also be considered whether the coastal State should be ready to assume the consequences of environmental damage limited to the area of the place of refuge in order to avoid greater damage to other areas and to neighbour countries.

In the end, thus, coastal States always have the right to deny access to places of refuge, but this denial does not mean that they can wash their hands of the matter. Basic principles of international law would be violated if the coastal State omitted to offer alternatives to ships in distress. In other words, coastal States cannot tell the ship 'it's your problem' or 'it's a problem you have created and therefore I have nothing to do with it'. Any action by the coastal State designed to compel the ship to 'go away' would lead to a greater violation by the coastal State of basic principles of international law. It would reflect a wilful intention by the coastal State to create conditions that would have the direct effect of aggravating the situation of distress at the cost of negatively impacting the ecosystems beyond the EEZ. This means that the obligation of the coastal States to help remove the situation of distress persists, even in cases where, on account of paramount coastal interests, the coastal State is unable to offer a place of refuge. It is not only an obligation restricted to the saving of human lives, but also to the protection of a marine environment



necessarily conceived as universal, and as such, beyond the exclusive interests of individual states.

## **8.7 Implementation of the Right to Intervention into Domestic Law**

### **8.7.1 Preliminary distinctions**

The incorporation and implementation of the Intervention Convention and UNCLOS Article 221 into domestic law should bear in mind two basic distinctions. The first relates to the question of whether a country is party to one or both treaties. The second distinction concerns the way in which parties to both treaties should deal with the definition of the territorial scope to which the intervening measures should apply.

### **8.7.2 Whatever the treaty, only one piece of legislation**

Up to a certain point, UNCLOS Article 221 has an overriding effect over the Intervention Convention, to the extent that some countries party to UNCLOS but not to the Intervention Convention may consider it superfluous to formally accede to the latter. In such cases, it could be sufficient to draft implementing legislation for UNCLOS Article 221, without any need to become a Party to the Intervention Convention. Countries following this path are advised to use the Intervention Convention as a model to draft their own legislation on vital questions such as notification and consultation.

Countries parties to both treaties should endeavour to incorporate implementing legislation related to intervention in one piece of legislation. It is not advisable to effect this incorporation in separate acts or statutes simply because the subject matter is contained in two treaties. Once incorporated into national law, international treaties lose their separate distinctive identity and become part of a comprehensive and unified legal national system, the rules of which reflect the existence of several sources, namely, the Constitution, other laws both on substantive and procedural issues, and international treaties of a multilateral and bilateral kind. There is no need to use a system of one piece of legislation per treaty unless particular reasons indicate the convenience of doing so.

Furthermore, the single piece of legislation dealing with intervention beyond the territorial sea to counteract major polluting casualties should involve *all* kinds of substances, oil and otherwise. In this way all cases of intervention beyond the territorial sea to counteract such casualties would be effectively under the aegis of one single domestic legal instrument.

### 8.7.3 The EEZ question

In countries party to both treaties, the drafters of domestic legislation should first consider the impact of a fundamental difference between both, namely that the Intervention Convention does not foresee the existence of an EEZ, as does UNCLOS. This apparent inconsistency is the result of the passing of time and the evolution of the law of the sea which occurred between the adoption of the Intervention Convention and UNCLOS: while the intervention Convention simply refers to intervention 'in the high seas', UNCLOS defines the right of the coastal State to intervene 'beyond the territorial sea'. It has already been pointed out that this distinction is related to the incorporation into UNCLOS of the notion of an EEZ between the outer limits of the territorial sea and the limit of 200 miles 'from the baselines from which the breadth of the territorial sea is measured' (UNCLOS, Article 57).

Given this situation, how would a drafter of national legislation determine the territorial scope to which this legislation should apply? The answer is clear: domestic regulations incorporating the Intervention Convention and UNCLOS should regulate the right of intervention 'beyond the territorial sea' and not 'in the high seas'. This is for the following reasons:

- Both treaties are in force internationally, but the more recent (UNCLOS) represents an updating of the older (the Intervention Convention) regarding the redefinition of sea zones adjacent to the coast.
- The fact that UNCLOS refers to intervention beyond the territorial sea unequivocally indicates that the EEZ status is similar to that of the high seas in connection with the rights of intervention in the case of casualties involving foreign vessels.

The second reason merits further explanation, since it is related to a particularly difficult issue for any law maker, namely, the way in which domestic legislation should deal with the ambiguous status of the EEZ, which involves the coexistence of the coastal State's sovereign rights over natural resources with a residual high sea status in connection with other subject matters.

In accordance with UNCLOS Article 56.1, the coastal State's sovereign rights over natural resources in the EEZ is limited to exploration, exploitation, conservation, and management. These activities should not include measures of interference with international navigation as would be the case of any intervening measure involving a foreign vessel following a major casualty. Otherwise, if the right to intervention was included among the sovereign rights mentioned, there would be no need to regulate any specific right of intervention 'beyond the territorial sea' as UNCLOS does in Article 221. This conclusion is also valid bearing in mind the provision contained in UNCLOS, Article 56.1 (b) (iii), which proclaims the jurisdiction of the coastal State in the EEZ in connection with the protection and

preservation of the marine environment. This jurisdiction should be acknowledged mainly in connection with normal measures of protection and preservation, and not with the extraordinary situation of a major maritime casualty compelling a coastal State to take over a foreign ship to compel it to operate in a certain way, or even to sink it in order to counteract the polluting effect of a catastrophic spill. If intervention measures were included in Article 56.1, UNCLOS Article 221 would not regulate intervention beyond the territorial sea (thus including the EEZ), but ‘in the high seas’.

Therefore, for the purpose of intervention in the EEZ, the status of this zone should be assimilated to that of the high seas, as per operation of Article 58.2 of UNCLOS. In accordance with this Article, Articles 88 to 115 of UNCLOS, as well as other pertinent rules of international law, apply to the EEZ in so far as they are not incompatible with UNCLOS Part XII. It is in this way that the ‘high seas’ scope referred to by the Intervention Convention can be reconciled with the ‘beyond the territorial sea’ used by UNCLOS, Article 221.

#### **8.7.4 Relevant national law**

Bearing in mind the fundamental distinctions drawn in the preceding paragraph, other provisions to be enacted into the national law of the coastal State to implement the right of intervention beyond the territorial sea should include the following subject matters.

##### *8.7.4.1 Designation of competent authorities*

The law should clearly name the authority in charge of issuing and executing the measures involved in the intervention, for instances the minister in charge of maritime affairs, and the competent body to physically carry forward the measures, for instance, the force competent to exercise coastguard functions. The need to comply with international obligations in a unified, coherent way, leads to the convenience of a single designated authority with maritime jurisdiction in respect of all sea zones adjacent to the outer limit of the territorial waters.

##### *8.7.4.2 Exercise of power*

The far-reaching consequences involved in the exercise of the right of intervention may include the issue of compulsory instructions to the master of a foreign ship, and even the sinking of the latter. The coastal State may have to interfere in the performance of salvage operations and even perform salvage operations itself (see Articles 5 and 9 of the 1989 Convention on Salvage). These circumstances would not only affect the jurisdiction of the flag State being interfered with, but also the interests of the shipowner, cargo interest, insurers, and salvors. National law should therefore foresee these contingencies through the enactment of regulations inter alia on the following subjects:

- Duty of the master of all ships (national and foreign) to report an imminent or actual casualty;
- Duty of the master of the ship involved in an accident to take immediate measures to limit the resulting damage;
- Authority to issue instructions to prevent or minimize damage, such as directions to move or not move the ship to and from a particular area, to remove or keep persons and goods on board and the way to do this; and
- Powers to instruct or take salvage measures or to ground a ship in a particular spot.

If instructions issued to the master or salvor are not sufficient to prevent or minimize damage, national legislation should be enacted to the effect of enabling the coastal State to take over the command of the ship and sink it, if necessary.

National legislation also should include the designation of a competent Court to deal with claims for damage and costs such as:

- Coastal State claims against the shipowner, the master, the ship operator, and the insurer for the costs incurred;
- Liability of the coastal State for damages caused in the exercise of measures if excessive and as such not related to the criteria of proportionality and reasonability prescribed by the Intervention Convention and UNCLOS;
- Liability of enforcement personnel for damage in cases where these damages are the consequences of intentional or grossly negligent actions;
- Compensation by the coastal State for damage sustained by persons who have assisted the ship; and
- Right of the coastal State to repeat from other parties the payment of claims made on their behalf.

#### *8.7.4.3 Penalties*

As in the case of any domestic legislation giving effect to international treaties, legislation on penalties should be drafted in order to punish violations. Even the Penal Code should be revised to establish whether such violations, when exceeding excusable human error, constitute specific new offences to be included therein. In this connection, penalties should be imposed upon the master, the owner or the salvor for non-fulfilment of the duties foreseen in the legislation.

As happens in the case of most situations of *force majeure*, penalties for non-fulfilment of duties or instructions should be restricted to gross negligence, or intention to cause damage. Penalties should not be applicable to individuals who were impeded from performing their duties in a proper way, or committed faults as a result of the extreme conditions of distress caused by the *force majeure*.



## SECTION D

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# LIABILITY AND COMPENSATION FOR POLLUTION DAMAGE



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## LIABILITY AND COMPENSATION FOR SHIP-SOURCE POLLUTION

*Måns Jacobsson*

### 9.1 The Development of the International Regimes

There are three international regimes governing liability and compensation for marine pollution dealing respectively with tanker oil spills, spills of bunker oil, and damage caused by hazardous and noxious substances carried by sea.

Compensation for pollution damage caused by spills from oil tankers is governed by an international regime elaborated under the auspices of the International Maritime Organization (IMO) in the wake of the *Torrey Canyon* oil spill in 1967. The framework for the regime was originally the 1969 International Convention on Civil Liability for Oil Pollution Damage<sup>1</sup> (1969 Civil Liability Convention) and the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage<sup>2</sup> (1971 Fund Convention). These Conventions entered into force in 1975 and 1978 respectively.

This 'old' regime was amended in 1992 by two Protocols,<sup>3</sup> and the amended Conventions are known as the 1992 Civil Liability Convention and the 1992 Fund Convention. The 1992 Conventions provide higher limits and an enhanced scope of application. The 1992 Conventions entered into force in 1996.

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<sup>1</sup> Convention on Civil Liability for Oil Pollution Damage (Brussels, 29 November 1969, entered into force 19 June 1975) 973 UNTS 3 (1969 Civil Liability Convention).

<sup>2</sup> International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (Brussels, 18 December 1971, entered into force on 16 October 1978) 1110 UNTS 57.

<sup>3</sup> Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage (London, 27 November 1992, entered into force 30 May 1996) 1956 UNTS 255; Protocol of 1992 to amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage 1971 (London, 27 November 1992, entered into force 30 May 1996) 1953 UNTS 330.



It should be mentioned that in 1984 an attempt was made to revise the 1969 and 1971 Conventions by the adoption of two Protocols, but the 1984 Protocols never entered into force. The 1992 Protocols are identical to the 1984 Protocols except for the entry into force conditions.<sup>4</sup>

A third tier of compensation in the form of a Supplementary Fund was established by means of a Protocol to the 1992 Fund Convention adopted in 2003<sup>5</sup> (the Supplementary Fund Protocol) which entered into force in 2005. Only States parties to the 1992 Fund Convention may become parties to the Protocol.

The 1992 Conventions have become a truly global regime, having been ratified by a large number of States. As of 31 December 2015, 134 States were parties to the 1992 Civil Liability Convention, and 114 States were parties to the 1992 Fund Convention. Thirty-one States had ratified the Supplementary Fund Protocol. The old regime based on the 1969 and 1971 Conventions has thus been largely replaced by the regime established by the 1992 Conventions.

As of 31 December 2015, there were, however, still thirty-four States that remained parties to the 1969 Civil Liability Convention. The 1971 Fund Convention ceased to be in force on 24 May 2002. Before the 1971 Fund could be wound up, all pending compensation claims resulting from incidents occurring prior to that date had to be settled and all remaining assets distributed to the 1971 Fund contributors. The 1971 Fund was dissolved with effect from 31 December 2014.<sup>6</sup>

It should be noted that the United States have not become a party to the Civil Liability and Fund Conventions, but have adopted their own legislation in the form of the Oil Pollution Act 1990 (OPA-90).<sup>7</sup> The People's Republic of China is a party to both the 1992 Civil Liability Convention and the 1992 Fund Convention, but has limited the application of the latter Convention to the Special Administrative Region of Hong Kong.<sup>8</sup>

In 1995 the IMO Legal Committee began work on a convention dealing with liability and compensation for pollution damage caused by spills of bunker oil, and this work led to the adoption, in 2001, of the International Convention on Civil

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<sup>4</sup> As regards the reasons for the non-entry into force of the 1984 Protocols see M Jacobsson, 'The International Liability and Compensation Regime for Oil Pollution from Ships—International Solutions for a Global Problem' (2007) 32 *Tulane Maritime Law Journal* 10–12.

<sup>5</sup> 2003 Protocol to the 1992 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (London, 16 May 2003, entered into force 3 May 2005).

<sup>6</sup> IOPC/OCT14/11/1, section 8.2.

<sup>7</sup> For the main differences between the international regime and OPA-90 see Jacobsson 'International Solutions' (n. 4) at 19–21. A detailed description of the legislation in the United States can be found in C de la Rue and CB Anderson, *Shipping and the Environment, Law and Practice* (2nd edn Informa, 2009) at 177–241.

<sup>8</sup> As regards the reason for this limitation see M Jacobsson, 'Liability and compensation for ship-source oil pollution in China' (2013) *Journal of International Maritime Law* 146.

Liability for Bunker Oil Pollution Damage<sup>9</sup> (Bunkers Convention). The Convention entered into force in 2008 and, as of 31 December 2015, eighty-one States had ratified it.

The IMO Legal Committee had already started work on the elaboration of a convention dealing with liability and compensation for damage caused by hazardous and noxious substances other than oil in the late 1970s. A draft convention was submitted to a Diplomatic Conference held in 1984, but this Conference failed to adopt a convention. It was not until 1996 that a new Diplomatic Conference succeeded in adopting a convention on the subject: the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996 (normally known as the HNS Convention).

As a number of States considered that there were serious obstacles to their ratifying the HNS Convention, the Convention did not enter into force. In 2010 a Diplomatic Conference adopted a Protocol to the HNS Convention for the purpose of eliminating these obstacles. As of 31 December 2015, no State had ratified the 2010 Protocol, which consequently has not yet entered into force.

## **9.2 The Regime Relating to Liability and Compensation for Tanker Oil Spills**

### **9.2.1 Introduction**

The 1969 and 1992 Civil Liability Conventions govern the liability of shipowners for oil pollution damage. The Conventions lay down the principle of strict liability for shipowners and create a system of compulsory liability insurance. Shipowners are normally entitled to limit their liability to an amount which is linked to the tonnage of the ship. The 1971 and 1992 Fund Conventions, which are supplementary to the respective Civil Liability Conventions, establish a regime for compensating victims through an international fund when the compensation under the applicable Civil Liability Convention is inadequate.

The Supplementary Fund Protocol adds a third layer of compensation for pollution damage in States parties to the Protocol when the amount of compensation available under the 1992 Conventions is inadequate to compensate all established claims in full.

Each of the Fund Conventions and the Supplementary Fund Protocol establish an intergovernmental organization to administer the compensation regime created by

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<sup>9</sup> International Convention on Civil Liability for Bunker Oil Pollution Damage (London, 23 March 2001, entered into force 21 November 2008) UKTS No. 8 (2005).

the respective treaty, the International Oil Pollution Compensation Funds 1971 and 1992 (hereinafter referred to as the 1971 Fund and the 1992 Fund, respectively) and the International Oil Pollution Compensation Supplementary Fund. These three organizations are normally collectively referred to as *the IOPC Funds*. As mentioned above, the 1971 Fund was dissolved with effect from 31 December 2014, and thereafter the expression *the IOPC Funds* relates only to the 1992 Fund and the Supplementary Fund.

The 1992 Fund has an Assembly, which is composed of representatives of all Member States. The Assembly is the supreme organ governing the Fund, and it holds regular sessions once a year. When the Assembly is unable to obtain a quorum, an Administrative Council is convened to act on behalf of the Assembly. The Assembly elects an Executive Committee comprising 15 Member States. The main function of this Committee is to approve settlements of compensation claims.

The Supplementary Fund has its own Assembly composed of representatives of its Member States.

During the winding up period, the 1971 Fund was governed by an Administrative Council, composed of all States which at any time were parties to the 1971 Fund Convention.

The 1992 Fund and the Supplementary Fund have a joint Secretariat located in London (United Kingdom). Until 31 December 2014 that Secretariat administered also the 1971 Fund. The Secretariat is headed by a Director and has some thirty staff members.

Since their establishment, the 1971 and 1992 Funds have been involved in approximately 150 incidents. Some of these incidents have given rise to thousands of compensation claims.<sup>10</sup> So far, the Supplementary Fund has not been involved in any incidents.

The present section is focused on the 'new' compensation regime under the 1992 Conventions and the Supplementary Fund Protocol, but on a number of points comparison is made with the 'old regime' under the 1969 Civil Liability Convention and the 1971 Fund Convention.

The definitions of the basic concepts in the Civil Liability and Fund Conventions are not very detailed, and the Conventions contain only a few provisions on the procedures to be followed in the handling of compensation claims. This has made it possible for the governing bodies of the IOPC Funds to develop the international regime in the light of the experiences gained from major oil spills.

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<sup>10</sup> For instance the *Erika* incident (France, 1999) gave rise to some 8,000 compensation claims, the *Solar I* incident (the Philippines, 2006) resulted in some 32,000 claims and the *Hebei Spirit* incident (Republic of Korea, 2007) has given rise to some 128,000 individual claims.

There are relatively few court cases on the interpretation and application of these treaties. The governing bodies of the IOPC Funds (ie the governments of the States parties to the Fund Conventions) have, however, in dealing with particular incidents, had to take a position on the interpretation of various provisions in the treaties. In connection with the settlement of compensation claims, the governing bodies have developed certain principles as regards the interpretation of the definition of 'pollution damage'.

Important decisions by the governing bodies are set out in the IOPC Funds' Annual Reports and (from 2009) in the yearly publication 'Incidents involving the IOPC Funds'. There is also a database on practically all decisions by the governing bodies available on the IOPC Funds' website at <<http://www.iopcfund.org>>. The position taken by the governing bodies on a number of issues are reflected in this section.<sup>11</sup>

The 1992 Fund has published a Claims Manual that contains general information on how claims should be presented, and sets out the general criteria for the admissibility of various types of claims.<sup>12</sup> Guidelines for presenting and assessing claims in the fisheries and tourism sectors have also been published.<sup>13</sup> Guidelines for presenting claims for clean-up and preventive measures were published in 2015. There is also a document containing guidance for Member States to facilitate the claims handling process. These publications are available on the IOPC Funds' website.

It should be noted that the definitions of various basic concepts in the Civil Liability Conventions (Art. I, V.9 and V.10) are by reference included in the Fund Conventions (Art. 1.2, 1.4 and 1.5) and the Supplementary Fund Protocol (Art.1.5, 1.6 and 1.7).

Information on the international compensation regime and the IOPC Funds is available on the above-mentioned website, which contains a list of the States Parties to the 1992 Conventions, the 1969 Civil Liability Convention and the Supplementary Fund Protocol.<sup>14</sup>

## **9.2.2 Geographical scope of application**

Whereas the scope of application of the 1969 Civil Liability and 1971 Fund Conventions is confined to the territory (including the territorial sea) of a State Party,

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<sup>11</sup> In this chapter reference is made to a number of documents relating to sessions of the IOPC Funds' governing bodies which are accessible on the Funds' website under *Document services, Meeting documents*.

<sup>12</sup> Claims Manual (October 2013 edn), available on the Funds' website (hereinafter 'Claims Manual').

<sup>13</sup> Guidelines for presenting claims in the fisheries, mariculture and fish processing sectors (for claimants), Technical Guidelines for assessing fisheries sector claims (for technical experts) and Guidelines for presenting claims in the tourism sector.

<sup>14</sup> For a detailed presentation of the international regime see de la Rue and Anderson (n. 7).

the 1992 Conventions and the Supplementary Fund Protocol apply to pollution damage suffered in the territory (including the territorial sea) of a State Party to the respective treaty, or in the exclusive economic zone (EEZ) or equivalent area of such a State (Art. II).<sup>15</sup> The criterion for applicability is thus a geographical one, ie the place of the damage. The nationality of the ship involved in the oil spill is irrelevant for this purpose.

The Conventions also apply to reasonable measures, wherever taken, to prevent or minimize pollution damage.

The 1992 Conventions apply to incidents occurring in inland waters (whether tidal or not), provided the vessel in question falls within the definition of ship, ie is a seagoing vessel.<sup>16</sup>

Measures taken within the territorial waters of a State not party to the respective Civil Liability and Fund Conventions to prevent pollution damage in a State Party fall in principle within the scope of application of the Conventions.<sup>17</sup>

### 9.2.3 Definition of ship<sup>18</sup>

In the 1969 Civil Liability Convention and the 1971 Fund Convention the concept of 'ship' is defined as any seagoing vessel and any seaborne craft of any type whatsoever actually carrying oil in bulk as cargo (Art. I.1). Oil tankers in ballast fall therefore outside these Conventions.

The definition in the 1992 Conventions is wider, and refers to any seagoing vessel and any seaborne craft of any type whatsoever constructed or adapted for the carriage of oil in bulk as cargo.<sup>19</sup> The 1992 Conventions apply in general to oil tankers but not to spills from dry cargo ships, passenger ships, and other non-tankers.

The definition of 'ship' does not require that the craft should have any means of steering or propulsion. The Civil Liability and Fund Conventions would therefore in principle apply to barges and other craft without such means, provided they fulfil the requirement of being seagoing.<sup>20</sup>

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<sup>15</sup> States Parties having established an EEZ or declared such an area have been invited to inform the 1992 Fund accordingly (1992 Fund Resolution No 4, 92FUND/A.1/34, Annex IV).

<sup>16</sup> 1992 Fund Executive Committee in the *Victoriya* incident (Russian Federation, 2003) which occurred on the River Volga 1,300 kilometres from the Caspian Sea; 92FUND/EXC.22/14 para. 3.8.13.

<sup>17</sup> 1971 Fund Executive Committee in the *Kihnu* incident (Estonia, 1993); 71FUND/EXC.49/12, para. 3.4.6.

<sup>18</sup> For a discussion of the definition of 'ship' see de la Rue and Anderson (n. 7) at 86–92.

<sup>19</sup> With respect to the expression 'adapted for the carriage of oil in bulk as cargo', see the *Dolly* incident (Martinique, 1999), 92FUND/EXC.11/6, paras 4.2.3–4.2.5, and the *Zeinab* incident (United Arab Emirates, 2001), 92FUND/EXC.13/7, paras 3.4.4–3.4.6.

<sup>20</sup> See the *Pontoon No 300* incident (United Arab Emirates, 1998); 71FUND/EXC.57/15 para. 3.11.4.

The 1992 Fund Executive Committee has taken the view that, if a vessel was actually operating at sea at the time of the incident, the vessel should be considered seagoing and therefore fall within the definition of ship in the 1992 Conventions.<sup>21</sup>

There is a proviso to the definition in the 1992 Conventions to the effect that a vessel capable of carrying oil and other cargoes is to be considered as a ship only when it is actually carrying oil in bulk as cargo and during any voyage following such carriage, unless it is proved that it has no residues of such carriage of oil in bulk aboard. The proviso, which was drafted with combination carriers (ie ships that are designed to carry oil cargoes on some voyages and dry bulk cargoes on others) in mind, has given rise to uncertainty as to its interpretation. The 1992 Fund Assembly has taken the view that the expression 'other cargoes' should be interpreted to include all cargoes other than persistent oil and not only solid bulk cargoes; consequently the proviso applies not only to combination carriers but also to tankers capable of carrying clean-oil cargoes (ie cargoes of non-persistent oil) or other chemicals as well as cargoes of persistent oil. The Assembly has also decided that the expression 'any voyage' should be interpreted literally and not be restricted to the first ballast voyage after the carriage of a cargo of persistent oil. The burden of proof that there were no residues of a previous persistent oil cargo on board would normally fall on the shipowner.<sup>22</sup>

Important questions of principle as to the interpretation of the definition of 'ship' in the 1992 Conventions had to be considered in relation to the *Slops* incident which occurred in Greece in 2000. The *Slops* had originally been designed and constructed for the carriage of oil in bulk as cargo, but had undergone a major conversion in the course of which its propeller had been removed and its engine deactivated and officially sealed, and the craft had thereafter been permanently at anchor and used exclusively as a waste storage and processing unit. Taking the view that the carriage of oil as envisaged in the 1992 Conventions involved the notion of transport, the 1992 Fund Executive Committee decided that, since the *Slops* had not been engaged in the carriage of oil in bulk as cargo, it should not be regarded as a ship for the purpose of the 1992 Conventions.<sup>23</sup>

The Greek Supreme Court considered, however, that the requirement to be 'actually carrying oil in bulk as cargo' in the proviso to the definition of ship referred only to combination carriers. The Court held that the *Slops* should be regarded as a ship as defined in the 1992 Conventions, since it had the character of a seaborne craft which, following its modification into a floating separating unit, stored oil products in bulk and, furthermore, it had the ability to move by self-propulsion or by way of towage as well as the ability to carry oil in bulk as cargo, without it being

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<sup>21</sup> The *Al Jaziah* incident (United Arab Emirates, 2000); 92FUND/EXC.8/8 para. 4.2.5.

<sup>22</sup> 92FUND/A.5/28, paras 23.2 and 23.6.

<sup>23</sup> 92FUND/EXC.8/8, para. 4.3.8.

necessary for the incident to have taken place during the carriage of the oil in bulk as cargo, that is, during a voyage.<sup>24</sup>

The 1992 Fund Assembly has had to consider whether, and if so to what extent, the 1992 Conventions applied to offshore craft, namely floating storage units (FSUs), and floating production, storage, and offloading units (FPSOs). The Assembly decided that offshore craft should be considered as 'ships' under the 1992 Conventions only when they carry oil as cargo on a voyage to or from a port or terminal outside the oil field in which they normally operate. It was also decided that offshore craft would fall outside the scope of the 1992 Conventions when they leave an offshore oil field for operational reasons or simply to avoid bad weather. The Assembly emphasized that the decision as to whether the 1992 Conventions applied to a specific incident would be taken in the light of the particular circumstances of the case.<sup>25</sup>

Another question that has arisen is under which conditions permanently and semi-permanently anchored vessels engaged in ship-to-ship oil transfer operations should be regarded as 'ships' under the 1992 Civil Liability and Fund Conventions. The 1992 Fund Assembly decided in 2006 that such vessels should be regarded as ships only when they carried oil as cargo on a voyage to or from a port or terminal outside the location in which they normally operated, but that in any event the decision as to whether such a vessel fell within the definition of ship should be made in the light of the particular circumstances of the case.<sup>26</sup> In 2010 the Assembly decided that 'mother' vessels involved in extended ship-to-ship or floating storage operations were to be considered 'ships' under the Conventions and that consequently spills from such vessels would be covered by the 1992 Conventions.<sup>27</sup>

In October 2011, the 1992 Fund Assembly established a Working Group with the mandate to study certain issues relating to the interpretation of the definition of 'ship' in the 1992 Civil Liability Convention. On the basis of the Working Group's Final Report, in October 2015 the 1992 Fund Administrative Council adopted an illustrative list of vessels falling clearly within or outside that definition.<sup>28</sup>

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<sup>24</sup> IOPC Funds' Annual Report 2006 at 95–100. For a discussion of this case see de la Rue and Anderson (n. 7) at 247.

<sup>25</sup> 92FUND/A.4/32, paras 24.3 and 24.10.

<sup>26</sup> 92FUND/A.11/35, para. 32.12.

<sup>27</sup> IOPC/OCT10/11/1, para. 4.4.39; IOPC/OCT10/4/3/1 paras 3.1–3.5; cf IOPC/OCT11/11/1 paras 4.4.6–4.4.10.

<sup>28</sup> IOPC/OCT15/11/1, para 4.3.23.

The Civil Liability Conventions do not apply to warships or other ships owned or operated by a State and used, at the time of the incident, only on government non-commercial service (Art. XI.1).

#### 9.2.4 Definition of oil

There is no clear definition of the concept of 'oil' in the 1992 Conventions. It is simply provided that oil means 'any persistent hydrocarbon mineral oil such as crude oil, fuel oil, heavy diesel oil and lubricating oil' (Art. I.5).<sup>29</sup> Spills of non-persistent oil, for example, gasoline, light diesel oil, and kerosene, are therefore not covered by the Conventions.<sup>30</sup>

The provision makes it clear that spills of non-mineral oils, for instance, palm oil and whale oil, fall outside the 1992 Conventions.

It should be noted that the definition of oil in the 1969 Civil Liability Convention is not restricted to mineral oils and does specifically include whale oil (Art. I.5). The 1971 Fund Convention confined, however, the definition to persistent hydrocarbon mineral oils (Art. 1.2).

The reason that the Conventions are restricted to persistent oils is that such oils are slow to dissipate when spilled into the environment and therefore require clean-up, whereas non-persistent oils normally evaporate quickly after an oil spill, so that no clean-up is necessary.

It appears that the distinction between persistent and non-persistent oil has not given rise to any difficulties in the application of the Conventions.<sup>31</sup>

The Conventions apply to spills of persistent oil whether the oil is carried in a ship (as defined) as cargo or in the bunkers of such a ship.

In order for the Conventions to apply, the oil must be carried on board a ship at the time of its escape into the sea. This appears to imply that the oil must not only be on board the ship but also be there for the purpose of transport, but it does not mean that the ship must be under way at the time of the oil spill for the Conventions to apply.<sup>32</sup>

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<sup>29</sup> In 1981 the 1971 Fund prepared A Non-Technical Guide to the Nature and Definition of Persistent Oil (FUND/A.4/11, Annex).

<sup>30</sup> The 1971 Fund Assembly has decided that 'orimulsion', a bitumen-based fuel consisting of bitumen mixed with about 30% fresh water, should be considered as 'persistent oil'; 71FUND/A.15/28 para. 20.2.

<sup>31</sup> Cf the *Maritza Sayalero* incident (Venezuela, 1998); 71FUND/EXC.59/17 para. 3.13.3.

<sup>32</sup> With respect to the applicability of the Conventions to spills occurring during pumping operations see de la Rue and Anderson (n. 7) at 97.



## 9.2.5 Concept of damage

### 9.2.5.1 Types of damage covered

An oil pollution incident can generally result in five types of damage:

- property damage
- costs of clean-up operations at sea and on shore
- economic losses suffered by fishermen and those engaged in mariculture
- economic losses in the tourism sector
- costs for reinstatement of the environment

### 9.2.5.2 Property damage

Pollution incidents often cause damage to property; the oil may contaminate fishing boats, fishing gear, yachts, piers, and embankments. Costs for cleaning polluted property are admissible for compensation under the Conventions. If the polluted property (eg fishing gear) cannot be cleaned, the cost of replacement qualifies for compensation, subject to deduction for wear and tear.

### 9.2.5.3 Preventive measures

‘Pollution damage’ includes the cost of ‘preventive measures’, that is, reasonable measures to prevent or minimize pollution damage, as well as loss or damage caused by preventive measures (Art I.6 and I.7).

Preventive measures may, for instance, consist of the deployment of vessels to combat the oil spill at sea or the use of booms to contain the oil or to protect vulnerable resources, seawater intakes of industrial plants or mariculture facilities. Clean-up operations at sea or onshore have generally been considered to fall within the concept of preventive measures.

Preventive measures only qualify for compensation if taken in order to prevent or minimize damage which falls under the Conventions, including within its geographical limits.<sup>33</sup>

Expenses incurred for preventive measures are recoverable under the 1992 Conventions even when no spill occurs, provided the measures are taken after an ‘incident’ has taken place.<sup>34</sup> The definition of ‘incident’ in the 1992 Conventions is fairly broad, namely ‘any occurrence, or series of occurrences having the same origin, which causes pollution damage or creates a grave and imminent threat of causing such damage’ (Art. I.8). The issue of whether in a particular situation there was a grave and imminent threat of damage could give rise to disputes.

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<sup>33</sup> Cf. Report of the IMO Legal Committee, document LEG 74/13, paras 60–2.

<sup>34</sup> Under the 1969 and 1971 Conventions only costs for preventive measures taken after an oil spill had occurred qualified for compensation, preventive measures being defined as measures taken after an incident which causes pollution damage has taken place (Art. I.7 and I.8); cf the *Tarpenbeck* incident (United Kingdom, 1979); FUND/EXC.14/3.

In order for the preventive measures to qualify for compensation, the measures must be reasonable. The governing bodies of the IOPC Funds have repeatedly stated that whether or not a measure is reasonable should be determined on the basis of objective criteria in the light of the facts available at the time of the decision to take the measures. The fact that a Government or a public authority decided to take certain measures does not, in the view of these bodies, in itself mean that the measures are reasonable for the purpose of compensation under the Conventions. Claims for costs of preventive measures are not admissible if it could have been foreseen that the measures taken would be ineffective. On the other hand, the fact that the measures proved to be ineffective is not in itself a reason for rejection. The costs incurred, and the relationship between these costs and the benefit derived or expected, should in the opinion of the governing bodies also be reasonable (principle of proportionality).<sup>35</sup>

In 2006, the 1992 Fund Assembly decided not to widen the criteria for the admissibility of claims for the costs of preventive measures so as to include social and/or political considerations. It also decided that when considering the reasonableness of such measures, account should be taken of the potential environmental damage which could be caused if the measures were not taken.<sup>36</sup>

The Funds have accepted to pay compensation for reasonable costs of cleaning and rehabilitation of contaminated birds and mammals, provided the measures were taken by qualified personnel and there was a reasonable chance that the animals would actually survive the process.<sup>37</sup>

In many countries clean-up operations are carried out by public authorities using permanently employed personnel or vessels and vehicles owned by these authorities. There has never been any doubt that reasonable 'additional costs' incurred by the authorities, ie expenses that arose solely as a result of the incident and the relating operations and which would not have been incurred had the incident not taken place, are to be compensated pursuant to the Conventions. An important question is whether compensation is payable under the Conventions also for so-called 'fixed costs', that is, costs that would have arisen for the authorities even if the incident had not occurred, such as normal salaries for permanently employed personnel. The IOPC Funds' governing bodies have decided that a reasonable proportion of fixed costs qualify for compensation, provided that these costs correspond closely to the clean-up period in question and do not include remote overhead charges.<sup>38</sup>

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<sup>35</sup> For a detailed analysis of the concept of reasonableness see M Jacobsson, 'How clean is clean? The concept of "reasonableness" in the response to tanker oil spills' in *Scritti in Onore di Francesco Berlingieri*, special issue of *Il Diritto Marittimo* (2010) Vol I 565; see also Claims Manual section 3.1; de la Rue and Anderson (n. 7) at 371–390, 998.

<sup>36</sup> 92FUND/A.11/35, paras 26.22–26.23; Jacobsson, 'How clean is clean?' (n. 35) at 579–80.

<sup>37</sup> Claims Manual para. 3.1.4.

<sup>38</sup> Claims Manual paras 3.1.13 and 3.1.14.

Salvage operations may in some cases include an element of preventive measures. The IOPC Funds' governing bodies have taken the position that the costs incurred for such operations qualify in principle for compensation under the Civil Liability and Fund Conventions if the primary purpose of the operations was to prevent pollution damage ('primary purpose test'); should the operations have another purpose, such as saving the ship or cargo, they would not fall within the definition of preventive measures and the costs incurred would not be admissible under the Conventions. The governing bodies have further decided that if the operations were undertaken for the purpose of both preventing pollution and saving the ship or cargo, but it is not possible to establish with any certainty the primary purpose ('dual purpose test'), the costs should be apportioned between pollution prevention and salvage. It has also been decided that compensation for the costs of the operations should not be assessed on the basis of the criteria applied for determining salvage awards, but the compensation should be limited to costs incurred, including a reasonable element of profit.<sup>39</sup>

Loss or damage caused by reasonable preventive measures is also compensated under the 1992 Conventions (Art. 1.6(b)). For example, if clean-up operations result in damage to roads, piers and embankments, the cost of the resulting repairs will be compensated.<sup>40</sup>

#### *9.2.5.4 Consequential and pure economic loss*

Persons whose property has become contaminated by oil may suffer loss of earnings, for example a fisherman who is unable to fish while his fishing gear is being cleaned (consequential economic loss). Such losses qualify for compensation in most jurisdictions, and this is also the case under the Civil Liability and Fund Conventions.

Persons whose property has not been damaged can also suffer losses. A fisherman whose gear did not get damaged may have had to abstain from fishing for a period of time to avoid having his nets contaminated. An hotelier or restaurateur whose premises are close to a polluted public beach may suffer losses because the number of guests decreases during the period of contamination. Such losses are in common law jurisdictions referred to as *pure economic loss*. In most common law jurisdictions the courts have been very reluctant to accept claims for pure economic loss. In many countries outside the common law system the legal situation is unclear. In some of these countries pure economic loss is not considered to be a separate type of damage. The courts outside the common law system may apply the criterion of foreseeability and remoteness or require that there is direct link of

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<sup>39</sup> With respect to the development of the IOPC Funds' practice in this regard see J Nichols, 'Admissibility of claims: development of the IOPC Funds' policy' in *The IOPC Funds' 25 years of compensating victims of oil pollution incidents* (2003) 105–106; Claims Manual para. 3.1.15.

<sup>40</sup> Claims Manual para. 3.1.3.

causation between the damage and the defendant's action, and that the damage must be certain and quantifiable in monetary terms.

The Civil Liability and Fund Conventions do not explicitly indicate whether pure economic loss qualifies for compensation under the Conventions. The relevant provisions in the Civil Liability and Fund Conventions ('loss or damage caused outside the ship by contamination') have however been consistently interpreted by the governing bodies of the IOPC Funds to cover in principle pure economic loss, and these bodies have developed certain criteria for the admissibility of claims for such losses, in particular that there must be a sufficiently close link of causation between the contamination and the loss. A claim is not admissible just because an oil spill has occurred; the starting point is the pollution and not the incident.

When considering whether the criterion of a sufficiently close link of causation is fulfilled, the IOPC Funds' governing bodies take into account the following elements:

- the geographic proximity between the claimant's business activity and the contaminated area
- the degree to which a claimant's business is economically dependent on an affected resource
- the extent to which a claimant has alternative sources of supply or business opportunities
- the extent to which a claimant's business forms an integral part of the economic activity within the area affected by the spill.<sup>41</sup>

The IOPC Funds' governing bodies have taken the view that measures to prevent or minimize pure economic loss could be considered as falling within the definition of 'preventive measures'. Such measures could, for instance, be aimed at counteracting the negative impact of an oil pollution incident on the local industry in the fishery and tourism sectors. The governing bodies have decided that in order to qualify for compensation the measures should fulfil the following requirements:

- the cost of the measures is reasonable
- the cost of the measures is not disproportionate to the further damage or loss which they are intended to mitigate
- the measures are appropriate and offer a reasonable prospect of being successful
- in the case of a marketing campaign, the measures relate to actual targeted markets.<sup>42</sup>

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<sup>41</sup> As regards consequential economic loss and pure economic loss see de la Rue and Anderson (n. 7) at 415–30; Jacobsson, 'International Solutions' (n. 4) at 24–8; Nichols (n. 39) at 106–11; Claims Manual sections 3.3 and 3.4; Baris Soyer, 'Ship-sourced Oil Pollution and Pure Economic Loss' (2009) 17 *Torts Law Journal* 270.

<sup>42</sup> Claims Manual para. 3.5.2.

To be admissible, the costs should relate to measures to prevent or minimize pure economic losses which, if sustained, would qualify for compensation under the Conventions. Claims for the cost of marketing campaigns or similar activities are accepted only if the activities undertaken are in addition to measures normally carried out for this purpose.<sup>43</sup>

#### 9.2.5.5 *Environmental damage*

In several cases involving the 1971 Fund, claims were presented for damage to the marine environment as such or otherwise of a non-economic nature. The 1971 Fund's governing bodies insisted repeatedly that such claims were not admissible under the 1969 Civil Liability and 1971 Fund Conventions, and took the view that compensation could only be granted to a claimant who had suffered a quantifiable economic loss,<sup>44</sup> a position that in some cases was not accepted by national courts.<sup>45</sup>

For the purpose of clarifying that claims for damage of a non-economic nature are excluded, a proviso was inserted in the Civil Liability Convention (Art. I.6(a)) and by reference in the Fund Convention through the 1992 Protocols thereto to the effect that compensation for impairment of the environment other than loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken (Art. 1.6 (a)). Claims for damage to the marine environment per se are therefore not admissible under the Conventions, but only claims for the economic consequences of such damage, for example losses suffered by fishermen or businesses in the tourism industry resulting from damage to the marine environment. The proviso also excludes damage calculated on the basis of theoretical models or of a punitive character. The governing bodies of the 1992 Funds have repeatedly emphasized that claims for such damage are not admissible under the 1992 Civil Liability and Fund Conventions.<sup>46</sup>

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<sup>43</sup> Examples of cases in which this issue has been dealt with by the IOPC Funds are given in Nichols (n. 39) at 111–13.

<sup>44</sup> 1971 Fund Resolution N°3 in FUND/A/ES.1/13, Annex; FUND/A.4/10 paras 18 and 19 and FUND/A.4/16 para. 13.

<sup>45</sup> Eg the *Patmos* (Italy, 1985), *Haven* (Italy, 1991) and *Nissos Amorgos* (Venezuela, 1997) incidents; see Nichols (n. 39) at 114–17.

<sup>46</sup> See Nichols (n. 39) at 114–17; M Jacobsson, 'L'indemnisation des dommages résultant des atteintes à l'environnement dans le cadre du régime international CLC/FIOPOL' (2010) *Le Droit Maritime Français* 469–80. In the *Volgoneft 139* case (Russian Federation, 2007) the Russian authorities had submitted a claim for environmental damage based on a mathematical formula, in accordance with national legislation. The claim was however rejected by a Russian court which referred to the above-mentioned proviso in Art. I.6(a) of the 1992 Civil Liability Convention (IOPC/OCT10/3/9, section 10). It should be noted that that Convention only governs the liability of the registered owner and that the liability of others is governed by the applicable national law, except if the person in question is entitled to benefit from the protection of the channelling provisions. In a judgment in the *Erika* case rendered by the French Court of Cassation in September 2012 four defendants other than the registered owner were held jointly and severally liable for, inter alia,

It should be emphasized that measures of reinstatement of the environment qualify for compensation only if they are reasonable. As for the concept of reasonableness, reference is made to what is stated above in respect of preventive measures (Section 9.2.5.3).

Studies are sometimes required to establish the nature and extent of environmental damage caused by an oil spill and to determine whether or not reinstatement measures are necessary and feasible. Such studies will not be necessary after all spills, and will normally be most appropriate in the case of major incidents where there is evidence of significant environmental impact. The Funds have decided that they may contribute to the costs of such studies provided that they concern damage which falls within the definition of pollution damage in the Conventions, including reasonable measures of reinstatement of the contaminated environment. The Funds will require that the studies are likely to provide reliable and useful information and that they are carried out with professionalism, scientific rigor, objectivity, and balance. The scale of the studies should be in proportion to the extent of the contamination and predictable effects.<sup>47</sup>

### 9.2.6 Shipowner's liability

Under the Civil Liability Conventions the registered owner of a tanker has strict liability (ie is liable also in the absence of fault) for pollution damage caused by oil spilled from the ship as a result of an incident (Art. III.1). The shipowner is exempt from liability under the Convention (Art. III.2) only if he proves that:

- (a) the damage resulted from an act of war, hostilities, civil war, insurrection, or a natural phenomenon of an exceptional, inevitable and irresistible character,<sup>48</sup> or
- (b) the damage was wholly caused intentionally by a third party, or
- (c) the damage was wholly caused by the negligence of public authorities in maintaining lights or other navigational aids.<sup>49</sup>

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ecological damage, loss of image, moral damage, and damage to reputation (IOPC/OCT12/3/5/1). M Jacobsson. 'The French Court of Cassation and the *Erika* case—some issues relating to civil liability' (2014) *Journal of International Maritime Law* 24.

<sup>47</sup> Claims Manual paras 3.6.7–3.6.11.

<sup>48</sup> With respect to the interpretation of the expression 'a natural phenomenon of an exceptional, inevitable and irresistible character', see M Forster, 'Civil Liability of Shipowners for Oil Pollution' (1973) *Journal of Business Law* 23; G Gauci, *Oil Pollution at Sea: Civil Liability and Compensation for Damage* (Wiley & Sons, 1997) at 73. In the *Volgoneft 139* case (Russian Federation, 2007), a Russian court rejected the shipowner's defence pursuant to this provision; Incidents involving the IOPC Funds 2010 at 28.

<sup>49</sup> The provision in the 1969 Civil Liability Convention (Article III.2.c) identical to item (c) above was interpreted by the Swedish Supreme Court in the *Tesis* case (Sweden, 1977). The Court held that the shipowner was not liable for the pollution damage, since the incident was wholly caused by negligence on the part of the Swedish State due to its failure to update a navigational chart and to adjust the white sector from a lighthouse; for the facts of this case see de la Rue and Anderson (n. 7) at 101.

The exemption under (a) applies when the damage *resulted from* an act of war or similar act or a grave natural disaster. It is suggested that this exemption would apply if such an act was the dominant or proximate cause of the damage even if other factors contributed to the damage. It is also suggested that if, for instance, the incident was due to a major tsunami but negligence on the part of the crew contributed to the extent of the damage, the shipowner would still be exempt from liability.

For the exemptions under (b)—which appears to cover acts of terrorism and piracy—and (c) to apply, the damage must have been *wholly caused by* the intentional act of the third party or the negligence of the public authority. It is submitted that these exemptions would not apply if there were any contributory negligence, even minor, on the part of the shipowner. The expression *wholly caused* may cause difficulties in interpretation.<sup>50</sup>

If the damage resulted wholly or partially from an act or omission done with the intent to cause damage by the person who suffered the damage or from the negligence of that person, the shipowner may be exonerated wholly or partially from liability against that person, but his liability to other persons is not affected (Art. III.3). This defence could, for instance, be invoked against a claim by a government authority for clean-up costs if the incident was not wholly but only partially caused by its negligence in the maintenance of navigational aids.

An incident involving more than one ship may cause pollution damage. In such a case, the shipowners of all ships concerned are jointly and severally liable for all such damage that is not reasonably separable, unless they may invoke one of the exemptions from liability referred to above (Art. IV).

### 9.2.7 Limitation of liability

Under certain conditions, shipowners are entitled to limit their liability under the 1969 or 1992 Civil Liability Convention to an amount which is linked to the tonnage of the vessel. The limitation amounts under the 1992 Convention are—after increases by 50.73 per cent with effect from 1 November 2003—as follows:<sup>51</sup>

- (a) for a ship not exceeding 5,000 units of gross tonnage, 4,510,000 Special Drawing Rights (SDR) (US\$6.2 million);
- (b) for a ship with a tonnage between 5,000 and 140,000 units of tonnage, 4,510 000 SDR (US\$6.2 million) plus 631 SDR (US\$874) for each additional unit of tonnage; and

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<sup>50</sup> With respect to the interpretation of that expression see M Jacobsson, 'The HNS Convention and its 2010 Protocol' in B Soyer and A Tetterborn (eds), *Pollution at Sea: Law and Liability* (Lloyds List, 2012), chap 3, at 33; de la Rue and Anderson (n. 7) at 100.

<sup>51</sup> In this chapter, the SDR has been converted into United States dollars at the rate of exchange applicable on 31 December 2015, ie 1 SDR=US\$1.385730.

(c) for a ship of 140,000 units of tonnage or over, 89 770 000 SDR (US\$124 million).<sup>52</sup>

Claims that fall within the scope of the 1992 Civil Liability Convention may in certain cases also be subject to limitation of liability under the 1969 Civil Liability Convention. If, for instance, a ship registered in a State party to the 1969 Civil Liability Convention but not party to the 1992 Civil Liability Convention causes damage falling under the latter Convention in a State party to both the 1992 Civil Liability Convention and the 1969 Convention, the latter State will have to respect the shipowner's right to limit his liability under the 1969 Convention which provides for much lower limits than the 1992 Convention.<sup>53</sup>

Claims for pollution damage subject to the 1992 Civil Liability Convention may in some cases be subject to limitation under older conventions dealing with global limitation of maritime claims, ie Conventions on that subject of 1957 or 1924.<sup>54</sup> If, for instance, a ship registered in a State party to the 1957 Convention but not party to the 1992 Civil Liability Convention causes damage falling under the latter Convention in a State party to both the 1992 Civil Liability Convention and the 1957 Convention, the latter State will have to respect the shipowner's right to limit his liability under the 1957 Convention which provides for much lower limits than the 1992 Convention (Art. XII).<sup>55</sup>

This problem does not arise in respect of the 1976 Convention on Limitation of Liability for Maritime Claims<sup>56</sup> (LLMC) (in its original version or as amended by the 1996 Protocol thereto), since the 1976 Convention excludes from its scope of application 'claims for pollution damage within the meaning of the 1969 Civil Liability Convention or any amendment or Protocol thereto which is force' (Art. 3(b)).<sup>57</sup>

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<sup>52</sup> The limitation amounts under the 1969 Civil Liability Convention are significantly lower, namely 133 SDR (US\$184) for each ton of the ship's tonnage up to a maximum of 14 million SDR (US\$19.4 million).

<sup>53</sup> This situation arose for instance in respect of the *Nakhodka* incident (Japan, 1997); Japan was party to both the 1969 and 1992 Civil Liability Convention, whereas the State of the ship's registry (Russian Federation) was only party to the 1969 Convention.

<sup>54</sup> The International Convention relating to Limitation of Liability of Owners of Sea-Going Ships, 1957 (Brussels, 10 October 1957, entered into force 31 May 1968) 1412 UNTS 73 and the International Convention for Unification of Certain Rules relating to the Limitation of Liability of Owners of Sea-Going Vessels, 1924 (Brussels, 25 August 1924, entered into force 2 June 1931).

<sup>55</sup> Cf. Art. 30.4(b) of the Vienna Convention on the Law of Treaties.

<sup>56</sup> Convention on Limitation of Liability for Maritime Claims (London, 19 November 1976, entered into force 1 December 1986) 1456 UNTS 221 (LLMC).

<sup>57</sup> With respect to the interpretation of this provision see E Selvig, 'The 1976 Limitation Convention and pollution damage' (1979) *Lloyd's Maritime and Commercial Law Quarterly* 21; P Griggs, R Williams, and J Farr, *Limitation of Liability for Maritime Claims* (4th edn, Informa, 2005) 27–8; NA Martínez Gutiérrez, *Limitation of Liability in International Maritime Conventions, The relationship between global limitation conventions and particular liability regimes (IMLI Studies in International Maritime Law)* (Routledge, 2011) at 48.



Under the 1969 Civil Liability Convention, as under the 1957 Limitation Convention referred to above, the shipowner loses the right to limit his liability if the incident occurred as a result of his actual fault or privity. The 1992 Civil Liability Convention introduced the same much more restrictive test as the 1976 LLMC. The shipowner is thus, under the 1992 Convention, deprived of the right to limit his liability if it is proved that the pollution damage resulted from the shipowner's personal act or omission, committed with the intent to cause such damage, or recklessly and with knowledge that such damage would probably result (Art. V.2).

#### **9.2.8 Constitution of limitation fund**

In order to be entitled to limitation of liability, the shipowner must, under the Civil Liability Conventions, establish a limitation fund corresponding to the limit of his liability by depositing that amount in court or by producing a guarantee acceptable to the court (Art. V.3).<sup>58</sup> The limitation fund should be constituted with the competent court (or other competent authority) in one of the States parties where an action for compensation has been brought against the shipowner under the Convention or, if no such action has been brought, with any court in one of the States parties where such an action can be brought under the Convention.

In some jurisdictions the courts accept that the limitation fund is constituted by means of a letter of guarantee, for instance by a Protection and Indemnity Association (P&I Club), whereas in other jurisdictions the limitation amount will have to be paid into the court.

The Conventions do not address the question of whether any provision for interest should be included in the limitation fund, so this issue will have to be decided in accordance with the applicable national law.

The insurer of the owner of the ship liable for the pollution is entitled to constitute a limitation fund having the same effect as if it were constituted by the shipowner. The insurer may constitute such a fund even if the shipowner is not entitled to limit his liability, but in such a case the constitution of the fund shall not prejudice the rights of any claimants against the shipowner (Art. V.11).

Under the 1969 Civil Liability Convention there is no exception to the shipowner's obligation to constitute a limitation fund. In view of the fact that the establishment of such a fund could impose a disproportionate burden on the shipowner or his insurer, the 1971 Fund did, however, waive that requirement in a number of cases where the limitation amount was very low. The 1992 Fund Convention expressly authorises the 1992 Fund to do so in exceptional cases (Art. 4.6).

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<sup>58</sup> The limitation amounts are to be converted into national currency on the basis of the value of that currency by reference to the SDR on the date of the constitution of the limitation fund (Art. V.9(a)).

Where the shipowner or any of his servants or agents or the insurer has paid compensation for pollution damage before the limitation fund is distributed, he acquires by subrogation, up to the amount he has paid, the rights which the person so compensated would have enjoyed under the Civil Liability Convention (Art. V.5). The same right of subrogation may also be exercised by any other person in respect of any amount of compensation for pollution damage he has paid, but only to the extent that such subrogation is permitted under the applicable national law (Art. V.6).

When distributing the limitation fund, the court may set aside part of the fund to protect the interests of those who have outstanding claims (Art. V.7). The court would, in such cases, make an interim distribution of the limitation fund.

Claims for expenses reasonably incurred or sacrifices reasonably made by the shipowner voluntarily to prevent or minimize pollution damage shall rank equally with other claims against the limitation fund (Art. V.8).

When a shipowner who is entitled to limit his liability has constituted a limitation fund, no person having a compensation claim for pollution damage arising out of the incident may exercise any rights against other assets of the shipowner in respect of that claim. In addition, the court in any State party shall order the release of any ship or other property belonging to the shipowner which has been arrested in respect of a claim for pollution damage arising out of that incident, and any bail or other security furnished to avoid such arrest shall also be released. This applies, however, only if the claimant has access to the court administering the limitation fund and the fund is actually available in respect of his claim (Art. VI).

### **9.2.9 Channelling of liability**

The 1969 and 1992 Civil Liability Conventions contain provisions on so-called 'channelling of liability'.

Claims for pollution damage under the 1969 and 1992 Civil Liability Conventions can be made only against the registered owner of the ship concerned (Art. III.1). Claims may not be pursued against the shipowner otherwise than in accordance with the respective Convention (Art. III.4). Except as set out below, this does not in principle preclude victims from claiming compensation outside the Convention from persons other than the shipowner, but such claims cannot be based on the Convention but must be based on the applicable national law.

The 1969 Civil Liability Convention provides that no claims for pollution damage may be brought against the servants or agents of the shipowner. The 1992 Civil Liability Convention goes further and prohibits not only claims against the servants or agents of the shipowner or the members of the crew, but also claims against the pilot or any other person who, without being a member of the crew,

performs services for the ship. The 1992 Convention also prohibits claims against any charterer (including a bareboat charterer), manager, or operator of the ship, against any person performing salvage operations with the consent of the shipowner or on the instructions of a competent public authority and against any person taking preventive measures, as well as claims against the servants or agents of these persons. This prohibition does not apply if the damage resulted from the personal act or omission of the person concerned, committed with the intent to cause such damage, or recklessly and with knowledge that such damage would probably result (Art. III.5).<sup>59</sup>

#### 9.2.10 Compulsory insurance

The owner of a ship registered in a State party to one of the Civil Liability Conventions and carrying more than 2,000 tonnes of persistent oil as cargo is obliged to maintain insurance or other financial security to cover the liability under the applicable Convention (Art. VII.1).

A certificate attesting that insurance or other financial security in accordance with the applicable Civil Liability Convention is in force shall be issued for each ship to which the insurance provisions apply. For ships registered in a State party to the Convention, the certificate shall be issued by the competent authority of that State. For ships not registered in a State party, the competent authority of any State party may issue the certificate. The certificate shall be carried on board the ship (Art. VII.2 and VII.5).

In practice, the insurer issues the shipowner with a certificate in standard form (known as 'the blue card'). The shipowner submits this document to the competent authority, which issues a certificate of insurance in the form prescribed in the Convention.<sup>60</sup>

A State party to the 1969 or 1992 Civil Liability Convention shall not permit a ship under its flag subject to the insurance requirements to trade unless a certificate has been issued. When entering or leaving a port or terminal installation of a State party to one of these Conventions, such a certificate is also required for ships flying the flag of a State which is not a party thereto (Art. VII.10 and 11).

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<sup>59</sup> In a judgment rendered in September 2012 in the *Erika* case (France, 1999) the French Court of Cassation held that the channelling provisions applied to classification societies since such societies should be considered as 'any other persons who performs services for the ship'. The classification society involved was nevertheless held liable for pollution damage since it was considered as having acted recklessly and with knowledge that pollution damage would probably result of its action. Jacobsson, 'French Court of Cassation' (n. 46) at 21.

<sup>60</sup> The main providers of shipowners' third party liability insurance are the Protection and Indemnity Associations (P&I Clubs) which are mutual insurers. The International Group of P&I Clubs is a group of 13 mutual insurers that collectively provide liability insurance for approximately 90% of the world's ocean-going tonnage and for some 95% of the world's ocean-going tanker tonnage.

Claims for pollution damage under the Civil Liability Conventions may be brought directly against the insurer of the shipowner's liability for pollution damage (so called *direct action*) (Art.VII.8). In cases of direct action under these Conventions, the insurer has more limited defences than those available under general legislation in many jurisdictions.<sup>61</sup> The insurer may invoke the defences (other than bankruptcy or winding up of the shipowner) which the shipowner would have been entitled to invoke, but may not invoke defences that he would have been entitled to invoke in proceedings brought by the shipowner against him, ie defences based on the insurance policy. The insurer may, however, invoke that the pollution damage resulted from the wilful misconduct of the shipowner. In addition, the insurer is entitled to limitation of liability even if the shipowner has been deprived of such right (Art. VII.8).

The proliferation in recent years of acts of terrorism and piracy has caused difficulties for insurers of third party liability under certain maritime conventions. After the terrorist attack on the World Trade Center in New York on 11 September 2001, the P&I Clubs excluded acts of terrorism from their standard cover. Shipowners instead included cover for terrorism as part of their war risks policy.

As mentioned above, the shipowner is under the Civil Liability Conventions, as under several other maritime liability conventions, exonerated from liability for damage *wholly caused* by an intentional act of a third party. The fact that the shipowner may be liable for damage caused by acts of terrorism in cases where there was contributory negligence, perhaps even minor, on the part of the shipowner, has in recent years given rise to considerable concern on the part of shipowners and P&I Clubs, since this is a risk which the Clubs no longer cover. The P&I Clubs have, however, continued to certify that cover is in place under the Civil Liability Conventions for damage resulting from acts of terrorism. This is subject to the requirement that the shipowner has war risks cover on standard terms with a separate limit for P&I liabilities.<sup>62</sup>

#### **9.2.11 The IOPC Funds' obligations**

The 1992 Fund shall pay compensation to those suffering pollution damage covered by the 1992 Civil Liability Convention in a State party thereto who do not obtain full compensation from the shipowner and his insurer in the following cases (Art. 4.1):

- (a) no liability arises for the shipowner under the 1992 Civil Liability Convention;  
or

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<sup>61</sup> See de la Rue and Anderson (n. 7) at 749–51.

<sup>62</sup> With respect to the problems encountered by the P&I Clubs relating to acts of terrorism and piracy see Jacobsson, 'The HNS Convention' (n. 50) at 37.

- (b) the shipowner is financially incapable of meeting his obligations under the 1992 Civil Liability Convention in full and his insurance does not cover or is insufficient to satisfy the compensation claims; or
- (c) the damage exceeds the shipowner's liability as limited under the 1992 Civil Liability Convention or under any other Convention which was in force or open for signature or ratification on 27 November 1992 (the date when the 1992 Civil Liability Convention was adopted).

It should be noted that the 1992 Fund is only obliged to pay compensation under item c) if the shipowner is entitled to limit his liability.

As mentioned above, the shipowner could in certain circumstances be entitled to limit his liability under the 1969 Civil Liability Convention or under Conventions of 1957 or 1924 dealing with global limitation of liability for maritime claims. These treaties provide for limits that are significantly lower than those provided for under the 1992 Civil Liability Convention. In such cases, the 1992 Fund will provide compensation to the extent that the aggregate amount of the established claims exceeds the limit applicable to the ship in question under any such convention (Art. 4.1(c)). As previously mentioned, this problem does not arise in respect of the 1976 LLMC (in its original version or as amended by the 1996 Protocol thereto) since the 1976 Convention excludes from its scope of application 'claims for pollution damage within the meaning of the 1969 Civil Liability Convention or any amendment or Protocol thereto which is force' (Art. 3(b)).<sup>63</sup>

The 1992 Fund will provide additional compensation up to a maximum of 203 million SDR (US\$280 million)<sup>64</sup> for each incident, including any amount paid by the shipowner and his insurer (Art.4.4(a)).<sup>65</sup> However, if the pollution damage resulted from a natural phenomenon of an exceptional, inevitable, and irresistible character, in which case the shipowner would be exonerated from liability, that amount applies to all pollution damage resulting from the phenomenon and is not available for each incident caused by that phenomenon (Art. 4.4(b)).

The 1971 Fund Convention contains corresponding provisions regarding the 1971 Fund's obligation to compensate victims who did not obtain full compensation under the 1969 Civil Liability Convention. The maximum amount available under the 1971 Fund Convention was however only 60 million SDR (US\$84 million), including the amount paid under the 1969 Civil Liability Convention. As

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<sup>63</sup> Similarly, if the shipowner was entitled to limit his liability under the 1957 or 1924 Convention, the 1971 Fund provided compensation to the extent the aggregate amount of the established claims exceeded the applicable limitation amount under one of these Conventions.

<sup>64</sup> The amount shall be converted into national currency on the basis of the value of that currency with reference to the SDR on the date of 1992 Fund Assembly's decision as to the first date of payment of compensation (Art. 4.4(e)).

<sup>65</sup> Interest accrued on the limitation fund constituted by the shipowner shall not be taken into account for the computation of the maximum amount payable by the 1992 Fund (Art. 4.4(d)).

mentioned above, the 1971 Fund Convention ceased to be in force in 2004, and the 1971 Fund was dissolved with effect from 31 December 2014.

The Supplementary Fund provides additional compensation for pollution damage in States parties to the Supplementary Fund Protocol if the aggregate amount of the established claims exceeds, or there is a risk that it will exceed, the amount available under the 1992 Conventions (Art. 4.1). The maximum amount payable under the Protocol is 750 million SDR (US\$1 040 million) for each incident, including the amounts available under the 1992 Conventions (Art. 5.2).

Only those claims may be pursued against the Supplementary Fund which have been recognized by the 1992 Fund or been accepted as admissible by a decision of a competent court binding on the 1992 Fund not subject to ordinary forms of review. A further condition is that the claim would have been fully compensated if the limit in respect of the amount available for compensation under the 1992 Fund Convention had not been applied to the incident in question ('established claim'; Supplementary Fund Protocol Arts 1.8 and 4.4).

If the total amount of the established compensation claims exceeds the amount available for compensation under the applicable treaties, all claims will be reduced proportionally (Art. 4.5).

Expenses reasonably incurred or sacrifices reasonably made by the shipowner voluntarily to prevent or minimize pollution damage shall be treated as pollution damage, and the shipowner can therefore claim compensation from the Fund involved (Art. 4.1).

In order to enable the competent Fund to determine whether it will become involved in a particular incident, it must be established whether the shipowner is entitled to limitation of liability. It may, however, take many years before the courts have finally decided this issue. The policy of the 1971 and 1992 Funds has been not to wait for the court's decision on this point, but to commence compensation payments when the payments by the shipowner/insurer have reached the limitation amount. The Fund acquires by subrogation the claimants' right against the shipowner, and the Fund would therefore be entitled to recover the sums above the limitation amount it has paid to victims in the event that the shipowner were to lose the right to limitation of liability.

Difficulties have arisen in some incidents involving the 1971 Fund and/or the 1992 Fund where the aggregate amount of the claims arising from a given incident exceeded the maximum amount available for compensation under the applicable Conventions, or where there was a risk that this would occur. Under the Fund Conventions, the Funds are obliged to ensure that all claimants are given equal treatment (Art. 4.5). The Funds have had to strike a balance between the importance of paying compensation to victims as promptly as possible and the need to

avoid an over-payment situation. In a number of cases, the Funds have therefore had to limit payments to victims to a percentage of the agreed amount of their claims (so called 'pro-rating'). The P&I Club involved has in such cases normally limited its payments to the same percentage of the agreed amount. In some major incidents the Government of the State involved has facilitated compensation payments by undertaking 'to stand last in the queue' in respect of its compensation claims and those of other public bodies, that is, not to pursue such claims if and to the extent the presentation of such claims would result in the total amount of all claims arising out of the incident exceeding the maximum amount available for compensation.

In most cases it eventually became possible to increase the level of compensation payments to 100 per cent, once it had been established that the total amount of admissible claims would not exceed the amount available for compensation. The delay in payment of part of the compensation has, however, in many cases caused financial hardship to victims, for example to fishermen and small businesses in the tourism industry.

The Supplementary Fund Protocol will greatly improve the situation for victims in States becoming parties to it. In view of the very high amount available for compensation of pollution damage in these States, it should in practically all cases be possible to pay all established claims in full from the outset.

#### **9.2.12 The IOPC Funds' defences**

The grounds for exemption of liability of the Funds are much narrower than those of the shipowner. The Funds are thus exempt from liability only if the pollution damage resulted from an act of war, hostilities, civil war, or insurrection or was caused by a spill from a warship or other ship owned or operated by a State and used, at the time of the incident, only on government non-commercial service (Art. 4.2(a)).

Unlike the shipowner, the Funds are therefore liable to pay compensation if the incident was caused by a grave natural disaster, for instance, a major tsunami. Furthermore, the Funds are not exempt from liability in cases where the incident was wholly caused by an intentional act by a third party, for example, by an act of terrorism or piracy, unless the act falls within the concept of acts of war, hostilities, civil war, or insurrection. The line between acts of war and similar acts, on the one hand, and acts of terrorism, on the other, could sometimes be blurred, for example in case of so-called state-sponsored terrorism.

The 1992 Fund is not liable to pay compensation if the claimant cannot prove that the damage resulted from an incident involving one or more ships as defined in that 1992 Civil Liability Convention, that is, in general terms an oil tanker (Art. 4.2(b)). This provision raises the question of whether the 1992 Fund is under

an obligation to pay compensation for spills from unidentified ships. The 1992 Fund Executive Committee has taken the view that the 1992 Fund Convention applies to spills of persistent oil even if the ship from which the oil came cannot be identified, provided that it is shown to the satisfaction of the Fund or a competent court that the oil originated from a ship as defined in the 1992 Civil Liability Convention, that is, normally, a tanker. In such cases, the 1992 Fund would have to compensate the entire damage, since there would not be any shipowner who could be held liable.<sup>66</sup>

As a result of the restrictions with respect to the claims that may be pursued against the Supplementary Fund mentioned above, the Supplementary Fund will be exempt from liability if the 1992 Fund is so exempt (Supplementary Fund Protocol Arts 1.8 and 4.4).

With respect to contributory negligence on the part of the claimant, the Funds have in principle the same defence as the shipowner. However, the Funds are not entitled to invoke contributory negligence as grounds for total or partial exoneration in respect of preventive measures (Art. 4.3).

### **9.2.13 Increase of the limitation amounts**

The 1992 Civil Liability and Fund Conventions and the Supplementary Fund Protocol provide for a simplified procedure for amendments to the limits laid down in the treaties (known as ‘the tacit acceptance procedure’) (Art. 15, Art. 33, and Art. 24 of the final clauses, respectively). Under that procedure, amendments to these limits may be decided by the IMO Legal Committee by a two-thirds majority, and such an amendment is deemed to have been accepted unless within a period of eighteen months (twelve months as regards the Supplementary Fund Protocol) at least one-quarter of the States parties communicate their objection to the IMO. An amendment deemed to have been accepted enters into force for all States parties, including for those that have opposed the amendment, eighteen months (twelve months as regards the Supplementary Fund Protocol) after its acceptance.

There are certain restrictions on the amendments that may be made to the limits. Firstly, no amendments may be considered less than five years (three years as regards the Supplementary Fund Protocol) from the date of the entry into force of the previous amendment. Secondly, no limit may be increased so as to exceed an amount which corresponds to the original limit increased by 6 per cent per year calculated on a compound basis from the date when the Convention or Protocol

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<sup>66</sup> Incident in the United Kingdom in 2002 (92FUND/EXC.18/14 para. 3.12.13); incident in Bahrain 2004 (92FUND/EXC.25/6, paras 3.3.14–3.3.16). The position of the claimants was more difficult under the 1971 Fund Convention since in order to get compensation from the 1971 Fund the claimant had to demonstrate that the oil originated from a ship as defined in the 1969 Civil Liability Convention, ie a craft actually carrying persistent oil in bulk as cargo (Art. I.6); cf. incident in Sweden 1987 (71FUND/EXC.24/5 para. 15).



was opened for signature (ie 15 January 1993 for the 1992 Conventions and 31 July 2003 for the Supplementary Fund Protocol). Finally, no limit may be increased so as to exceed the original limit multiplied by three.

The tacit acceptance procedure was applied by the IMO Legal Committee in 2000, resulting in an increase of the limits laid down in the 1992 Civil Liability and Fund Conventions by 50.73 per cent.<sup>67</sup> The new limits apply to incidents occurring after 31 October 2003. The limitation amounts set out above are the increased limits.

#### 9.2.14 STOPIA 2006 and TOPIA 2006

In view of the experience gained from some major incidents, in particular the *Erika* incident (France, 1999), the question of whether the 1992 Conventions should be revised was raised in the 1992 Fund, and in 2000 the 1992 Fund Assembly established a Working Group to consider this matter. The deliberations in the Working Group, which held a number of meetings during the period 2000–2005, resulted in the adoption of the Supplementary Fund Protocol.

The compensation regime created by the Civil Liability and Fund Conventions was intended to ensure an equitable sharing of the economic consequences of a tanker oil spill between the shipping and oil industries. One of the issues debated in the Working Group was whether shipowners should make a greater contribution to the costs of the regime, and the *Prestige* incident (Spain, 2002) was considered as supporting the need for amendments to this effect. It had been suggested by the oil industry that its share of the economic burden had become unfairly high. In the end it emerged that there was not sufficient support from the States parties for a revision of the Conventions, either as regards the distribution of the economic burden or in any other respect.

As an alternative to a revision of the Conventions, the shipping and insurance industries offered to create, on a voluntary basis, a compensation package consisting of two agreements, the Small Tanker Oil Pollution Indemnification Agreement (STOPIA) 2006, and the Tanker Oil Pollution Indemnification Agreement (TOPIA) 2006. These voluntary but legally binding agreements entered into force on 20 February 2006.<sup>68</sup>

STOPIA 2006, which applies to pollution damage in States for which the 1992 Fund Convention is in force, is a contract between owners of small tankers to

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<sup>67</sup> Resolutions adopted by the IMO Legal Committee on 18 October 2000.

<sup>68</sup> STOPIA 2006 and TOPIA 2006 and their Explanatory Notes are reproduced in 92FUND/A/ES.10/13, Annexes IV and V. The main framework for the implementation of STOPIA 2006 and TOPIA 2006 is laid down in a Memorandum of Understanding between the 1992 Fund and the Supplementary Fund, on the one hand, and the International Group of P&I Clubs, on the other hand, reproduced in 92FUND/A/ES.11/6, Annex.

increase, on a voluntary basis, the limitation amount applicable to such tankers under the 1992 Civil Liability Convention. The contract applies to all tankers of 29,548 gross tonnage or less entered in one of the P&I Clubs which are members of the International Group and reinsured through the Group's pooling arrangements. The owners of the relatively small number of ships insured by an International Group Club which are not covered by the pooling arrangement may agree with the Club concerned to be covered by STOPIA 2006.

STOPIA 2006 does not affect the rights of victims under the 1992 Fund Convention, so the 1992 Fund continues to be liable under the 1992 Fund Convention to compensate the victims if and to the extent that the total damage exceeds the limitation amount applicable to the ship in question under the 1992 Civil Liability Convention. The owner of a ship to which STOPIA 2006 applies will, however, reimburse the 1992 Fund for any compensation paid by it under the 1992 Civil Liability Convention as a result of the limitation amount applicable to the ship under that Convention being less than 20 million SDR (US\$28 million), which is equivalent to the limitation amount for a ship of 29,548 tons. The effect of STOPIA 2006 is therefore that the maximum amount of compensation payable by owners of ships of 29,548 gross tonnage or less is 20 million SDR.

TOPIA 2006, which is a contract between tanker owners, applies to all tankers entered in one of the International Group Clubs and reinsured through the Group's pooling arrangements. In respect of incidents which affect a State party to the Supplementary Fund Protocol involving a ship covered by TOPIA 2006, the Supplementary Fund will continue to be liable to compensate victims under the Supplementary Fund Protocol, but the Supplementary Fund is entitled to indemnification by the shipowner of 50 per cent of the compensation payments it has made to claimants.<sup>69</sup>

The 1992 Fund and the Supplementary Fund are not parties to the respective agreement, but the agreements confer legally enforceable rights on the 1992 Fund and the Supplementary Fund of indemnification from the shipowner concerned.

STOPIA 2006 has applied to one incident (*Solar 1*, Philippines, 2006), whereas as at 1 September 2015 there had been no incident covered by TOPIA 2006.

### **9.2.15 Claims handling in incidents involving the IOPC Funds**

In the handling of claims the IOPC Funds have cooperated closely with the shipowner and his insurer, who, in nearly all major cases, has been one of P&I Clubs belonging to the International Group. The framework of the cooperation is laid

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<sup>69</sup> For details of STOPIA 2006 and TOPIA 2006 see de la Rue and Anderson (n. 7) at 172–5.

down in a Memorandum of Understanding between the 1992 Fund and the Supplementary Fund, on the one hand, and the International Group, on the other.<sup>70</sup>

Since the IOPC Funds have a small Secretariat, they normally use external experts to assist the permanent staff to monitor the clean-up operations and to examine and assess claims, at least in respect of major incidents. The external experts are usually appointed jointly by the Fund involved in the incident and the P&I Club concerned.

In some cases, claims are channelled through the office of a designated local surveyor. Occasionally, when an incident gives rise to a large number of claims, the Fund involved and the P&I Club have jointly set up a local claims office so that claims may be processed more easily. Neither designated local surveyors nor local claims offices decide on the admissibility of claims; such decisions are taken by the respective Fund and the P&I Club.

The decisions as to whether claims are admissible and on the admissible quantum are taken by both the Fund involved and the shipowner/P&I Club. As regards the IOPC Funds, these decisions are taken by the Funds' governing bodies or the Funds' Director; the role of the experts is always only that of advisers. In order to expedite the payment of compensation, the Director has been given extensive authority to settle and pay compensation claims.

The policy of the 1971 and the 1992 Funds has been to start paying compensation only after the shipowner's insurer has made compensation payments up to the limitation amount applicable to the ship in question. Claimants have from the outset in most cases been paid the full amount of their established claim, first by the P&I Club involved and, after the aggregate of the Club's payments has reached the limitation amount, by the 1971 Fund or the 1992 Fund, as the case may be.<sup>71</sup> As mentioned above, problems have arisen in some cases where the aggregate amount of the established claims was expected to exceed the total amount available for compensation under the applicable Civil Liability and Fund Conventions, or where there was a risk that this could occur (cf. Section 9.2.11). Discussions have been taking place between the 1992 Fund and the P&I Clubs on how to overcome these problems, but so far the matter has not been resolved.<sup>72</sup>

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<sup>70</sup> See n. 68.

<sup>71</sup> In the *Prestige* case (Spain, 2002), however, the 1992 Fund Executive Committee decided that the 1992 Fund should, in view of the particular circumstances of that case, make payments to claimants from the outset, although the P&I Club involved decided not to pay compensation directly to claimants but paid the limitation amount into the court. With respect to the reasons for the P&I Club's position see 92FUND/EXC.21/5 paras 3.2.11 and 3.2.34.

<sup>72</sup> The issue of interim payments traditionally made by the P&I Clubs has in recent years given rise to concerns on the part of the Clubs (IOPC/OCT13/11/1, section 4.3); see the analysis by M Jacobsson and R Shaw in IOPC/APR12/10/1.

In a number of major incidents giving rise to large number of compensation claims, the Fund involved and the P&I Club concerned have encountered difficulties in assessing the claims without undue delay. For these reasons a Working Group was set up by the 1992 Fund in 2009 to consider the procedures for the assessment of large numbers of claims for relatively small amounts, in particular where claimants could not prove their losses. In October 2012 the 1992 Fund Administrative Council adopted amendments to the Claims Manual which introduced procedures for the purpose of facilitating the assessment of such claims. In cases where insufficient documentary evidence is provided to support a claim and it is unjustified to request or expect additional data, compensation may be paid on the basis of an estimate of losses calculated from a recognized and reliable economic model. Any such model must be derived from actual data closely associated with the loss claimed and taken from the relevant sector or industry.<sup>73</sup>

The revised Manual also introduces a 'fast track' assessment of small claims. In order to avoid undue delay in the settlement of small claims, the 1992 Fund Executive Committee could decide, on a case-by-case basis, after considering the cost effectiveness and merits of assessing large numbers of small claims, to approve the use of 'fast track' assessments for a particular incident and set the quantum of 'small' claims for that incident. Such assessments will be made on the basis of a brief investigation by the Fund and its experts of the circumstances of the loss, but must include confirmation that such losses did actually occur and that there was a clear link of causation with the incident. Alternatively, claimants may prefer to await a settlement based on an in-depth, comprehensive assessment which will inevitably take longer. Claimants who disagree with the settlement offer under a 'fast-track' assessment will only have the assessment of their claim reconsidered based on the provision of new information proving their loss. Such a reassessment may result in higher or lower assessment than that offered under the 'fast track' assessment process.<sup>74</sup>

The fact that it has been possible to handle compensation claims efficiently is to a large extent due to the excellent cooperation that has existed over the years between the P&I Clubs and the IOPC Funds. Certain events associated with the *Nissos Amorgos* case in Venezuela and the liquidation of the 1971 Fund has, however, caused tensions as regards this longstanding relationship (see IOPC/OCT14/11/1, sections 3.3 and 8.2). It is crucial that the 1992 Fund/Supplementary Fund and the Clubs will be able to re-establish this important relationship, in order to ensure the efficient operation of the international compensation regime.

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<sup>73</sup> Claims Manual para. 1.4.11.

<sup>74</sup> Claims Manual para. 2.7.5.

### 9.2.16 Financing of the IOPC Funds

The 1992 Fund and the Supplementary Fund are, and the 1971 Fund was, financed by contributions levied on any person who has received in the relevant calendar year more than 150,000 tonnes of crude oil and heavy fuel oil (contributing oil)<sup>75</sup> in ports or terminal installations in a State party to the respective Fund Convention or the Supplementary Fund Protocol after carriage by sea. A person whose receipts do not exceed 150,000 tonnes will still be liable to pay contributions for the quantity he has received if his receipts would exceed 150,000 tonnes when aggregated with the quantity of contributing oil received in the same State in the same year by any associated person or persons, defined as any subsidiary or commonly controlled entity (Art. 10).<sup>76</sup>

The financing of the IOPC Funds is based on a system of post-event contributions. The amounts required for compensation payments are thus levied in retrospect. Levies of contributions for major incidents are normally spread over several years.

Payments made by the Funds in respect of claims for compensation for oil pollution damage may vary considerably from year to year, resulting in fluctuating levels of contributions.

The levy of contributions is based on reports of oil receipts in respect of individual contributors. A State shall communicate every year to the Funds' Secretariat the name and address of any person in that State who is liable to contribute, as well as the quantity of contributing oil received by any such person (Art. 15). This applies whether the receiver of oil is a Government authority, a State-owned company or a private company.

Contributing oil is counted for contribution purposes each time it is received at ports or terminal installations in a State party after carriage by sea (Art. 10.1). The term 'received' refers to receipt into tankage or storage immediately after carriage by sea. The place of loading is irrelevant in this context; the oil may be imported from abroad, carried from another port in the same State or transported by ship from an offshore production rig. Oil received for transshipment to another port or received for further transport by pipeline is also considered received for contribution purposes. Discharge into a floating tank within the territorial waters of the State party (including its ports) constitutes a receipt, irrespective of whether the tank is connected with onshore installations via pipeline or not. Ships are

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<sup>75</sup> A detailed definition of 'contributing oil' is given in Art. 1.3 of the Fund Conventions. A list of contributing and non-contributing oil to serve as a guide for contributors is set out in the Annex to the 1992 Fund's Internal Regulations which are available on the IOPC Funds' website.

<sup>76</sup> The question of whether a person falls within this definition is to be determined by the national law of the State concerned (Art. 10.2(b)).

considered to be floating tanks in this connection only if they are 'dead' ships, that is, if they are not ready to sail.<sup>77</sup>

The issue of whether oil transferred to/carried on board 'mother' vessels during a ship-to-ship oil transfer operation should be considered as received for the purpose of the contribution provisions in the 1992 Fund Convention and therefore taken into account for the levy of contributions, has been referred to the Working Group referred to in Section 9.2.3. The Working Group has also considered whether the 1992 Fund Assembly should confirm its decision taken in 2006 that oil discharged into permanently or semi-permanently anchored vessels engaged in ship-to-ship oil transfer operations should qualify as contributing oil. While considering the final Report of the Working Group in October 2015, the 1992 Fund Administrative Council decided to reverse that decision.

Annual contributions are levied by the Funds to meet the anticipated payments of compensation and administrative expenses during the coming year. Each contributor pays a specified amount per tonne of contributing oil received. The amount levied is decided each year by the respective Assembly.

The 1992 Fund has a General Fund and Major Claims Funds. Separate Major Claims Funds are established for incidents for which the total amount payable exceeds 4 million SDR (US\$5.6 million).<sup>78</sup> Contributions to the General Fund are based on quantities of contributing oil received in the preceding calendar year, whereas contributions to Major Claims Funds are based on quantities of contributing oil received in the year preceding that in which the incident occurred, and contributions to Major Claims Funds are only to be paid by contributors in States that were parties to the 1992 Fund Convention on the date of the incident (Art. 13.2(b)).<sup>79</sup>

The contribution system for the Supplementary Fund differs from that of the 1992 Fund in that if the total quantity of contributing oil actually received in a State party to the Supplementary Fund Protocol is less than 1 million tonnes, that State will itself be liable to pay contributions for a quantity of contributing oil corresponding to the difference between 1 million tonnes and the aggregate quantity of actual oil receipts reported in respect of that State (Art. 14 and Art. 12 respectively).

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<sup>77</sup> 92FUND/A.11/35 paras 32.19–32.21; IOPC/OCT15/11/1 para 4.3.23.

<sup>78</sup> The maximum amount payable from the General Fund was for the 1971 Fund 1 million SDR (US\$1.4 million).

<sup>79</sup> As regards the Supplementary Fund only administrative expenses are charged to the General Fund (Art. 11.2(a)).

The contributions are payable by the individual contributors directly to the respective Fund. A State is not responsible for the contributions levied on contributors in that State, unless it has voluntarily accepted such responsibility (cf. Art. 14).<sup>80</sup>

A major problem has been caused by many States parties not fulfilling their obligations under the respective Fund Convention to submit oil reports to the Fund Secretariat. A number of States have had outstanding oil reports for several years. The governing bodies have repeatedly expressed their serious concern as regards the non-submission of oil reports, since these reports are crucial to the proper functioning of the Fund. The 1971 and 1992 Fund Conventions do not contain any provisions giving the governing bodies the power to impose sanctions against States that do not fulfil their obligations to submit oil reports.<sup>81</sup> In view of failure of a number of States to fulfil their obligations in this respect, the 1992 Fund Assembly nevertheless took a policy decision in October 2008 to the effect that where a State is two or more oil reports in arrears, any claim submitted by the Administration of that State or a public authority working directly on the response or recovery from the pollution incident on behalf of that State would be assessed for admissibility but payment would be deferred until the reporting deficiency was rectified.<sup>82</sup>

In the light of the difficulties that had arisen in the operation of the 1971 and 1992 Funds, a provision was inserted in the Supplementary Fund Protocol to the effect that compensation under the Protocol will be denied temporarily or permanently in respect of pollution damage in States that have failed to submit their oil reports (Supplementary Fund Protocol Art 15.2 and 15.3). It will be for the Supplementary Fund Assembly to decide whether compensation should be denied.

#### **9.2.17 Recourse and subrogation**

The provisions in the Civil Liability Conventions are without prejudice to the shipowner's right of recourse against third parties (Art. III.5). The shipowner is therefore entitled to pursue claims for recovery of the amounts paid by him in compensation by way of recourse against any third person who has caused or contributed to the incident or the resulting pollution, including those covered by the channelling provisions, for instance salvors and persons taking preventive measures.<sup>83</sup> Such recourse actions cannot, however, be actions under the Civil Liability Convention but must be based on the applicable national law.

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<sup>80</sup> With respect to the distribution of contributions between Fund Member States see IOPC Funds' Annual Report 2014 at 20–1.

<sup>81</sup> Under Art. 15.4 of the 1971 and 1992 Fund Conventions, a State that does not fulfil its obligation to submit reports on contributing oil, and this results in a loss for the Fund, shall be liable to compensate the Fund for its loss. These provisions have never been invoked. The Supplementary Fund Protocol also contains such a provision (Art. 13.2).

<sup>82</sup> 92FUND/A.13/25 para. 15.14, 92FUND/A.13/13/1, section 6.

<sup>83</sup> de la Rue and Anderson (n. 7) at 107.

The 1992 Fund Convention provides that the 1992 Fund shall, in respect of any amount of compensation it has paid, acquire by subrogation the rights that the person so compensated may enjoy under the 1992 Civil Liability Convention against the shipowner or his insurer (Art. 9.1). Subject to the shipowner's/insurer's right to limitation of liability, the 1992 Fund is therefore entitled to take recourse action against the shipowner/insurer to recover the amounts that the Fund has paid in compensation to claimants.

It is further provided that nothing in the 1992 Fund Convention shall prejudice the right of the 1992 Fund concerned to subrogation against persons other than the shipowner and his insurer, and the Fund's right of subrogation against such persons shall not be less favourable than that of an insurer of the person compensated by the Fund (Art. 9.2 and 9.3).<sup>84</sup> As regards recourse actions against any other third parties the Fund would be subject to the same restrictions as such insurer.

The Supplementary Fund Protocol contains corresponding provisions, as did the 1971 Fund Convention.

It appears therefore that, as regards amounts paid by any of the Funds in compensation to the shipowner/insurer, that Fund would be entitled to bring recourse action also against persons protected by the channelling provisions, since the shipowner would be entitled to do so. With respect to compensation payments made by the Fund to persons other than the shipowner/insurer, the Fund would not be entitled to bring recovery actions against persons protected by the channelling provisions since the persons compensated would not be entitled to take such actions. The Fund would, however, be entitled to take recourse action in respect of subrogated claims against persons not protected by the channelling provisions, for example the owner of a colliding ship.

The 1971 and 1992 Funds have in a number of cases taken recourse action against entities not protected by the channelling provisions. These actions have been settled out of court and some of these cases have resulted in the Fund involved recovering significant amounts.<sup>85</sup>

In many incidents a State party to the Fund Convention or an agency of a State party pays compensation for pollution damage in accordance with national law. In such a case the State or agency acquires by subrogation the rights the person so

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<sup>84</sup> As for the IOPC Funds' policy in respect of recourse actions see M Jacobsson, 'The international compensation regime 25 years on' in *The IOPC Funds' 25 years of compensating victims of oil pollution incidents* at 18–20. See also de la Rue and Anderson (n. 7) at 165–7.

<sup>85</sup> An example of such a recourse action is the *Sea Empress* case (Wales, United Kingdom, 1996) in which the 1971 Fund took legal action against Milford Haven Port Authority on the grounds that the port authority had been in negligent breach of duty in relation to safe navigation within the Haven resulting in the grounding of the vessel. As a result of an out-of-court settlement the 1971 Fund recovered £20 million (US\$30 million); Annual Report 2003 at 60–2.



compensated would have enjoyed under the Fund Convention (Art. 9.3). The Supplementary Fund Protocol contains a corresponding provision (Art. 9.4).

#### 9.2.18 Time bar

Rights to compensation under the 1969 and 1992 Civil Liability Conventions from the shipowner and his insurer shall be extinguished unless legal action is brought within three years from the date when the damage occurred (Art. VIII). Rights to compensation from the 1971 and 1992 Fund shall be extinguished unless legal action is brought against the Fund concerned, or the Fund has been notified in accordance with the formalities required by the law of the court seized of the action against the shipowner within three years from the date when the damage occurred (Art. 6; cf. Art. 7.6).

Since oil spills may cause damage a considerable period of time after the incident occurred, for instance damage resulting from an escape of oil from a wreck, it was considered necessary to provide for an ultimate point in time after which claims may not be presented. It is therefore provided in the Civil Liability and Fund Conventions that in no case shall an action be brought after six years from the date of the incident which caused the damage. If the incident consisted of a series of occurrences, the six years period runs from the date of the first such occurrence (Art. VIII; Art. 6 and Art. 1.9). It should be noted that the notification to the Fund of an action against the shipowner does not interrupt the six years period.

Rights to compensation against the Supplementary Fund are extinguished only if they are extinguished against the 1992 Fund under the 1992 Fund Convention, and a claim against the 1992 Fund shall be considered as a claim made by the same claimant against the Supplementary Fund (Art. 6).

The interpretation of the time bar provisions in the Civil Liability and Fund Conventions, in particular how the time bar periods can be interrupted, have been subject to repeated discussions in the governing bodies of the 1971 and 1992 Funds. When the original Conventions, that is, the 1969 Civil Liability Convention and the 1971 Fund Convention, were drafted, only the English and French texts were authentic. The English text uses the expression that *rights to compensation shall be extinguished* unless an action is brought before the expiry of the relevant period, and the French text uses the expression *les droits à indemnisation s'éteignent*. The official translations of these Conventions into Spanish published by the IMO (which do not have the status of authentic texts) use as regards the 1969 Civil Liability Convention the wording *los derechos prescribirán a menos que se interponga una acción* and with respect to the 1971 Fund Convention *los derechos caducarán*. The translations of both the 1992 Civil Liability Convention and the 1992 Fund Convention use the word *prescribirán*. It should be noted that under Spanish legal principles, which also apply in the Latin American countries, the word *prescribirán*

indicates that the time period in question can be interrupted otherwise than by legal action whereas *caducarán* indicates that it cannot.

It is submitted that it is clear from the wording of the English and French texts of the Civil Liability and Fund Conventions (*shall be extinguished, s'éteignent*) that the periods in those Conventions can only be interrupted by legal action taken before the expiry of the relevant time periods. The preparatory works leading up to the first treaty containing such a time bar provision, that is, the 1969 Civil Liability Convention, also show that it was the intention of the drafters of these provisions that the running of the periods could only be interrupted by legal action.<sup>86</sup>

### 9.2.19 Jurisdiction and enforcement of judgments

Under the Civil Liability and Fund Conventions, the courts of the State where the damage was caused or where the preventive measures were taken have exclusive jurisdiction over actions for compensation against the shipowner and his insurer and against the respective Funds (Art. IX.1 and Art. 7.1).<sup>87</sup>

If an incident causes damage to which the Conventions apply in more than one State, the courts of all affected States parties have jurisdiction. In such cases, all claims could be brought before the courts in one of these States, but it is also possible that courts in several States will be seized with claims arising from the same incident.

After a limitation fund has been constituted by the shipowner, the courts of the State where that fund is constituted have exclusive jurisdiction to determine matters relating to the apportionment and distribution of the limitation fund (Art. IX.3). This provision does not, however, affect the competence of courts in other affected States to entertain actions for compensation.

It should be noted that the Conventions only govern the distribution of competence between the jurisdictions of the States parties. It is for each State party to decide which of its national courts should be competent to hear cases under the Conventions.

A final judgment by a court competent under the Conventions, which is enforceable in the State where the judgment is rendered and where it is no longer subject

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<sup>86</sup> With respect to the consideration by the IOPC Funds governing bodies of the interpretation of these provisions reference is made to 71FUND/AC.19/5, paras 4.2.6–4.2.25 and IOPC/OCT10/11/1, para. 3.3.30; M Jacobsson, 'Uniform application of the international compensation regime on liability and compensation for oil pollution damage' in T Malick Ndiaye and R Wolfrum (eds), *Law of the Sea, Environmental Law and Settlement of Disputes, Liber Amicorum Judge Thomas A. Mensah* (Brill, 2007) at 426–7.

<sup>87</sup> If an action has been brought under the Civil Liability Convention in a court in a State party to that Convention but not to the Fund Convention, action against the Fund shall be brought, at the claimant's option, either before a court of the State where the Fund has its Headquarters or before any court of a State party to the Fund Convention competent under the former Convention.

to ordinary forms of review, shall be recognized and enforceable in all other States parties without the merits of the case being reopened. This does not apply where the judgment was obtained by fraud or where the defendant was not given reasonable notice and a fair opportunity to present his case (Art. X and Art. 8).<sup>88</sup> As regards the Funds, enforceability of a judgment is subject to any decision concerning the distribution of the amount available for compensation under the applicable Fund Convention (or the Supplementary Fund Protocol) taken by the Fund's competent governing body (Art. 8; cf. Art 4.5 and Art. 18.7).<sup>89</sup>

### 9.2.20 Uniform application of the Conventions

As mentioned above, the IOPC Funds' governing bodies have taken a position on the interpretation of various provisions in the Civil Liability and Fund Conventions. So far, there have been only a limited number of cases in which national courts have interpreted and applied these Conventions in a manner which is at variance with the position taken by the governing bodies, ie by the governments of the States parties. Some decisions by national courts have, however, given rise to concern, for instance as regards the admissibility of claims for environmental damage,<sup>90</sup> the interpretation of the definition of ship,<sup>91</sup> the provisions concerning time bar<sup>92</sup> and the provisions which channel the liability to the registered owner and prohibit compensation claims against, inter alia, the master of the ship.<sup>93</sup>

The governing bodies of the IOPC Funds have repeatedly emphasized the importance of uniform application of the Civil Liability and Fund Conventions. In 2003 the 1992 Fund Administrative Council, acting on behalf of the Assembly, adopted a Resolution on the interpretation and application of the 1992 Civil Liability Convention and the 1992 Fund Convention.<sup>94</sup> In the Resolution it was stated that it

<sup>88</sup> In the *Plate Princess* case (Venezuela, 1997) the 1971 Fund Administrative Council maintained in October 2012 the instructions previously given to the Director not to make any payments in respect of the incident and to oppose any enforcement of the judgment by the Venezuelan Supreme Court on the basis of Article X of the 1969 Civil Liability Convention, ie that the judgment had been obtained by fraud and that the principles of due process had not been followed and on the basis of Art. 4.5 of the 1971 Fund Convention on equal treatment of claimants; IOPC/APR12/12/1 para. 3.2.60 and IOPC/OCT12/11/1 para. 3.4.36. As regards the possibilities for enforcement of this judgment reference is made to the legal opinion by Dr Thomas A Mensah reproduced in IOPC/OCT12/3/4/1 Annex II. Since the 1971 Fund has been dissolved, the judgment cannot in any event be enforced against that Fund. See also IOPC/OCT15/3/11.

<sup>89</sup> With respect to the possible conflict with EU Regulation No 44/2001 on jurisdiction and enforcement of judgments in civil and commercial matters see M Jacobsson, 'Perspective of the global compensation regimes; the relationship between EU legislation and maritime liability conventions' (2012) *European Journal of Commercial Contract Law* 63. See also H Ringbom, 'EU Regulation 44/2001 and Its Implications for International Maritime Liability Conventions' (2004) *Journal of Maritime Law and Commerce*.

<sup>90</sup> *Erika* incident (France, 1999) (n. 46).

<sup>91</sup> *Slops* incident (Greece, 2000); IOPC Funds' Annual Report 2006 at 94–100.

<sup>92</sup> *Plate Princess incident* (Venezuela, 1997); Incidents involving the IOPC Funds 2011 at 71–3.

<sup>93</sup> Jacobsson, 'Uniform application' (n. 86) at 435.

<sup>94</sup> 1992 Fund Resolution No 8 (92FUND/AC.1/A/ES.7/7, Annex).

was crucial for the proper and equitable functioning of the regime established by the 1992 Conventions that these Conventions were implemented and applied uniformly in all States parties, and that claimants for oil pollution damage were given equal treatment as regards compensation in all States parties. The Resolution also emphasized the importance of national courts in States parties giving due consideration to the decisions of 1971 and 1992 Funds on such matters.

### **9.3 International Convention on Liability for Bunker Oil Pollution Damage (Bunkers Convention)**

#### **9.3.1 Introduction**

The Bunkers Convention deals with spills of bunkers from ships not covered by the 1992 Civil Liability Convention, that is, in general terms ships other than oil tankers. Like the 1992 Civil Liability Convention, the Bunkers Convention provides for strict liability and compulsory insurance, and contains provisions on jurisdiction and enforcement of judgments.

The Bunkers Convention is a single-tier regime. There is no second tier of compensation provided by an international fund as is the case in respect of oil pollution caused by tanker oil spills through the 1992 Fund Convention. During the negotiations that led to the adoption of the Bunkers Convention it was considered that it would be easier to reach consensus on a one-tier regime and that such a regime would be sufficient in most cases to ensure full compensation to victims of bunker oil spills.

Although there are important differences between the Bunkers Convention and the 1992 Civil Liability Convention, many of the provisions in the two Conventions are identical. It is submitted that it would be a great advantage, therefore, if the experience gained in the application of the Civil Liability and Fund Conventions were taken into account in the application of the Bunkers Convention and, in particular, if the interpretation of the concept of pollution damage adopted by the IOPC Funds' governing bodies were taken as a guide in the application and interpretation of the Bunkers Convention.<sup>95</sup>

#### **9.3.2 Scope of application**

The Bunkers Convention applies to pollution damage caused by spills of bunker oil. The geographical scope of application of the Bunkers Convention is identical

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<sup>95</sup> For a detailed analysis of the Bunkers Convention see M Jacobsson, 'Bunkers Convention in force' (2009) *Journal of International Maritime Law* 21; M Jacobsson, 'La Convención Bunker en vigor' in *Análisis de 10 años de vigencia de las leyes marítimas venezolanas*, Academia de Ciencias Políticas y Sociales, Universidad Central de Venezuela, Serie Eventos 28, 2012, 407; de la Rue and Anderson (n. 7) at 255–66.

to that of the 1992 Civil Liability Convention (Art. 2). It applies thus to pollution damage caused in the territory, including the territorial sea, of a State party to the Bunkers Convention and in the EEZ or equivalent area of such a State, and to reasonable measures, wherever taken, to prevent or minimize pollution damage which falls under the Convention.

Bunker oil means any hydrocarbon mineral oil, including lubricating oil, used or intended to be used for the operation or propulsion of the ship, and any residues of such oil (Art. 1.5). The criterion for determining whether oil on board a ship falls within this definition is therefore its intended use.

The Bunkers Convention applies not only to spills of persistent bunker oil but also, unlike the 1992 Civil Liability Convention, to spills of non-persistent bunker oil, for instance medium fuel oil.

The concept of 'ship' is defined in the Bunkers Convention as any seagoing vessel or seaborne craft of any type whatsoever (Art. 1.1). This definition covers in principle oil tankers. Also Mobile Offshore Drilling Units (MODUs) fall within that definition.

As is the case in respect of the Civil Liability Conventions, the Bunkers Convention does not apply to warships and other ships owned or operated by a State and used at the time of the oil spill only on government non-commercial service. A State may, however, decide to apply the Bunkers Convention also to its warships and other ships on non-commercial service (Arts 2 and 4.3).

The Bunkers Convention does not apply to pollution damage 'as defined in the 1992 Civil Liability Convention, whether or not compensation is payable in respect of it under that Convention' (Art. 4.1).<sup>96</sup> As mentioned above (Section 9.2.3), the latter Convention applies to ships constructed or adapted for the transport of oil in bulk as cargo, with the proviso that a ship that is capable of carrying oil and other cargoes shall be regarded as a ship only when it is actually carrying oil in bulk as cargo and during any voyage following such carriage unless it is proved that it has no residues of such carriage of oil in bulk on board. The 1992 Civil Liability Convention therefore applies to bunker spills from laden oil tankers and to bunker spills from unladen oil tankers having residues of persistent oil from a previous voyage on board, whereas the Bunkers Convention applies to bunker spills from ships other than oil tankers and to bunker spills from unladen oil tankers having no such residues on board.

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<sup>96</sup> The LLMC contains a similar provision (Art. 3(b)) but that provision refers to claims for pollution damage *within the meaning of* the 1969 Civil Liability Convention or any amendment or Protocol thereto that is in force. Different views have been expressed as to the scope of this latter provision; see Jacobsson, 'Bunkers Convention' (n. 95) at 24–5; de la Rue and Anderson (n. 7) at 795; Griggs et al (n. 57) at 27–8; Selvig (n. 57) at 21; Martínez Gutiérrez (n. 57) at 190–5.

### 9.3.3 Concept of damage

The definition of pollution damage in the Bunkers Convention (Art. 1.9) is identical to that in the 1992 Civil Liability Convention (cf. Section 9.2.5).

As is the case for the Civil Liability Conventions, the Bunkers Convention covers only pollution damage and does not apply to damage caused by for instance fire or explosion.

### 9.3.4 Shipowner's liability

Whereas the 1992 Civil Liability Convention imposes liability only on the registered owner of the ship from which the oil originates, the Bunkers Convention imposes liability on 'the owner, including the registered owner, bareboat charterer, manager and operator of the ship' (Art. 1.3).<sup>97</sup>

The shipowner—as defined—has under the Bunkers Convention (Art 3.3 and 3.4) strict liability for pollution damage caused by oil spilled from the ship as a result of an incident. The owner's defences under the Bunkers Convention are identical to those under the Civil Liability Convention (see Section 9.2.6).

The persons falling within the definition of shipowner are jointly and severally liable under the Bunkers Convention (Art. 3.2). The Convention does not address the issue of how the liabilities are to be distributed between the liable parties, so that issue will have to be determined in accordance with the applicable national law.

No claims for compensation for pollution damage resulting from a bunker oil spill may be made outside the Bunkers Convention against any of the persons falling within the definition of shipowner (Art. 3.5).

As is the case under the Civil Liability Convention, the Bunkers Convention does not prejudice any right of recourse that the shipowner—as defined—may have independently of the Convention (Art. 3.6).

An incident involving more than one ship may give rise to bunker pollution damage. The shipowners—as defined—of all ships concerned are in such a case jointly and severally liable for all such damage that is not reasonably separable, unless they may invoke one of the exemptions from liability referred to above (Art. 5).

### 9.3.5 No channelling of liability

Unlike the 1992 Civil Liability Convention, the Bunkers Convention does not contain any channelling provisions excluding claims against parties other than the registered shipowner. This means that members of the crew, pilots, salvors, and

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<sup>97</sup> Concerning the reasons for making several persons jointly and severally liable see Jacobsson, 'Bunkers Convention' (n. 95) at 26.

persons taking measures to prevent or minimize pollution damage are not protected against compensation claims.<sup>98</sup>

States are free, however, to introduce channelling provisions in their national legislation. It had been suggested during the preparatory work that the absence of channelling provisions in the Bunkers Convention could act as a disincentive for salvage operations and preventive measures. To meet the concerns in this regard expressed by a number of States and by the industries concerned, the Diplomatic Conference that adopted the Convention also adopted a Resolution inviting States to consider, when implementing the Bunkers Convention, the need to introduce in their national legislation immunity for salvors and persons taking preventive measures.

### 9.3.6 Limitation of liability

The Bunkers Convention does not create a special regime as regards limitation of liability, but it is provided that nothing in the Convention shall affect the right of the shipowner—as defined—and the insurer to limit liability under any applicable national or international regime, such as the 1976 LLMC as amended (Art. 6). The issue of limitation is therefore to be resolved pursuant to the national or international regime, if any, which applies in the State concerned in respect of limitation of liability for maritime claims in general.<sup>99</sup>

The most likely international regime to be applied is the 1976 LLMC, in its original version or as amended by the 1996 Protocol thereto.<sup>100</sup> If the LLMC applies, the owner, charterer, manager and operator of the ship are entitled to limit their liability pursuant to the terms of that Convention, and there will be a single limitation amount for the aggregate liabilities.

It should be noted that, whereas the entire limitation amount under the Civil Liability Conventions is available for claims under these Conventions, claims under the Bunkers Convention will, if the right of limitation is governed by the LLMC, have to compete in the limitation amount with other types of claim.

The linkage to the applicable national and international regime results in uncertainty on several points. Firstly, the limitation amount will differ, dependent on the State in which the pollution occurs. Many States are still parties to the 1976 LLMC whereas others have ratified the 1996 Protocol thereto. A number of States

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<sup>98</sup> With respect to the reasons for the difference on this point between the 1992 Civil Liability Convention and the Bunkers Convention, see Jacobsson, 'Bunkers Convention' (n. 95) at 27–8.

<sup>99</sup> With respect to the relationship between the LLMC and the Bunkers Convention see Martínez Gutiérrez (n. 57) at 190–196.

<sup>100</sup> In April 2012 the IMO Legal Committee decided, by application of the so called 'tacit acceptance procedure', to increase the limitation amounts provided in the LLMC by 51%. The amendments entered into force on 8 June 2015.

have not ratified either of these instruments but are parties to a Convention of 1957 dealing with the subject, and some States remain parties to a Convention adopted in 1924, both of which provide very low limits. Other States are not parties to any Convention on limitation of liability but have national legislation on the subject. If the State party to the Bunkers Convention where the pollution damage occurred does not provide in its national law for limitation of liability for maritime claims, the liability under the Bunkers Convention will be unlimited.<sup>101</sup>

Secondly, the LLMC does not explicitly grant the right of limitation as regards pollution claims. Some categories of claim that normally arise from oil pollution, eg claims for property damage and clean-up costs, would probably fall within the list of the different categories of claim which are subject to limitation under the LLMC. There are, however, other claims where the situation may not be clear, for example claims for pure economic loss suffered by fishermen and businesses in the tourism industry.<sup>102</sup>

Unlike what is the case under the Civil Liability Conventions, the constitution of a limitation fund is not pursuant to the LLMC a condition for limitation of liability, and this would apply also to claims under the Bunkers Convention. A State party to the LLMC may, however, in its national law provide that a person is only entitled to invoke the right of limitation in its courts if a limitation fund has been established (Art. 10).

Pursuant to the LLMC, as under the 1992 Civil Liability Convention, a liable person is not entitled to limit his liability if the loss resulted from *his* personal act or omission, committed with the intent to cause such loss, or recklessly and with knowledge that such loss would probably result (Art. 4). In cases where the right of limitation for bunker pollution claims is to be determined under the LLMC, the fact that one of the liable persons loses his right of limitation as a result of *his* behaviour should not, in principle, affect the right to limitation of other persons who are jointly and severally liable with the former under the Bunkers Convention. However, since there is often a close relationship between the management and ownership structures, it is possible that the *alter ego* (ie the person(s) for whose

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<sup>101</sup> Recognizing this uncertainty, the 2001 Diplomatic Conference adopted a Resolution (Conference Resolution 1) in which States that had not already done so were urged to ratify the 1996 Protocol to the LLMC and encouraged to denounce the 1976 LLMC; States parties to the 1924 or 1957 Conventions were encouraged to denounce these Conventions.

<sup>102</sup> The problem was recognized at the 2001 Diplomatic Conference but the issue was not pursued. As regards the question of which categories of claim are entitled to limitation under the LLMC see Griggs et al (n. 57) at 17–26; Martínez Gutiérrez (n. 57) at 190–6; de la Rue and Anderson (n. 7) at 263. The United Kingdom legislation appears to have eliminated this uncertainty by providing that, for the purpose of limitation of liability, all claims for bunker pollution should be deemed to be claims for property damage within the meaning of Art. 2.1(a) of the LLMC (Merchant Shipping Act 1995 as amended s. 168).



acts a legal person is liable) of both liable persons would be considered to be the same.<sup>103</sup>

### **9.3.7 Compulsory insurance**

The Bunkers Convention provides for a system of compulsory liability insurance which shall cover the liabilities under the Convention. The obligation to maintain insurance or other financial security rests only on the registered owner of the ship (Art. 7.1). The provisions in the Bunkers Convention on insurance, including the possibility for claimants to bring compensation claims directly against the insurer, and on issuance of insurance certificates, are to a large extent identical to the corresponding provisions in the 1992 Civil Liability Convention.

The insurance requirement under the Bunkers Convention only applies to ships having a gross tonnage over 1000 (Art. 7.1). States are given the possibility to exempt from the insurance obligation vessels engaged purely on domestic voyages, ie operating exclusively in its territory and territorial sea (Art. 7.15).

The insurance shall cover an amount equal to the limits of liability under the applicable national or international limitation regime, but in all cases not exceeding an amount calculated under the 1976 LLMC as amended (Art. 7.1).

Insurance certificates shall be issued by the State of the ship's registry, provided it is a party to the Bunkers Convention. As for ships flying the flag of a State not a party to the Convention, the certificate shall be issued by another State that is a party thereto (Art. 7.2).

As regards the problems that have arisen in respect of insurance cover relating to certain acts of terrorism and piracy, reference is made to what is stated above concerning the Civil Liability Conventions (Section 9.2.10). As is the case in respect of the Civil Liability Conventions, the P&I Clubs have been prepared to certify that cover is in place under the Bunkers Convention for damage resulting from acts of terrorism.

Insurance certificates issued by the authority of a State party to the Bunkers Convention shall be accepted by the other States parties (Art. 7.9). The corresponding provision in the Civil Liability Conventions appears not to have caused any problems, because the ships to which those Conventions apply, mainly oil tankers, are normally insured for third party liabilities by one of the P&I Clubs belonging to the International Group of P&I Clubs, and there has not been considered to be any real risk that such an insurer would not be able to honour its obligations under the insurance policy. The situation is not the same for ships other than oil tankers, where a considerable number of ships are insured by or provided with financial

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<sup>103</sup> Griggs et al (n. 57) at 31–5; Martínez Gutiérrez (n. 57) at 62–4.

guarantees by less well-known entities, and it could be difficult for States when issuing certificates under the Bunkers Convention to assess the solvency of some of these insurers or guarantors.<sup>104</sup> The ship holding a certificate issued by the authority of a State party may, however, not be refused entry to the ports of another State party on the grounds that there is doubt about the solvency of the insurer.

The Bunkers Convention contains a provision to the effect that a State party may at any time request consultation with the State having issued an insurance certificate if it believes that the insurer named in the certificate is not financially capable of meeting the obligations imposed by the Convention (Art. 7.9). It appears that the identical provisions in respect of certificates issued under the Civil Liability Conventions (Art. VII.7) have never been invoked.

The Bunkers Convention takes account of the fact that some States may prefer insurance certificates to be kept in electronic form. A State party may therefore notify the Secretary-General of IMO that ships are not required to carry on board or to produce an insurance certificate when entering or leaving its ports, provided that the State party that issues the certificate has notified the Secretary-General that it maintains records in an electronic format, accessible to all States parties, attesting the existence of the certificate (Art. 7.13).

The IMO Assembly has adopted a Resolution on the issuing of insurance certificates under that Bunkers Convention for bareboat chartered ships. In the Resolution, while acknowledging that there had been different interpretations of the Bunkers Convention on this matter (ie whether certificates for such ships should be issued by the State of the underlying registry or by the State where the bareboat charter is registered and whose flag the ship is flying), it is recommended that all States parties should recognize that certificates for ships under bareboat charter should be issued by the flag State, if that State is a party to the Convention.<sup>105</sup>

The IMO Assembly has also adopted a Resolution in which the States parties to the Bunkers Convention are recommended to require that ships flying their flag or entering or leaving their ports hold a certificate as prescribed by that Convention, even when the ship concerned also holds a certificate issued under the Civil Liability Convention.<sup>106</sup>

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<sup>104</sup> In November 2010 the IMO Legal Committee adopted Guidelines for accepting documentation from insurance companies, financial security providers and P&I Clubs addressed to States parties to the Bunkers Convention (IMO document LEG 97/15 Annex 3). It is recommended in the Guidelines that States parties should accept documentation from International Group Clubs and that they should when receiving documentation from insurers or financial security providers outside the International Group verify the financial standing and solvency of such insurers or providers.

<sup>105</sup> Resolution A.1028(26); as regards the discussions in the IMO Legal Committee see IMO document LEG 96/13, paras 6.1–6.16.

<sup>106</sup> Resolution A.1055(27); with respect to the discussion of this issue in the IMO Legal Committee see IMO document LEG 97/7, paras 9–13.

Certificates of insurance under the Bunkers Convention will also have to be issued for Mobile Offshore Drilling Units (MODUs). It should be noted that, although MODUs may be considered as seagoing ships, the LLMC does not apply to such units (Art. 15.5(b)).<sup>107</sup>

#### 9.3.8 Recourse and subrogation

The provisions on recourse and subrogation in the Bunkers Conventions (Art. 3.6) are identical to those in the Civil Liability Conventions (see Section 9.2.17).

#### 9.3.9 Time bar

The time bar provisions in the Bunkers Convention (Art. 8) are identical to the corresponding provisions in the Civil Liability Convention. As regards the interpretation of these provisions reference is made to Section 9.2.18.

#### 9.3.10 Jurisdiction and enforcement of judgments

The provisions in the Bunkers Convention on jurisdiction and recognition and enforcement of judgments in respect of actions against the shipowner (as defined) and his insurer (Art. 9) follow those in the Civil Liability Convention (cf. Section 9.2.19).<sup>108</sup>

### 9.4 The Regime Relating to Damage Caused by Hazardous and Noxious Substances

#### 9.4.1 Introduction

Damage caused by hazardous and noxious substances is governed by the 1996 HNS Convention.<sup>109</sup> The HNS Convention will establish a two-tier system of compensation, with the first tier being paid for by the individual shipowner or his insurer and the second by the International Hazardous and Noxious Substances Fund (HNS Fund).<sup>110</sup>

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<sup>107</sup> See IMO document LEG 97/15 paras 7.6–7.9.

<sup>108</sup> With respect to the possible conflict with EU Regulation No 44/2001 see Jacobsson, ‘EU legislation’ (n. 89) at 70. See also Ringbom: EU Regulation 44/2001 (n. 89).

<sup>109</sup> International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (London, 3 May 1996, not in force) (the ‘HNS Convention’).

<sup>110</sup> For a detailed analysis of the HNS Convention see Jacobsson, ‘The HNS Convention’ (n. 50); M Jacobsson, ‘El Protocolo de 2010 relativo al Convenio Internacional sobre Responsabilidad e Indemnización de Daños en Relación con el Transporte Marítimo de Sustancias Nocivas y Potencialmente Peligrosas, 1996 (Convenio SNP)—¿Se han eliminado los obstáculos para la entrada en vigor del Convenio?’ (2014) 58 *Revista de Estudios Marítimos* 19. See also de la Rue and Anderson (n. 7) at 269–93; M Göransson, ‘The HNS Convention’ (1997) *Uniform Law Review* 249.

As mentioned above, the 1996 HNS Convention which did not enter into force has been amended by a Protocol to the Convention adopted in 2010.<sup>111</sup> The 2010 Protocol has not yet entered into force.

The 1996 HNS Convention and the 2010 Protocol shall be read and interpreted as one single instrument. The 1996 HNS Convention, as amended by the 2010 Protocol, shall constitute the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 2010 (2010 HNS Convention) (Art. 18 of the 2010 Protocol).

The HNS Convention has been modelled on the 1992 Civil Liability and Fund Conventions, and many of the provisions in the HNS Convention are identical or very similar to the corresponding provisions in the 1992 Conventions. It is submitted that it would be preferable if the experience gained in the application of the Civil Liability and Fund Conventions were taken into account in the application of the HNS Convention.

#### **9.4.2 Definition of hazardous and noxious substances**

The definition of hazardous and noxious substances (hereinafter referred to as *hazardous substances*) in the HNS Convention is largely based on lists of individual substances that have been previously identified in a number of IMO Conventions and Codes designed to ensure maritime safety and prevention of pollution. The concept of 'hazardous substances' is defined in Article 1.5 as any substances, materials, and articles carried on board a ship as cargo referred to in a number of IMO instruments as set out below (subject to certain qualifications):<sup>112</sup>

- The International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78), Annex I Appendix I (oils carried in bulk);
- MARPOL 73/78 Annex II. Appendix II (dangerous liquid substances carried in bulk);
- The International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk, 1983 (IBC Code) (dangerous liquid substances carried in bulk);
- The International Maritime Dangerous Goods Code (IMDG Code) (dangerous, hazardous, and harmful substances carried in packaged form);
- The International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk, 1983 (IGC Code) Chapter 19 (liquefied gases);

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<sup>111</sup> 2010 Protocol to the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (adopted London, 30 April 2010, not in force).

<sup>112</sup> The definition of the substances covered by the HNS Convention is very detailed, and it has not been possible to give an exhaustive description thereof in this section.

- The Code of Safe Practice for Solid Bulk Cargoes (BC Code), Appendix B (solid bulk materials possessing chemical hazards) to the extent the materials are also subject to the IMDG Code when carried in packaged form.

The definition also covers liquid substances carried in bulk with a flashpoint not exceeding 60° as well as residues from previous carriage in bulk of substances referred to in the above instruments.

The definition includes bulk solids, liquids including oils (both persistent and non-persistent), liquefied gases such as liquefied natural gases (LNG) and liquefied petroleum gases (LPG).

A number of bulk solids such as coal, grain, and iron ore and certain types of fish-meal are excluded because of the low hazards they present.

Packaged goods are only included to the extent they are covered by the IMDG Code.

The number of substances covered by the definition of hazardous substances in the HNS Convention is very large. It is estimated that the definition incorporates some 6,000 substances. The IMDG Code, for instance, lists hundreds of materials which can be dangerous when shipped in packaged form. In practice, however, the number of hazardous substances covered by the definition that are shipped in significant quantities is relatively small.

The references in the definition to the various instruments are to the instruments as amended, that is, their most recent versions. As a result, amendments to these instruments adopted by the competent bodies of IMO (in most cases by application of a tacit acceptance procedure) will be automatically included in the HNS Convention, which in this manner will be continuously adapted to the developments within the chemical industry. There is one exception to this approach, namely the reference in Article 1.5(vii) which is to the IMDG Code in its 1996 version.<sup>113</sup>

#### **9.4.3 Geographical scope of application**

The HNS Convention applies (Art. 3) to:

- (a) any damage caused in the territory, including the territorial sea, of a State party, provided that damage to property is covered only if caused outside the ship carrying the hazardous substances;

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<sup>113</sup> This provision, as amended by the 2010 Protocol, reads: 'solid bulk materials possessing chemical hazards covered by the International Maritime Solid Bulk Cargoes Code, as amended, to the extent that these substances are also subject to the provisions of the International Maritime Dangerous Goods Code in effect 1996, when carried in packaged form'. As regards the discussion concerning this provision at the 2010 Diplomatic Conference see Jacobsson, 'The HNS Convention' (n. 50) at 52–3.

- (b) damage by contamination of the environment caused in the exclusive economic zone (EEZ) or equivalent area of a State party;
- (c) damage, other than damage by contamination of the environment, caused outside the territory, including the territorial sea, of any State, if this damage has been caused by a substance carried on board a ship registered in a State party; and
- (d) preventive measures wherever taken.

The scope of application is a geographical one, and depends on the place where the damage occurred and not on the place of the incident. The type of damage caused is also relevant and, as regards item (c) above, the nationality of the ship involved.

Any damage caused in the territory or territorial sea of a State party is covered with the proviso that property damage is covered only if caused outside the ship carrying the hazardous substances; loss of life and personal injury is covered whether caused on board or outside the ship (cf. Art. 1.6(a) and (b)).

The applicability outside the territorial sea depends on the type of the damage. Damage by contamination of the environment is covered also if caused in the exclusive economic zone of a State party. Other types of damage caused outside the territorial sea are covered only if caused by substances carried by a ship registered in a State party.

#### **9.4.4 Ships covered by the HNS Convention**

‘Ship’ is defined in the HNS Convention as ‘any seagoing vessel or any seaborne craft of any type whatsoever’ (Art. 1.1). This is in contrast to the 1992 Civil Liability Convention, which only applies to vessels constructed or adapted for the carriage of oil in bulk as cargo (ie in general terms to oil tankers). The definition in the HNS Convention would probably include barges and other craft without means of steering or propulsion.

The shipowner is only liable under the Convention for damage caused by hazardous substances *in connection with their carriage by sea* on board the ship (Art. 7.1). ‘Carriage by sea’ is defined as the period from the time when the hazardous substances enter any part of the ship’s equipment, on loading, to the time when they cease to be present in any part of the ship’s equipment, on discharge. If no ship’s equipment is used, the period begins and ends respectively when the hazardous substances cross the ship’s rail (Art. 1.9).

A State may declare that the HNS Convention does not apply to ships which do not exceed 200 gross tonnage and which carry hazardous substances only in packaged form while the ships are engaged on voyages between ports or facilities of that

State. Two neighbouring States may agree to extend their declarations to cover voyages between them (Art. 5.1 and 5.2).

The HNS Convention does not apply to warships, naval auxiliary, or other ships owned or operated by a State and used, at the time of the relevant incident, only on government non-commercial service. A State may, however, decide to apply the HNS Convention to its warships and other ships on non-commercial service (Art. 4.4 and 4.5).

#### **9.4.5 Exclusion relating to contracts of carriage**

The HNS Convention does not apply to claims arising out of any contract for the carriage of goods and passengers (Art. 4.1).<sup>114</sup>

#### **9.4.6 Damage covered by the HNS Convention**

The concept of damage in the HNS Convention is much wider than in the 1992 Civil Liability Convention. The following types of damage will be covered under the HNS Convention (Art. 1.6):

- loss of life or personal injury on board or outside the ship carrying hazardous substances;
- loss of or damage to property outside the ship;
- economic loss resulting from contamination of the environment, eg in the fisheries and tourism sectors;
- costs of preventive measures (ie reasonable measures to prevent or minimize damage);
- costs of reasonable measures of reinstatement of the environment.

In order for the HNS Convention to apply, the damage must be caused by the hazardous or noxious character of the substances involved (Art. 1.6, third subparagraph).

The HNS Convention does not apply to pollution damage as defined in the 1969 Civil Liability Convention as amended, which in most cases means the 1992 Civil Liability Convention (Art. 4.3(a)). This exclusion applies whether or not compensation is payable under the latter Convention. This provision results in any pollution damage caused by persistent oil being excluded from the scope of the HNS Convention.

The exclusion provision is not restricted to cases where the Civil Liability Convention is in force in the State where the pollution damage occurred and thus actually applies to the incident. As a result, neither the Civil Liability Convention nor the

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<sup>114</sup> As for the interpretation of this provision see Jacobsson, 'The HNS Convention' (n. 50) at 29.

HNS Convention will apply to pollution damage caused by persistent oil in States not parties to the former Convention.<sup>115</sup>

It should be noted that damage caused by persistent oil carried as cargo other than pollution damage is covered by the HNS Convention, for instance damage caused by fire or explosion. Furthermore, any damage caused by non-persistent oil, both pollution damage and other types of damage, is covered by the HNS Convention.

The HNS Convention does not apply to damage caused by bunker fuel oils but is confined to oil carried as cargo (cf. Art. 1.5(a)). During the preparatory work, it was considered that including bunker oil would complicate the Convention since it would basically affect any vessel of whatever type.<sup>116</sup>

Damage caused by certain types of radioactive material is also excluded from the scope of the HNS Convention (Art. 4.3(b)).

The definition of 'preventive measures' in the HNS Convention is identical to the corresponding definition in the 1992 Civil Liability Convention (cf. Section 9.2.5.3).

The definition of damage in the HNS Convention contains the same proviso as the 1992 Civil Liability Convention, namely that compensation for impairment of the environment other than loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken (Art. 1(c))(cf. Section 9.2.5.5).

If it is not reasonably possible to separate damage caused by hazardous substances from that caused by other factors, all such damage shall be considered as having been caused by the hazardous substances. This does not apply, however, if and to the extent that the damage caused by other factors falls within the definition of pollution damage laid down in the Civil Liability Convention (Art. 1.6, second subparagraph).

#### **9.4.7 Shipowner's liability**

Under the HNS Convention, the registered shipowner will have strict liability for any damage caused by hazardous substances in connection with their carriage by sea on board his ship (Art. 7.1).

The shipowner may under the HNS Convention (Art. 7.2) invoke the same grounds of exoneration as those provided for in the 1992 Civil Liability Convention (see Section 9.2.6).

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<sup>115</sup> As mentioned above the LLMC contains a similar provision. With respect to the interpretation of that provision see n. 96.

<sup>116</sup> Concerning the discussions during the preparatory work see Göransson (n. 110) at 257.



In addition, the shipowner is exempt from liability under the HNS Convention if the failure of the shipper or any other person to furnish information concerning the hazardous and noxious nature of the substances shipped *either* caused the damage, wholly or partly, *or* led the owner not to obtain insurance. This defence is not available to the shipowner if he or his servants knew or ought reasonably to have known of the hazardous and noxious nature of the substances shipped (Art. 7.2(d)).

The shipowner has, pursuant to the HNS Convention, the same defence as under the Civil Liability Convention against a person who has suffered damage but has intentionally or negligently contributed to the damage (Art. 7.3) (cf. Section 9.2.6).

No claims for compensation for damage caused by hazardous substances covered by the HNS Convention may be made against the shipowner otherwise than in accordance with that Convention (Art. 7.4).

There are special provisions for incidents involving more than one ship each of which is carrying hazardous substances. Unless exonerated from liability under the HNS Convention, the shipowners are jointly and severally liable for all such damage that is not reasonably separable. However, each shipowner is entitled to the liability limit applicable to him, and the rights of recourse between the shipowners are not affected (Art. 8).

#### 9.4.8 Limitation of liability

The shipowner will under the 1996 HNS Convention normally be able to limit his liability to the following amounts:

- (a) 10 million SDR (US\$13.9 million) for ships not exceeding 2,000 units of gross tonnage;
- (b) for ships with a tonnage in excess thereof, the following amount in addition to 10 million SDR
  - (i) for each unit of tonnage from 2,001 to 50,000 units, 1,500 SDR (US\$2 079);
  - (ii) for each unit in excess of 50,000 G, 300 SDR (US\$415);

up to a maximum of 100 million SDR (US\$139 million) for ships of 100,000 units or over.

As mentioned below (Section 9.4.16.4), the 2010 Diplomatic Conference decided that hazardous goods carried in packaged form will under the 2010 Protocol be excluded from the contribution system to the HNS Fund, but that incidents involving packaged goods will still be covered by the HNS Fund to ensure that victims will be protected in case of a major incident. In order to maintain the concept of shared liability between the shipping industry and the cargo interests, the

shipowner's limitation amount for ships carrying packaged hazardous goods will under the 2010 Protocol be increased by 15 per cent in comparison with the original HNS Convention. As a result, the limitation amounts for such ships under the 2010 Protocol will start at 11.5 million SDR (US\$16.2 million) for ships up to 2,000 units of gross tonnage, increasing to 115 million SDR (US\$162 million) for ships of 100,000 units or over.

Claims in respect of personal injury and death have under the HNS Convention been given priority over other claims in so far as the aggregate amount of such claims does not exceed two-thirds of the limitation amount. The balance of the limitation amount is distributed proportionally between all claimants (Art. 11).

In order to be entitled to limit his liability the shipowner must under the HNS Convention constitute a limitation fund for the sum representing the limit of liability applicable to the ship. The provisions in the HNS Convention on the constitution and distribution of a limitation fund and the effect of such a fund having been established (Arts 9.3–9.7, 9.11 and Art. 10) mirror the corresponding provisions in the 1992 Civil Liability Convention.

Claims in respect of the shipowner's voluntary expenses for preventive measures rank equally with other claims against the limitation fund (Art. 9.8).

As under the 1992 Civil Liability Convention, the shipowner will be deprived of his right to limit his liability if it is proved that the damage resulted from his personal act or omission, committed with the intent to cause such damage, or recklessly and with knowledge that such damage would probably result (Art. 9.2).

Complications may arise due to the fact that claims for damage caused by hazardous substances that fall within the scope of the HNS Convention may also be subject to limitation of liability under various international conventions dealing with global limitation of maritime claims, ie the LLMC (in its original 1976 version or as revised by the 1996 Protocol thereto) and Conventions on the same subject of 1957 or 1924.<sup>117</sup> In this regard, reference is made to Section 9.2.7.<sup>118</sup>

This issue has been addressed in the 1996 Protocol to the 1976 LLMC, which gives States parties to the Protocol the possibility to make a reservation excluding from the application of the amended Convention claims for damage within the meaning of the 1996 HNS Convention and any amendment or Protocol thereto (Art. 7(b)).

When the HNS Convention has entered into force, shipowners may in some cases have to constitute two or even three limitation funds. A ship involved in an

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<sup>117</sup> Art. 42 of the HNS Convention (supersession clause); cf. Art. 30.4(b) of the Vienna Convention on the Law of Treaties.

<sup>118</sup> See also Martínez Gutiérrez (n. 57) at 188–90.

explosion may have to constitute one limitation fund under the HNS Convention for loss of life, personal injury and damage to property, and one such fund under the LLMC for damage falling outside the HNS Convention. Should the ship be an oil tanker, the shipowner may have to constitute a third limitation fund for pollution damage falling within the Civil Liability Convention.

#### **9.4.9 Channelling of liability**

The provisions on channelling of liability to the registered owner in the HNS Convention are identical to those in the 1992 Civil Liability Convention (Section 9.2.9).

#### **9.4.10 Compulsory insurance**

The owner of a ship actually carrying hazardous substances will be obliged to maintain insurance (or other financial security) to cover his liabilities under the Convention. There is no exception from this obligation for small ships. The provisions in the HNS Convention on insurance, including the possibility for claimants to bring compensation claims directly against the insurer, and on issuance of insurance certificate (Art. 12) are the same as those in the 1992 Civil Liability Convention (Section 9.2.10).

As regards the problems that have arisen in respect of insurance cover relating to certain acts of terrorism and piracy, reference is made to what is stated above in respect of the Civil Liability Conventions (Section 9.2.10). During the preparations for the entry into force of the 2010 HNS Convention, the question has arisen as to whether the P&I Clubs would be prepared to issue certificates under the HNS Convention covering acts of terrorism. As at 1 September 2015 the P&I Clubs have not given any undertaking that they will do so.

Ships carrying hazardous substances which hold a certificate issued under the 1969 and/or the 1992 Civil Liability Convention will also be required to hold a certificate issued under the HNS Convention as well as a certificate issued under the Bunkers Convention.

With regard to the difficulties for States when issuing insurance certificates under the HNS Convention to assess the solvency of certain insurers which do not belong to the International Group of P&I Clubs, reference is made to the discussion of this issue in relation to the Bunkers Convention (Section 9.3.7).

#### **9.4.11 The HNS Fund's obligations**

The HNS Fund shall pay compensation to those suffering damage covered by the HNS Convention who do not obtain full compensation from the shipowner and his insurer in the following cases (Art. 14.1):

- (a) no liability arises for the shipowner under the HNS Convention; or
- (b) the shipowner is financially incapable of meeting his obligations under the HNS Convention in full and his insurance does not cover or is insufficient to satisfy the compensation claims; or
- (c) the damage exceeds the shipowner's liability as limited under the HNS Convention.

As mentioned above (Section 9.4.8), the shipowner could in certain circumstances be entitled to limit his liability under international conventions dealing with global limitation of maritime claims which provide for limits that are significantly lower than those provided for in the HNS Convention. The HNS Fund will, however, only pay compensation in excess of the limitation amount that would have applied to the ship in question under the HNS Convention (Art. 14.1(c)), and there would therefore in such cases be a 'gap' in the compensation.<sup>119</sup>

The HNS Fund will provide additional compensation up to a maximum of 250 million SDR (\$346 million), including any amount paid by the shipowner and his insurer (Art. 14.5).

If the total amount of the established compensation claims exceeds the amount available for compensation, all claims will be reduced proportionally. As is the case for the shipowner's liability, claims in respect of personal injury and death will, however, have priority over other claims up to two-thirds of the maximum amount payable by the HNS Fund (Art. 14.6).

As mentioned above (Section 9.4.4), a State may declare that the HNS Convention does not apply to certain small ships engaged in domestic voyages. The HNS Fund is not liable to pay compensation for damage caused by substances carried by a ship excluded from the application of the Convention in the territory, territorial sea and exclusive economic zone of a State having made such a declaration (Art. 5.6).

#### **9.4.12 Defences available to the HNS Fund**

As is the case in respect of the IOPC Funds, the HNS Fund is exempt from liability only if the damage resulted from an act of war, hostilities, civil war or insurrection or was caused by a spill from a warship or other ship owned or operated by a State and used, at the time of the incident, only on government non-commercial service (Art. 14.3(a)) (cf. Section 9.2.12).

With regard to incidents caused by hazardous substances the source of which has not been established, the HNS Fund is not liable to pay compensation if the claimant cannot prove that there *is a reasonable probability that the damage resulted from*

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<sup>119</sup> Under the 1971 and 1992 Fund Conventions the respective Fund fills the corresponding 'gap' (Art. 4.1(c)) (see Section 9.2.11).

an incident involving one or more ships as defined in the Convention, ie a seagoing vessel or seaborne craft (Art. 14.3(b)). This provision in the HNS Convention appears to be more favourable to claimants than the corresponding provision in the 1992 Fund Convention (Art. 4.2(b)) which requires that the claimant *proves that the damage resulted from* an incident involving one or more ships as defined in the Convention, that is, in general terms a laden tanker (see Section 9.2.12). If, for example, a container holding hazardous substances that has been washed ashore breaks and causes damage, it should be sufficient for the claimant to show that there is a reasonable probability that the container had been lost from a ship for the HNS Convention to apply.

The provisions in the HNS Convention relating to the right of the HNS Fund to invoke as a defence contributory negligence on the part of the claimant are identical to those in the Fund Convention (Art. 14.4) (cf. Section 9.2.12).

#### 9.4.13 Recourse and subrogation

The provisions on recourse and subrogation in the HNS Convention (Art. 7.6 and Art. 41) are identical to those in the Civil Liability Convention (see Section 9.2.17).

#### 9.4.14 Time bar

The provisions on time bar in the HNS Convention (Art. 37) are similar (but not identical) to those in the Civil Liability and Fund Conventions.

Rights to compensation under the HNS Convention from the shipowner and his insurer shall be extinguished unless legal action is brought within three years from the date when the person suffering the damage knew or ought reasonably to have known of the damage and the identity of the owner. Right to compensation from the HNS Fund shall be extinguished unless legal action is brought within three years from the date when that person knew or ought reasonably to have known of the damage. In no case shall an action be brought more than ten years from the date of the incident.

As regards the interpretation of the time bar provisions, and in particular the expression *shall be extinguished*, reference is made to Section 9.2.18.

#### 9.4.15 Jurisdiction and enforcement of judgments

The provisions on jurisdiction and enforcement of judgments in the HNS Convention (Arts 38–40) are to a large extent the same as those in the 1992 Civil Liability and Fund Conventions (cf. Section 9.2.19).<sup>120</sup>

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<sup>120</sup> With respect to the possible conflict with EU Regulation No 44/2001 see Jacobsson, 'EU legislation' (n. 89) at 70.

## **9.4.16 The HNS Fund**

### *9.4.16.1 Structure*

The HNS Fund will operate in a similar way to the International Oil Pollution Compensation Funds (IOPC Funds) and will be governed by an Assembly composed of representatives of the Governments of all its Member States (Arts 25–8).

The HNS Fund will be administered by a Secretariat headed by a Director (Arts 29–31). Given the similarities between the HNS Fund and the IOPC Funds, it is likely that these Funds will have a joint Secretariat.

There will be some important differences in the way the HNS Fund will operate compared to the IOPC Funds. The IOPC Funds only deal with claims for pollution damage whereas the HNS Fund will have to deal with a wider range of potential claims, for example, for death and personal injury. Furthermore, the system of contributions to the HNS Fund (Arts 16–23) is much more complex than that for contributions to the IOPC Funds.

### *9.4.16.2 Financing of the HNS Fund*

The HNS Fund will be financed by contributions paid by receivers of hazardous substances that have been transported by sea to the ports and terminals of Member States.

The HNS Fund will have up to four accounts: separate accounts for oil, LNG and LPG and a general account for bulk solids and other hazardous substances. However, until the quantities of hazardous substances received in all States Parties reach certain thresholds, operation of the relevant separate account will be postponed and the account will form a new sector within the general account.

Contributions by individual receivers to the separate accounts will be in proportion to the quantities of hazardous substances received, provided that the quantities are above certain thresholds.

The special accounts will only meet claims resulting from incidents involving the respective cargoes, that is, there will be no cross-subsidization.

### *9.4.16.3 Concept of receiver*

The basic concept is the same as under the 1992 Fund Convention, that is, that contributions are payable by the physical receiver of the contributing cargo discharged in the ports and terminals of a State party. However, if at the time of receipt the person who physically receives the cargo acts as an agent for another person who is subject to the jurisdiction of any State party, then the principal shall be deemed to be the receiver, provided the agent discloses the principal to the HNS Fund (Art. 1.4(a)). If the principal is not subject to the jurisdiction of a State party, the agent remains the receiver for the purpose of the Convention. The concept of

agency is not defined in the Convention and will therefore be determined by the law of the State concerned.

In addition, a State may apply its own definition of the term 'receiver', namely the person in the State party who, in accordance with the national law of that State party, is deemed to be the receiver of contributing cargo discharged in the ports and terminals of a State Party. A State using its own definition of receiver must, however, ensure that the total contributing cargo received according to such national law is substantially the same as that which would have been received if the definition laid down in the Convention had been applied (Art. 1.4(b)).<sup>121</sup> This option is not available as regards contributing oil as defined in the 1992 Fund Convention or in respect of LNG.

With respect to crude and heavy fuel oil, that is, oils that fall within the concept of contributing oil as defined in the 1992 Fund Convention, the provisions on contributions in the HNS Convention (Art. 19.1(a)) are the same as those in the 1992 Convention.

As regards LNG, under the original text of the HNS Convention the contributions are payable not by the receiver but by the person who immediately prior to its discharge held title to the LNG cargo (Art. 19.1(b)). However, pursuant to the Convention as amended by the 2010 Protocol, the person liable for contributions will also as regards LNG cargos be the receiver, except that by agreement between the titleholder and the receiver the titleholder will be liable, provided that if the titleholder defaults on the contribution payments the receiver will be liable (Art. 19.1bis).

#### *9.4.16.4 Packaged goods*

One of the main difficulties in implementing the 1996 HNS Convention had been how to organize the system for reporting hazardous substances carried in packaged form. For this reason the 2010 Diplomatic Conference decided that packaged hazardous substances will under the 2010 Protocol be excluded from the contribution system to the HNS Fund (Art. 1.10 as amended), but incidents involving packaged goods will still be covered by the HNS Fund to ensure that victims will be protected in case of a major incident.

In order to maintain the concept of shared liability between the shipping industry and the cargo interests, the Diplomatic Conference decided, as mentioned in Section 9.4.8, that the limitation amounts for ships carrying hazardous substances in

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<sup>121</sup> In view of the significant complications that would arise if States were to use this option, a Correspondence Group established by the IMO Legal Committee to monitor the implementation of the HNS Convention has strongly recommended States not do so (IMO document LEG 87/11, paras 16 and 18).

packaged form should under the 2010 HNS Convention be increased by 15 per cent in comparison with the original Convention.

#### *9.4.16.5 Non-submission of reports on contributing cargoes*

The 2010 Protocol contains a provision to the effect that the HNS Fund will not pay any compensation for damage in a State in respect of a particular incident until that State has fulfilled its obligation to submit reports on contributing cargoes for all years prior to that incident. This sanction will, however, not apply to claims for compensation for personal injury and death (Art. 21bis. 2–5).<sup>122</sup>

#### **9.4.17 Entry into force conditions**

The entry into force conditions for the 2010 Protocol are identical to those for the 1996 HNS Convention. The 2010 Protocol, and consequently the 2010 HNS Convention, will enter into force eighteen months after ratification by at least twelve States, subject to the following conditions:

- (a) in the previous calendar year a total of at least 40 million tonnes of cargoes other than oil, LNG and LPG liable to contribute to the general account was received in States that have ratified the Convention, and
- (b) four of the States each have ships with a total tonnage of at least 2 million units of gross tonnage.

As at 31 December 2015 no State had ratified the 2010 Protocol.

#### **9.4.18 Preparations for the entry into force of the 2010 HNS Convention**

As requested by the 2010 Diplomatic Conference, the IOPC Funds' Secretariat is carrying out the administrative tasks necessary for setting up the HNS Fund.<sup>123</sup>

The IMO Legal Committee has approved a consolidated text of the 2010 HNS Convention, which had been prepared in consultation with the IOPC Funds' Secretariat and is available on the IMO and HNS websites.<sup>124</sup>

A consolidated list of substances to be covered by the 2010 Protocol has been prepared by the IOPC Funds' Secretariat in cooperation with IMO and this list is available in digital form on the above-mentioned websites.<sup>125</sup> The IOPC Funds' Secretariat has also developed software to assist States and potential contributors to

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<sup>122</sup> See Jacobsson, 'The HNS Convention' (n. 50) at 51–2.

<sup>123</sup> With respect to the preparations for the entry into force see Jacobsson, 'The HNS Convention' (n. 50) at 54.

<sup>124</sup> <<http://www.imo.org>> and <<http://www.hnsconvention.org>>.

<sup>125</sup> The list of substances is accessible through a search engine called 'the HNS Finder', providing the user with an indication of whether the substance in question is included in the list and therefore covered for the purpose of compensation, under which category it is falling (bulk liquids, LNG etc), and whether it is subject to contributions to the HNS Fund.



fulfil their reporting requirements, the Contributing Cargo Calculator, which is available on these websites.

#### **9.4.19 Prospects for entry into force of the 2010 Protocol**

It appears that the 2010 Protocol provides appropriate solutions to the problems identified as obstacles to ratification of the 1996 HNS Convention. The question is, however, whether there is a sufficient political will to proceed to ratification of the 2010 Protocol by a sufficient number of States to bring it into force within a reasonable period of time.<sup>126</sup>

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<sup>126</sup> See Jacobsson, 'The HNS Convention' (n. 50) at 55–7.

## SECTION E

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### REGIONAL APPROACHES TO THE PROTECTION OF THE MARINE ENVIRONMENT



## REGIONAL SEAS PROGRAMME: THE ROLE PLAYED BY UNEP IN ITS DEVELOPMENT AND GOVERNANCE

*Elizabeth Maruma Mrema*

### 10.1 Introduction

Over the years, the United Nations Environment Programme (UNEP) has played a pivotal role and led the development of several international conventions<sup>1</sup> and regional agreements<sup>2</sup> in various areas in the environmental arena, including regional seas instruments, which are the basis of this chapter. UNEP currently administers eight global<sup>3</sup>

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<sup>1</sup> 1992 Convention on Biological Diversity (CBD); 1979 Convention on the Conservation of Migratory Wild Animals (CMS); 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal; 1985 Vienna Ozone Convention for the Protection of the Ozone Layer and its 1987 Montreal Protocol on Substances that Deplete the Ozone Layer; 1998 Rotterdam Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (PIC) Convention; 2001 Stockholm Persistent Organic Pollutants (PoPs) Convention, 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and 2013 Minamata Convention on Mercury, to mention but a few, accessed at <<http://www.informea.org>> on 30 October 2014.

<sup>2</sup> 1994 Lusaka Agreement on Cooperative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora (Lusaka Agreement); 1992 Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS); Agreement on the Conservation of Populations of European Bats (EUROBATS), 1996 Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA), 1994 Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa, among others accessed at <<http://www.informea.org>> on 30 October 2014. Also all regional seas conventions at <<http://www.unep.org/regionalseas/programmes/conventions/default.asp>> accessed on 15 July 2014.

<sup>3</sup> They are the CITES, CMS, Ozone Convention, Basel Convention, PIC, POPs, CBD, Bamako Convention and (on an interim basis) the Minamata Convention on Mercury. Note that three Conventions, Basel, PIC, and POPs have since 2010 been administered under one Secretariat through the synergies arrangements among the chemical MEAs, while the Minamata Convention on Mercury will be administered on an interim basis until its 1st COP decides on a permanent Secretariat. See <<http://www.informea.org>> accessed on 30 October 2014.

and nine regional conventions<sup>4</sup> as well as one global programme of action.<sup>5</sup>

Consequently, this chapter reviews and assesses the role UNEP has and continues to play in the development, administration, and management of a specific branch of international environmental law, namely, regional seas conventions and action plans forming part of the UNEP Regional Seas Programme and particularly, those for which UNEP provides Secretariat and coordination functions.

The chapter begins with the role UNEP has generally played in the development of the regional seas conventions through a series of its ten-year environmental law programme, in which protection of the marine environment has been a priority activity since it began in the 1980s. Development of regional seas programmes through the regional seas action plans, conventions, and protocols has been a priority programme of UNEP since it was established in 1974, as demonstrated through various UNEP Governing Council (UNEP GC) decisions taken over the years. An overview of the provisions of the regional seas action plans, conventions, and protocols in general and the role UNEP plays in their management is provided, including the influence UNEP had in ensuring that all regional seas programmes followed the same or similar pattern. Institutional arrangements for the regional seas action plans, conventions, and protocols as well as funding mechanisms and the role UNEP has played in them are discussed. The chapter concludes with the challenges being faced by some of the regional seas conventions and action plans (RSCAPs) arrangements.

## **10.2 Context of the Regional Seas Programme**

### **10.2.1 Development and setup of regional seas programme**

The Regional Seas Programme was launched in 1974 after the establishment of UNEP and has continued to grow to become one of UNEP's significant

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<sup>4</sup> Four Regional Seas Conventions and the two Action Plans, namely, 1996 Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (Nairobi Convention), 1981 Abidjan Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Atlantic Coast of the West, Central and Southern Africa region (Abidjan Convention), 1995 as revised Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention), Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean region (Cartagena Convention) and: North West Pacific Action Plan (NOWPAP) and Coordinating Body on the Seas of East Asia (COBSEA), the latter two being Action Plans. Regional Species Agreements under the framework of CMS, namely, EURO-BATS, AEWA, ASCOBANS, and Agreement on the Conservation of Gorillas and their Habitats (Gorilla Agreement). Another includes the Bamako Convention on the Ban of the Import to Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa all accessed at <<http://www.informea.org>> on 30 October 2014.

<sup>5</sup> 1995 Global Programme of Action on the Protection of the Marine Environment from land-based Activities (GPA) at <<http://www.gpa.unep.org/>> accessed on July 2014.

achievements and a global flagship programme implemented through regional frameworks for cooperative management and protection of shared marine and coastal environment. The UNEP GC has since then repeatedly<sup>6</sup> endorsed a regional approach for the control of marine pollution and the management of marine and coastal resources. It has also requested UNEP to take the lead in the initiation, development, and support implementation of the regional seas action plans as well as the ensuing regional seas conventions and protocols. The Programme was set up to address accelerating environmental degradation of the world's shared marine and coastal areas, including management of the natural resources through concerted and comprehensive actions among neighbouring countries sharing a specific body of a sea or ocean. As such, the Programme continues to be shaped according to the needs of a specific region with the overall strategy being defined by the UNEP GC. Such strategy has included the promotion of international and regional conventions, guidelines and actions for the control of marine pollution, and protection and management of aquatic resources. Furthermore, the Programme promotes regional and international cooperation for the marine and coastal environment in the context of the UN Convention on the Law of the Sea (UNCLOS)<sup>7</sup> to protect the shared marine environment.

For instance, in June 1973, UNEP GC designated oceans as one of the UNEP's priority programmes and the programme has undergone significant expansion since then. In this regard, the Governing Council adopted the following actionable areas for UNEP to implement:

- i. To carry out objective assessment of problems affecting the marine environment and its living resources in specific bodies of water;
- ii. To prepare a survey of the activities of international and regional organizations dealing with conservation and management of the living resources of the oceans;
- iii. To assist nations in identifying and controlling land-based sources of pollution, particularly those which reach the oceans through rivers;
- iv. To stimulate international and regional agreements for the control of all forms of pollution of the marine environment and especially agreements relating to particular bodies of water;
- v. To develop a programme for the monitoring of marine pollution and its effects on marine ecosystems, paying particular attention to the special problems of

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<sup>6</sup> Since the first UNEP Governing Council in June 1973 to the latest (27th) UNEP Governing Council held in February 2013, there has always been a decision adopted related to oceans and/or marine environment matters and calling upon UNEP to take action on different aspects related to the promotion or further development and implementation of the Regional Seas Programme. For all UNEP GC decisions, see: <<http://www.unep.org/about/sgb/PreviousGoverningCouncilSessions/tabid/129500/Default.aspx>> accessed on 17 July 2014.

<sup>7</sup> United Nations Convention on the Law of the Sea (Montego Bay, 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS).

specific bodies of water including some semi-enclosed seas, if the nations concerned so agree.

This decision was the basis for the development of non-legally and legally binding instruments under the UNEP Regional Seas Programme which has remained valid to date. The Regional Seas Programme was thus initiated as a UNEP action-oriented coordination programme over its administered and non-administered regional seas programmes through the development of action plans for the sound management of the marine environment and conventions, as well as their associated protocols covering different regions of the world. However each programme is managed differently depending on the uniqueness and circumstances of each region.

To date, eighteen regional seas programmes<sup>8</sup> participate in this coordination programme governed through annual Global Meetings of the Regional Seas Conventions and Action Plans organized by UNEP. Global strategies for cooperation and the role of the regional seas programmes have been adopted through these meetings.<sup>9</sup> These meetings channel UNEP programmatic support to the regional seas conventions and action plans, particularly in areas complementary to the UNEP programme of work. They also strengthen linkages between the regional seas conventions and action plans and other relevant global conventions and agreements.

Currently, over 143 countries participate in the thirteen Regional Seas Programmes established under UNEP auspices.<sup>10</sup> Of these, UNEP provides secretariat and coordination functions to six programmes. Four of these programmes consist of legally binding regional seas conventions,<sup>11</sup> while two consist of regional seas action plans without legally binding conventions.<sup>12</sup> UNEP also provides secretariat and coordination functions to the global programme of action for the protection of the marine environment from land-based activities (GPA).

In the regions, the regional seas programmes are implemented through established secretariats called 'Regional Coordinating Units' (RCUs).<sup>13</sup> Regional Activity

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<sup>8</sup> They are, namely: Antarctic, Arctic, Baltic, Black Sea, Caspian, Eastern Africa, East Asian Seas, Mediterranean, North-East Pacific, Northwest Pacific, Pacific, Red Sea and Gulf of Aden, ROPME Sea Area, South Asian Seas, South-East Pacific, Pacific, Western Africa, and Wider Caribbean.

<sup>9</sup> Four to five years Regional Seas Strategic Directions have been adopted to date (2004–7, 2008–12 and 2013–16) and guide implementation of the activities of the Programme.

<sup>10</sup> These are: Black Sea, Wider Caribbean, East Asian Seas, Eastern Africa, South Asian Seas, ROPME Sea Area, Mediterranean, North-East Pacific, Northwest Pacific, Red Sea and Gulf of Aden, South-East Pacific, Pacific, and Western Africa.

<sup>11</sup> These are: Eastern Africa (EAF/RCU), Mediterranean (MEDU), Western Africa (WAF/RCU), and Wider Caribbean (CAR/RCU).

<sup>12</sup> These are: East Asian Seas (COBSEA) and Northwest Pacific (NOWPAP).

<sup>13</sup> Each regional seas convention or action plan for which UNEP provides secretariat and coordination functions under its Regional Seas Programme has established a regional coordinating unit (RCU) hence six RCUs exist with one for NOWPAP having two RCU offices, one at Toyama, Japan and the other at Busan, Republic of Korea.

Centres (RACs)<sup>14</sup> have been established and funded by governments as national institutions, but carrying out regional activities in support of the implementation of conventions, protocols, and/or action plans in close collaboration with RCUs with varying degrees of success and challenges. In some cases, 'Regional Activity Networks' (RANs)<sup>15</sup> have also been established to provide expertise needed for the execution of activities undertaken by RACs.

Of the twelve programmes for which UNEP does not provide secretariat or coordination functions, some<sup>16</sup> have been developed under the auspices of UNEP<sup>17</sup> and UNEP served as an interim secretariat in a number of them in their initial years, until their own secretariats were established.<sup>18</sup> For these programmes, other identified regional organizations would normally host and provide secretariat functions as well as manage their own financial resources (trust funds). Nonetheless, they continue to cooperate in the implementation of their regional activities as part of the cooperation and coordination arrangements under the global regional seas programme spearheaded by UNEP.<sup>19</sup>

Moreover, there are five independent partner programmes in five regions<sup>20</sup> which also form part of the global regional seas programmes. These programmes participate in the UNEP organized Annual Global Regional Seas Coordination

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<sup>14</sup> Varying numbers of Regional Activity Centres (RACs) for different specific activities for the implementation of the conventions and action plans have been established. eg Under the Caribbean Cartagena Convention and Action Plan, four RACs; six RACs under the Mediterranean Barcelona Convention and four RACs under the NOWPAP, and RACs under the West and Central Africa Abidjan Convention have been established. See Appendix 2.

<sup>15</sup> The Caribbean regional seas programme also has virtual regional activity networks for the provision of expertise.

<sup>16</sup> These Regional Seas Programmes for which UNEP does not provide secretariat or coordination functions but developed under its auspices include: Black Sea region, North-East Pacific region, Red Sea and Gulf of Aden, ROPME Sea Area, South Asian Seas, South-East Pacific region, Pacific region, and Caspian Sea. Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Tehran Convention) though not strictly speaking a regional sea but enclosed body of water has been developed like other regional seas programmes under UNEP's auspices. UNEP provides interim secretariat until the location and full secretariat arrangements have been put in place. For the text of the Convention, see: <<http://www.tehranconvention.org/>> accessed on 12 July 2014.

<sup>17</sup> See, eg UNEP Governing Council decision 20/20 of February 1999 on the establishment of a regional seas programme for the East Central Pacific at <[http://www.unep.org/sgb/prev\\_docs/99\\_GC20\\_report.pdf](http://www.unep.org/sgb/prev_docs/99_GC20_report.pdf)> accessed on 12 July 2014.

<sup>18</sup> See, eg Art. 14 of 2002 North-East Pacific Antigua Convention where UNEP was also requested to organize and convene the first meeting of the parties after its entry into force. Also, Art. XVI of the 1978 Red Sea and Gulf of Aden Kuwait Convention, and Art. XVI of the 1982 Jeddah Convention established a regional organization to implement both the Kuwait and Jeddah Action Plans as well as the Conventions and their protocols. The conferences of plenipotentiaries, however, mandated UNEP to serve as their interim secretariat until their permanent secretariats (ROPMEA and PERSGA) were established.

<sup>19</sup> CN Ehler, A Global Strategic Review: UNEP Regional Seas Programme, Ocean Visions, September 2006, 24.

<sup>20</sup> They are: Arctic region, Antarctic region, Baltic Sea, Caspian Sea, and North-East Atlantic region. See <<http://www.unep.org/regionalseas/programmes/independent/default.asp>> accessed on 17 July 2014.



Meetings as well as different activities and projects for the protection and restoration of the marine and coastal environment in their respective regions.

#### **10.2.2. UNEP administered regional species agreements vs. regional seas conventions**

In addition to the above regional seas conventions, whose scope are based on geopolitical boundaries for which UNEP provides secretariat and coordination functions, there are more legally binding and non-legally binding regional seas instruments also negotiated under UNEP's auspices. In some cases, UNEP provide secretariat functions, but their focus is on the conservation of specific migratory marine species within a particular region. Such agreements include: (i) 1992 Agreement on the Conservation of Small Cetaceans of the Baltic, North-East, Irish, and North Seas (ASCOBANS) administered and hosted by UNEP,<sup>21</sup> (ii) 1996 Agreement on the Conservation of the Cetaceans of the Black Seas, Mediterranean Sea, and Contiguous Atlantic Area (ACCOBAMS) administered and hosted by the Government of Monaco,<sup>22</sup> (iii) 1988 Trilateral (Denmark, Germany, and the Netherlands) Agreement on the Conservation of Seals in the Wadden Sea Seals administered and hosted by the Government of Germany,<sup>23</sup> (iv) 2001 Agreement on the Conservation of Albatrosses and Petrels (ACAP-Birds).<sup>24</sup> These legally binding agreements were negotiated and adopted under the auspices of UNEP through Article IV of the global framework Convention on the Conservation of Migratory Species of Wild Animals (UNEP/CMS).

In addition, seven more non-legally binding regional seas migratory species memoranda of understanding (MOUs) have also been negotiated and adopted under the UNEP/CMS auspices.<sup>25</sup> Their secretariat functions are equally provided by UNEP through the UNEP/CMS secretariat and are located in Bonn, Germany except one, namely, MOU on the Conservation and Management of Dugong and their Habitats, whose secretariat is located in Abu Dhabi, United Arab Emirates. Within UNEP these instruments unfortunately are coordinated

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<sup>21</sup> See <<http://www.ascobans.org>> accessed on 25 July 2014.

<sup>22</sup> See <<http://www.accobams.org>> accessed on 25 July 2014.

<sup>23</sup> See <<http://www.waddensea-secretariat.org/management/seal-management>> accessed on 25 July 2014.

<sup>24</sup> See <<http://www.acap.aq>> accessed on 25 July 2014.

<sup>25</sup> See 2007 Memorandum of Understanding (MOU) on the Conservation and Management of Dugong and their Habitats throughout their extensive range hosted by the Government of Abu Dhabi in United Arab Emirates; 1999 MOU concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa; Amended 2009 MOU for the Conservation of Cetaceans and their Habits in the Pacific Region; 2001 MOU on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia (IOSEA); 2007 MOU concerning Conservation Measures for the Eastern Atlantic Population of the Mediterranean Monk Seal; 2010 MOU concerning Conservation of Migratory Sharks; 2007 MOU concerning the Conservation of the Manatee and Small Cetaceans of Western Africa and Macaronesia; all accessed from <<http://www.cms.int>> on 25 July 2014.

through two different Divisions. Regional Seas Conventions and Action Plans are coordinated through the Freshwater and Marine Ecosystem Branch of the Division of Environmental Policy Implementation (DEPI), while the regional migratory marine species agreements and MOUs are managed within the Division of Environmental Law and Conventions (DELC), which is the focal point for the global multilateral environmental agreements (MEAs) including their framework instrument, CMS. Unfortunately, these instruments as well as their secretariats are not included as part of the UNEP Global Regional Seas Meetings except for occasional invitations to attend such meetings as observers, and not necessarily in the cooperative arrangement for their implementation of specific aspects of these agreements and MOUs. They are also sometimes invited to the meetings (Conference of the Parties—CoPs or Intergovernmental Meetings—IGMs) of the individual Regional Seas Programmes with limited programmatic interactions. Further review and analysis of the coordination and management mechanisms used by UNEP to effectively build cooperative arrangements among these relevant secretariats it administers are beyond the scope of this chapter.

### **10.2.3 Impact of UN Convention on the Law of the Sea (UNCLOS) on the RSCAPs**

UNCLOS, also referred to as the ‘Constitution’ of the oceans, adopted in 1982,<sup>26</sup> sets out a comprehensive legal framework for conservation and sustainable use of all oceans and their resources and provides the basis for national, regional, and global action and cooperation in the marine sector.<sup>27</sup> With regards to the protection and preservation of the marine environment, Part XII of UNCLOS provides a framework upon which the regional seas conventions and protocols are negotiated and developed in response to its call for cooperation on a global and regional level in the formulation and elaboration of international rules, standards or recommended practices for the protection and preservation of the marine environment.<sup>28</sup> UNEP, through its Regional Seas Programme as well as its Governing Council has had its influence in the development of Part XII of UNCLOS on the marine environment. The third session of the Governing Council in 1975 urged the negotiations at the Third United Nations Conference on the Law of the Sea ‘to attach the highest priority to incorporate in the draft treaties effective provisions for the protection of the marine environment’.<sup>29</sup> There are forty provisions currently reflected in Part XII of UNCLOS in Articles 197 to 237, most of which have

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<sup>26</sup> See <[http://www.un.org/Depts/los/convention\\_agreements/texts/unclos/unclos\\_e.pdf](http://www.un.org/Depts/los/convention_agreements/texts/unclos/unclos_e.pdf)> accessed on 25 July 2014.

<sup>27</sup> See: UNEP (2014), Regional Seas Governance, UNE Regional Seas Reports and Studies, No. 195 at page 13 accessed from <<http://www.unep.org/ecosystemmanagement/water/regionalseas40/Portals/50221/Region%20Ocean%20Governance%20pub.pdf>> retrieved on 30 November 2015.

<sup>28</sup> UNCLOS Part XII Section 2, in particular, Art. 197.

<sup>29</sup> See UNEP GC decision 3/25(III) of May 1975 para. 1 accessed at <[http://www.unep.org/sgb/prev\\_docs/75\\_0304\\_GC3\\_Report\\_K7510025.pdf](http://www.unep.org/sgb/prev_docs/75_0304_GC3_Report_K7510025.pdf)>.

been incorporated in the framework regional seas conventions and further elaborated through specific protocols<sup>30</sup> developed under the conventions. In addition, Parts XIII and XIV related to marine research and development and transfer of technology have equally played a significant role in the development of the regional seas programme. Considering that UNCLOS largely codified customary law and practice in the field of the protection and preservation of the oceans, it is not surprising to see provisions of Part XII amongst others already reflected and incorporated into the regional seas conventions and protocols adopted before UNCLOS was codified and after it was adopted.

Clearly, the pivotal role played by international organizations such as UNEP in the initiation and development of regional seas conventions and protocols were not only recognized by the UNCLOS but it has specifically called upon UNEP to respond. This role is demonstrated by the increasing number of regional seas conventions and protocols that were initiated, negotiated, and adopted in the past four decades. The development and adoption of fifteen regional seas conventions (six of which UNEP provides with secretariat and coordination functions), sixteen action plans (the majority with conventions but a few with no conventions yet: UNEP provides secretariat and coordination functions for two of them), and forty-two regional seas protocols<sup>31</sup> clearly shows the influence and impact that UNCLOS has had and continues to have on the development of these instruments. This influence has been further coupled with UNEP's strengthened role through the repeated mandates it continues to be accorded by its governing body as well as its influence in the negotiation and development of UNCLOS.

### **10.3 Overview of the Regional Seas Action Plans, Conventions, and Protocols**

#### **10.3.1 Regional seas action plans**

The Regional Seas Programme, composed of regional seas action plans, conventions, and protocols, has evolved over the years and has had a common methodology in its development. At the request of governments UNEP, through specific decisions of its Governing Council,<sup>32</sup> and using its leadership, technical expertise,

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<sup>30</sup> See Appendix 1.

<sup>31</sup> See The Regional Seas Conventions and Protocols adopted at different times since the establishment of the Regional Seas Programme at <<http://www.unep.org/regionalseas/programmes/default.asp>> accessed on 15 July 2014. See also Appendix 1.

<sup>32</sup> eg UNEP GC Decision 4/58(IV) of April 1976 approved the development of the Kuwait Regional agreement for Cooperation on the Protection of the Marine Environment from Pollution; UNEP GC Decision 5/88(V) (c) of May 1977 on the Regional seas programme: Africa led to the preparation of the Nairobi and Abidjan Action Plans; UNEP GC Decision 8/13C of April 1980 led to the development of the Eastern Africa and South-west Atlantic regional seas programmes; UNEP

catalytic role, and convening power, as well as seed funding, has initiated and supported consultative intergovernmental negotiations processes for the development of regional seas action plans. Most of these action plans have called for and led to the development and adoption of the umbrella legally binding framework conventions and implementing protocols except for a few, such as the NOWPAP and COBSEA, both of which UNEP provides with secretariat and coordination functions, and SASAP, administered by SACEP, which have still remained at action plan status. For the two Action Plans for which UNEP provides secretariat and coordination functions, their implementation status through the established RCUs and RACs does not differ from the four legally binding conventions for which UNEP provides secretariat and coordination functions also through their RCUs. The same is probably true of the implementation status for SASAP through SACEP.

UNEP, in cooperation with other UN bodies and international organizations, provides States with a forum, in which they meet, negotiate, and cooperate in order to protect common and shared regional marine resources. In most cases, UNEP, in collaboration and/or consultation with relevant international and regional organizations, undertakes inter-agency fact-finding missions to the countries of the region, and based on these findings, organizes a meeting of national focal points in the specific region to brainstorm and identify priority areas of regional concerns or challenges. Recommendations for preparation of country and/or regional assessment reports are thereafter developed. Such meetings would ordinarily be followed by a convening of legal and/or technical experts to review the country reports and draft regional reports, leading to the development and drafting of an action plan for the protection of the marine and coastal environment of the region.

The action plan specifies regional needs and areas requiring effective and sound management of the marine environment, taking into account international developments in the subject areas where priority activities will need to be developed for the implementation of the action plan. The action plan for protection and development of the marine environment and coastal areas is thereafter agreed and adopted at a meeting of plenipotentiaries of the Member States and in some cases, opened for signature and thereafter ratification or accession. UNEP has thus succeeded in ensuring that a consistent integrated approach has been followed in the development of most, if not all, existing regional seas action plans and safeguarded the maintenance of an inter-disciplinary character of environmental problems. Through its Regional Seas Programme and in collaboration with other relevant international and regional organizations, UNEP acted as the overall coordinator and facilitator for the development and implementation of the regional seas action plans.<sup>33</sup>

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GC Decision 10/20 of May 1982 called on the assessment of the need for the regional seas programme for the South Asia seas, to mention but a few.

<sup>33</sup> See Appendix 1.

Such a process for the development of a regional seas environment programme normally entailed the development of, first, a regional action plan outlining the strategy and substance of a coordinated programme formulated in response to the environmental needs, priorities, and challenges of a given region. So far, all existing action plans are structured in a similar format and content as provided for in the 'Guidelines and Principles for the Preparation and Implementation of Comprehensive Action Plans for the Protection and Development of Marine and Coastal Areas of the Regional Seas'.<sup>34</sup> The format and content normally include first and foremost chapters or components related to environmental assessments, environmental management, environmental legislation, institutional arrangements, and financial arrangements. The action plans are then underpinned by a strong legal framework in the form of a regional cooperation treaty or convention and associated implementing protocols dealing with specific marine related problem(s) and issues. The legally binding convention expresses in clear terms the commitment and political will of governments to tackle their common environmental issues through jointly coordinated activities. However, as stated earlier, not all regional seas action plans have been translated into legally binding framework conventions and protocols, as they are still at the action plan status (such as NOWPAP and COBSEA). These action plans, however, implement their activities and projects through the coordination of the formal established regional seas coordinating units and regional activity centres hosted by national institutions/governments just like the framework regional seas conventions and protocols (See Appendix 2).

An action plan is legally speaking considered to be a non-legally binding or soft-law instrument, similar to guidelines, codes of conduct, and arguably also resolutions or decisions emanating from major international conferences or governing bodies. Some of the regional seas action plans<sup>35</sup> are not only negotiated and adopted but also opened for signature followed by ratification or accession, and determining an effective date for their entry into force, in the same manner as an internationally binding treaty. Consequently, despite the terminology used, regional seas action plans which have gone through this process should in essence be considered under international treaty law as legally binding. However, some regional seas action plans<sup>36</sup> have only been adopted and became effective soon after and thus can be considered to be soft-law instruments.

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<sup>34</sup> UNEP, 1982, 'Guidelines and principles for the preparation and implementation of comprehensive action plans for the protection and development of marine coastal areas of regional seas', UNEP Regional Seas Reports and Studies No. 15, accessed at <<http://www.unep.org/regionalseas/publications/reports/RSRS/pdfs/rsrs015.pdf>> on 12 July 2014.

<sup>35</sup> eg South Asian Seas Action Plan was adopted on 24 March 1995 and entered into force in February 1997; Eastern Africa Action Plan adopted on 21 June 1985 and entered into force on 30 May 1996; West and Central Africa (WACAF) Action Plan adopted in 1981 and came into force in 1984; Kuwait Action Plan adopted on 24 April 1978 and entered into force on 1 July 1979.

<sup>36</sup> eg 1994 NOWPAP; 1981 COBSEA and revised in 1994; 1975 MAP and replaced in June 1995; Caribbean Action Plan adopted in 1981; North-East Pacific Action Plan adopted in February 2002;

In addition to the neutrality, convening power, and catalytic role that UNEP has played, it also provides support measures to Governments, especially those of developing countries, to enable them to participate effectively in the development and management of the regional seas action plans as well as the ensuing conventions and protocols. Such support has included provisions of technical assistance and capacity building in the form of direct or in-kind financial support<sup>37</sup> for targeted activities, training, provision of equipment, technical expertise to support and improve the ability of national institutions, and/or establishment of specialized regional activity centres, and so forth.

Together with the generic framework for the regional seas action plans, UNEP equally spearheaded the development and adoption of a global programme of action intended to tackle a specific environmental problem, namely, the 1995 GPA, which it also hosts and provides with its secretariat services. Although a non-legally binding instrument in nature, its implementation does not differ from any legally binding treaty for which UNEP provides secretariat and coordination functions. Nonetheless, GPA provides a legal framework mechanism for both the development and implementation of the regional seas conventions and protocols, and its implementation through the regional seas programme.

### **10.3.2. Regional Seas Conventions**

The regional seas action plans call for the development and adoption of legally binding regional framework conventions, supplemented by protocols elaborating specific marine pollution issues for the parties to be obliged to take specific actions in collaboration and cooperation among themselves for the protection of marine resources and prevention of coastal and marine pollution. Consequently, the existing regional seas conventions and protocols do in fact respond to the implementation of the provisions of adopted action plans. However, for the regional seas action plans not translated into framework conventions and protocols, parties to the action plans still agreed to take specific actions and implement them as stipulated in the plans for the protection of the marine resources and prevention of

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Red Sea and the Gulf of Aden Action Plan adopted in 1982 (revised in 1995 and a new Strategic Action plan was launched in 1999); South-East Pacific Action Plan adopted in 1981 all became effective immediately after adoption. See also: Appendix 1.

<sup>37</sup> eg South Asian Seas Action Plan—'Institutional and Financial Arrangements for the Implementation of the Action Plan' established a trust fund to support its implementation indicating part of the contributions will include catalytic funding from UNEP Regional Seas Program, among others, at <<http://www.unep.org/regionalseas/programmes/nonunep/southasian/instruments/default.asp>> accessed 13 July 2014. Also East Asian Region Action Plan (COBSEA) states at its para. 71 on Financial Support that Environment Fund of UNEP will provide financial support although has then expected this to decrease over time. At para. 73, the cost to UNEP for the supervision of the coordinating unit was then estimated at US\$250,000 per year which, in view of increasing costs, has increased to currently reaching about US\$340,000 plus. UNEP was in addition expected to fund specific programme activities as requested.

coastal and marine pollution.<sup>38</sup> Just like the regional seas action plans, as indicated earlier on, most existing regional seas conventions, be they provided with secretariat and coordination functions by UNEP or not, have been spearheaded by UNEP, in collaboration with other international organizations, in response to decisions taken by UNEP Governing Council decisions. These decisions had requested UNEP to facilitate and support the intergovernmental negotiation processes for the development of different regional seas conventions. Accordingly, similar methodology as for the action plans has been used, in particular, facilitating and supporting the drafting of the framework convention and subjecting the draft to review by national and regional legal experts before being finally reviewed for adoption by an intergovernmental regional meeting of senior officials.

Regional seas conventions do provide a platform for regional cooperation, coordination, and collaborative actions that permit the participating countries, despite their political differences, to harness resources and their expertise to solve common marine and coastal environmental problems. The regional legal framework provided by the conventions and protocols enables participating countries to jointly agree on their priorities and plan and develop programmes for the sustainable management, protection, and development of their marine and coastal environment. The framework also offers a unique forum for intergovernmental debates on their regional environmental challenges, and strategies to address them. In view of the pattern that evolved in the development on the drafting of the regional seas action plans and the role UNEP played and the influence it had in that process, it is not surprising that most if not all of the existing regional seas conventions do also follow a similar pattern in their development process, contents, and issues covered by each of them.

#### *10.3.2.1 Contents of the regional seas conventions*

The flow of the provisions/articles of the regional seas conventions' chapters and contents are, like the regional seas actions plans, principally similar. For instance: all have more or less similar titles save for regional specificities, with some differences to the latter conventions which have included sustainable development and management in the titles signifying developments in international law. For instance: the title 'Convention for Cooperation in the Protection of the Marine and Coastal Environment' seems to be popularly used by all of the instruments. However, some of the earlier conventions have specified the nature and expected result of the instrument, such as protection of the environment 'from pollution'

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<sup>38</sup> One may wonder if there is any difference between having regional seas action plans alone without a framework convention and those plans with framework conventions and detailed protocols since in both cases Member States do agree to and indeed do take specific and agreed actions for implementing these instruments and do review the status of their implementation through intergovernmental meetings (IGMs) and Conference of the Parties (CoPs) (the latter for those with Conventions), irrespective of their form and nature. It is an interesting issue for further research.

(Kuwait Convention) or 'against pollution' (Black Sea Convention and the old Barcelona Convention) or 'conservation' (Apia Convention, Jeddah Convention) or 'protection and development' (Cartagena Convention, Abidjan Convention) or 'protection, management and development' (Nairobi Convention) or 'protection and sustainable development' (Antigua Convention, revised Barcelona Convention). See Appendix 1.

Successively therefore, all such conventions have similar or related types of provisions. For instance, *inter alia*, geographical scope/coverage, general provisions, general obligations followed by specific obligations related to specific types of pollution, such as from ships, land-based sources and activities, transboundary movement of hazardous wastes, airborne, caused by dumping, to mention but some of the identified sources of key pollution issues covered for implementation by the conventions. Other common provisions include cooperation among parties in: combating pollution and environmental damages, scientific and technical matters, the development and adoption of additional protocols, annexes and amendments thereof, liability and compensation,<sup>39</sup> and development of financial rules, to mention but a few.

To ensure effective implementation of the conventions and the review of such implementation, provisions are included in all conventions related to institutional arrangements including different governing bodies for the conventions as well as financial arrangements to support the implementation of the conventions and their programme of work and activities. Conventions adopted after the 1992 Rio Conference on UNCED included many of the aspirations of its Agenda 21, and existing conventions expanded their provisions to reflect those aspirations, as well as other developments in international environmental law. Consequently, provisions related to contribution to sustainable development, the precautionary principle, the 'polluter pays' principle, access to information and data to stakeholders to enable them to participate in the decision making processes affecting them, and environmental impact assessment, to mention but a few, have been added in later or amended conventions as part of the general obligations of the parties.<sup>40</sup> Likewise, to ensure effective review of the progress made by the parties through the national reports, among others, submitted to the conferences of the parties, provisions related to the establishment of compliance and enforcement regimes are

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<sup>39</sup> Some regional seas conventions have further developed such a provision into protocols or guidelines, such as, the Mediterranean Guidelines for the Determination of Liability and Compensation for Damage resulting from Pollution of the Marine Environment in the Mediterranean Sea Area adopted by the 15th Mediterranean Barcelona Convention Conference of the Parties by its decision IG 17/4 at <[http://www.195.97.36.231/acrobatfiles/08IG17\\_10\\_Ann5\\_Decisions\\_eng.pdf](http://www.195.97.36.231/acrobatfiles/08IG17_10_Ann5_Decisions_eng.pdf)> accessed on 15 July 2014.

<sup>40</sup> eg Antigua Convention adopted in February 2002, Arts 5(6); Nairobi Convention, amended in March 2010, Art. 4(5); Barcelona Convention, as amended in June 1995, Arts 4(3)) and 6. These principles are also already included in the ongoing revision of the Abidjan Convention.



more and more added into the latter or amended conventions or adopted through specific decisions by the parties.<sup>41</sup>

**10.3.2.1.1 Geographical scope** Different options, for instance, have been used to determine geographical coverage or scope for each specific regional convention mostly based on geographical-political grounds. Some regional conventions have utilized sea area latitudes and longitudes (Kuwait Convention) while others used specific jurisdictional areas demarcated by country or regional areas or limits (Abidjan Convention, Black Sea Convention, and the Barcelona Convention) to determine geographical limits for the convention coverage. Some have excluded internal waters of the Parties from the scope of the convention (Cartagena Convention and Kuwait Convention) and another has used the UNCLOS maritime areas as the basis for its scope of application (Antigua Convention). Others permit the parties to further extend the coverage as may be defined by each party within their territories (Barcelona Convention) or define the areas on the basis of the entire watershed such as riparian, marine, and coastal environment including watershed (Nairobi Convention).

There have, however, been discussions at the recent Global Regional Seas Meetings, with no conclusive decision made yet, on whether or not parties to the various conventions should not consider reviewing and revising the way geographical coverage of the different conventions had been determined and considered, in view of and in response to the integrated ecosystem approach being introduced to a number of regional seas programmes. Regional seas action plans have been developed, aligned, and implemented in accordance with the UNEP mandate and priorities, since the regional seas programme is part and parcel of the UNEP approved programme. Recent UNEP priorities have been determined and prioritized in accordance with emerging international developments and in recent years focused on ecosystem management and approach, as well as the green economy, which has in turn also influenced priorities determined by the regional seas programmes. Most of the existing regional seas action plans focus on assessment, monitoring, and normative actions without addressing the sources of pollution and threats to the functioning of the ecosystem; thus the need to address this, making them more effective in improving the quality of the ecosystems as intended.

Furthermore, even the regular reviews of the state of marine environment reporting are carried out based on assessments, and not always on identifying the drivers for ecosystem changes and threats to ecosystem functioning, thus failing to target specific actions required to address the cause of degradation of quality and

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<sup>41</sup> For instance, see: Barcelona Convention, Art. 27 and its COP decision IG 17/2 Procedures and Mechanisms on Compliance under the Barcelona Convention and its Protocols, at <<http://www.unepmap.org/index.php?module=library&mode=pub>> accessed 14 March 2013.

functions of ecosystems. The current geographical coverage of the regional seas action plans and conventions has been decided through political considerations and based on geo-political boundaries, instead of taking into account ecological functions and continuity. This makes it difficult to respond to the current activities and realities through an ecosystem approach, based on assessments of ecosystems processes and functions, optimal ecosystems, and goods and services for human benefit. As a result, the need to address the sources of stress and threats associated with human activities on the ecosystems could be more effectively answered.<sup>42</sup>

Responding to these threats may require extensive updating and revising of the action plans so as to focus on current trends towards the ecosystems approach, to produce specific benefits for human beings, and thus to reconsider the current geographical coverage in the conventions from the traditional geo-political boundaries to ecological boundaries. The emerging focus on ecosystem approach has been highlighted and enshrined in the latest Regional Seas Programme's Strategic Directions, 2013–2016 which aim at strengthening the implementation of the regional seas conventions and action plans at a global level. They 'endeavor to effectively apply an ecosystem approach in the management of the marine and coastal environment in order to protect and restore the health, productivity, resilience of oceans and marine ecosystem . . .'<sup>43</sup> the implementation of which may necessitate a review of the existing action plans as well as nature of the conventions' geographical scope.

**10.3.2.1.2 General provisions** Similar assumptions have been considered or taken by different regional seas conventions under general provisions guiding the entire framework instruments save for the Black Sea Convention, which has similar provisions but in three different articles (on general provisions, sovereign immunity, and general undertakings), all of which can be considered together with other instruments as general provisions. Parties to them have agreed that their conventions as well as ensuing protocols will be implemented and construed in accordance and in conformity with international law.<sup>44</sup> They have agreed to respect each party's rights and duties, respect their national sovereignty and independence and non-interference into each other's internal affairs.<sup>45</sup> Furthermore, parties have protected their prior obligations assumed under previously concluded agreements as not to be

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<sup>42</sup> See UNEP, 'Ecosystem Approach to the Regional Seas Conventions and Action Plans' discussed at the 14th Global Meeting of the Regional Seas Conventions and Action Plans held in Nairobi, Kenya, 1–3 October 2012, paras 820 in <[http://www.unep.org/regionalseas/globalmeetings/14/RS.14\\_WP2.RS.pdf](http://www.unep.org/regionalseas/globalmeetings/14/RS.14_WP2.RS.pdf)> accessed on 25 July 2014.

<sup>43</sup> For the Strategic Direction, 2013–16, see: <[http://www.unep.org/regionalseas/globalmeeting/s/Visioning\\_Workshop/Regional%20Seas%20Strategic%20Directions%202013-2016%20-%20new.pdf](http://www.unep.org/regionalseas/globalmeeting/s/Visioning_Workshop/Regional%20Seas%20Strategic%20Directions%202013-2016%20-%20new.pdf)> accessed on 25 July 2014.

<sup>44</sup> See Barcelona Convention, Art. 3(1), Cartagena Convention, Art. 3(1), Amended Nairobi Convention, Art. 3(1) & (3), Black Sea Convention, Art. III and Abidjan Convention, Art. 3.

<sup>45</sup> See Black Sea Convention, Art. III.

affected by framework convention or protocols<sup>46</sup> including or in particular, UNCLOS.<sup>47</sup> Each other's respect for possible present or future claims and legal views concerning the nature and extent of maritime jurisdiction has also been secured.<sup>48</sup>

Likewise, they have safeguarded their sovereign immunity of warships or other ships owned or operated by their States under international law as not to be affected by the conventions or resulting protocols.<sup>49</sup> Despite all the above exemptions agreed for the regional seas framework conventions and protocols, parties to them have nonetheless agreed to conclude other bilateral or multilateral or regional or sub-regional agreements for the protection and management of the marine and coastal environment of their specific convention areas, as long as such arrangements do not conflict and are consistent with the framework conventions and ensuing protocols.<sup>50</sup>

**10.3.2.1.3 General Obligations** All regional seas conventions provide different types of legal obligations requiring the parties to them to undertake measures either individually, jointly, regionally, or cooperatively in accordance with each convention and within applicable rules of international law to prevent, abate, and combat pollution of the specified marine or coastal areas. Different types of obligations have been agreed by the parties and can be observed in both framework regional seas conventions as well as the resulting protocols. For instance, the use of either general mandatory and outcome focus binding requirements indicating the provisions which must be implemented by the parties (determined by action words such as 'shall', 'must', and 'will') or use of discretionary and effort focus non-binding requirements with provisions showing a certain degree of flexibility on their implementation by the parties, indicated by the action word 'may'. Provisions also differ in terms of providing general or specific actions to be undertaken or outcomes to be achieved by the parties. Other obligations require the parties to cooperate on measures or efforts at regional or national level and/or jointly to take specific actions on specific issues.<sup>51</sup>

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<sup>46</sup> See Nairobi Convention, Art. 3(2), Antigua Convention, Art. 2(2), Abidjan Convention, Art. 3(2), and Cartagena Convention, Art. 3(2).

<sup>47</sup> See Barcelona Convention, Art. 3(3), Abidjan Convention, Art. 3, and Nairobi Convention, Art. 28.

<sup>48</sup> See Cartagena Convention, Art. 3(3), Abidjan Convention, Art. 3, and Nairobi Convention, Art. 3(40).

<sup>49</sup> Barcelona Convention, Art. 3(3), Black Sea Convention, Art. IV, and Nairobi Convention, Art. 3(40).

<sup>50</sup> See Nairobi Convention, Art. 3(1), Antigua Convention, Art. 5(1), Abidjan Convention, Art. 3, Cartagena Convention, Art. 3(1), Black Sea Convention, Art. V(4), and Barcelona Convention, Art. 3(2).

<sup>51</sup> See UNEP/GPA, 2005, Guidance for Reviewing and Harmonizing Laws and Institutions to Enhance the Implementation of Protocols for the Protection of the Marine Environment from Land-based Sources and Activities at National Level, pages 16–22 in UNEP archives.

Accordingly, each and all contracting parties under all regional seas conventions are obliged under the *general obligations* provisions to undertake the different appropriate measures pursuant to their conventions and for their effective implementation.<sup>52</sup> These include obligations not to cause pollution of the marine environment beyond their geographical area, to cooperate in the development and adoption of protocols or other agreements, to adopt national legislative and administrative measures for the effective discharge of the obligations prescribed, and endeavour to harmonize their policies as well as to cooperate with other international bodies to undertake measures which contribute to the protection and preservation of the marine environment and ensure effective implementation of the convention in conformity with international law. Regional seas conventions adopted after 1992 UNCED (eg the 2010 Amended Nairobi Convention, 1995 Barcelona Convention, 2002 Antigua Convention and the revised draft Abidjan Convention) include Agenda 21 principles as part of the general obligations. Thus parties are obliged to apply the following environmental principles in their protection and preservation of the marine environment, namely: the precautionary principle, polluter pays principle, contribution to sustainable development, environmental impact assessment, public participation in decision making, availability and exchange of information and data, and promotion of integrated coastal zone management in the protection of the marine environment.

**10.3.2.1.4 Specific obligations** Recalling that problems related to marine pollution were the major impetus for the development of the regional seas programme, all existing regional seas conventions contain *specific obligations* for the parties to take all appropriate measures in conformity with international law to prevent, abate, combat/control, and to the extent possible remedy/eliminate pollution from the different sources or causes.<sup>53</sup> Such sources of marine pollution include: dumping from ships or aircraft; incineration at sea;<sup>54</sup> discharges from ships or vessels;<sup>55</sup> exploration and exploitation of the continent shelf and seabed and its subsoil;<sup>56</sup>

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<sup>52</sup> eg Antigua Convention adopted in February 2002, Art. 5; Nairobi Convention, amended in March 2010, Art. 4; Barcelona Convention, as amended in June 1995, Art. 4; Cartagena Convention, Art. 4, Abidjan Convention, Art. 4, Kuwait Convention adopted in March 1978, Art. 3, Jeddah Convention, Art. III, to mention but a few.

<sup>53</sup> See Barcelona Convention, Art. 4(1), Cartagena Convention, Art. 4(1), Nairobi Convention, Art. 3(1), Abidjan Convention, Art. 4, Black Sea Convention, Art. V(2), Kuwait Convention, Art. III(a), Antigua Convention, Art. 5(1) to mention but a few.

<sup>54</sup> See Barcelona Convention, Art. 5, Cartagena Convention, Arts 5&6, Kuwait Convention, Arts IV&V, Black Sea Convention, Art. VIII, Abidjan Convention, Arts 5&6, Nairobi Convention, Arts 5&6, Antigua Convention, Art. 6(1), to mention but a few.

<sup>55</sup> See Barcelona Convention, Art. 6, Antigua Convention, Art. 6(1)(b), Nairobi Convention, Art. 5, Abidjan Convention, Art. 5, Black Sea Convention, Art. VIII, Kuwait Convention, Art. VI, Cartagena Convention, Art. 5, to mention but a few.

<sup>56</sup> See Kuwait Convention, Art. VII, Abidjan Convention, Art. 8, Barcelona Convention, Art. 7 to mention but a few.

land-based sources;<sup>57</sup> transboundary movements and disposal of hazardous wastes; and atmospheric pollution.<sup>58</sup> Other obligations include:, protecting biological diversity,<sup>59</sup> rare or fragile ecosystems, threatened and endangered species of flora and fauna and their habitats;<sup>60</sup> establishing protected areas;<sup>61</sup> and, finally, but not least, controlling coastal erosion as a result of human activities, as well as measures aimed at an integrated management and sustainable development of the marine and coastal environment. Most of these specific obligations have led in time to the development and adoption of detailed specific regional seas protocols. See Appendix 1.

#### **10.3.2.2 Regional Seas Protocols**

The specific obligations<sup>62</sup> of the parties provided for in the regional seas conventions are framework in nature, leaving the details to be further elaborated through separate and independent legally-binding protocols. Consequently, as envisaged by each of the regional seas conventions, under the general obligation that parties will cooperate to develop protocols, a total of about forty-two legally binding protocols on different and specific issues on marine pollution have been developed over the years (fifteen under UNEP-administered regional seas conventions and twenty-seven under other non-UNEP-administered conventions. Four are under negotiation and two adopted but not yet in force).<sup>63</sup> Protocols on the following issues have been adopted to date, namely: prevention of pollution by dumping including from ships and aircraft (four<sup>64</sup>), procedures in cases of emergency (eleven<sup>65</sup>), pollution from land-based sources and activities (seven<sup>66</sup>) and from exploration and exploitation of the continental shelf and seabed and its subsoil (two<sup>67</sup>).

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<sup>57</sup> See Barcelona Convention, Art. 8, Nairobi Convention, Art. 7, Abidjan Convention, Art. 7, Caribbean Convention, Art. 7, Antigua Convention, Art. 1(i), Kuwait Convention, Art. VI, Black Sea Convention, Art. VII, to mention but a few.

<sup>58</sup> See Barcelona Convention, Art. 11, Nairobi Convention, Art. 9, Black Sea Convention, Art. XIV.

<sup>59</sup> See Barcelona Convention, Art. 10, Nairobi Convention, Art. 11, Abidjan Convention, Art. 11, Caribbean Convention, Art. 10, to mention but a few.

<sup>60</sup> See Antigua Convention, Art. 6(d).

<sup>61</sup> See Abidjan Convention, Art. 11; Caribbean Convention, Art. 10.

<sup>62</sup> All existing regional seas conventions contain specific obligations for the parties to take all appropriate measures in conformity with international law to prevent, abate, combat/control, and to the extent possible, eliminate pollution from the different sources.

<sup>63</sup> See Appendix 1.

<sup>64</sup> Under the Barcelona Convention, Apia Convention, Noumea Convention, and Black Sea Convention.

<sup>65</sup> Under Barcelona Convention, Abidjan Convention, Nairobi Convention, Apia Convention, Kuwait Convention, Lima Convention, Jeddah Convention, Cartagena Convention, Noumea Convention and Black Sea Convention.

<sup>66</sup> Under Barcelona Convention, Abidjan convention, Cartagena Convention, Nairobi Convention, Kuwait Convention, Lima Convention, Jeddah Convention, and Black Sea Convention (though this Convention is not yet in force).

<sup>67</sup> Under Barcelona Convention and Kuwait Convention.

Others include protocols on: transboundary movements of hazardous wastes and their disposal (three and one being negotiated<sup>68</sup>), combating oil spills (one plus three contingency plans under action plans<sup>69</sup>), radioactive contamination (one<sup>70</sup>), and on the El Niño (one<sup>71</sup>), integrated coastal zone management (one and two being negotiated<sup>72</sup>), the conservation of biological diversity or wildlife and specially protected areas (seven plus one under negotiation<sup>73</sup>) and one on environmental impact assessment under negotiation.<sup>74</sup> See also Appendix 1. Of these protocols, UNEP's role and influence was more visible in the development of the protocols related to the prevention of marine pollution from land-based sources and activities, as most of them have been developed after the adoption of GPA in 1995 and as part of its implementation through the regional seas conventions and action plans.

## 10.4 Institutional Arrangements

### 10.4.1 Intergovernmental meetings (IGMs)/Conferences of the Parties (CoPs)

Effective implementation of the regional seas action plans, framework regional seas conventions, and ensuing regional seas protocols depend as a *condition sine quo non* on active participation and cooperation as well as well-coordinated, efficient, and effective institutional structures or arrangements put in place at regional and national levels by the parties. In this regard, at regional level, all regional seas action plans and conventions have established either intergovernmental meetings (IGMs) for the action plans, or conferences of the parties (CoPs) for the conventions/protocols, both with similar functions and responsibilities, namely, the overall authority to provide policy guidance and act as a decision-making organ for the implementation of the instruments. IGMs<sup>75</sup> and/or CoPs<sup>76</sup> which, inter alia, keep under review the progress achieved in the implementation of the action plans and

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<sup>68</sup> Under Barcelona Convention, Kuwait Convention, Apia Convention, and one under Lima Convention is being negotiated.

<sup>69</sup> Under Cartagena Convention plus NOWPAP, COBSEA, and SASAP oil spill contingency plans.

<sup>70</sup> Under Lima Convention.

<sup>71</sup> Under Lima Convention (El Niño Phenomenon).

<sup>72</sup> Under Barcelona, Nairobi, and Cartagena Conventions being negotiated.

<sup>73</sup> Under Barcelona Convention, Cartagena Convention, Nairobi Convention, Kuwait Convention, Lima Convention, Jeddah Convention, and Black Sea Convention, and under the Abidjan Convention one is being negotiated.

<sup>74</sup> Under Lima Convention.

<sup>75</sup> eg COBSEA, paras 52–3, SASAP, Annex IV under Institutional Arrangements, paras 1–5, NOWPAP, paras 24–5.

<sup>76</sup> eg Nairobi Convention, Art. 18, Abidjan Convention, Art. 17, Barcelona Convention, Art. 18, Cartagena Convention, Art. 16, Antigua Convention, Kuwait Convention, Art. XVII (d) referred to as Council and not CoP and Black Sea Convention, Art. XIX.

conventions, review and approve the programme of work and its budget as well as adopt, review and amend annexes to the conventions and their related protocols including proposals for additional protocols or amendment to the convention or protocols, to mention but few.

To fulfil the above tasks, parties meet at regular intervals as stipulated in the action plans and conventions, normally annually or every two years for the IGMs and every two years for most of the CoPs, except for the Black Sea Convention and Kuwait Convention which meet annually, and at a request by a party, *ad hoc* extraordinary meetings can be convened to discuss specific urgent agenda item(s). In between CoPs and IGMs, the leadership of the CoPs or IGMs, known as the Bureau, either as stipulated in the text of the convention itself (Barcelona Convention, Art. 19) or in the rules of procedures. The Bureau, composed of representatives of the parties or Member States and elected based on the principle of geographical representation, serves as an intersessional decision-making body for the parties and thus provides overall coordination, direction, and oversight of the work of the secretariat in the name of the RCU. Additionally, other roles for the Bureau include providing guidance and monitoring implementation of decisions of the CoPs or IGMs, as well as preparing documentation for the next CoP or IGM, as the Bureau would meet officially in between CoPs or IGMs.

#### **10.4.2 National institutions**

Implementation and enforcement of priority activities identified in the various regional seas action plans as well as decisions of the IGMs and CoPs are principally undertaken by the Member States and parties at national level, and through cooperation between them at regional level. To monitor and follow up implementation of activities at national level and serve as a communication channel between the parties or Member States and for the convention or action plan, each Member State or party has an obligation to designate an appropriate government authority known as the National Focal Point (NFP) for purpose of communications with RCUs as well as monitoring national implementation of the action plan or convention. This obligation is either stipulated in the action plans<sup>77</sup> or conventions<sup>78</sup> or agreed by the parties through specific decisions of the IGM or CoP. Other roles and responsibilities of the NFPs include coordination, and participation of national institutions and government in the development and implementation of approved projects. At the national level, other national institutions or personnel referred to as National Project Coordinators (NPCs)<sup>79</sup> can be designated for specific purposes of coordinating execution of funded projects, and to manage and

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<sup>77</sup> eg COBSEA, paras 58–9, SASAP, paras 11–2.

<sup>78</sup> eg Nairobi Convention, Art. 17(2), Abidjan Convention, Art. 16, Cartagena Convention, Art. 15(2) and Black Sea Convention, Art. XV(7).

<sup>79</sup> See SASAP, paras 13–14.

monitor the implementation of specific projects. NPCs can include academia and research centres, as executing or implementing agencies for specific projects or programmes. To ensure a high degree of efficiency and accountability, all these national institutions form National Coordinating Committees<sup>80</sup> to manage and monitor implementation of regional programmes and activities.

#### 10.4.3 Regional Coordinating Units (RCUs)

At regional level, all action plans and conventions have established a secretariat known as a Regional Coordinating Unit (RCU) to ensure effective technical management, coordination, and continuous monitoring of implementation of activities, programmes, and projects under the action plans or conventions and protocols. At the request of the parties, UNEP has been designated to provide secretariat services under two regional seas action plans,<sup>81</sup> one global programme of action, the GPA,<sup>82</sup> four regional seas conventions, and by extension their protocols.<sup>83</sup> Other regional seas conventions, although negotiated under UNEP auspices as mandated by its GC decisions, as decided by the parties, are administered independently through established independent organizations. Nonetheless, even for those independent regional organizations,<sup>84</sup> UNEP had played a significant role in their negotiation processes. This necessitated the parties to still request UNEP to serve as a secretariat or interim secretariat in the earlier years of the existence of such secretariats, either through the provisions of the conventions themselves<sup>85</sup> or specific decisions of the CoPs,<sup>86</sup> until dedicated organizations or bodies were established for the purpose.

As discussed earlier, regional seas action plans, conventions, and protocols are fully integrated into UNEP's regional seas programme under its programme of work as approved by its GC. This clearly shows that they are not independent entities, as

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<sup>80</sup> See SASAP, para. 17, COBSEA, para. 62, NOWPAP, paras 26–7.

<sup>81</sup> They are, NOWPAP, paras 28–9 and COBSEA (referred to as Coordinating Body), para. 55.

<sup>82</sup> See GPA, paras 75 and 83 at <<http://www.gpa.unep.org>> retrieved 13 July 2014.

<sup>83</sup> They are: Barcelona Convention, Art. 17, Nairobi Convention, Art. 17 (1), Abidjan Convention, Art. 16, and Cartagena Convention, Art. 15(1).

<sup>84</sup> eg Regional Organization for the Protection of the Marine Environment (ROPME) for the Kuwait Convention, Art. XVI(a), Commission on the Protection of the Black Sea Against Pollution, for the Black Sea Convention, Art. XVII(1), Regional Organization for the Conservation of the Red Sea and Gulf of Aden (PERSGA) for the Jeddah Convention, Art. XVI, Permanent Commission of the South Pacific (CPPS) for the Lima Convention, Art. 13, Secretariat of the Pacific Regional Environmental Programme (SPREP, formerly, South Pacific Commission—SPC) for the Noumea Convention, Art. 2(g) and 21, the Antigua Convention, Art. 14.

<sup>85</sup> eg Antigua Convention, Art. 14.

<sup>86</sup> eg Kuwait Convention 1st CoP held in April 1978 adopted Resolution 1 which designated UNEP as an interim secretariat to administer the programmes and activities of the Organization until the establishment of the ROPME secretariat in Kuwait which happened in 1982. See UNEP Regional Seas Reports and Studies No. 35 at 12 accessed at <<http://iwlearn.net/publications/regional-seas-reports/unep-regional-seas-reports-and-studies-no-35>> on 14 December 2014.



are the global environmental conventions which UNEP also provides with secretariat and coordination functions.<sup>87</sup> It is not surprising, therefore, that the regional seas action plans and conventions secretariats are called RCUs<sup>88</sup> headed by Coordinators and not secretariats, as is also the case with UNEP-administered global conventions, headed by Executive Secretaries. Consequently, the six RCUs are all administered by UNEP and provide secretariat and coordination functions through the Regional Seas Programme within the Division of Environmental Policy Implementation (DEPI), a division currently responsible for the coordination and monitoring of the implementation of the regional seas programme, including the regional seas action plans, conventions, and protocols.

UNEP, as an administrator of the RCUs, is responsible for the recruitment of the RCU staff who are UN staff members obligated to abide by UN rules and regulations. In addition, UNEP is also responsible for, but not limited to, procurement, financial management and audits, investigations, if any, to mention but a few. The staff of the RCUs are not only accountable to the Executive Director of UNEP through the Director of the Division responsible for the Regional Seas Programme (currently DEPI) for all administrative services, functions, and financial management, but also to their parties for the substantive functions of the RCUs as related to the implementation of the approved programme of work of the RCU. These include its approved budget and expenditures including implementation of decisions adopted by different IGMs or CoPs and their other governing bodies. To effectively administer the RCUs, most of which, except for the Nairobi Convention RCU, are not located at the UNEP Headquarters, the Director of DEPI, who is in charge of the UNEP Regional Seas Programme, has sub-delegated part of his/her authority to the Heads/Coordinators of the RCUs for some of the administrative and financial management functions. Furthermore, there are also ongoing negotiations between UNEP and the CoPs through their Bureaus<sup>89</sup> to adopt

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<sup>87</sup> UNEP administers six global environmental conventions that were not negotiated pursuant to UNEP GC decisions, as were the regional seas action plans, conventions, and protocols. These are three biodiversity related conventions, namely, CITES, CBD, and CMS (together with its four regional species agreements and nineteen MOUs), three chemical related conventions, namely, Basel Convention, PIC, and POPs, administered together with FAO, currently administered as one joint Secretariat and atmospheric related convention, namely, the Ozone Layer Convention.

<sup>88</sup> RCUs for which UNEP provides secretariat and coordination functions include UNEP-MEDU/RCU for the Barcelona Convention hosted by the Government of Greece in Athens, UNEP-CAR/RCU for the Cartagena Convention hosted by the Government of Jamaica in Kingston, UNEP-EAF/RCU for the Nairobi Convention hosted by UNEP at its headquarters in Nairobi, Kenya, UNEP-WACAF/RCU for the Abidjan Convention previously hosted at UNEP headquarters but moved to Côte d'Ivoire in 2010 as well as UNEP-COBSEA Coordinating Body, for the East Asian Region Action Plan (COBSEA) hosted by UNEP at its Regional Office in Bangkok and UNEP-NOWPAP/RCU co-hosted by Japan and Republic of Korea for the NOWPAP Action Plan.

<sup>89</sup> Such administrative arrangements already exist for a number of UNEP administered global conventions, eg between the UNEP Executive Director as the provider of the Secretariat services and the Chairs of the governing bodies of CBD, CITES, and integrated Chemical Conventions (Basel Convention, PIC and POPs). Similar negotiations are beginning with the regional seas programmes such as the Barcelona Convention as called for at its CoP 17.

agreements on administrative arrangements intended to clarify the relationship and roles between UNEP and the parties on the administrative and financial management of the conventions and the protocols through the RCUs.

#### **10.4.4 Regional Activity Centres (RACs)**

The sheer number of regional seas action plans, conventions, and protocols, plus the various programmes, activities, and projects being executed in different regions to curb the marine environmental challenges clearly demonstrates that the problems are enormous and require concerted measures and actions for solutions. However, the realization of the benefits accruing from the marine and coastal environment have, as a result, necessitated the setting up of Regional Activity Centres (RACs), for most of the UNEP administered and non-UNEP administered RCUs. These RACs are established, hosted, and partly funded by national governments to carry out specific identified regional activities as agreed and approved by different IGMs and CoPs and serve all Member States. Focusing on those for which UNEP provides secretariat and coordination functions, unlike the RCUs, RAC staff members are nationals recruited from and by the host governments. In addition, depending on the labour laws of the Member States, other nationalities from the respective regions may also be considered to work at the RACs.

These RACs are normally guided by the IGMs or CoPs and carry out activities for coordination and implementation of activities in support of the action plans, conventions, and protocols at regional, national, and even local levels as approved by the parties. They are generally established under the regional seas action plans and are expected to report directly to the respective and relevant RCU. Appendix 2 shows the Barcelona Convention has the largest number of RACs, six of them, four of which are nationally instituted RACs and one is a UN established centre managed and staffed by International Maritime Organization (IMO) recruited personnel with activities funded by the parties through the RCU. In view of the current financial challenges facing the implementation and management of the Mediterranean Action Plan, its Convention, and Protocols including the RCU, parties at its COP 17 had decided to commission a functional review process<sup>90</sup> for the RCU as well as its RACs which led to an extended functional review<sup>91</sup> with a

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<sup>90</sup> See Barcelona Convention Functional Review Report in doc. UNEP/BUR/72/Inf.4 dated 12 September 2011 discussed at the Extended Meeting of the Bureau of the Contracting Parties to the Barcelona Convention held at Athens, Greece, 3–5 October 2011 retrieved at <[http://195.97.36.231/dbases/MAPmeetingDocs/11BUR72\\_Inf\\_Eng.pdf](http://195.97.36.231/dbases/MAPmeetingDocs/11BUR72_Inf_Eng.pdf)> accessed on 14 December 2014.

<sup>91</sup> See Functional Review Report of the UNEP/MAP System of March 2013 as presented and discussed at the 1st Meeting of the MAP Focal Points held at Athens, Greece in April and September 2013 as doc. UNEP(DEPI)/MED WG. 376/Inf.3 dated 28 March 2013 and reported in Meeting Report in doc. UNEP(DEPI)/MED WG 387/Inf.6 dated 17 July 2013 accessed at <<http://www.pap-thecoastcentre.org/pdfs/WG.387-Inf.6-Report%201st%20meeting%20Apr13.pdf>> on 14 December 2014.

refocused and strengthened programme for the RCU.<sup>92</sup> Cartagena Convention and NOWPAP have four RACs, each for different marine environment management programmes as shown in Appendix 2.

## 10.5 Financial Arrangements

The success and sustainability of the Regional Seas Programme is dependent on the availability of adequate financial resources for the implementation of: (i) the priority activities identified in the different regional seas action plans, conventions, and protocols, (ii) the growing number of decisions taken by the Members States of the Action Plans during their intergovernmental meetings and/or by the Parties to the different conventions and protocols during their CoPs and (iii) operational costs to run the different established institutional arrangements, such as the RCUs. Although the Regional Seas Programmes have been successful in raising funds from various donors, notably, the Global Environmental Facility (GEF), bilateral, and multilateral donors, amongst others for the different projects and activities on the protection and preservation of the marine environment, difficulties still remain for some regional seas programmes in raising funds from the Member States to manage and run the RCUs. At the adoption of most of the regional seas action plans<sup>93</sup> as well as their conventions and related protocols, it was anticipated that and indeed UNEP provided seed funds for the initial phases of the implementation of the regional seas action plans and conventions, as well as the ensuing protocols. This was with an understanding as evidenced in a number of

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<sup>92</sup> See Barcelona Convention CoP 18 decision IG.21/17 at its Annex III for 2014-2015 biennium on MAP Programme of Work and Budget at its Annex 2 on the Secretariat to the Barcelona Convention/MAP in UNEP (DEPI)/MED IG.21/9 at 51–3 at <[http://195.97.36.231/dbases/CoP/Decisions/2013\\_IG21\\_CoP18/13IG21\\_09\\_Annex3\\_21\\_17\\_ENG.pdf](http://195.97.36.231/dbases/CoP/Decisions/2013_IG21_CoP18/13IG21_09_Annex3_21_17_ENG.pdf)>.

<sup>93</sup> See for instance: NOWPAP, Section 4.3 on Financial Arrangements para. 30, 7 as well as Resolution 3 on the Financial Arrangement for the Implementation of NOWPAP, 11 at <[http://www.unep.org/regionalseas/programmes/unpro/nwpacific/instruments/action\\_plan\\_nowpap.pdf](http://www.unep.org/regionalseas/programmes/unpro/nwpacific/instruments/action_plan_nowpap.pdf)>; COBSEA, para. 71 on Financial Support and para. 73 on Funding at <[http://www.cobsea.org/documents/action\\_plan/ActionPlan1994.pdf](http://www.cobsea.org/documents/action_plan/ActionPlan1994.pdf)> but even earlier COBSEA (1983) similar provisions existed at <[http://www.cobsea.org/documents/action\\_plan/ActionPlan1983.pdf](http://www.cobsea.org/documents/action_plan/ActionPlan1983.pdf)>; EAAP, Resolution on Financial Arrangements, pages 10–12 adopted as the Action Plan was adopted at <[http://www.unep.org/NairobiConvention/docs/Eastern\\_Africa\\_Action\\_Plan.pdf](http://www.unep.org/NairobiConvention/docs/Eastern_Africa_Action_Plan.pdf)>; WACAF, Resolution on Financial Arrangements, pages 10–12 adopted as the Action Plan and the Convention were adopted at <[http://abidjanconvention.org/index.php?option=com\\_content&view=article&id=62&Itemid=122](http://abidjanconvention.org/index.php?option=com_content&view=article&id=62&Itemid=122)>; MAP Phase I (1975), Resolution on the Institutional and Financial Implications, 5, at <[http://195.97.36.231/dbases/webdocs/BCP/MAPPhaseI\\_eng.pdf](http://195.97.36.231/dbases/webdocs/BCP/MAPPhaseI_eng.pdf)>; By the time of MAP Phase II (1995), the MAP was financially self-supporting by contributions from the Parties plus from other sources not necessarily UNEP. See MAP Phase II, 131 at <[http://195.97.36.231/dbases/webdocs/BCP/MAPPhaseII\\_eng.pdf](http://195.97.36.231/dbases/webdocs/BCP/MAPPhaseII_eng.pdf)>. The same is the situation for non-administered regional seas action plans. See, eg SASAP, Section D on Institutional and Financial Arrangements, para. 18, 5 as well as para. 28 on the SASAP Trust Fund, 12 at <<http://www.sacep.org/pdf/SAS%20Action%20Plan.pdf>>. All accessed on 26 April 2013.

UNEP GC decisions<sup>94</sup> that with time the Member States as well as the parties will take full responsibility to fund their programme activities and ensure a financially self-supporting programme. All regional seas action plans have established trust funds financed by, inter alia, assessed contributions from the Member States and parties. For those action plans for which UNEP provides secretariat and coordination functions, management of the trust fund has been entrusted to UNEP to manage and administer them in accordance with the UN/UNEP financial rules and regulations.

Despite UNEP's willingness to support the initial phases of the implementation of regional seas action plans and its ensuing instruments, unpredictable financial resources for UNEP made it difficult for it to continue to support the RCUs and their programmed activities to the magnitude envisaged, since its funding mechanism is primarily based on voluntary contributions from governments. This, coupled with the ongoing global financial crisis, make it a challenge for UNEP to continue to maintain its generosity in providing financial support to implement the action plans and ensuing instruments.

Unlike for other regional seas instruments, anticipated seed funds for Nairobi and Abidjan instruments with parties primarily from the developing countries were never allocated save for ad hoc projects, a situation which made these instruments begin in a weak position with their management relying heavily on project funds. It is not surprising that the two instruments were for a number of years served by one/joint RCU based at the UNEP headquarters and fully funded by UNEP. UNEP's dwindling financial resources especially in the 1990s have thus resulted, for instance, in both Abidjan and Nairobi RCUs being centrally and jointly managed for almost over fifteen years by UNEP within the Regional Seas Programme Office at its headquarters. During this period, UNEP covered all of the operational and staff costs while most of their prioritized activities were executed by funds from different donors, since assessed contributions from the parties were either not paid at all or inadequate to sustain independent secretariats for the two conventions.

Even the Twinning Arrangement which linked the Nairobi and Abidjan Conventions with developed regional seas instruments to help reactivate and revitalize these programmes did not lead to the intended success, apart from learning from each other and increasing their profile, but not anticipated resources.<sup>95</sup> However, since 2010, through the revitalized process of the regional seas programmes in

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<sup>94</sup> See UNEP GC Decision 6/7 of May 1978 on the Mediterranean regional seas programme on the assumption of full financial responsibility at the earliest possible date; UNEP GC Decision 8/13 of April 1980 calling upon UNEP to make funds available from all its relevant budgetary lines for the regional seas programme; same wording repeated in UNEP DC Decision 9/17 of May 1981, to mention but a few.

<sup>95</sup> eg Twinning Agreement between the Baltic Marine Environment Protection Commission and UNEP as secretariat of the Nairobi Convention signed in May 2000.

Africa, the Abidjan Convention RCU re-established itself with its own staff as an independent entity in Côte d'Ivoire, Abidjan where it is hosted. The revitalization process, including enhanced political will and commitment of the Parties to both the Nairobi and Abidjan Conventions, is already showing positive results as the contributions including accumulated arrears to the trust funds being paid are currently adequate to sustain the operational cost of the RCUs and some activities, including salaries being fully or partly paid.<sup>96</sup> The two secretariats are currently fairly independent, especially the secretariat for the Nairobi Convention, which is being managed and funded by the Parties' contributions to the secretariat budgets with donors supporting some of their activities.

Although the financial situation for the regional seas programmes in Africa has in the recent years improved drastically, the situation is completely different for the COBSEA or EAS/RCU hosted by UNEP at its Regional Office in Bangkok. UNEP still continues to cover, except for project activities funded by donors, all related core costs for the implementation of the Action Plan including the staff and operations,<sup>97</sup> since the agreed levels of voluntary contributions by the Member States had never been adequate to cover all requisite core costs needed to sustain the EAS/RCU. Unfortunately, project-based donor funding does not normally cover secretariat operational costs. The situation was further worsened after Australia withdrew its membership, as its contribution, which was the highest, reduced drastically the level of contributions to the Trust Fund. In the recent years, UNEP has made it clear to the Member States that it can longer continue to fund COBSEA operations and staff costs, urging Member States to take ownership of their secretariat functions and thus take measures to sustain their action plan, including hosting arrangements. At an extraordinary IGM convened by UNEP, Member States reviewed possible options on future management of the COBSEA, its RCU, and hosting arrangement and agreed to increase their assessed contributions as well as their budget by over 120%, from US\$155,000 to US\$340,000.<sup>98</sup> However, as at the time of First Extraordinary IGM held on 19 August 2014, none of the Member States had paid in the increased contribution amount, but at least five Members States had officially confirmed agreement to the increased amount totalling about US\$158,000 with a

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<sup>96</sup> See Abidjan Convention COP11 Decision 11/3 on Financial Matters in Document UNEP(DEPI)WACAF/COP.11/9/Rev.1 dated 21 March 2014 retrieved at <<http://www.COP11.abidjanconvention.org/media/documents/Report/COP11%20-%20%20final%Report%20En.pdf>> on 20 November 2014.

<sup>97</sup> See Document UNEP/DEPI/COBSEA IGM/21/4/Add.1 of 7 March 2013 on Sustainability Options: Options for Scale of Contribution to the COBSEA Trust Fund—Options for Scale of Contribution to the COBSEA Trust Fund prepared for the 21st COBSEA IGM held on 26 March 2013, paras 2–4.

<sup>98</sup> For the report of the 21st Meeting of the Coordinating Body (IGM) of the Seas of East Asia (COBSEA), see document UNEP/DEPI/COBSEA IGM 21/6 of 26 March 2013 including its Annex IV on Resolution 1: Future Sustainability of COBSEA, Workplan and Budget 2013-2014 accessed at <<http://www.cobsea.org/igm>> 21 on 15 September 2014.

shortfall of US\$101,000 of the contributions having been paid.<sup>99</sup> Time will tell whether or not the agreements reached will indeed be turned into action and Members States pay the agreed assessed contributions to reach the increased budget and identify an independent host for their EAS/RCU.

On the other hand, NOWPAP Member States, and in particular the governments hosting the RCU in two office locations (Busan, Republic of Korea, and Toyama, Japan) have been discussing possible measures to address financial sustainability of the RCU. The host governments are calling for downgrading of both professional and general service posts in the two locations, but wish to continue to retain the operation of the two offices despite the cost involved in managing and running them.<sup>100</sup>

In the case of the GPA, unlike the regional seas action plans, conventions, and protocols, its secretariat including its staff is administered, managed, and fully funded by UNEP as it does for its other programmes<sup>101</sup> save for donor-funded projects. Through UNEP as its secretariat, GPA is used as a platform to implement all regional seas protocols on land-based sources and activities on marine pollution, developed under the framework of the regional seas conventions.

Despite the initial arrangement and understanding that UNEP would financially support the regional seas action plans during the initial phases, with an undertaking by the Member States to financially self-sustain them, among the UNEP-administered RSPs, only the NOWPAP, CAR, and MAP<sup>102</sup> RCUs are currently self-sustaining from their Parties' assessed contributions with specific projects being funded by donors who in some cases include the Parties themselves,

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<sup>99</sup> For the documents of the Extraordinary Meeting of COBSEA, see: <<http://www.unep.org/ecosystemmanagement/water/regionalseas40/40YearsofAction/COBSEAFirstExtraordinaryMeeting/tabid/794018/Default.aspx>>.

<sup>100</sup> See Report of the First Extraordinary Intergovernmental Meeting (IGM) of NOWPAP held in April 2014 in Doc. UNEP/NOWPAP IG. EO 1/3 accessed at <<http://www.nowpap.org/IGM/EO1.html>> as well as Resolution 3 on NOWPAP Evolution in the Compilation of Resolutions of the Report of the 19th NOWPAP IGM held in October 2014 in doc. UNEP/NOWPAP IG. 19/12/Add.1 dated 27 November 2014 accessed at <<http://www.nowpap.org/IGM/19.html>> on 7 December 2014. In both IGMs, Member States are yet to concretely agree on measures to secure the future financial sustainability of the NOWPAP RCU offices.

<sup>101</sup> See <<http://www.gpa.unep.org>> retrieved on 18 August 2014.

<sup>102</sup> Although the Member States to the MAP have been able for years to sustain their RCU and its activities, the current financial crisis facing many countries in Europe, among others, have necessitated them to initiate a Functional Review of the RCU and its RACs intended to identify ways and means of saving on costs as well as to improve its/their overall performance and operational efficiencies. The CoP 18 held in December 2013 considered the functional review and adjusted and/or merged a number of functions as a means to save costs and thus downgraded a number of posts and abolished some (for instance, one post from D2 to D1 and another from D1 to P5 respectively, others from D1 to P4, P5 to P3, and P5 to P3 respectively and abolished one P5). See: Document UNEP(DEPI)/MED IG.21/9 Annex III on POW and Budget, in particular, page 45 and Annex 2 on the Secretariat of the Barcelona Convention, in particular, page 51 retrieved at <[http://195.97.36.231/dbases/CoPDecisions/2013\\_IG21\\_CoP18/13IG21\\_09\\_Annex3\\_21\\_17\\_ENG.pdf](http://195.97.36.231/dbases/CoPDecisions/2013_IG21_CoP18/13IG21_09_Annex3_21_17_ENG.pdf)> on 30 November 2015.

although MAP and NOWPAP have recently also been faced with financial challenges which have caused their governing bodies to reduce the staffing levels and review and re-prioritize their activities as a measure for reducing costs.

## **10.6 Conclusion—UNEP Regional Seas Programme at Crossroads**

**Conclusions—**Despite many successes and achievements, there are challenges not to be ignored!

### **10.6.1 What has been achieved over the years?**

The UNEP Regional Seas Programme (RSP) is currently celebrating its fortieth Anniversary since it was launched in 1974 and over the years it has flourished as one of the major UNEP flagship Programmes for the protection of the regional and shared marine and coastal environment and management of their natural resources for sustainable development.<sup>103</sup> The Programme has been guided and promoted by UNEP and has thus grown over the years to currently cover and include 143 participating countries across 13 regions. Most regional seas programmes were modelled and do mirror the 6 regional seas programmes that UNEP provides with secretariat and coordination functions. Taking into account the uniqueness and circumstances of each particular marine region, the Programme succeeded in establishing a working pattern, modality, and approach, that all regional seas conventions and action plans followed similar process for and in their development. This process has been successfully used over the years to launch all regional seas programmes.

A Programme normally began with the development of an action plan (MAP, CAP, WACAF, EAAP, COBSEA and NOWPAP), followed by a legally binding instrument in the form of a framework convention, and simultaneously or thereafter proceeded by associated protocols dealing with specific marine environmental challenges, although there are few of them that have remained as action plans with no framework conventions to date (COBSEA and NOWPAP). Also these RSCAPs have successfully established similar or related functional institutional arrangements or secretariats, namely, Regional Coordinating Units (RCUs), which support, assist, and facilitate implementation of the regional marine instruments. They are mainly hosted by one of the Member States (eg Jamaica for CAP, Greece for MAP, Côte d'Ivoire for WACAF, Japan and Korea for NOWPAP) with only two hosted by UNEP (COBSEA and EAAP). To enhance sustained support and technical assistance for the implementation of the regional instruments, some of

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<sup>103</sup> Over 66 Governing Council decisions related to the Regional Sea Programme have been adopted over the last forty years between 1973 and 2013.

the national governments host these Regional Activity Centres (RACs) for the implementation and enforcement of their specific instruments and programmes.

The Regional Seas Programme and the platforms it provides enabled countries with different political settings (Libya/Israel, Iran/Iraq, USA/Cuba, etc) to meet, discuss, and tackle common marine and coastal environment problems or challenges and seek common solutions. As such, the Programme has over the years become a useful unifying factor and a tool for cooperative management of the common natural resources for the benefit of all human beings in their regions, despite any socio-political differences that may exist. In addition, the Programme continues to be a viable platform and avenue not only to support and strengthen regional cooperation, but also a mechanism for the implementation of the global MEAs, such as IMO conventions on marine pollution conventions, chemical MEAs (Basel Convention, Stockholm Convention, and Rotterdam Convention) as well as biodiversity MEAs (CBD, CITES, CMS, WHC, Ramsar Convention), as well as for the GPA, among others. Equally, the Programme continues to provide an effective platform and instruments for supporting implementation and execution of projects funded under the relevant Global Environment Facility (GEF) focal areas or portfolios (eg international waters, biodiversity, chemicals, and land degradation).

For the Regional Seas Programme to succeed the way it has and achieve as illustrated above clearly shows that the needed political leadership at regional level through the participating governments exists. UNEP's convening power, political leadership, and its influence led to the successful preparations and convening of all key meetings of the Member States for the development and management of a particular regional programme. Equally, financial, intellectual, and facilitative leadership existed and was provided by UNEP through the initial start up, and seed funds were always provided to initiate the consultative negotiation process for the development of the RSCAPs, as mandated and requested by its Governing Council.

Although such financial support was intended to facilitate the negotiation, establishment of the secretariat and initial operations of a convention and/or action plan, it was hoped that UNEP would in the near future hand over responsibility to Member States to manage and sustain the established institutions and operations. It did happen in fact for some RSCAPs (such as, MAP, CAP and NOWPAP, Kuwait Region Action Plan) but not others (eg EAAP, until recent years, COBSEA and WACAF) as UNEP continued for many years to provide full or the majority of their funding needs to sustain their operations.

#### **10.6.2 What challenges may limit further successes of the Regional Seas Programme?**

Clearly, many notable successes and achievements have been made throughout the period of the existence of the RSP implemented principally through the RSCAPs.



Nonetheless and especially in the recent years, the Programme is suffering from its own successes and finds that the challenges faced are increasingly affecting the achievements made over the years, making the Programme a victim of its own success. The principal factors which continue to impact on the successes made over the years and thus affect the current activities of the Programme and its implementation through the RSCAPs are, but not limited to, the expanded Regional Seas programme on one hand and the dwindling financial situation of UNEP since the late 1990s on the other. UN and UNEP reforms and restructuring over the years led to the continued reduction of the number of technical staff responsible for the RSP. The factors in turn continued to impact on the successes made on the achievements of the Programme. Reducing funding for the Programme has affected not only the implementation of the activities in the various regions but also the institutional set up (ie technical and financial capacity) to manage the Programme within UNEP itself.

For instance, up to the 1990s, UNEP's institutional structure and framework was based on the implementation of thematic programmes through departments in the name of 'Programme Activity Centres'. The RSP was managed through a fully-fledged centre called, 'Oceans and Coastal Areas Programme Activity Centre' (OCA-PAC) led by a Director with the requisite institutional and technical capacity as well as political leadership to manage and steer the Programme. Under this set-up, a number of RSCAPs as well as their related protocols were developed. The weakening of the RSPs can be traced to 1999 when OCA-PAC was replaced by a 'Water Branch' in an effort to ensure an integrated approach to the management and protection of both the freshwater and marine resources under one programme. The Water Branch programme did not work, and a weakened Regional Seas programme was placed under the non-legally binding Global Programme of Action (GPA) in The Hague. Under this structure the UNEP administered RSPs Programmes focused on the implementation of GPA, from a top-down perspective with little programmatic attention to the non-UNEP administered Regional Seas Programmes. In the sixteen years of restructuring the Regional Seas Programmes failed to take full advantage of their geographical spread, political reach, and goodwill to lead in the emerging technical areas and debates on oceans governance, and an ecosystems based approach to the oceans management.

The current structure perpetuates the weakening of the Programme. The RSP within UNEP is a small unit within the Freshwater and Marine Ecosystem Management Branch in the Division of the Environmental Policy Implementation. The unit, though not recognized as an independent unit within the Branch, is manned by one professional focal point staff member responsible for monitoring the implementation and management of not only the six RSCAPs for which UNEP provides secretariat and coordination functions and forming part and parcel of its RSP but also doing the same and following up also on the developments taking place under the other twelve non-UNEP administered RSCAPs.

The UNEP's institutional capacity to manage the RSP is weak, and is construed by outsiders as signs of the dwindling importance of the Programme globally and internally within UNEP. Within the RSCAPs at regional level, contributions by the Parties to a number of their RSCAPs have in many instances been unpredictable and late, resulting in challenges for planned implementation of activities and projects. The inadequate financial resources to effectively support the programmes and activities further reduce the effectiveness of the RSCAPs. The weakened UNEP's institutional capacity to manage RSPs coupled with reduced contributions from Parties have impacted the effective management, administration, and implementation of the RSCAPs as well as successes and achievements made by the Programme.

Until recent years, implementation and management of the RSCAPs in the developing Africa region, notably, the Abidjan and Nairobi Conventions, were even more affected as a result of the inadequate financial resources both from UNEP as well as contributions from their Parties. Although UNEP as a result of its governing body decision was expected to steer the development of these, like other RSCAPs by providing seed funds for the development of the instruments as well as start-up funds for their operations during the initial years, full financial support for their operations and maintaining the RCUs as well as activities continued for decades until recent years to be funded by UNEP or by donors through UNEP. Unfortunately, the dwindling financial situation of UNEP in the 1990s also adversely affected the level of maintenance and operations of the RCUs for the implementation of the relevant RSCAPs. For instance, the Abidjan Convention entered into force in 1986, and the Nairobi Convention in 1996 but up until around 2001, both instruments did not have a dedicated coordinator, as is the case with all other RSCAPs/RCUs, to support implementation and operations of the conventions save for only one *de facto* professional officer serving as the focal point for the two instruments due to financial difficulties. Furthermore, the Abidjan Convention never had the CoPs to review the status of the implementation of the instruments for several years, 1986–2001, at times also due to lack of a quorum in addition to financial resources, among other factors.

This situation at least has changed in recent years. Since 2010, the Abidjan Convention has its dedicated RCU formally established at Abidjan, Côte d'Ivoire with a dedicated coordinator with a staffing complement. In the years since then, more and more the Parties are taking ownership of their instrument and we have thus seen increasing payments of the agreed assessed financial contributions by the Parties, enabling UNEP to begin to reduce over the coming years its funding support for the coordination of the RCU, and hopefully soon allowing it to be fully owned and managed by the Parties to the Convention and its Action Plan.<sup>104</sup>

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<sup>104</sup> Parties at their last CoP also agreed to increase the level of individual Party assessed contribution to the RCU budget for its Programme of work. See Report of the Abidjan Convention CoP 11

The Nairobi Convention, on the other hand, has had its RCU strengthened and hosted in UNEP since 2002 and within DEPI. The secretariat is managed by a dedicated staff of three with one also managing as the coordinator. With many challenging marine environmental issues which have necessitated the development of these conventions and their related protocols (with some still being negotiated), it is clear that more can be achieved with additional funding resources from the Parties and, as necessary, additional financial and technical support from UNEP. Both the Abidjan and the Nairobi Convention seem to be in a good funding situation, with the Parties taking full responsibility of its RCU operations for the latter and with UNEP beginning to reduce its support for the former to fully managing its affairs in the years to come.

A similar predicament is facing the COBSEA in the South East Asia region, which is currently hosted by UNEP through its Regional Office for Asia and Pacific in Bangkok, Thailand. With limited financial contributions from the Member States (which has not changed for many years) and UNEP supporting the entire operations of the RCU including its staff save for other donor-funded projects, it has become difficult for UNEP to continue to sustain its secretariat, in particular, its coordinator and part-time assistant, who were managing the RCU funded by UNEP.<sup>105</sup> The withdrawal from the membership of COBSEA in 2010 by Australia, which was a major contributor to its budget, further weakened its financial base. A recent independent review undertaken by UNEP on the operations of COBSEA revealed that there are other active and better-funded regional bodies in the region which could be considered to take over or merge with COBSEA, such as PEMSEA,<sup>106</sup> as a means to reinstate and reinvigorate its operations. Unfortunately, the option of merging with PEMSEA, which is a time-bound GEF funded project which has established itself into an independent regional organization or coordinating mechanism through a Ministerial Declaration,<sup>107</sup> may not be a suitable option in the longer term especially after the project ends, unless it is renewed indefinitely which is unlikely.

An extraordinary meeting of the Member States has been held in the recent past to find a solution to the prevailing financial situation of the RCU and its

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held at Cape Town, South Africa in March 2014 at paras 50, 53, and 57 accessed at <<http://www.COP11.abidjanconvention.org/media/documents/Report/COP11%20-%20final%Report%20En.pdf>> on 20 November 2014.

<sup>105</sup> See The Report of the UNEP Executive Director on the Implementation of East Asian Seas Action Plan (COBSEA) 2008–2012 at 2, paras 8–9 in Doc. UNEP/DEPI/COBSEA IGM 21/3. See also: Sustainability Options Document in Doc. UNEP/DEPI/COBSEA IGM 21/4/Rev.1 and Sustainability Options: Options for Scale of Contribution to the COBSEA Trust Fund in Doc. UNEP/DEPI/COBSEA IGM 21/4/Add.1 all accessed at <<http://www.cobsea.org/igm>> 21 retrieved on 15 September 2014.

<sup>106</sup> See COBSEA Examination of Options—Consultant's Report (Peter King), March 2012 at pages 9–12, 19–21 in Doc. UNEP/DEPI/COBSEA IGM 21/ING 4 accessed at <<http://www.cobsea.org/igm21>> retrieved on 15 September 2014.

<sup>107</sup> 9, item 4.3 on Merger.

operations.<sup>108</sup> Agreement had been reached for each Member State to increase their contribution to the RCU budget for implementation of its activities but no such additional contribution has yet been paid for the purpose.<sup>109</sup> Furthermore, in an effort to sustain the operations of COBSEA, Member States had been invited to consider hosting the RCU, including support to its operations, thus having it hosted by a government rather than UNEP. It was anticipated that any such offer would include adequate financial resources to maintain the RCU plus some of its key operational activities. Unfortunately, offers received to date are far from the expectations of other Member States and discussions on the future management, maintenance, and operations of the RCU are still ongoing.<sup>110</sup>

The situation for NOWPAP and its RCU, which UNEP also provides with secretariat and coordination functions but hosted and fully funded by two governments (Japan and Republic of Korea) of the four Member States (the others are Russia and China) is not encouraging either. Member States failed to agree and approve a budget for its operations at their last Intergovernmental Meeting of the Parties (IGM)<sup>111</sup> only to be agreed later on a provisional basis through email exchanges.<sup>112</sup> This was soon after followed by an Extraordinary IGM to discuss options for the reduction of costs of operating the two RCUs, one at Toyama, Japan and another at Busan, Republic of Korea while enabling the host Governments to maintain a similar level of their financial contributions for the management and operations of the RCUs.<sup>113</sup> Some of the options being considered include reducing the number of staff from both RCU offices and downgrading the levels of some posts while favouring retaining the continuation of the operation of the RCU, including the agreed periodic rotation of the two Coordinators between

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<sup>108</sup> See Documents for First Extraordinary Meeting of COBSEA related to financial matters in Documents UNEP/DEPI/COBSEA1a.EO1(4); UNEP/DEPI/COBSEA IG.EO1/5; and UNEP/DEPI/COBSEA IG.EO1/3 as well as The Report of the First Extraordinary Meeting of COBSEA held in August 2014, at <<http://www.unep.org/ecosystemmanagement/water/regionalseas40/40YearsofAction/COBSEAFirstExtraordinaryMeeting/tabid/794018/Default.aspx>>.

<sup>109</sup> See Current State of Contributions and Confirmed Increases in Doc. UNEP/DEPI/COBSEA IG. EO1/4.

<sup>110</sup> See Working Paper Cost Comparison of COBSEA Secretariat Hosting Offers & Implications of the East Asia Seas Trust Fund in Doc. UNEP/DEPI/COBSEA IG. EO1/5 and Summary of Offers in Doc. UNEP/DEPI/COBSEA IG. EO1/6 both retrieved at <<http://www.unep.org/ecosystemmanagement/water/regionalseas40/40YearsofAction/COBSEAFirstExtraordinaryMeeting/tabid/794018/Default.aspx>>.

<sup>111</sup> See Report of the 18th Intergovernmental Meeting of NOWPAP held in December 2013 in Doc. UNEP/NOWPAP IG. 18/12 and see: DOC. UNEP/NOWPAP IG.18/12/Add.1 dated 3 April 2014 on Resolutions of the Meeting (adopted by correspondence on 3 April 2014 at para. 98 accessed at <[http://www.nowpap.org/data/UNEP-NOWPAP-IG18-12%20-%20Meeting%20report%20\(15-01-2014\).pdf](http://www.nowpap.org/data/UNEP-NOWPAP-IG18-12%20-%20Meeting%20report%20(15-01-2014).pdf)> on 20 November 2014.

<sup>112</sup> Annex 1 of the Meeting Report, Resolution 1 paras 3 and 5.

<sup>113</sup> See Report of the First Extraordinary Intergovernmental Meeting of the NOWPAP held in April 2014 in Doc. UNEP/NOWPAP IG. EO1/3 dated 5 June 2014, paras 12 to 44 as well as Annex 1 on the adopted Resolution paras 1–4 accessed at <<http://www.nowpap.org/IGM/EO1.html>> on 20 November 2014.

the two RCU offices. These options have been further debated upon at the 19th NOWPAP IGM held in October 2014 and will be further considered with a final decision to be taken at a scheduled extraordinary IGM in 2015,<sup>114</sup> that will also include the outcome of a functional review of the RCU to be carried out in the meantime.<sup>115</sup>

Implementation of the Barcelona Convention as well as MAP and its RCU also underwent two functional reviews in recent years due to the financial difficulties faced to maintain and support the RCU operations. Some of the recommendations made and already effected include for the first review, amalgamation of some posts with scrapping of some of them and reducing the number of lower cadre staff. The second extended review resulted in downgrading of the senior positions of the coordinator (from D2 to D1 level), deputy coordinator (from D1 to P5 level), downgrading two professional posts (from P4 to P3 and P5 to P3) and abolishing one professional post,<sup>116</sup> among other measures.

Unpredictable financial resources are a major factor affecting the smooth operations and implementation of the RCUs and their operational activities, making all the achievements made over the years by the RSP not fully visible and appreciated, as great energy, efforts, and time are spent on identifying solutions to the financial challenges and modalities for their survival, thus impacting on their implementation. Clearly, for the RSCAPs through the RSP to be further enhanced, maintained, and effectively implemented, prerequisites like political will which in turn supports and ensure the financial base of the Programme, a solid legal base, sound and effective institutional structures, realistic implementation of the regional programme, efficient and effective RCUs with adequate financial and human resources are *conditio sine quo non* for their successful survival. Financial resources will therefore remain a challenge both for UNEP to continue to maintain its financial support to the RSP as well as the Parties and Member States to the RSCAPs to ensure their RSP and its instruments are self-sustaining.

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<sup>114</sup> Report of the First Extraordinary Intergovernmental Meeting of the NOWPAP (n. 113), Adopted Resolution, paras 4–6.

<sup>115</sup> Report of the First Extraordinary Intergovernmental Meeting of the NOWPAP (n. 113), Adopted Resolution, para. 3.

<sup>116</sup> See Report of the Barcelona Convention/MAP CoP, Annex 2 of Annex III on the Secretariat of to the Barcelona Convention/MAP, paras 6–10 in Doc. UNEP(DEPI)/MED IG.21/9 referred to earlier.

## APPENDIX 1

## REGIONAL SEAS CONVENTIONS, ACTION PLANS AND PROTOCOLS

ACTION PLAN	CONVENTION	COMBATING POLLUTION (OIL SPILLS & HW) IN EMERGENCY CASES	LAND BASED ACTIVITIES (LBA)	BIODIVERSITY CONSERVATION AND/OR SPAS AND/OR SPAW	RADIOACTIVE CONTAMINATION	TB MOVEMENT OF HW AND THEIR DISPOSAL	OFFSHORE E&E of CS & SEABED	DUMPING FROM SHIPS & AIRCRAFTS	ICZM	EIA	TOTAL
<b>UNEP ADMINISTERED</b>											
MAP	Barcelona (Mediterranean)	P	P	P	-	P	P	P	P	-	7
WACAF	Abidjan (West, Central & Southern Africa)	P	P	Under negotiation	-	-	-	-	-	-	2
CAP	Cartagena (Wider Caribbean)	P	P	P	-	-	-	-	-	-	3
EAAP	Nairobi (Eastern African)	P	P	P	-	-	-	-	Under negotiation	-	3
COBSEA	-	-	-	-	-	-	-	-	-	-	0
NOWPAP	-	-	-	-	-	-	-	-	-	-	0
<b>TOTAL</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>15</b>
<b>NON UNEP ADMINISTERED</b>											
ROPME	Kuwait	P	P	P	-	P	P	-	-	-	5

*Continued*

*Continued*

ACTION PLAN	CONVENTION	COMBATING POLLUTION (OIL SPILLS & HW) IN EMERGENCY CASES	LAND BASED ACTIVITIES (LBA)	BIODIVERSITY CONSERVATION AND/OR SPAS AND/OR SPAW	RADIOACTIVE CONTAMINATION	TB MOVEMENT OF HW AND THEIR DISPOSAL	OFFSHORE E&E of CS & SEABED	DUMPING FROM SHIPS & AIRCRAFTS	ICZM	EIA	TOTAL
	Lima (South-East Pacific)	Agr+Suppl. Protocol	P	P	P	Under negotiation	-	-	-	Under negotiation	4
PERSGA	Jeddah (Red Sea & Gulf of Aden)	P	P	P	-	-	-	-	-	-	3
	Noumea (South Pacific)	P	-	-	-	P (not in force)	-	P	-	-	2
Black Sea	Bucharest (Black Sea)	P	P (not in force)	P	-	-	-	P	-	-	3
SASAP	-	-	-	-	-	-	-	-	-	-	-
North-East Pacific	Antigua (North-East Pacific)	-	-	-	-	-	-	-	-	-	-
Caspian Sea	Tehran (Caspian)	P	P	P	-	-	-	-	-	-	3
OSPAR	Bonn	-	P	-	-	-	P	P	-	-	3
HELCOM	Helsinki	P	P	-	-	-	P	P	-	-	4
PAME	Arctic	-	-	-	-	-	-	-	-	-	-
CCAMLR	Antarctica (CCAMLR)	-	-	-	-	-	-	-	-	-	-
TOTAL	7	6	5	1	1	1	3	4	-	-	27

Note:

MAP - Mediterranean Action Plan  
WACAF - West and Central African

CAP - Caribbean Action Plan  
EAAP - East African Action Plan  
NOWPAP - Northwest Pacific Region  
COBSEA - Coastal Areas for East Asian Region  
ROPME - Regional Organization for the Protection of the Marine Environment  
PERGSA - Red Sea and Gulf of Aden  
SASAP - South Asian Seas Region  
OSPAR - The Convention for the Protection of the Marine Environment of the North-East Atlantic (the 'OSPAR Convention') opened for signature at Oslo and Paris in 1992  
HELCOM - Baltic Marine Environment Protection Commission—Helsinki Commission which is the governing body of the Convention on the Protection of the Marine Environment of the Baltic Sea Area  
PAME - Protection of the Arctic Marine Environment  
CCAMLR - Commission for the Conservation of Antarctic Marine Living Resources  
CAMLRL - Convention on the Conservation of Antarctic Marine Living Resources of 1980  
HW - Hazardous Wastes  
PAs - Protection Areas  
WFF - Wild Fauna and Flora  
TB - Transboundary  
E&E of CS - Exploration and Exploitation of Continental Shelf  
ICZM - Integrated Coastal Zone Management  
EIA - Environmental Impact Assessment  
SPAs - Special Protected Areas  
SPAW - Special Protected Areas and Wildlife



## APPENDIX 2

### REGIONAL COORDINATING UNITS (RCUS) & REGIONAL ACTIVITY CENTRES (RACS)

ACTION PLAN AND CONVENTIONS (RCUs)	RACs	LOCATION	FOCUS AREA	HOSTING INSTITUTION
Barcelona and MEDU RCU	BP/RAC	Sophia Antipolis & Marseille, France	Environment and development issues	NGO
	PAP/RAC	Split, Croatia	Implementation of ICZM Protocol	Public non-profit institution
	SPA/RAC	Tunis, Tunisia	Implementation of SPA/BD Protocol	Non-profit public institution
	INFO/RAC	Rome, Italy	Information, communication and technical support	ISPRA
	CP/RAC	Barcelona, Spain	Cleaner and sustainable production and consumption	Waste Agency of Catalonia & MAGRAMA
Carragena (Caribbean) CAR/RCU	REMPEC	Valletta, Malta	Marine pollution and emergency responses	IMO
	REMPETC/RAC	Curacao, Netherlands Antilles	Marine pollution emergency and oil spills, information and training	
	CIMAB/RAC	Havana, Cuba	LBS of marine pollution	Centre of Engineering and Environmental Management of Coasts and Bays
	IMA/RAC	Chaguaramas, Trinidad & Tobago	LBS of marine pollution	Institute of Marine Affairs
Abidjan (West & Central Africa) WACA/RCU	SPAW/RAC	Guadeloupe, France	Specialty protected areas and wildlife	Ministry of Ecology
	RCCMPE	Nigeria	Emergency cases or oil pollution spills	IMO & Government

ACTION PLAN AND CONVENTIONS (RCUs)	RACs	LOCATION	FOCUS AREA	HOSTING INSTITUTION
NOWPAP (North-west Pacific) RCU	CEA/RAC	Toyama, Japan	Monitoring and assessment including Data and information exchange and clearing house	NPEC
	DIN/RAC	Beijing, China		CAEC-MEP
	MER/RAC	Daejeon, Republic of Korea	Developing cooperative measures in response to marine pollution incidents (oil and spills)	MOERI/KORDI
	POM RAC	Vladivostok, Russian Federation	Atmospheric deposition of contaminants and river and compiling state of marine environment report	PGI
<p>Hosting Institution:</p> <p>NPEC - Northwest Pacific Region Environmental Cooperation Centre</p> <p>CAEC-MEP - China-ASEAN Environmental Cooperation Centre of the Ministry of Environmental Protection (MEP)</p> <p>MOERI/KORDI- Maritime &amp; Ocean Engineering Research Institute with the Korean Ocean Research and Development Institute</p> <p>PGI - Pacific Geographical Institute of the Far East Branch of the Russian Academy of Sciences</p> <p>ISPRA - Italian Institute for Environmental Protection &amp; Research</p> <p>Regional Activity Centres (RACs)</p> <p>SPAW - Specially Protected Areas and Wildlife</p> <p>REMPEITC - Regional Marine Pollution Emergency Information and Training Center for the Wider Caribbean</p> <p>CIMAB - Center of Engineering and Environmental Management of Coasts and Bays</p> <p>REMPEC - Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea</p> <p>BP/RAC - Blue Plan</p> <p>PAP/RAC - Priority Action Programme</p> <p>ERS/RAC - Environment Remote Sensing</p> <p>SPA/RAC - Special Protected Areas</p> <p>INFO/RAC - Information, Communication &amp; Technical Support</p>				

*Continued*

SCP/RAC - Sustainable Consumption and Production Regional Activity Centre  
RCCMPE - Regional Coordination Centre for Marine Pollution Emergency  
MAGRAMA - Spanish Ministry of Agriculture, Food and Environment  
CITET - Tunis International Centre for Environmental Technologies  
IMO - International Maritime Organization  
IMA/RAC - Institute of Marine Affairs  
CEA/RAC - Special Monitoring & Coastal Environment Assessment Regional Activity Centre  
DIN/RAC - Data & Information Network Regional Activity Centre  
MER/RAC - Marine Environmental Emergency Preparedness & Response Regional Activity Centre  
POM/RAC - Pollution Monitoring Regional Activity Centre

## PART II

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# MARITIME SECURITY LAW



# 11

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## PIRACY, HIJACKING, AND ARMED ROBBERY AGAINST SHIPS

*Markiyan Z Kulyk*

### 11.1 Introduction

It has often been noted that until recently the word ‘pirate’ instantly evoked a ‘Hollywood’ image of a figure in a battered coat and tricorn hat, somewhere in exotic tropical locations, festooned with weaponry, but charming and filled with all kinds of adventures and romantic stories, perhaps even a symbol of rebellion against sluggish authorities. These images are not new. Reportedly, fascination with pirates was already chronicled as early as in the first half of the eighteenth century; in 1724 a book published in London called *A General History of the Robberies and Murders of the Most Notorious Pirates* became a best seller.<sup>1</sup> But make no mistake, Captains Blackbeard, Hook, Long John Silver, or Jack Sparrow are not heroes but seafaring criminals.

The origins of piracy go back to ancient times. It seems that it was Cicero who first described pirates (from the Greek word of assailant) as the enemies of all peoples (*hostes humanis generis*). Customary international law prohibited piracy and treated pirates as enemies of all humankind. Pirates were considered to wage war not just against any one State but all States. It is actually the first crime to have been recognized as being subject to universal jurisdiction and probably the only one not derived from international treaties or conventions. In 1927 Judge Moore in *The ‘Lotus’ (France v Turkey)*<sup>2</sup> case before the *Permanent Court of International Justice (PCIJ)* described it as follows:

Though statutes may provide for its [piracy] punishment, it is an offence against the law of nations; and as the scene of the pirate’s operations is the high seas, which it is not the right or the duty of any nation to police, he is denied the protection of the

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<sup>1</sup> A Konstam, *Piracy: the Complete History* (Osprey Publishing, 2008).

<sup>2</sup> PCIJ Series A No 10 (at 70).

flag he may carry, and is treated as an outlaw, as the enemy of mankind—*hostes humanis generis*—whom any nation may in the interest of all capture and punish.

While the prohibition of piracy was declared almost from the early ancient times, the scope of particularly banned activities and definition of who should be considered a pirate, were not free from controversy. Whether we can put Captain Blood along the above line of Disneyland/Hollywood-created pirates, or agree on the proper place for some real persons like Francis Drake or William Dampier<sup>3</sup> at different times of their life journey is not only a matter of moral or national attitude, but first and foremost of interpretation of relevant rules of international law applicable at that period. There were also periods when it was believed that piracy had been eradicated and did not require important public attention. This illusion was definitely proven wrong at the beginning of this century, despite the recent drop in the number of attacks.<sup>4</sup>

## 11.2 Brief Historic Endeavour: Privateering

Piracy has been a persistent problem for thousands of years, in fact from the times when ships started to sail the oceans. The phenomenon was not limited to a particular region, threatening merchant shipping at times with different levels of intensity almost on all known seas. Contemporary universal condemnation of piracy might suggest that it was always viewed with disdain. But that does tend not to be so. Pirates were repeatedly tolerated and sometimes even viewed by States as a certain foreign policy tool to be employed for their own interests.<sup>5</sup>

In addition to ‘pirates’, who attacked any ships indifferent of the flag of State it was flying, or committed robbery or other acts of violence at sea against any persons or ships for private ends whether in time of war or peace, there were—‘privateers’, ‘buccaneers’, ‘filibusters’, ‘corsairs’, ‘freebooters’—all having their own definitions. There is no room in this contribution to elaborate extensively on legal elements of all these definitions, therefore just some of the main features of privateering as the most widespread and encompassing phenomenon will be noted.

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<sup>3</sup> D Preston and M Preston, *A Pirate of Exquisite Mind: Explorer, Naturalist and Buccaneer: the Life of William Dampier* (Walker & Company, 2004).

<sup>4</sup> It should be noted that various international organizations use different approaches in recording acts of piracy and armed robbery at sea. Reports of the International Maritime Organization (IMO) and of the International Maritime Bureau (IMB) although applying separate definitions of piracy are the most comprehensive and reliable. The IMO defines piracy by explicit reference to Art. 101 of the United Nations Conventions on the Law of the Sea 1982 (UNCLOS) and provides additional definition of ‘armed robbery against ships’. The IMB approach is broader than definition in UNCLOS and for statistical purposes includes attacks in territorial sea and internal waters and does not distinguish between private or public intentions.

<sup>5</sup> Konstam (n. 1).

A 'privateer' was a person under a contract to a government, usually in the form of 'a letter of marque' (sometimes having the full title '*a letter of marque and reprisal*') issued by a recognized State authorizing him to attack and capture vessels having nationality of a State with which the former State was at war. The contract most often also provided that the government received a share of the profits. The most obvious difference between pirates and privateers was that in the event of capture the latter were subject to the rules and laws of war and were to be treated the same as prisoners of war. Privateers hence were supposed to follow rules of naval warfare, including limiting their activities to times of declared war, precluding attacks on the vessels or cargoes of neutral States and their nationals, and submitting to procedures of prize law.

Privateering was an accepted part of the law of naval warfare, authorized at times by all significant naval powers. There were many instances when a particular person was crossing a line, moving from being a pirate to a privateer and vice versa, often without scrupulously observing whatever limited mandates or authorizations were required at that time. There were also examples when privateers were organized to fight pirates.

Differences in treatment of sea outlaws fluctuated almost till the middle of the nineteenth century, when the Declaration Respecting Maritime Law (the Paris Declaration) abolishing privateering was signed in 1856 by most of the European imperial powers. Despite the fact that Spain and the United States at that time decided to stay out of the Paris Declaration, it could be considered as a real watershed in changing attitude of States towards proscription of all forms of piracy and removal of relevant practices from policy tools, albeit without a comprehensive common definition of piracy and binding its signatories only when at war with each other, which presumably left them with freedom of action to use privateers while in conflicts with other States. Interestingly, the Constitution of the United States still contains provision which gives to the Congress power to 'grant letters of marque and reprisal'.<sup>6</sup>

It was not until the twentieth century that the attempts to establish common definition of piracy became more persistent. In the 1920s the Assembly of the League of Nations requested the Council of the League of Nations to prepare a provisional list of subjects of international law the regulation of which would seem to be most desirable and realizable. The Committee responsible for drawing up this list included piracy and also enclosed Draft Provision for the Suppression of Piracy, but the subject was later dropped by the Council, reportedly on the grounds that piracy was no longer a pressing issue to the international community and that the

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<sup>6</sup> The Constitution of the United States, Art. 8. The same article also gives power to the Congress 'to define and punish Piracies and Felonies committed on the high Seas'.



achievement of a universal agreement seemed somewhat difficult.<sup>7</sup> Nevertheless, in the 1930s the so-called Harvard Research Group had already drafted a *Convention on Piracy*, commonly known as 'Harvard Draft'.<sup>8</sup> The provisions were based on a comprehensive research of national legislations and customary law on piracy. The International Law Commission during its preparatory work on the theme of the Law of the Sea drew substantially from Harvard Draft provisions as the basis for the piracy articles of what later became the Convention on the High Seas 1958 (HSC).<sup>9</sup> That definition of piracy in Article 15 of the HSC together with the relevant provisions on piracy in Articles 14 and 16–21 were mostly incorporated in UNCLOS,<sup>10</sup> which replaced the former as the primary multilateral instrument in this field of international law.

### 11.3 UNCLOS

The UNCLOS piracy provisions, in particular Articles 100–7 and 110, form the foundation for the contemporary counter-piracy legal regime. They define the offence, rights, and obligations of States, including on cooperation in repression of piracy and on jurisdiction to prosecute pirates. However, these provisions also contain a number of shortcomings that were rightly pointed out almost immediately after the adoption of the UNCLOS and are particularly of concern in light of the recent violent acts against international shipping. It is worth recalling with regard to this criticism that the mentioned Articles of the UNCLOS originated in the Harvard Draft and were adopted almost without amendments from the HSC, that is, when the subject of piracy was still in the shadow of other law of the sea issues supposedly requiring a higher level of attention, and when the creation of the Exclusive Economic Zone (EEZ) or the extension of the territorial sea up to twelve nautical miles had not yet been recognized.

It is generally acknowledged that the UNCLOS definition of piracy<sup>11</sup> comprises four main elements: (1) illegal act of violence, detention, or depredation; (2) private ends; (3) involvement of two ships (the possibility of involvement of aircraft

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<sup>7</sup> AP Rubin, *The Law of Piracy* (2nd edn, Transnational Publishers, Inc., 1999) 333–4.

<sup>8</sup> Harvard Research in International Law, 'Draft Convention on Piracy, with Comment' (1932) 26 *Am. J. Int'l L. Supp.* 739.

<sup>9</sup> Convention on the High Seas (Geneva, adopted 29 April 1958, entered into force 30 September 1962) 450 UNTS 11 (HSC).

<sup>10</sup> United Nations Convention on the Law of the Sea (Montego Bay, opened for signature 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS).

<sup>11</sup> Art. 101 of the UNCLOS defines that *piracy* consists of any of the *following acts*:

- (a) any illegal acts of violence or detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed:
  - (i) on the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft;

falls beyond the scope of the present contribution, although theoretically it cannot be instantly denied that an act of piracy could involve not only two aircraft but also aircraft and a ship); and (4) location at the high seas.

Paragraphs (b) and (c) of Article 101 should be regarded as standard provisions aimed at those who voluntarily participate, incite or intentionally facilitate piracy, with the latter two covering periods before, during, and after commissioning of acts of piracy. Lack of voluntary or intentional character of the relevant act could exclude it from being qualified as piracy, although that does not exclude possible prosecution on other legal bases.

### 11.3.1 Illegal act of violence, detention, or depredation

This element of the definition of piracy is probably the least controversial. It is also broadly recognized that this element includes not only violence, detention, or depredation per se but a threat of violence as well. Therefore it could be argued that in situations when actual violence has not taken place, for instance due to successful evasive manoeuvres by the ship, protective measures of the crew, or security personnel on board, a mere threat of assault against a ship or crew is sufficient to satisfy this threshold of the definition. It does not matter that Article 101 has no direct reference to attempted acts of piracy, since if attackers were repelled before any theft or damage occurred, presumably that attempted attack should be still characterized as an act of violence. It follows also that damages or loss of life or property are not necessarily required in order for an act to be considered a piracy.

That interpretation is seemingly shared by the IMO, which in its Code of Practice for investigation of piracy encourages States to cooperate in investigation of 'attempted acts of piracy'.<sup>12</sup> It is also supported by judicial practice. In the case *The Republic vs. Houssein Mohammed & ten (10) others, (Criminal Side No. 19 of 2011)*:<sup>13</sup>

... all the accused ... unlawfully attempted to attack the vessel—*Draco* while in a speeding skiff whereupon it was turned away by gunfire from the security officers on the said vessel. The accused had been arrested on the skiffs within the vicinity of the *Draco* by the helicopter and the vessel *Canarias* that answered the distress call sent out by the *Draco*.

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- (ii) against ship, aircraft, persons or property in a place outside the jurisdiction of any State;
  - (b) any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pirate ship or aircraft;
  - (c) any act of inciting or of intentionally facilitating an act described in subparagraph (a) or (b).

<sup>12</sup> International Maritime Organization, Code of Practice for the Investigation of Crimes of Piracy and Armed Robbery Against Ships, IMO Res. A. 1025(26) (adopted on 2 December 2009), para. 3.4.2.

<sup>13</sup> <<http://law.case.edu/grotian-moment-blog/documents/CR19-2011-Sentence.pdf>> (referred to in ITLOS/35/13 of 6 February 2013).

There was no damage caused on the vessel and none of the crew members was injured. The evidence showed that there was no firing of rifles at the *Draco*. Nevertheless the Supreme Court of the Republic of Seychelles sentenced the accused to sixteen years in prison, out of a maximum sentence of thirty years prescribed by the law of Seychelles, in view of mitigating circumstances.

In another case<sup>14</sup> (the failed night-time attack on the *USS Nicolas*, the US Navy frigate that the attackers apparently thought was an unarmed freighter) two out of five Somalis were charged with piracy, although they remained on board the larger ship to maintain that ship, and were not present on board a smaller vessel, specifically dispatched for the attack.<sup>15</sup> It should be noted however that a completely different position was taken in a similar case of a failed attack against the *USS Ashland*, an amphibious assault ship that was mistaken for a merchant ship. The judge dismissed piracy charges against six defendants, ruling that since the attack on the *USS Ashland* failed, no robbery occurred, so the piracy charges could not stand.<sup>16</sup>

At the same time the explicit reference to ‘illegal’ acts of violence is unclear. It is very much up to the courts of the State that decides to exercise its jurisdiction and to prosecute alleged offenders to determine whether the act of violence is illegal under domestic law.

Understanding of the word ‘violence’ in the UNCLOS definition of piracy also sometimes is criticized as being unclear and leading to the possibility of encompassing within piracy minor acts that unwarrantedly subject a person to harsh penalties which are not justified by circumstances and would open the option of possible interference by another party through application of the concept of universal jurisdiction. Although it is obvious that articles on piracy have never been intended to apply to minor acts, the precise threshold of violence that triggers qualification of an act as piracy is mostly left for the domestic courts to determine.

### 11.3.2 Private ends

Piracy shall be committed for private ends. This requirement arguably has its historic roots. It is attached to the very nature of piracy that it must not be associated with any State. Therefore, it has been suggested that the notion ‘for private ends’ should be interpreted to distinguish between a State authorized act, for instance privateering, which is subject to the law of wars, and piracy as such, which is a criminal act. A warship as a rule cannot be a pirate ship, unless its crew has mutinied and taken control of a ship, thus making it in practice a private ship no longer associated with acts of a State.

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<sup>14</sup> ‘Contemporary practice of the US’ (2011) 105 *American Journal of International Law* 133.

<sup>15</sup> ‘Contemporary practice of the US’ (2010) (n. 14) 500.

<sup>16</sup> ‘Contemporary practice of the US’ (2011) (n. 14) 134.

UNCLOS does not define the notion 'for private ends'. The origin of this requirement is attributed to the Harvard Draft and usually covers all possible private interests and gains, primarily financial, but also others, for instance vengeance or bare malice, that alleged pirates are expected to achieve as a result of their criminal activities.

It is generally accepted that an attack on a ship committed for political or other public purposes is not falling under the piracy definition contained in UNCLOS. Public aims during attacks on ships some times are submitted as a defence to piracy charges. It is important in this regard to emphasize that the test of 'public' or 'private ends' should be structured not in the pirates subjective motivation, but in whether the acts are authorized by or, as noted above, attributed to a State or other recognized belligerent party. It follows that relevant acts which are short of such attribution are acts commenced for 'private ends' and, subject to other elements, could fall under piracy acts. The above interpretation has significant practical consequences in the context of countermeasures against piracy acts, in particular in the waters off the coast of Somalia. Absence of State sanction negates possible claims of alleged persons not to be treated as pirates on the grounds that they were protecting Somali waters against illegal fishing or dumping.

It is not so straightforward with regard to violent maritime acts undertaken by the insurgents or terrorist groups, since there could hardly be an authorization from any State in such situation.<sup>17</sup> In the case of the former, appropriate recognition from the international community as being a party to a conflict could be helpful in clarifying at least some of the acts although it does not mean the acts are justified.

The 1985 *Achille Lauro* incident caused a lot of discussion on the need to broaden the UNCLOS definition of piracy. Calls for expanding definition of piracy, specifically in the framework of maritime terrorism, gained new impetus after attacks on the *USS Cole* and the tanker *Limberg* in 2000 and 2002 respectively and the terrorist attacks on 11 September 2001. It is submitted that although for political and probably moral purposes equating piracy and terrorism perhaps could be warranted, for legal reasons it would be more useful if the treatment of these crimes stays separate. The root causes of each offence are rather different. While pirates are primarily motivated by financial incentives, preferably without attention, terrorists aim at intimidation and provoking fear among the general public and drawing attention to their declared political cause. Equating the two could even undermine both counter-piracy and counterterrorism regimes, as strategies and solutions to these scourges are rather distinct.

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<sup>17</sup> The notion of state-sponsored terrorism will not be discussed here since it is beyond the subject of this contribution.

### **11.3.3 Involvement of two ships**

In accordance with the definition of the UNCLOS, two ships are required to constitute an act of piracy. It means that the illegal act of violence must be directed from a ship against another ship or persons or property on board that ship. The former shall be a 'private ship' while the latter does not necessarily need to be a private ship. It is also not required that the attacked ship flies a different flag from the attacking ship. Equally irrelevant is the size of either of the ships involved or whether the attacking ship is navigating by herself or is dispatched from a so-called 'mother ship'. In the latter case both ships shall be considered pirate ships.

Crew seizure, mutiny, or overpowering of crew during the voyage by hijackers or other passengers who earlier gained passage on a ship will not be interpreted as piracy. This element also plays an important function of legally excluding a petty theft from wharves in ports from being considered as an act of piracy; nevertheless it includes attacks against small boats or yachts. It is probably the most vivid reflection of the traditional view of the act of piracy as an indiscriminate attack on ship by criminals seeking plunder.

### **11.3.4 High seas**

The UNCLOS definition limits the offence of piracy to acts occurring on the high seas or in a place outside the jurisdiction of any State. It nevertheless should be noted that due to article 58 that provides for application of Articles 88 to 115 to the EEZ in so far as they are not incompatible with Part V of the UNCLOS, provisions on piracy are further extended into the EEZ. But in accordance with the UNCLOS definition violence in the territorial sea cannot be qualified as an act of piracy.

Article 58(3) contains obligations of 'due regard' to the rights and duties of the coastal State and of compliance with laws and regulations adopted by the coastal State in accordance with the provisions of the UNCLOS and other rules of international law in so far as they are not incompatible with Part V. It is generally acknowledged that reference to laws and regulations of coastal States is confined to the rights of coastal States in the EEZ provided for in Article 56, and are not subjecting enforcement powers of all States in suppressing piracy in the EEZ to the direct regulation of coastal States. It is on the other hand obvious that when exercising authority to combat piracy in the other States EEZ in accordance with the piracy regime of the UNCLOS, every State shall respect sovereign rights and jurisdiction of the coastal States in the EEZ.

As for the phrase 'a place outside the jurisdiction of any State' the International Law Commission pointed out that it refers to an island constituting *terra nullius* or the shores of an unoccupied territory.<sup>18</sup>

The geographical limitation proved to be important in the context of the piracy situation near the coast of Somalia, causing adoption of a number of resolutions by the United Nations Security Council (UNSC) authorizing enforcement action against piracy in the Somali territorial waters. But in the absence of the UNSC resolutions the issue of crossing into the territorial sea remains to be a problem in law enforcement against pirates.

Whether the concept of 'assistance entry' could be applied when a ship of one State witnesses a piratical attack occurring in the territorial seas of another is at least debatable. The concept stands on the presumption that a reasonable coastal State would not object to such urgent actions. It can be even asserted that the master of a ship, who is witnessing a piratical attack on another ship, might be under the duty to render assistance. Needless to stress in this regard that such assistance shall be limited to counter piracy actions and in no way threaten security or sovereignty of the coastal State. The right to seize the pirate vessel and to try the pirates in those circumstances nevertheless shall be, subject to agreement to the contrary, relinquished to the coastal State as it is in its sovereign waters that the 'assistance' took place. The 'assistance entry' concept perhaps may be employed also in coastal waters of so-called 'failed States', where there is no effective government capable of policing the territorial sea. Although discussions in the UNSC demonstrated that even in these situations States are reluctant to accept measures that might be interpreted as allowing infringement on their sovereignty. This concept is recognized in the practice of several States but definitely remains far from being universal. It should be noted in this regard that some regional agreements, for instance the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) and the Code of Conduct Concerning the Repression of Piracy and Armed Robbery against Ships in the Western Indian Ocean and the Gulf of Aden (Djibouti Code of Conduct) explicitly deny the right of foreign vessels to enter another State's territorial waters in order to counter piracy.

The approach contained in the notion of 'assisted entry' draws parallels with a situation where pursuit of a pirate ship first encountered in the high seas by a warship or any other ship authorized in compliance with Article 107 of the UNCLOS shall be terminated in accordance with Article 111 of the Convention when the former enters the territorial sea of another State. Historically, proposals for a right to pursue pirate ships from the high seas into territorial waters in the Harvard Draft did

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<sup>18</sup> United Nations International Law Commission, *Commentary on the Law of the Sea Draft Convention*, 1956 ILC Report, 282.

not succeed.<sup>19</sup> It may be suggested that no substantial changes towards recognition of the right to 'reverse hot pursuit', as it can be called, have taken place since that time. However, it is possible to interpret provisions of several international instruments, in particular in the fields of fisheries regulation or suppression of illicit drug trafficking, as providing for the right of reverse hot pursuit, albeit subject to the express consent of the coastal State. Further shifts on route for wider application of the concept of reverse pursuit could be useful in combating piracy, in particular through denying to pirates an opportunity to evade capture by taking shelter in the territorial sea of another State.

The geographical limitations discussed above do not mean that a State is free from obligation in the territorial sea to suppress piracy or cooperate in counter-piracy measures. Such obligation may exist pursuant to relevant bilateral or multilateral treaties or on the basis of other provisions of the UNCLOS and rules of international law. Some of these rules will be the subject of additional analysis in further sections. Nevertheless, one issue is worth still mentioning in the context of geographical limitations, namely, the definition of a pirate ship:

A ship . . . is considered a pirate ship . . . if it is intended by the person in dominant control to be used for the purpose of committing one of the acts referred to in article 101. The same applies if the ship . . . has been used to commit any such act, so long as it remains under the control of the persons guilty of that act.<sup>20</sup>

That definition of a pirate ship obviously includes reference to paragraph (c) of Article 101 on incitement or intentional facilitation of an act of piracy. It should be pointed out that neither incitement nor intentional facilitation is limited by Article 101 to the high seas; they are actually not limited to any geographical area and in practice apparently could take place on shore, in the territorial sea, or internal waters of any State (notably they are not even required to be perpetrated on board of a ship). It follows that a ship used to incite or facilitate acts of piracy shall be considered a pirate ship irrespective of its location. However, the enforcement power of States against such ships still depends on their location and in cases of other than coastal States, subject to applicable international agreements, cannot extend beyond the high seas. That also creates a situation when in the high sea any State may seize a ship that earlier incited or facilitated piracy act from within territorial sea.

### **11.3.5 Jurisdiction and cooperation**

Under Article 105, on the high seas, or in any other place outside the jurisdiction of any State, every State, even without any nexus with the act of the piracy, has

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<sup>19</sup> See Art. 7 of the Harvard Draft (n. 8).

<sup>20</sup> Art. 103, UNCLOS.

jurisdiction to seize a pirate ship or any ship taken by piracy and under the control of pirates, arrest the persons, and seize the property on board. Once seized the courts of the State which carried out the seizure may decide upon the penalties to be imposed, and may also determine the action to be taken with regards to the ships or property. This is commonly referred to as the *universal jurisdiction* for apprehension and prosecution of pirates. It introduces a major exception to the general rule of international law of the sea, that on the high seas a ship shall be subject to exclusive jurisdiction of its flag State. Bearing in mind also provisions of Article 106 it could be maintain that such exception is extended even to a ship suspected of piracy.

*Universal jurisdiction* concerning the crime of piracy distinguishes it as being in the category of the most serious crimes, which include slavery, genocide, war crimes, and crimes against humanity. It is not only because of its gravity that piracy is recognized in this category, although some legal scholars challenge that justification by comparing piracy to mere property offences or hostage-taking committed on land and also recalling the practice of privateering that used to be accepted in times of war when piracy had already been considered a crime. An additional rationale that explains early recognition of universal jurisdiction over crimes of piracy is the interest of every State in freedom and safety of navigation and specific territorial place, or *locus delicti*—the high seas, where jurisdiction is attributed towards the flag State. It is worth recalling that other crimes which fall under the category of universal jurisdiction do not expand the right of States to make arrests outside their own territories.

Despite its customary international law basis practical application of the universal jurisdiction as reflected in Article 105 of the UNCLOS is not without complications. Because the word ‘may’ is used the decision to exercise powers is discretionary for a State. Suspected offenders are supposed to be tried and penalized under the applicable domestic law of the relevant State. These laws differ among States and lack uniformity on prescribed penalties, manners and standards of trial, or treatment of seized vessels and goods. Evidentiary problems are also huge. Once pirates are captured, it is necessary to bring them, witnesses, and prosecutors to a court which most probably would be foreign to several subjects of the proceedings. The situation is even more complicated where a State does not have any specific anti-piracy legislation, which could even lead to circumstances where pirates may escape unpunished.

It is not surprising therefore that there are still few cases where the offenders were specifically charged with piracy. Earlier mentioned cases of attacks on the *USS Nicholas* and on the *USS Ashland* are also exemplary of difficulties in prosecution of piracy even within the legal system of a single country.

Problems with practical prosecution of pirates and lack of will from some States to bring pirates before their domestic courts prompted consideration of different new



jurisdictional possibilities, ranging from establishing special domestic chambers with international components in States from the regions with acute piracy problems to creating an international tribunal, including the suggestion of ‘physically placing [an] ad hoc tribunal on a ship that goes on circuit in high seas’.<sup>21</sup>

It is claimed sometimes that having jurisdiction does not mean that the State is under obligation to seize a pirate ship and apprehend pirates, subject to the absence of a special agreement to this end.<sup>22</sup> The UNSC in several resolutions noted with concern that in some cases pirates even were ‘released without facing justice, regardless of whether there is sufficient evidence to support prosecution’, affirmed ‘that the failure to prosecute persons responsible for acts of piracy and armed robbery at sea off the coast of Somalia undermines anti-piracy efforts of the international community’ and called ‘on all States . . . to criminalize piracy under their domestic law and favourably consider prosecution of suspected, and imprisonment of convicted, pirates apprehended off the coast of Somalia’.<sup>23</sup>

An implied question in this regard is whether States parties to the UNCLOS also have an obligation to prosecute or extradite persons suspected of committing acts of piracy? There is no direct provision to this effect in UNCLOS. The view that historically customary international law did not oblige a State to prosecute or extradite suspected pirates<sup>24</sup> has not been really contested either. As mentioned, Article 105 says that States *may* [not *shall*] ‘. . . decide upon the penalties to be imposed’. Article 100, which deals with cooperation on repressing piracy as well cannot provide for the obligation to prosecute or extradite. Such an interpretation would be a stretch compared with direct *aut dedere aut judicare* provisions of other treaties. It should also be remembered that at the Third UN Conference on the Law of the Sea a proposal by Malta to modify draft Article 100 to read ‘all States have the obligation to prevent and punish piracy and to fully cooperate in its repression’ was rejected. Thus despite enabling all States to apprehend and penalize pirates on the high seas, provisions of Article 105 leave to the domestic authorities the decision on how they treat suspected pirates.

The mere fact that relevant provisions of Article 105 grant to the courts of the State that carried out the seizure a right to decide upon the penalties to be imposed prompted suggestions from some law of the sea experts that this is a limitation on the universal jurisdiction and that it restricts the trial of pirates only to the courts

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<sup>21</sup> BH Dubner and K Green, ‘On the Creation of a New Regime to Try Sea Pirates’ (2010) 41 *Journal of Maritime Law and Commerce* 452, 463.

<sup>22</sup> L Azubuike, ‘International Law Regime Against Piracy’ (2009) 15 *Annual Survey of Int’l & Comp L* 43–59, 54; CK Randall, ‘Universal Jurisdiction Under International Law’ (1988) 66 *Tex L Rev* 785, 795–6.

<sup>23</sup> S/RES/1897 (2009), S/RES/1918 (2010), S/RES/2015 (2011).

<sup>24</sup> R Geis and A Petrig, *Piracy and Armed Robbery at Sea, the Legal Framework for Counter-Piracy Operations in Somalia and the Gulf of Aden* (Oxford University Press, 2011) 152.

of the States exercising arrest.<sup>25</sup> But such interpretation would go well beyond the text of Article 105, which contains no provision prescribing exclusive jurisdiction of the arresting State. If the drafters of UNCLOS wished to adjust rules of customary international law on universal jurisdiction over piracy that had been well established before the conclusion of UNCLOS and actually, as mentioned above, codified in earlier instruments and restated in UNCLOS, they would have done that explicitly in the pertinent provisions. The above interpretation is also not supported by the contemporary practice which vividly demonstrates the prominence of the universal jurisdiction. Several decisions of courts from different States could be referred to in this regard. On 5 March 2011 four pirates boarded a tanker owned by a Japanese shipping company and flying the Bahamian flag. Its crew, which had no Japanese nationals, hid in the ship's protected area. Responding to emergency signals, US and Turkish warships approached the tanker. The pirates surrendered and the US Navy detained them. On 7 March 2011 Japan notified the US Navy on readiness to accept the pirates. The court in Japan in February 2013 sentenced two of the pirates to ten years of imprisonment<sup>26</sup>, ascertaining universal jurisdiction in matters of piracy recognized in UNCLOS.

In another piracy case, *United States of America v Ali Mohamed Ali*,<sup>27</sup> in November 2008 Somali pirates seized the *CEC Future*, a Danish-owned and Bahamian-flagged ship, in the Gulf of Aden. The crew consisted of citizens from several States, but none from the US. Mr Ali came aboard shortly after the ship was seized to act as interpreter between the Danish owners and the pirates. He remained there for sixty-nine days, not leaving the ship until after the pirates had received an estimated 1.7 million US dollars in January 2009. Later Mr Ali was arrested at Dulles Airport while en route to a conference in North Carolina. While neither the vessel nor any crew member had US nationality, the court reasoned:

whether international law permits the assertion of universal jurisdiction for aiding and abetting piracy under 18 U.S.C. §§ 1651, 2 and conspiracy to commit piracy under 18 U.S.C. §§ 1651, 371 are far more challenging questions. Because there is no nexus between the United States and the conduct charged in the indictment, only the universality theory of extraterritorial jurisdiction is applicable here . . . . Therefore, the Court must decide how the law of nations defines piracy.

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<sup>25</sup> See E Kantorovich, 'International Legal Response to Piracy of the Coast of Somalia' (2009) 13 ASIL Insights, Issue 2; E Franckx and M Benatar, 'Operation Atlanta: The European Approach to Fighting Piracy' (10 December 2009), manuscript included in materials distributed to attendees at the 2009 Harvard Conference and referred to in Dubner and Green (n. 21) 456.

<sup>26</sup> See The Japan Times, The long arm of anti-piracy law, February 28, 2013; available at <<http://www.japantimes.co.jp/news/2013/02/28/national/crime-legal/the-long-arm-of-the-antipiracy-law/#.VlbpKPkrLIV>>.

<sup>27</sup> Criminal No. 11-0106, United States District Court, District of Columbia, July 13, 2012. Available at: <<http://www.gpo.gov/fdsys/pkg/USCOURTS-dcd-11-cr-00106/pdf/USCOURTS-dcd-11-cr-00106-3.pdf>>.

Finding that the UNCLOS set out the authoritative international law definition of piracy as a universal jurisdiction crime, the court allowed prosecution to proceed.

The arrangements of the United Kingdom and the United States whereby pirates captured near the coast of Somalia are transferred to Kenya for trial are just other examples of reliance on the doctrine of universal jurisdiction. Kenyan courts are actively applying the concept. Thus the Court of Appeal<sup>28</sup> found that

... the offence of piracy on the coast of Somalia is of great concern to the international community as it has affected the economic activities and thus the economic well-being of many countries including Kenya. All States, not necessarily those affected by it, have therefore a right to exercise universal jurisdiction to punish the offence ... Kenyan courts have jurisdiction to try the offence of piracy irrespective of the place of its commission or the nationalities of its perpetrators or victims.

Enforcement powers laid out in the first sentence of Article 105 apply only against pirate ships defined as such in Article 103 of UNCLOS, including ships taken by pirates or under the control of pirates as well as against persons and property found on board such ships. Two categories could be identified in accordance with Article 103—ships that are intended to be used to commit an act of piracy and ships that have already been used to commit an act of piracy as long as these ships remain under the control of persons responsible for that act. It is worth emphasizing that intention to use the ship to commit an act of piracy and not its actual usage is enough to qualify it as a ‘pirate ship’.

Under Article 105 persons encountered on either a pirate ship or a ship taken by piracy and under control of pirates may be arrested. Likewise, property found on such ships may be seized. It is argued that relevant provisions authorize arrest of any person encountered on such ship irrespective of whether a person has previously been engaged in piracy or not. On the contrary, arrest of a person who is known to have committed act of piracy but is travelling on a non-pirate ship does not fall within these provisions.

In accordance with Article 107 only ‘warships or military aircraft, or other ships or aircraft marked and identifiable as being on governmental service and authorised to that effect’ may carry out seizure on account of piracy. This is a very important requirement since interdiction of pirates and fight against piracy primarily should be a governmental matter. For obvious reasons distinctly private ships cannot perform this essentially law enforcement function. In its Commentary the ILC underlines that

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<sup>28</sup> (Coram: Onyango Otieno, Visram, Koome, Okwengu & Maraga, JJ.A) Civil appeal no. 113 of 2011, *Mohamud Mohammed Hashi et al.* (on appeal from the judgment and decree of the High Court of Kenya at Mombasa (Ibrahim, J.) dated 9 November 2010) dated and delivered at Nairobi 18 October 2012.

... clearly this article ... does not apply in the case of a merchant ship which has repulsed an attack by pirate ship and, in exercising its right of self-defence, overpowers the pirate ship and subsequently hands it over to a workshop or to the authorities of a coastal State. This is not a 'seizure' within the meaning of this article.<sup>29</sup>

At the same time nothing denies the inherent right of any private ship to defend itself against pirates, including employment of military protection detachments or privately contracted armed security personnel (PCASP), and to cooperate with a State in interdiction or apprehension of pirates, for instance through reporting or providing information to coast guards or other governmental organs about pirates or acts of piracy. The IMO's Maritime Safety Committee has issued several recommendations to ship-owners, ship operators, shipmasters, and flag States on the use of PCASP on board of ships in high-risk areas.<sup>30</sup> The recommendations reaffirmed the IMO's position that seafarers should not be armed and the carriage of PCASP is a matter of decision for the shipowner to request and the flag State to take. The IMO emphasized that: a flag State should have a policy in place on whether or not the use of PCASP is authorized on board of merchant ships and fishing vessels and if so, under what conditions; boarding procedures of PCASP and their use of weapons are subject to the laws of the flag State, which should establish rules for engagement in consultations with shipowners; employment of PCASP should be considered as an alternative to other protective measures and the flag State must ensure that PCASP is acting proportionally to the threat and use minimum force necessary. At the same time the UNSC in its resolution:

commend[s] the efforts of flag States for taking appropriate measures to permit vessels sailing under their flag transiting the High Risk Area to embark vessel protection detachments and privately contracted armed security personnel, and encourage[s] States to ... permit charters to favour arrangements that make use of such measures.<sup>31</sup>

The above international decisions clearly prove that employment of PCASP is a lawful element of self-defence that could be used to protect a ship, its crew, and cargo.

The right to seize a ship on suspicion of piracy is not unlimited. Article 106 of the Convention contains important safeguards against possible abuses, providing that a State making the seizure without adequate grounds shall be liable to the State the

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<sup>29</sup> 1956 ILC Report, 283.

<sup>30</sup> *Revised interim guidance to ship-owners, ship operators and shipmasters on the use of privately contracted armed security personnel on board ships in the High Risk Area*, MSC.1/Circ.1405/Rev.2 of 25 May 2012; *Revised Interim Recommendations for flag States regarding the use of Privately Contracted Armed Security Personnel on board ships in the High Risk Area*, MSC.1/Circ. 1406-Rev-2 of 25 May 2012; *Revised Interim Recommendations for port and coastal States regarding the use of privately contracted armed security personnel on board ships in the High Risk Area*, MSC.1/Circ. 1408-Rev-1 of 25 May 2012. Also separate *Interim guidance to private maritime security companies providing privately contracted armed security personnel on board ships in the High Risk Area*, MSC.1/Circ.1443, was adopted on 25 May 2012.

<sup>31</sup> S/RES/2077 of 21 November 2012.

nationality of which is possessed by the ship for any loss or damage caused by such seizure. At the same time UNCLOS does not contain explicit provision on the use of arms in pursuit of pirates or on sinking of pirate ships. It is commonly acknowledged that UNCLOS permits use of force if necessary to stop and seize a vessel and arrest persons on board. The International Tribunal for the Law of the Sea in *The M/V Saiga (No 2)* case, while pointing out that ‘the use of force must be avoided as far as possible’, clearly assumed that in certain instances the use of force may be justifiable. Moreover, it held that

the normal practice used to stop a ship at sea is first to give an auditory or visual signal to stop, using internationally recognised signals. Where this does not succeed a variety of actions may be taken, including the firing of shots across the bows of the ship. It is only after the appropriate actions fail that the pursuing vessel may as a last resort, use force.<sup>32</sup>

Provision on the use of force is also contained in the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982, Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks of 4 August 1995 (the ‘Straddling Fish Stocks Agreement’). Article 22(1)(f) permits use of force ‘when and to the degree necessary to ensure the safety of the inspectors and where the inspectors are obstructed in the execution of their duties’. If as in the above examples use of force would be deemed legal against merchant or fishing vessels, it is obvious that it would be permissible against a clearly identified pirate ship, including where necessary sinking or rendering such ship unseaworthy and depending on circumstances with a much lower threshold on warning, if any. The latter mostly amounts to the need to guarantee life and safety of innocent victims, third parties, or hostages who incidentally might be on board a pirate ship. Any interpretation which is limiting or short of ensuring effective measures of arrest and seizure of a pirate ship would run contrary to the object and purposes of the relevant provisions of UNCLOS on repression of piracy and protection of freedom and safety of navigation at the high seas.

Another enforcement power—the so called ‘right to visit’ is granted under Article 110(1) (a) of UNCLOS. According to its provisions a warship that encounters a foreign ship on the high seas is not justified in boarding it, unless there is reasonable ground for suspecting that the ship is engaged in piracy. The word ‘unless’, together with the negative formulation of Article 110 (1) (a) supports restrictive interpretation of the right to visit. At least two questions are warranted in this regard: what is the ‘reasonable ground for suspecting that the ship is engaged in piracy’ and what enforcement measures are authorized under the right to visit? The

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<sup>32</sup> International Tribunal for the Law of the Sea, *The M/V Saiga (No 2) Case (Saint Vincent and the Grenadines v Guinea)*, Judgment, 1 July 1999, para. 156.

answer to the former is not so clear from the text of the article. It is not uncommon that an ordinary fishing vessel is used for dual purposes or that light weapons are claimed to be stored on board of fishing or merchant ships for the protection against possible attacks of pirates. In practice exercise of the right to visit depends on the risk of piracy in the area of operation, specific circumstances of encounter, and available information on suspicion that a particular ship might be engaged in an act of piracy, and so on. Obviously, in the Gulf of Aden and off the coast of Somalia, in the Malacca and Singapore straits, and in the Gulf of Guinea and adjacent waters of the west coast of Africa warships are on high suspicion alert regarding possible involvement of ships in piracy activities. Thus such criteria as bearing arms or operating a ship that is typically used to commit acts of piracy may suffice to grant a right to visit. The approach in other regions may differ. Important safeguards against abuse of the right to visit are provisions of paragraph 3 of the same Article 110, which state that 'if the suspicions prove to be unfounded and provided that the ship boarded has not committed any act justifying them, it shall be compensated for any loss or damage that may have been sustained'.

Enforcement measures authorized under the right to visit are described under paragraph 2 of Article 110. On their face in addition to the implicit right to stop a suspicious vessel in order to enable a visit,<sup>33</sup> relevant provisions allow verification of whether a ship is entitled to fly its flag and, if initial suspicion of possible engagement of this ship in piracy remains and is gradually substantiated, the scope of enforcement measures is arguably extended proportionally.

Article 100 contains a duty of States to cooperate 'to the fullest possible extent in the repression of piracy on the high seas', but it fails to define precise content of the required 'fullest possible extent'. On the one hand it may imply information sharing, extradition of offenders, some joint and coordinated operations, while also probably permission to foreign vessels to enter the territorial waters. On the other hand, the interpretation of the duty to cooperate pursuant to Article 100 would vary substantially depending on political will, resources, capacities, and relationships of the States. The current situation, as with treatment and prosecution of pirates, allows too much discretion to States and in practice could be affected by a lot of factors not necessarily directly related to the counter-piracy measures.

To sum up, the regime of UNCLOS on countering piracy although not without its limitations represents a solid basis for preventing and suppressing piracy as well as for prosecuting alleged pirates. Most of the asserted flaws of the UNCLOS

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<sup>33</sup> United Nations, International Law Commission, *Commentary on the Law of the Sea Draft Convention*, 1956 ILC Report, 284.

regime relate to the claims of too restrictive definition of the offence with concurrent flexibility of States for cooperation in repressing piracy, treatment, and prosecution of offenders. Notwithstanding that UNCLOS is not able to cover all possible attacks and acts of violence against ships, relevant provisions, supported in particular by the universal jurisdiction to seize a pirate ship in the high seas, apprehend, and prosecute pirates, continue to determine legal foundations of the contemporary measures against piracy.

## 11.4 SUA

It is commonly acknowledged that the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation of 1988 (SUA Convention 1988)<sup>34</sup> was elaborated within the framework of the IMO in response to the *Achille Lauro* attack. The incident, which by the way was similar to the one committed on board of the Portuguese passenger ship *Santa Maria* in 1961,<sup>35</sup> and the resulting legal proceedings explored gaps and limitations in the piracy regime under the UNCLOS, in particular the requirement of involvement of two ships in order for the act to be qualified as piracy. The Protocol for the Suppression of Unlawful Acts against Safety of Fixed Platforms Located on the Continental Shelf 1988 (SUA Protocol 1988)<sup>36</sup> was adopted together with the SUA to ensure that appropriate actions are taken in cases of unlawful acts against fixed platforms on the continental shelf.

### 11.4.1 Definition of the offence

In accordance with Article 3(1) of the SUA Convention 1988 an offence occurs if a person intentionally commits any unlawful act—whether for public or private ends. Such acts include:

1. Seizing control of a ship by force or threat of force;
2. An act of violence against persons on board a ship if the act is likely to endanger the safe navigation of the ship; or
3. Any damage to the ship that endangers the safe navigation of the ship (that also includes placing of devices on board a ship which are likely to destroy or damage it).

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<sup>34</sup> Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (Rome, adopted 10 March 1988, entered into force 1 March 1992) 1678 UNTS 221 (SUA Convention 1988).

<sup>35</sup> See Ivan Shearer, 'Piracy' in R Wolfram (ed.), *Max Planck Encyclopedia of Public International Law* (Oxford University Press, 2012), <<http://opil.ouplaw.com/home/EPIL>> (accessed 14 December 2015).

<sup>36</sup> Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (Rome, adopted 10 March 1988, entered into force 1 March 1992) 1678 UNTS 304 (SUA Protocol 1988).

Pursuant to Article 3(2) a person also commits an offence by attempting any such illegal act, as well as by assisting in the commission of one of the offences or threatening to commit the offence.

Article 1 of the SUA Convention 1988 defines a 'ship' that can be the victim of an unlawful act rather broadly—'vessel of any type whatsoever not permanently attached to the sea-bed, including dynamically supported craft, submersibles, or any other floating craft'. That ship does not need to fly the flag of a State party to the Convention, neither be 'in service'. That interpretation is supported by the legislative history of the article. The Draft Convention submitted to the IMO contained the 'in service' limitations; however, the Preparatory Committee decided to omit the criteria arguing that this restrictions would potentially have excluded many situations from the Convention, such as, for instance, cruise ships in port whose voyage has not yet been set, ships temporarily in port for repairs, ships from which passengers have disembarked and which are under preparation for the next trip. However, pursuant to Article 2(1)(c) this does not apply to ships 'withdrawn from navigation or laid up'. Also in accordance with provisions of Article 2(1) (a) and (b) warships and ships owned and operated by a State do not fall within the scope of the SUA when being used as a naval auxiliary or for police purposes.

An important threshold for an act of violence to be considered under the SUA Convention 1988 is that it would be 'likely to endanger the safe navigation' of the victim ship. Through this requirement, which is clearly a step forward compared with provisions on violence in UNCLOS, acts that involve isolated individuals which simply happened to take place on board a ship are excluded. Lack of available judicial practice does not permit making a conclusive judgment on the precise scope of this requirement, but it is possible to submit that it is not absolutely necessary that the victim ship is put in danger of sinking or grounding.

According to Article 5 of the Convention States are obliged to make the offences set forth in Article 3 'punishable by appropriate penalties which take into account the grave nature of the offences'. Thus like UNCLOS this instrument introduces similar uncertainty into practical implementation of the relevant provisions and makes the final recognition of whether the act constitutes the crime as well as prosecution of the alleged offenders way too dependent on the specific domestic jurisdiction. In this context it shall be also reminded that the crimes under Article 3 of the Convention are treaty based and not customary based like piracy.

At the same time it is well recognized that the SUA Convention 1988 remedies some of UNCLOS's lacunas. It eliminates the need to differentiate between the motives of the attackers, thus directly allowing prosecution in situations when qualification of piracy is challenged on the grounds of determination of private end. It also does not contain the requirement of two ships to be involved in the offence.



Furthermore the geographical limits are broader. An offence is committed if the attacked ship was scheduled to travel outside any one State's territorial waters during its voyage, regardless of where the specific attack happened, in the high seas, EEZ, or in the territorial sea of any State. Definition of the geographical scope of application in Article 4(1) of the Convention in practice encompasses all cases of (voluntary or otherwise) actual or scheduled navigation, except when limited to the territorial waters of one State, even if the schedule cannot be carried on owing to unlawful acts falling within the meaning of Article 3 of the Convention.

Nevertheless, over time many States and scholars have identified several problems which continue to affect legal measures to suppress violence against ships after the adoption of the SUA Convention 1988, including the omission of many potentially dangerous maritime situations, such as the mining of a port or hijacking of high-risk ship. It is also obvious that only to a limited extent was the Convention dealing with using a ship as a weapon. As a result, amendments to the SUA Convention 1988 and its related Protocol were agreed in 2005 in the form of Protocols (the 2005 Protocols).<sup>37</sup> Several additional offences and a new ship boarding regime relying on consent by the State where the ship is registered were included. The latter is particularly important in light of counter-piracy initiatives, since, whilst not without safeguards for seafarers whose ships are boarded, it enables wider power for coastal States to inspect suspicious ships.

Under the new provisions it was also made an offence: to unlawfully and intentionally injure or kill any person in connection with the commission of any of the offences in the Convention; to attempt to commit the offence; to participate as an accomplice; to organize or direct others to commit the offence; or to contribute to the commissioning of the offence. Direct inclusion of the above provisions into the text, in particular regarding attempt and contribution to commit the offence, could be considered another advancement in comparison with the UNCLOS regime, which may sharpen application of the SUA treaties in particular situations, leaving less room for interpretation to the domestic courts.

It is particularly worth noting that the new article requires States parties to take necessary measures to enable a legal entity to be made liable and to face sanctions when a person responsible for management or control of that legal entity has, in that capacity, committed an offence under the SUA Convention 2005.

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<sup>37</sup> 2005 Protocol to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (London, adopted 14 October 2005, entered into force 28 July 2010) IMO Doc. LEG/CONF.15/21 (SUA Convention 2005) and 2005 Protocol to the 1988 Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (London, adopted 14 October 2005, entered into force 28 July 2010) IMO Doc. LEG/CONF.15/22 (SUA Protocol 2005).

Similar amendments were also reflected in the 2005 Protocol to the 1988 Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (SUA Protocol 2005).

#### 11.4.2 Jurisdiction and cooperation

Although the SUA treaties were inter alia intended to eliminate restrictions (requirements of ‘two ships’ and ‘private ends’) in the definition of piracy in the UNCLOS, discussed above, and to broaden territorial application of the international regime against violence at sea, even after adoption of the 2005 Protocols and expansion of the covered offences its mechanisms are not without their own flaws, in some aspects remaining limited even in comparison to the provisions of UNCLOS. In addition, unlike the relevant provisions of UNCLOS which are considered to reflect customary international law, the SUA treaties are only binding on its States parties.

First and foremost, jurisdiction for prosecution is narrower under the SUA treaties than that under UNCLOS. In order for a State to prosecute someone under the SUA treaties the State must have a link to the offence. It is obliged or allowed to establish jurisdiction if there is involvement in the offence of a ship registered in that State or one of its citizens; or if the offence took place in that State’s territory or territorial seas. In addition, irrespective of the existence of the above link any State party is obliged to establish jurisdiction in cases where the alleged offender is present on its territory and is not extradited.

Article 10 of the SUA Convention 1988 contains the typical *aut dedere—aut judicare* clause. Obligation of the State to prosecute is not dependent on a prior extradition request or its denial. Some legal experts are of the view that ‘there is no compulsion in the SUA for any State to prosecute’.<sup>38</sup> But if accepted, that approach would contravene the very reason of the clause *aut dedere aut judicare*: to ensure that alleged offenders cannot escape trial by fleeing in search of safe haven in a third State or elsewhere and, if guilty, escape punishment for committing the crimes under the Convention. That principle was further strengthened by the 2005 Protocols which introduced Article 11bis to provide that none of the offences falling within the SUA treaties should be considered for the purposes of extradition as a political offence.

Doubts were also expressed on whether forceful bringing of the alleged offender under jurisdiction of the State compels that State with the obligation to prosecute or extradite. Nothing in the SUA treaties prevents application of that principle to the situations of offenders captured during enforcement operation and detained on a warship. A ‘warship is an expression of the sovereignty of the State whose flag

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<sup>38</sup> R Collins and D Hassan, ‘Applications and Shortcomings of the Law of the Sea in Combating Piracy: a South East Asian Perspective’ (2009) 40 *Journal of Maritime Law and Commerce* 89–113.

it flies'<sup>39</sup> and in accordance with the well-established principle is deemed to be a continuation of the flag State territory in particular as far as jurisdictional issues are concern. Why, should not then, capturing of the alleged offenders and bringing them under the jurisdiction of a State within the framework of law enforcement or military operation conducted in accordance with international law, where the interests and rights of that State within the operation and in its results being recognized by the international community and international law, create an obligation to prosecute or extradite for the States parties to the SUA treaties, when existence of this obligation is not challenged in the situations where such offenders illegally enter that State. It is important to note that we are talking here about legitimate measures (under international law) of a State to apprehend alleged criminal offenders within the framework of multilateral operations, or if permitted through unilateral actions, and not about those actions that fall outside this category.

The SUA treaties contain more specific obligations of States parties than UNCLOS on international cooperation; for instance each State shall furnish any relevant evidence to a State that is prosecuting an offender. But in one significant aspect they are limited in comparison to the regime on piracy. UNCLOS and customary international law provide for the possibility of taking direct action to suppress an act of piracy whereas the SUA treaties focus on the prosecution of offenders.

That shortcoming is only partially remedied in the 2005 Protocols. The new Article 8bis establishes procedures to be followed if a State party desires to board a ship flying the flag of a State party when the requesting party has reasonable grounds to suspect that the ship or a person on board the ship is, has been, or is about to be involved in, the commission of an offence under the SUA treaties. The authorization, either general or ad hoc, and cooperation of the flag State is required before such boarding. Notwithstanding that a State can always permit boarding of the ship flying its flag when requested, a State party may notify the IMO Secretary-General that it would allow authorization to board and search a ship flying its flag, ship's cargo, and persons on board if there is no response from the flag State within four hours. A State party can also notify that it authorizes a requesting party to board and search the ship, its cargo, and persons on board, and to question the persons on board to determine if an offence has been or is about to be committed.

The procedures on boarding are considered an innovative step in suppressing violence at sea, in particular related to terrorism activities, although some international law scholars express doubts in this regard. True, they probably fall short of

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<sup>39</sup> The International Tribunal for the Law of the Sea, *The 'ARA Libertad' Case*, Order, 15 December 2012, para. 94.

the rules on boarding and inspecting vessels under the Straddling Fish Stock Agreement. The latter provides for the boarding and inspection of a fishing vessel on the high seas if there are sufficient grounds to believe that it has seriously violated the rules concerning fishing and no ad hoc admission by the flag State is required. But taking into account controversies around the definition of 'terrorism' and often on the legality of counterterrorism measures, while similar problems are relatively minor in the area of fishing regulation, the above boarding provisions of the 2005 Protocols should be regarded as a welcome shift in efforts towards strengthening of the international regime against violence and terrorism at sea.

### 11.5 Hostage Convention

Many pirate attacks involve taking of hostages in order to compel the payment of ransom. The importance of the International Convention against the Taking of Hostages 1979 (the Hostage Convention)<sup>40</sup> in the context of the counter-piracy regime is obvious, although apparently it was initiated by Germany in the aftermath of the terrorist attack during the 1972 Summer Olympic Games and was not directly inspired by any of the violent incidents at sea. Nevertheless it bears mentioning that offences defined in its provisions, if committed on the high seas for private ends and with involvement of two ships, may potentially fall straight under the piracy definition, otherwise complementing the regime against violence at sea when one of those elements is missing.

The Hostage Convention was adopted in 1979 and similarly to other instruments considered within the counterterrorism category deals with specific offences, otherwise mostly repeating approaches on jurisdiction, cooperation, and extradition. In these aspects it is very much comparable to the relevant provisions of the SUA treaties examined above, mostly containing same advantages, particularly regarding broader territorial application, and the same limitations, specifically in the field of jurisdiction. Notably, as one of the instruments in the field of counterterrorism, the definition of the offences in the Hostage Convention contains the requirement that the offender coerced a State's will, which substantially undermines its possible application in practical circumstances that prevail in most of pirate and other violent incidents at sea, since such coercion is rarely the case.

Similarly to the SUA treaties State parties are obliged to incorporate into their domestic criminal law the offences defined in the relevant provisions, albeit this time they are hostage-taking, attempts to commit an act of hostage-taking, and participation as an accomplice in an act of hostage-taking. The Hostage Convention also asserts that it 'does not exclude any criminal jurisdiction exercised in

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<sup>40</sup> International Convention against the Taking of Hostages (New York, adopted 17 December 1979, entered into force 3 June 1983) 1316 UNTS 205 ('Hostage Convention').

accordance with internal law'. States are obliged to establish jurisdiction over the defined offences if they are committed in their territory or on board a ship registered in that State. They further shall found jurisdiction if the crime of hostage-taking is committed by one of its nationals or in order 'to compel that State to do or abstain from doing any act'. The extradition clause of the Hostage Convention is much the same as that of the SUA treaties; therefore the observations above in this regard are also pertinent for this instrument.

### 11.6 Efforts to Strengthen Legal Regime against Piracy within the United Nations Security Council

Just a few years ago the international media was reporting almost daily about acts of piracy, armed robbery, and other violence at sea. Most of the incidents took place in three areas—near the coast of Somalia, the Gulf of Guinea, and the Strait of Malacca. Due to the scale and threat posed by the piracy activities along the coast of Somalia and in the wider area of the Gulf of Aden and western part of the Indian Ocean the situation in that region prompted special attention from the international community, resulting in involvement of the UNSC and dispatching of several coalitions of navy forces to protect freedom of navigation and to suppress piracy. The UNSC adopted a number of resolutions under Chapter VII concerning piracy and armed robbery off the coast of Somalia among which resolutions 1816, 1846, and 1851 represent special interest from the view of extension and enhancement of the regime of piracy suppression. Despite the views of some law of the sea scholars that *de jure* relevant UNSC resolutions constitute a legal regime of their own<sup>41</sup> it is generally acknowledged that the UNSC has chosen to base provision of these resolutions on the regime of UNCLOS, explicitly referring to its provisions and drawing on its enforcement mechanism. Without UNCLOS they could barely be applied comprehensively.

In accordance with the UNSC resolution 1816, subject to cooperation with the Somali Transitional Federal Government and advance notification to the Secretary-General of the United Nations, Member States may 'enter the territorial waters of Somalia for the purpose of repressing acts of piracy and armed robbery at sea, in a manner consistent with such action permitted on the high seas with respect to piracy under relevant international law' and to 'use, within the territorial waters of Somalia, in a manner consistent with action permitted on the high seas with respect to piracy under relevant international law, all necessary means to repress acts of piracy and armed robbery'.<sup>42</sup> This authorization has remedied the

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<sup>41</sup> D Guilfoyle, 'UN Security Council Resolution 1816 and IMO Regional Counter-Piracy Efforts' (2008) 57 *ICLQ* 696; T Treves, 'Piracy, Law of the Sea, and Use of Force: Developments off the coast of Somalia' (2009) 20 *EJIL* 408.

<sup>42</sup> S/RES/1816 of 2 June 2008.

geographical limitations of the UNCLOS piracy regime. It was repeated in resolution 1846 (with some editorial changes) and prolonged in subsequent resolutions. The authorization 'to undertake all necessary measures that are appropriate . . . for the suppressing of acts of piracy and armed robbery [at sea]' was extended even further—towards mainland Somalia by resolution 1851. It follows then that with regard to suppression of acts of piracy and armed robbery at sea (the resolution can definitely be interpreted more broadly) States are allowed to take enforcement and, also, bearing in mind the usual meaning of the words 'all necessary measures' in UNSC resolutions, military action in Somalia.

It could be also argued that despite all the emphasis in the relevant UNSC resolutions that the authorizations provided were taken with the consent of the Somali Transitional Government, applied only with respect to the situation in Somalia, did not affect any rights, obligations, or responsibilities of Member States under international law, including under UNCLOS, and should 'not be considered as establishing customary international law' with respect to any other situation, an important precedent has obviously been created. The extension of the enforcement mandate provided by the UNSC resolutions is clearly a step forward in strengthening the international regime of piracy suppression, while for the time being limited only to a particular region. Through the UNSC the international community actually adapted the UNCLOS/customary regime to the specific situation of repressing piracy in the waters of a 'failed state', in addition tailoring it towards denying any safe haven for the persons suspected in committing piracy act. The robust measures authorized in accordance with the UNSC resolutions contributed substantially to the fall of piracy and armed robbery incidents in the Gulf of Aden and off the coast of Somalia in recent years.

There are also some other important elements of the UNSC resolutions which deserve separate brief consideration, in particular inclusion of reference to 'the purpose of repressing acts of piracy and armed robbery at sea', without any explicit definition of the new term 'armed robbery at sea' in their provisions, and concurrent lack of indication of specific subjects of enforcement measures, like 'pirate ship' in UNCLOS. It seems apparent that the intention of the UNSC was to broaden as far as possible the mandate to tackle particular piracy circumstances off the coast of Somalia while staying within the limits of international law, including UNCLOS. The gravity and specificity of the situation in the region compel authorization of enforcement measures against anyone involved in acts of piracy or armed robbery irrespective of connection to a 'pirate ship'. Notably it was primarily the situation in Somalia that in accordance with the UNSC threatens international peace and security and not piracy or armed robbery at sea, the threat from the latter being defined mostly through the safety of navigation, delivery of humanitarian aid, and aggravation of the situation in Somalia.

Hence it is even more important to clarify the meaning of the term 'armed robbery at sea'. One option is to try to equate the meaning of 'armed robbery at sea' in the UNSC resolutions with piracy. In this regard reference could be made to the inconsistent terminology used by the UNSC, even within the provisions of the same resolution: 'piracy and armed robbery' (1816 and 2077), 'piracy and armed robbery at sea' (1816, 1851, 1897, and 2077), 'piracy and armed robbery against vessels' (1851 and 1897); and to the provision of all relevant UNSC resolutions reaffirming that 'international law, as reflected by the . . . [UNCLOS], sets out the legal framework applicable to combating piracy and armed robbery at sea'. Nevertheless that view cannot be upheld since without separate legal understanding of the term 'armed robbery at sea' the interpretation of relevant UNSC resolutions would be limited by the UNCLOS definition of piracy, reintroducing some of the constraints that these resolutions were specifically aimed at remedying.

Although, as has been mentioned, the UNSC resolutions do not contain a definition of the term 'armed robbery at sea', there are several authoritative sources which may be helpful in this regard. Relevant definitions concerning 'armed robbery' in the IMO Code of Practice for the Investigation of the Crimes of Piracy and Armed Robbery against Ships, the Djibouti Code of Conduct and the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) comprise several essential common elements: they all include a broad approach to offences that cover all illegal acts of violence or detention or acts of depredation and threat thereof, while the former two specifically note that these acts are 'other than an act of piracy'; all require that the above acts happen within the State's jurisdiction; and neither repeats the 'two ships' constraint<sup>43</sup> of the UNCLOS regime, making reference only to acts or threats 'directed against a ship' and not 'against another ship'. Taking also into account that one of the above instruments was issued under the auspices of such a global organization as the IMO with well-recognized expertise on maritime matters, and the other concluded by the countries from the region specifically addressed in the UNSC resolutions, it is submitted that the term 'armed robbery at sea' in the UNSC resolutions, and its variations where appropriate, should be interpreted as covering all other acts of violence at sea that do not fall within the definition of piracy.

Finally it should be acknowledged that unlike the case of the scope of measures to suppress piracy, the UNSC resolutions had a very limited input to the regime of criminal prosecution of alleged pirates, mostly referring States to international instruments in force and calling for their full implementation and for enhanced cooperation between parties. Thus the applicable system of establishing jurisdiction, fulfilling obligation to prosecute or extradite etc., even when the alleged

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<sup>43</sup> A different view was expressed with regard to the ReCAAP definition in Collins and Hassan (n. 38) at 111, but it is not supported by most other experts.

pirate or other offender is apprehended following extended authority granted by the UNSC resolutions, continued to be governed by the applicable treaties to which relevant States are parties, primarily UNCLOS, the SUA treaties, and the Hostage Convention with all advantages and shortcomings pointed out in previous chapters.



# 12

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## MARITIME TERRORISM AND THE ILLICIT TRAFFICKING IN ARMS

*Riyaz Hamza*

### 12.1 Introduction

In this chapter two specific maritime security threats will be examined: namely, maritime terrorism and the illicit trafficking in arms, including weapons of mass destruction. The two threats are dealt with in the same chapter as they can be considered to a large extent inter-connected.

In his 2008 Report on Oceans and the Law of the Sea, the United Nations Secretary-General identified seven specific threats to maritime security, namely: piracy and armed robbery against ships;<sup>1</sup> terrorist acts involving shipping, off-shore installations and other maritime interests;<sup>2</sup> illicit trafficking in arms and weapons of mass destruction (WMDs);<sup>3</sup> illicit traffic in narcotic drugs and psychotropic substances;<sup>4</sup> smuggling and trafficking of persons by sea;<sup>5</sup> illegal, unreported, and unregulated fishing (IUU fishing);<sup>6</sup> and intentional and unlawful damage to the marine environment.<sup>7</sup>

In this volume, piracy and armed robbery against ships is dealt with in Chapter 11; illicit trafficking of drugs is covered in Chapter 15; smuggling and trafficking of persons by sea is found in Chapter 16; while IUU fishing and intentional and unlawful damage to the marine environment is examined in Chapter 17 as new marine security threats.

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<sup>1</sup> Report of the United Nations Secretary-General, 'Oceans and the law of the sea', United Nations General Assembly Resolution A/63/63 (10 March 2008) (2008 Report of the UNSG on Oceans and the law of the sea) para. 54.

<sup>2</sup> 2008 Report of the UNSG on Oceans and the law of the sea (n. 1) para. 63.

<sup>3</sup> 2008 Report of the UNSG on Oceans and the law of the sea (n. 1) para. 72.

<sup>4</sup> 2008 Report of the UNSG on Oceans and the law of the sea (n. 1) para. 82.

<sup>5</sup> 2008 Report of the UNSG on Oceans and the law of the sea (n. 1) para. 89.

<sup>6</sup> 2008 Report of the UNSG on Oceans and the law of the sea (n. 1) para. 98.

<sup>7</sup> 2008 Report of the UNSG on Oceans and the law of the sea (n. 1) para. 107.

## 12.2 Maritime Terrorism

### 12.2.1 Introduction

The term terrorism is devoid of a precise internationally accepted definition. Various legal systems and government agencies use different definitions. Moreover, governments have been reluctant to formulate an agreed upon, legally binding definition.

Section 1 of The Terrorism Act 2000 of the United Kingdom (UK) defines terrorism as follows:

- (1) In this Act ‘terrorism’ means the use or threat of action where:
  - (a) the action falls within subsection (2),
  - (b) the use or threat is designed to influence the government or to intimidate the public or a section of the public and
  - (c) the use or threat is made for the purpose of advancing a political, religious or ideological cause.
- (2) Action falls within this subsection if it:
  - (a) involves serious violence against a person,
  - (b) involves serious damage to property,
  - (c) endangers a person’s life, other than that of the person committing the action,
  - (d) creates a serious risk to the health or safety of the public or a section of the public or
  - (e) is designed seriously to interfere with or seriously to disrupt an electronic system.<sup>8</sup>

Similarly the United States Department of State has defined terrorism as ‘premeditated, politically motivated violence perpetrated against non-combatant targets by sub-national groups or clandestine state agents’.<sup>9</sup>

There is a clear distinction between terrorism and piracy. In terms of Article 101 of the United Nations Convention on the Law of the Sea 1982 (UNCLOS)<sup>10</sup> there are five distinct elements that constitute the act of piracy: (i) There must be an illegal act or acts of violence or detention, or any act of depredation; (ii) The said acts must be committed for private ends; (iii) The said acts must be committed by the crew or the passengers of a private ship or a private aircraft; (iv) The said acts

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<sup>8</sup> As can be seen terrorism is very broadly defined so as to include not only violent offences against persons and physical damage to property, but also acts designed seriously to interfere with or to seriously disrupt an electronic system if those acts are designed to influence the government or to intimidate the public or a section of the public, and is done for the purpose of advancing a political, religious or ideological cause.

<sup>9</sup> Title 22, Chapter 38 of the United States Code (USC).

<sup>10</sup> United Nations Convention on the Law of the Sea (Montego Bay, opened for signature 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS).

must be committed on the high seas or outside the jurisdiction of any State;<sup>11</sup> and (v) The said acts must be directed against another ship or aircraft, or against persons or property on board such ship or aircraft.

Therefore, piracy is an act committed for private ends, on the high seas (and by extension to the exclusive economic zone as well) or outside the territorial waters of a State. Terrorism, on the other hand, is said to be committed for a politically motivated purpose, and can occur on land, sea, or air. Further, for piracy you require the 'two ships' element. For terrorism however this requirement is irrelevant.

Christopher C Joyner describes maritime terrorism as 'the systematic use or threat to use acts of violence against international shipping and maritime services by an individual or a group to induce fear and intimidation in a civilian population in order to achieve political ambitions or objectives'.<sup>12</sup>

### 12.2.2 The international legal instruments to combat maritime terrorism

Although the international concern for the security of ships, cargoes, passengers, and crews had been growing steadily over the past several years, it was the *Achille Lauro*<sup>13</sup> incident which awakened the maritime community to the real threat or impact that terrorism could pose to the industry.

There are no provisions in UNCLOS that deal directly with maritime terrorism. Therefore, in the light of this incident, the international maritime community was called upon to act.

On 20 November 1985, the Assembly of the International Maritime Organization (IMO) adopted Resolution A. 584(14), titled 'Measures to prevent unlawful acts which threaten the safety of ships and the security of their passengers and

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<sup>11</sup> In terms of Art. 58.2 of the UNCLOS it is possible to import or extend the high seas provisions dealing with piracy to the exclusive economic zone as well. However, it can be done only so far as they are not incompatible with Part V of the UNCLOS, which deals with the regime of the exclusive economic zone.

<sup>12</sup> N Klein, *Maritime Security and the Law of the Sea* (Oxford University Press, 2011) 148. See also Klein's reference to Samuel Menefee's definition of maritime terrorism 'any illegal act directed against ships, their passengers, cargo or crew, or against sea ports with the intent of directly or indirectly influencing a government or group of individuals'.

<sup>13</sup> On 7 October 1985, at approximately 13.30 hours, four persons from the Palestine Liberation Organization (PLO) hijacked the *Achille Lauro*, an Italian cruise ship, in Port Said beyond the limits of Egyptian territorial waters. The hijackers had come on board as passengers. The crew and passengers of the ship were held hostage and a Jewish US national, who was one of the passengers, was killed when demands for the release of Palestinian prisoners held by Israel were not met. After prolonged negotiations the hijackers agreed to release the ship and the hostages held by them. Later the hijackers were put on board an Egyptian civil aircraft and were being flown to Tunisia. At this point a US military aircraft intercepted the flight over the high seas in the Mediterranean, forcing the aircraft to land in Italy. The hijackers were apprehended by Italian authorities and convicted of terrorist offences in the Italian courts. See D Harris, *Cases and Materials on International Law* (7th edn, Sweet and Maxwell/Thomson Reuters, 2010) 382.

crews'.<sup>14</sup> This Resolution directed the Maritime Safety Committee (MSC) to act as follows: 'in co-operation with other committees, as required, to develop, on a priority basis, detailed and practical technical measures, including both shore side and shipboard measures, which may be employed by Governments, port authorities, and administrators, ship-owners, ship operators, ship masters, and crews to ensure the security of passengers and crews on board ships'.

The Resolution also authorized the MSC to request the IMO Secretary-General to issue a circular containing information on the measures developed by the Committee to Governments, organizations concerned, and interested parties for their consideration and adoption.

Accordingly, on 26 September 1986, the MSC approved MSC/Circ.443, titled 'Measures to prevent unlawful acts against passengers and crews on board ships'. The measures discussed in MSC/Circ.443 became known as the IMO 'security recommendations' because nothing in MSC/Circ.443 was mandatory.<sup>15</sup>

However, the most significant step in the process of countering maritime terrorism was taken by the IMO, with the adoption of the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation 1988 (SUA Convention 1988).<sup>16</sup> At the same Conference the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf 1988 (SUA Protocol 1988)<sup>17</sup> was also adopted.

It must be mentioned that the offences set out in Article 3 of the SUA Convention 1988 are wide enough to encompass even acts of piracy (as defined in Article 101 of UNCLOS) and armed robbery against ships.

No other action was taken by IMO on the issue of maritime terrorism until 5 July 1996, when the MSC adopted MSC/Circ.754, titled 'Passenger Ferry Security'. The security measures recommended in MSC/Circ.754 related primarily to passenger ferries operating on international routes and the ports serving those routes. However, the Circular provided that the measures might also be applied to international freight ferry operations depending upon the requirements of individual Member Governments.<sup>18</sup>

In the aftermath of the terrorist attacks in New York and Washington on 11 September 2001, it had become clear that the shipping industry needed a new,

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<sup>14</sup> <<http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/SUA-Treaties.aspx>>.

<sup>15</sup> <<http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/SUA-Treaties.aspx>> (n. 14).

<sup>16</sup> Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (Rome, adopted 10 March 1988, entered into force 1 March 1992) 1678 UNTS 221 (SUA Convention 1988).

<sup>17</sup> Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (Rome, adopted 10 March 1988, entered into force 1 March 1992) 1678 UNTS 304 (SUA Protocol 1988).

<sup>18</sup> <<http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/SUA-Treaties.aspx>> (n. 14).

more stringent, and more comprehensive set of measures to address the question of maritime security.

Thus on a proposal made by William O' Neil, the then IMO Secretary-General, the IMO Assembly on 20 November 2001 unanimously adopted Resolution A.924(22), titled 'Review of Measures and Procedures to Prevent Acts of Terrorism which Threaten the Security of Passengers and Crews and the Safety of Ships'.<sup>19</sup> By this resolution, the Maritime Safety Committee, as well as other relevant IMO organs, was called upon to undertake a review of all existing IMO instruments in this area for the purpose of ascertaining whether there was a need to update those instruments in the light of recent terrorist activities.

Accordingly, a Diplomatic Conference on Maritime Security was convened by the IMO, from 9 to 13 December 2002. The outcome of the Conference was a new, comprehensive security regime for international shipping, to enter into force by 1 July 2004, in terms of the Tacit Acceptance Procedure (TAP). The most far-reaching change was the introduction of a new Chapter XI-2 to the International Convention for the Safety of Life at Sea 1974 (SOLAS)<sup>20</sup>, on 'Special measures to enhance maritime security'. This chapter enshrines the new International Ship and Port Facility Security Code or what is now commonly referred to as the ISPS Code.<sup>21</sup>

Furthermore, it was felt that the SUA Convention 1988 and the SUA Protocol 1988 required a complete overhaul. Accordingly, the 2005 Protocol to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA Convention 2005)<sup>22</sup> and the 2005 Protocol to the 1988 Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (SUA Protocol 2005),<sup>23</sup> were adopted by the IMO.

The United Nations Secretary-General has reiterated that although there are a number of global and regional instruments covering a wide range of terrorist offences, with specific regard to terrorist acts involving shipping, offshore installations, and other maritime interests it is only the SOLAS (more specifically the ISPS

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<sup>19</sup> *ISPS Code* (2003 Edition, IMO Publication, 2003) iii.

<sup>20</sup> International Convention for the Safety of Life at Sea (London, adopted 1 November 1974, entered into force 25 May 1980) 1184 UNTS 278 (SOLAS).

<sup>21</sup> The original Chapter XI of the SOLAS dealt with '*Special measures to enhance maritime safety*'. It was renumbered as Chapter XI-1.

<sup>22</sup> 2005 Protocol to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (London, adopted 14 October 2005, entered into force 28 July 2010) IMO Doc. LEG/CONF.15/21 (SUA Convention 2005).

<sup>23</sup> 2005 Protocol to the 1988 Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (London, adopted 14 October 2005, entered into force 28 July 2010) IMO Doc. LEG/CONF.15/22 (SUA Protocol 2005).

Code), the SUA Convention 1988, SUA Protocol 1988, SUA Convention 2005, and SUA Protocol 2005 that are applicable.<sup>24</sup>

This chapter however will not include an analysis of the provisions of the SUA treaties, namely, SUA Convention 1988, SUA Protocol 1988, SUA Convention 2005, and SUA Protocol 2005, as Chapter 13 ('Suppression of Unlawful Acts Against the Safety of Maritime Navigation') provides the reader with a detailed explanation of these instruments. Similarly, a comprehensive analysis of the ISPS Code has been carried out in Chapter 14 ('Ship and Port Facility Security'), and as such it will not be dealt with in this chapter.

### 12.2.3 Maritime terrorism and offshore activities

Offshore activities would mean any activity conducted at sea for the exploration and exploitation of marine resources and any matter connected therewith. The terminologies used for the offshore equipment adopted to carry out such activities are numerous.

The UNCLOS adopts the terms 'artificial islands', 'installations', and 'structures'. However, none of those terms have been defined in the Convention itself.

Literary exposition indicates that they refer to the same thing and can be used interchangeably. An 'artificial island' or 'offshore installation' or 'installation (offshore)', as used in the UNCLOS, refers to a human-made edifice in the territorial sea, in the exclusive economic zone, on the continental shelf, in the archipelagic waters, or in the deep seabed beyond national jurisdiction, which is usually employed to explore for or exploit marine resources. They may be built for other purposes such as marine scientific research, tide observations, and traffic control, and so forth.<sup>25</sup>

Also of paramount importance to offshore activities are the so called submarine pipelines<sup>26</sup> serving such artificial islands, installations, and structures. These submarine pipelines must be distinguished from a submarine cable.<sup>27</sup>

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<sup>24</sup> 2008 Report of the UNSG on Oceans and the law of the sea (n. 1) para. 64.

<sup>25</sup> GK Walker (ed.), *Definitions for the Law of the Sea: Terms Not Defined by the 1982 Convention* (Martinus Nijhoff Publishers, 2012) 104. See also *The Law of the Sea. Baselines: An Examination of the Relevant Provisions of the United Nations Convention on the Law of the Sea* (United Nations, 1989) 56, where installation (offshore) has been defined as a 'man-made structure in the territorial sea, exclusive economic zone, or on the continental shelf usually for the exploration or exploitation of marine resources'.

<sup>26</sup> A line of pipes for conveying water, gas, oil, etc. See Walker (n. 25) 313. See also *The Law of the Sea. Baselines* (n. 25) 63, where submarine pipelines are defined as 'a line of pipes for conveying water, gas, oil, etc., under water'. Such pipelines are said to be '... laid on or trenched into the sea-bed, and they could stand at some height above it. In areas of strong tidal streams and soft sea-bed material the sea-bed may be scoured from beneath sections of the pipe leaving them partially suspended'.

<sup>27</sup> 'an insulated, waterproof wire or bundle of wires or fibre optics for carrying an electric current or a message under water'. See Walker (n. 25) 310.

These offshore installations or structures may be fixed or floating also referred to as mobile.

The fixed installations or structures are structures attached to the ocean floor, often for the purpose of offshore oil drilling. Most of the working space of such platforms is raised above the surface of the sea by rigid supports made of steel or concrete. Attachment to the ocean floor is by a structural support known as a jacket.<sup>28</sup>

The floating installations or structures are designed to float in the water and can be moved from one location to another. However when they are at location, they are usually affixed to the seabed to keep them stable.<sup>29</sup>

In the International Convention on Oil Pollution Preparedness, Response and Co-operation 1990 (OPRC)<sup>30</sup> 'offshore unit' has been defined to mean any fixed or floating offshore installation or structure engaged in oil or gas exploration, exploitation or production activities, or loading or unloading oil.

The SUA Protocol 1988 defines a 'fixed platform' to mean an artificial island, installation or structure permanently attached to the sea-bed for the purpose of exploration or exploitation of resources or for other economic purposes.<sup>31</sup>

Article 2 defines several offences in terms of the Protocol:

1. Any person commits an offence if that person unlawfully and intentionally:
  - (a) seizes or exercises control over a fixed platform by force or threat thereof or any other form of intimidation;
  - (b) performs an act of violence against a person on board a fixed platform if that act is likely to endanger its safety;
  - (c) destroys a fixed platform or causes damage to it which is likely to endanger its safety;
  - (d) places or causes to be placed on a fixed platform, by any means whatsoever, a device or substance which is likely to destroy that fixed platform or is likely to endanger its safety; or
  - (e) injures or kills any person, in connection with the commission or the attempted commission of any of the above stated offences.

In terms of Article 2.2 any person who attempts to commit any of the offences set forth above or abets another to commit any of the offences set forth above is also said to commit an offence.

Article 2*bis* of the SUA Protocol 2005 broadens the range of offences that were included in the 1988 Protocol. A person commits an offence if that person unlawfully and intentionally, when the purpose of the act, by its nature or context, is to

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<sup>28</sup> <[https://en.wikipedia.org/wiki/Oil\\_platform](https://en.wikipedia.org/wiki/Oil_platform)>.

<sup>29</sup> <[https://en.wikipedia.org/wiki/Oil\\_platform](https://en.wikipedia.org/wiki/Oil_platform)>.

<sup>30</sup> International Convention on Oil Pollution Preparedness, Response and Co-operation (London, adopted 30 November 1990, entered into force 13 May 1995) 1891 UNTS 51 (OPRC).

<sup>31</sup> SUA Protocol 1988, Art. 1.3.

intimidate a population, or to compel a Government or an international organization to do or to abstain from doing any act:

uses against or on a fixed platform or discharges from a fixed platform any explosive, radioactive material or BCN weapon in a manner that causes or is likely to cause death or serious injury or damage; or

discharges from a fixed platform, oil, liquefied natural gas, or other hazardous or noxious substance, in such quantity or concentration, that it causes or is likely to cause death or serious injury or damage; or

threatens, with or without a condition, as is provided for under national law, to commit an offence.<sup>32</sup>

As can be seen the provisions of both SUA Fixed Platforms Protocols are only applicable to fixed platforms (artificial islands, installations or structures) permanently attached to the sea-bed for the purpose of exploration or exploitation of resources or for other economic purposes. Therefore, it is clear that the provisions cannot be applicable to floating or mobile installations or structures.

The ISPS Code contains detailed security related requirements to be complied with by Governments, Port Authorities and Shipping Companies, in a mandatory section—Part A, together with a series of guidelines about how to meet these requirements, in a non-mandatory section—Part B.

The scope of application of the ISPS Code extends to mobile offshore drilling units as well.<sup>33</sup>

However, Regulation 1.5 of Chapter XI-2 of the SOLAS defines a ‘Mobile offshore drilling unit’ to mean a mechanically propelled mobile offshore drilling unit, as defined in regulation IX/1, *not on location*. When read with Regulation 1 of Chapter IX of the SOLAS a ‘Mobile offshore drilling unit (MODU)’ has been defined to mean a vessel capable of engaging in drilling operations for the exploration for or exploitation of resources beneath the sea-bed such as liquid or gaseous hydrocarbons, sulphur, or salt.

Therefore, it is clear that the provisions of the ISPS Code are not applicable to all offshore installations and structures, but specifically to the type of mobile offshore drilling units not on location. Therefore, the provisions of the ISPS Code are not

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<sup>32</sup> A new Art. 2<sup>ter</sup> includes the offences of unlawfully and intentionally injuring or killing any person in connection with the commission of any of the offences; attempting to commit an offence; participating as an accomplice; organizing or directing others to commit an offence; etc.

<sup>33</sup> ISPS Code, Section A/3.1. The Code applies to the following ships engaged on international voyages: passenger ships, including high-speed passenger craft; cargo ships, including high speed craft, of 500 gross tonnage and upwards; and *mobile offshore drilling units*; and to port facilities serving such ships engaged on international voyages. Section A/3.2 of the Code permits a Contracting Government to extend the scope of application to those port facilities within their territory which, although used primarily by ships not engaged on international voyages, are required occasionally to serve ships arriving or departing on an international voyage.



applicable to fixed platforms (artificial islands, installations or structures) and not even to floating platforms which are 'on location'.<sup>34</sup>

#### **12.2.4 The threat of cyberterrorism in the maritime industry**

Cyberterrorism is a new threat that is facing the maritime industry. This is as a result of the increased dependency by the maritime industry on information technology.<sup>35</sup> Cyberterrorism is the act of internet terrorism, including acts of deliberate, large-scale disruption of computer networks, especially of personal computers attached to the internet, by the means of tools such as computer viruses. Cyberterrorism can be also defined as the intentional use of computers, networks, and the public internet to cause destruction and harm for personal objectives or for political or ideological reasons.

Professor Dorothy E Denning defines cyberterrorism as 'an unlawful act against computer networks, to cause violence against persons or property, and as a result, to coerce a government'.<sup>36</sup>

A cyber terrorist may manipulate the navigational control data of a vessel to direct it to a particular destination and thereby use the vessel as a weapon of mass destruction. He may direct a vessel into a commercial port or direct it to collide with another vessel, with the intention of causing serious disaster. The cyberterrorist may also tamper with the Global Positioning System (GPS), which could result in the sending of manipulated signals to the vessel, providing false readings as to speed, direction, and location. This could cause peril not only to that vessel but to any other vessels in the vicinity as well, especially in cases of fog or stormy weather.<sup>37</sup>

Further, a cyberterrorist may create the existence of what is known as a 'ghost vessel' or a non-existent vessel. This could be extremely dangerous as it could result in the vessel altering its course in the belief of an oncoming vessel. Likewise, a cyberterrorist may be able to manipulate the navigation system in order to negate the existence of an actually approaching vessel. Both these scenarios could lead to serious consequences, including confusion, vessel groundings, and collisions.<sup>38</sup>

For these reasons there is an urgent need for the maritime industry to ensure that potential cyberattacks are prevented and that an adequate legal framework is in

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<sup>34</sup> In terms of ISPS Code, Section B/4.19, it is said that 'Contracting Governments should consider establishing appropriate security measures for fixed and floating platforms and mobile offshore drilling units on location to allow interaction with ships which are required to comply with the provisions of chapter XI-2 and Part A of this Code'.

<sup>35</sup> R Tanti-Dougall, 'Cyber Terrorism: A New Threat Against the Maritime Industry' *Benedict's Maritime Bulletin*, Volume 12, No. 2, Second Quarter 2014, 49–57 at 49.

<sup>36</sup> Tanti-Dougall (n. 35) 49–57 at 49.

<sup>37</sup> Tanti-Dougall (n. 35) 49–57 at 50.

<sup>38</sup> Tanti-Dougall (n. 35) 49–57 at 51.

place to ensure the criminalization of any such acts. It must be mentioned that currently there is no specific international convention dealing with the criminalization and prevention of cyberterrorism within the maritime industry. However, this lacuna could be filled by a broad interpretation of the SUA treaties as well as the ISPS Code.<sup>39</sup>

## 12.3 The Illicit Trafficking in Arms

### 12.3.1 Introduction

Illicit trafficking by sea of small arms and of biological, chemical, or nuclear weapons (BCN weapons) constitutes one of the major threats to maritime security.<sup>40</sup> The illicit trafficking of small arms is regulated by a number of international instruments. However, there is currently no global small arms control instrument specifically regulating trafficking by sea.<sup>41</sup>

The most significant measure to combat the illicit trafficking of small arms was taken when the United Nations General Assembly by Resolution 55/255 adopted the Protocol against the Illicit Manufacturing of and Trafficking in Firearms, their Parts and Components and Ammunition (Firearms Protocol).<sup>42</sup> This Protocol supplements the United Nations Convention against Transnational Organized Crime 2000 (CATOC).<sup>43</sup>

### 12.3.2 The Firearms Protocol

Together with the Smuggling Protocol and the Trafficking Protocol, the Firearms Protocol represents the commitment of the international community to counter transnational organized crime. The Firearms Protocol provides for a framework for States to control and regulate illicit arms and arms flows, prevent their diversion

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<sup>39</sup> See also Council of Europe Convention on Cybercrime 2001 (adopted 23 November 2001, entered into force 7 July 2004) ETS 185 (Cybercrime Convention).

<sup>40</sup> 2008 Report of the UNSG on Oceans and the law of the sea (n. 1) para. 72.

<sup>41</sup> 2008 Report of the UNSG on Oceans and the law of the sea (n. 1) para. 75.

<sup>42</sup> Protocol against the Illicit Manufacturing of and Trafficking in Firearms, their Parts and Components and Ammunition, Supplementing the United Nations Convention against Transnational Organized Crime (New York, adopted 31 May 2001, entered in force 3 July 2005) 2326 UNTS 208 (Firearms Protocol).

<sup>43</sup> United Nations Convention on Transnational Organized Crime (Palermo, adopted 15 November 2000, entered into force 29 September 2003) 40 *ILM* 335 (CATOC). There are two other Protocols to the CATOC: Protocol against the Smuggling of Migrants by Land, Sea and Air, Supplementing the United Nations Convention against Transnational Organized Crime (Palermo, adopted 15 November 2000, entered into force 28 January 2004) 40 *ILM* 384 (Smuggling Protocol) and Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children, Supplementing the United Nations Convention against Transnational Organized Crime (Palermo, adopted 15 November 2000, entered in force 25 December 2003) 40 *ILM* 335 (Trafficking Protocol).

into the illegal market, and facilitate the investigation and prosecution of related offences, without hampering legitimate transfers.<sup>44</sup>

The objective of this Protocol, which is the first legally binding instrument on small arms that has been adopted at the global level, is to promote, facilitate, and strengthen cooperation among States Parties in order to prevent, combat, and eradicate the illicit manufacturing of and trafficking in firearms, their parts and components, and ammunition.<sup>45</sup>

Article 4.1 of the Protocol provides that, except as otherwise stated, the Protocol shall apply to the prevention of illicit manufacturing of and trafficking in firearms, their parts and components and ammunition and to the investigation and prosecution of the offences established in accordance with Article 5 of the Protocol, where those offences are *transnational in nature* and involve an *organized criminal group*.<sup>46</sup> (emphasis added).

Article 5 broadly defines the offences established in accordance with the Protocol as follows:

1. Each State Party shall adopt such legislative and other measures as may be necessary to establish as criminal offences the following conduct, when committed intentionally:
  - (a) Illicit manufacturing of firearms, their parts and components and ammunition;
  - (b) Illicit trafficking in firearms, their parts and components and ammunition;
  - (c) Falsifying or illicitly obliterating, removing or altering the marking(s) on firearms required by Article 8 of this Protocol.

It is said that all measures and provisions within the Firearms Protocol can be grouped within the following four categories, or the four pillars upon which the Protocol is said to be built: definitions, control measures, substantive criminal law, and information exchange. A Legislative Guide focusing on the said four pillars was released in 2004 by the United Nations Office on Drugs and Crime (UNODC) to assist States in the implementation of the Firearms Protocol.<sup>47</sup>

The UNODC has also developed two other useful instruments aimed at facilitating the implementation of the Firearms Protocol.

The first, Guidelines for the Implementation of the Firearms Protocol, is intended to help Member States establish and strengthen the institutions and mechanisms needed to effectively implement the Protocol. The guidelines will provide technical assistance to States on implementing the operational measures in the Protocol

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<sup>44</sup> <<http://www.unodc.org/unodc/en/firearms-protocol/firearmsprotocol.html>>.

<sup>45</sup> Firearms Protocol, Art. 2.

<sup>46</sup> Art. 2 (a) of the CATOC defines the term 'organized criminal group', while Art. 3.2 of the CATOC provides the definition of an offence which is 'transnational in nature'.

<sup>47</sup> <<http://www.unodc.org/unodc/en/firearms-protocol/firearmsprotocol.html>>. (n. 44).

and will address such issues as marking of firearms, implementation of security measures and how to establish effective export, import, and transit licensing systems.<sup>48</sup>

The second instrument is Model Legislation, key features of which will include provisions on the criminalization of illicit manufacturing and trafficking in firearms, record-keeping, marking, controlling exports, and the import and transit of firearms, their parts, components, and ammunition.<sup>49</sup>

Both the Guidelines and the Model Legislation will complement the already existing Legislative Guide with practical and hands-on recommendations and best practices in the area of firearms control. These documents will enable States to implement the Protocol and, if desired, go beyond the mandatory Protocol provisions.

### 12.3.3 Weapons of Mass Destruction (WMDs)

The primary international instruments in place addressing the proliferation of WMD and associated materials are the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction 1972 (Biological Weapons Convention or BWC),<sup>50</sup> Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction 1992 (Chemical Weapons Convention or CWC)<sup>51</sup> and the Treaty on Non Proliferation of Nuclear Weapons or Nuclear Non Proliferation Treaty 1968 (NPT).<sup>52</sup>

The Biological Weapons Convention prohibits State parties from developing, producing, stockpiling, or otherwise acquiring or retaining of biological weapons for hostile purposes or for use in armed conflict. The Chemical Weapons Convention prohibits State parties from developing, producing, stockpiling, acquiring, retaining, or transferring to anyone, weapon-grade toxic chemicals and their pre-cursors.<sup>53</sup>

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<sup>48</sup> <<http://www.unodc.org/unodc/en/firearms-protocol/firearmsprotocol.html>> (n. 44).

<sup>49</sup> <<http://www.unodc.org/unodc/en/firearms-protocol/firearmsprotocol.html>> (n. 44).

<sup>50</sup> Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction (London, Moscow and Washington, adopted 10 April 1972, entered into force 26 March 1975) 1015 UNTS 163 (Biological Weapons Convention).

<sup>51</sup> Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (Paris and New York, adopted 3 September 1992, entered into force 29 April 1997) 1974 UNTS 45 (Chemical Weapons Convention).

<sup>52</sup> Treaty on the Non Proliferation of Nuclear Weapons or Nuclear Non Proliferation Treaty (New York, open for signature 1 July 1968, entered into force 5 March 1970) 729 UNTS 161 (NPT).

<sup>53</sup> Klein (n. 12) 155.

The NPT was adopted to prevent the spread of nuclear weapons beyond the five recognized nuclear weapons States: China, France, Russia, the UK, and the US. The agreement has been generally successful in limiting the spread of nuclear weapons beyond these five permanent members of the UNSC.<sup>54</sup>

From the maritime perspective there are three main instruments to counter the proliferation of WMDs: The Proliferation Security Initiative (PSI) of 2003, the SUA Convention 2005 and the SUA Protocol 2005.

The PSI is a multinational response to the challenge posed by the threat of the proliferation of WMDs. The PSI attempts to stop the proliferation of WMDs, related materials and delivery systems, within the so called PSI participating or endorsing States, consistent with national legal authorities and relevant international law and frameworks. Therefore, the PSI complements existing counter proliferation efforts.<sup>55</sup>

States become PSI participants by endorsing the PSI Statement of Interdiction Principles. By such endorsement the participants commit themselves to establish a coordinated and effective basis through which to impede and stop the trafficking in WMDs, their delivery systems, and related material. Over one hundred States have endorsed the PSI Statement of Interdiction Principles to date.

The PSI seeks to unite all States concerned about the spread of WMDs and who are willing to undertake the commitments in the Statement of Interdiction Principles, regardless of their size or location. Endorsers of the PSI also seek to cooperate with any State whose ships, flags, ports, territorial waters, airspace, or land might be used for proliferation purposes by States and non-State actors of proliferation concern.<sup>56</sup>

Article 1(d) of the SUA Convention 2005 defines in very broad terms the meaning of BCN weapon.

Article 3bis of the SUA Convention 2005 broadens the range of offences that were included in the original SUA Convention 1988.

1. Any person commits an offence within the meaning of this Convention if that person unlawfully and intentionally:

(a) when the purpose of the act, by its nature or context, is to intimidate a population, or to compel a Government or an international organization to do or to abstain from doing any act:

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<sup>54</sup> J Kraska and R Pedroza, *International Maritime Security Law* (Martinus Nijhoff Publishers, 2013) 745–6.

<sup>55</sup> <<http://www.psi-online.info/Vertretung/psi/en/01-about-psi/0-about-us.html>>.

<sup>56</sup> <<http://www.psi-online.info/Vertretung/psi/en/01-about-psi/0-about-us.html>> (n. 55). Chapter 18 ('Military Uses of the Sea') provides the reader with a more detailed explanation of the PSI.

(i) uses against or on a ship or discharges from a ship any explosive, radioactive material or BCN weapon in a manner that causes or is likely to cause death or serious injury or damage.<sup>57</sup>

As referred to earlier in this chapter, similar offences in relation to fixed platforms are found in Article 2*bis* of the SUA Protocol 2005.

## 12.4 Conclusion

In his 2008 Report on Oceans and the Law of the Sea, the United Nations Secretary-General identified terrorist acts involving shipping, offshore installations, and other maritime interests, and illicit trafficking in arms and weapons of mass destruction (WMDs) as two of the major maritime security threats. An attempt has been made in this chapter to analyse the said two maritime security threats, and in particular, to discuss the international legal measures in place to combat them.

Over the past three decades, since the *Achille Lauro* incident, the international maritime community has taken significant steps to strengthen measures against maritime terrorism. The adoption of the SUA Convention 1988, SUA Protocol 1988, the ISPS Code, SUA Convention 2005, and SUA Protocol 2005 are the fruits of such measures.<sup>58</sup>

Where the illicit trafficking in arms is concerned there is no legal instrument specifically regulating trafficking by sea. As a result the maritime community has to depend on the other international instruments in place such as the Firearms Protocol, Biological Weapons Convention, Chemical Weapons Convention, Nuclear Non Proliferation Treaty and the Proliferation Security Initiative. It is hoped that in the future the international maritime community will come together to establish an umbrella convention dedicated to the illicit trafficking in arms by sea, including WMDs.

The purpose of all these measures is to eradicate, or at least minimize, acts of maritime terrorism and the illicit trafficking in arms and WMDs by sea, and thereby to safeguard the maritime industry from these global maritime security threats.

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<sup>57</sup> In terms of Art. 3bis.1.(b)(ii) transporting on board a ship any BCN weapon, knowing it to be a BCN weapon as defined in Art. 1, is tantamount to an offence.

<sup>58</sup> As has already been mentioned, Chapter 13 provides the reader with a detailed explanation of the SUA treaties namely, SUA Convention 1988, SUA Protocol 1988, SUA Convention 2005, and SUA Protocol 2005. Similarly, a comprehensive analysis of the ISPS Code has been carried out in Chapter 14.

# 13

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## THE SUPPRESSION OF UNLAWFUL ACTS AGAINST THE SAFETY OF MARITIME NAVIGATION

*Reto A Dürler*

### 13.1 Introduction

Piracy has been put back onto the agenda of maritime shipping and has become a key issue. In this context, the question arose as to whether the legal framework against piracy could also be applied to terrorism. Even if the notion of piracy had for a long time been absent from the domestic legislation of most countries, both the Convention on the High Seas 1958 (HSC)<sup>1</sup> and the United Nations Convention on the Law of the Sea 1982 (UNCLOS)<sup>2</sup> circumscribe it in a precise definition. Article 15 of the 1958 Convention and Article 101 of the 1982 Convention define piracy as:

(1) Any unlawful acts of violence, detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed: (a) on the high seas against another ship or aircraft, or against persons or property on board such ship or aircraft; (b) against a ship, aircraft, persons or property in a place outside the jurisdiction of any State.

Piracy is the oldest, and one of the very few crimes, for which universal jurisdiction was recognized under customary international law long ago. Universal jurisdiction was historically justified because pirates are considered to be *hostes humani generis*, which means enemies of all mankind. Similar criteria should be applied to terrorists, as they are also a threat to all States. However, while piracy and terrorism at sea have many similarities and are both forms of violently interfering with shipping, there is a marked difference between the goals of pirates and terrorists: pirates

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<sup>1</sup> Convention on the High Seas 1958 (Geneva, adopted 29 April 1958, entered into force 30 September 1962) 450 UNTS 11 (HSC).

<sup>2</sup> United Nations Convention on the Law of the Sea (Montego Bay, opened for signature 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS).

seek financial gain, while terrorists strive towards a political or ideological aim. This fact may justify a different legal approach.

As the scourge of modern piracy became widespread, a number of scholars in international public law came to the conclusion that terrorists did not act 'for private ends' and, contrary to piracy, they were not interested to seize a ship for financial or other gain. In their view, this showed that there was an obvious legal lacuna which could only be filled by creating a separate convention relating to maritime terrorism. They were inspired by the international legislation concerning civil aviation. As a result, the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation was adopted. It was based on previously existing anti-terrorism conventions, namely in the field of civil aviation. In fact, terrorism was and still is addressed in international public law in an individual approach. This means that there are some sixteen Conventions and Protocols within the United Nations to combat various specific forms of international terrorism. And a clear definition of terrorism has never been formulated for fear of unnecessarily limiting its scope.

### **13.2 The Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation and its Protocol**

As with most international instruments, one particular incident prompted the creation of the original SUA Convention. On 7 October 1985, the Italian-flagged cruise-liner *Achille Lauro* was hijacked near the port of Alexandria in Egypt. A hostage was killed. In the wake of this incident, the member States gave the International Maritime Organization (IMO) the mandate to improve the protection of seagoing vessels from terrorist attacks. Thereafter, a new international legal instrument was negotiated called the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation 1988 (SUA Convention 1988).<sup>3</sup> The Convention protects ships, their passengers, and their cargo from terrorist attacks. The States which have subscribed to the Convention are obliged to punish or to extradite persons who perpetrate terrorist acts. In honour of the Italian flag ship which had been attacked near Alexandria, the SUA Convention was negotiated and adopted in Rome on 10 March 1988.

#### **13.2.1 The SUA Convention 1988**

The main goal of the SUA Convention and its Protocol is to fight international crime on an international level. In the area of shipping, this aspect had never been

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<sup>3</sup> Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (Rome, adopted 10 March 1988, entered into force 1 March 1992) 1678 UNTS 221 (SUA Convention 1988).



considered to be a major issue in the Legal Committee of IMO up until the *Achille Lauro* incident. In civil aviation, the problem of international crime had been recognized by the International Civil Aviation Organization (ICAO) many years earlier due to hijackings of commercial airplanes. There are many conventions in aviation law which deal with international crime in a comparable way: the Convention on Offences and Certain other Acts committed on Board Aircraft 1963,<sup>4</sup> the Convention for the Suppression of Unlawful Seizure of Aircraft 1970,<sup>5</sup> Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation 1971,<sup>6</sup> and the International Convention against the Taking of Hostages 1979 (Hostage Convention).<sup>7</sup>

The main scope of the SUA Convention and its Protocol lies in the basic principle of *aut dedere aut judicare*, which means that every contracting State which detains a person that has perpetrated a terrorist act on the High Seas has the obligation for the person either to be subject to a judicial proceeding or be extradited.

The Convention defines 'ship' in broad terms as any type of vessel which is not permanently attached to the seabed, including dynamically supported crafts, submersibles, or other floating crafts. Excluded from the scope of the Convention are warships, ships owned or operated by a State when being used as a naval auxiliary or for customs and police purposes, or ships that have been withdrawn from navigation or laid up. According to the provisions of the Convention, the following relevant elements of crime fall under the scope of the Convention:

- The seizure or exercise of control over a ship by force or threat thereof or any other form of intimidation;
- An act of violence against a person on board a ship if that act is likely to endanger the safe navigation of the ship;
- The destruction or damaging of a ship or its cargo which is likely to endanger the safe navigation of the ship;
- The placing or cause of placing of a device or substance which is likely to destroy or damage the ship or its cargo, or which endangers or is likely to endanger the safe navigation of a ship;
- The destruction or severe damaging of maritime navigational facilities or interference with their operation, if such an act is likely to endanger the safe navigation of a ship;

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<sup>4</sup> Convention on Offences and Certain other Acts committed on Board Aircraft (Tokyo, adopted 14 September 1963, entered into force 4 December 1969) 704 UNTS 220.

<sup>5</sup> Convention for the Suppression of Unlawful Seizure of Aircraft (Hague, adopted 16 December 1970, entered into force 14 October 1971) 860 UNTS 105.

<sup>6</sup> Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation (Montreal, adopted 23 September 1971, entered into force 26 January 1973) 974 UNTS 177.

<sup>7</sup> International Convention against the Taking of Hostages (New York, adopted 17 December 1979, entered into force 3 June 1983) 1316 UNTS 205 (Hostage Convention).

- The communication of false information that endangers the safe navigation of a ship;
- The injury or killing of any person in connection with the commission or the attempted commission of any of the offences set forth in Article 3 subparagraphs a to c.

The Convention is only applicable if the above-mentioned elements of a crime are fulfilled unlawfully and with intent.

The geographical application of the Convention is limited to ships navigating or scheduled to navigate into, through, or from waters beyond the outer limit of the territorial sea of a coastal State, or the lateral limits of its territorial sea with adjacent States. In all other cases, the Convention also applies when the offender or alleged offender is found in the territory of a State Party other than the State in whose waters the offence occurred. It was the intention of the involved States Parties to elaborate a comprehensive convention with regard to its geographical application. According to Article 4, the entire international ship traffic is covered by the Convention. Of no relevance is the scene of offence as long as the ship navigates according to its sailing list on an international path. Even if an offence committed under the Convention has taken place within the territorial sea of a State, the Convention would still be applicable. If a crime does not fall within the geographical scope of the Convention, it will still be applicable in cases where the offender or alleged offender is arrested in a country different from the country where the crime has taken place. This regulation corresponds with the provisions contained in the above-mentioned conventions of civil aviation.

States Parties are required to make the offences punishable by appropriate penalties that take into account the nature of the different offences. Measures to establish jurisdiction over the offences shall be taken when: i) the offence is committed against or on board a ship flying the flag of the State at the time the offence is committed ii) in the territory of that State, including its territorial sea, iii) by a national of that State or by a stateless person whose habitual residence is in that State, iv) in an attempt to compel that State to do or abstain from doing any act or v) when a national of that State is seized, threatened, injured, or killed during the commission of the offence.

Once jurisdiction has been established, States shall take the offender into custody and immediately make a preliminary inquiry into the facts. Article 7 contains procedural provisions. If the offender or alleged offender is taken into custody or the facts of the crime are being established, the Convention relates to the national law of the offender or alleged offender. In compliance with public international law, the detainee has the right to contact an official of his country of origin without any delay and he/she must be allowed visits by a representative of his/her country. The State Party which has taken custody of a person shall inform the competent State

Party (according to Article 6 of the Convention) or any other interested State Party it deems necessary.

Article 8 of the SUA Convention covers the responsibilities and roles of the master of the ship. A flag State must deliver any person believed to have committed an offence under the Convention to the authorities of any State Party, and must furnish evidence pertaining to the alleged offence.

Article 9 makes clear that the competence of a State that rightfully investigates and enforces its jurisdiction on board of a ship which does not fly its flag, is not affected by the SUA Convention.

Articles 10 and 11 contain the core competences of the SUA Convention. They mark the basic principle of *aut dedere aut judicare* which, as mentioned before, require States Parties to either extradite the offender for custody or submit the case for prosecution. States Parties are also required to assist each other in connection with criminal proceedings undertaken in the framework of the Convention. States Parties are to cooperate in the prevention of offences by taking all practicable measures to prevent preparations for the commission of these offences in their respective territories and outside their territories by exchanging information in accordance with their national laws.

According to Article 12, States Parties are required to provide mutual legal cooperation as far as possible. Legal cooperation needs to be based either on existing legal cooperation agreements or, in the absence of such agreements, based on national legislation. The following Articles 13 and 14 contain non-mandatory regulations and deal with certain pre-emptive measures in order to prevent criminal actions pursuant to the Convention. The most prominent provisions deal with the exchange of information within the scope of national legislation and the coordination of administrative measures to minimize terrorist attacks. In this regard, the Secretary-General of the International Maritime Organization assumes the role of the coordination facility (Art. 15).

The SUA Convention contains a mandatory settlement of disputes: According to Article 16 paragraph 1, disputes between two or more States concerning the interpretation or application of the Convention will be submitted to arbitration at the request of one of the States, if the matter cannot be settled through negotiation. However, at the time of signing, ratification, or accession, a State may make a reservation that it does not consider itself bound by this provision, in which case other States Parties shall not be bound to it with respect to any State Party that has made such a declaration. Under Article 19, the Convention may be denounced by any State Party at any time after the expiry of one year from the date on which the Convention enters into force for that State. Denunciation shall be made by the deposit of an instrument of denunciation with the Secretary-General and will take effect at least one year—or such a longer period as may be specified in the

instrument of denunciation—after the instrument is received by the Secretary-General.

An Amendment Conference for the purpose of revising or amending this Convention may be convened by the IMO. The Secretary-General shall convene such a conference of the States Parties to this Convention at the request of one-third of the States Parties, or ten States Parties, whichever is the higher figure. Any instrument of ratification, acceptance, approval, or accession deposited after the entry into force of an amendment will apply to the Convention as amended.

### 13.2.2 The SUA Protocol 1988

In the course of the diplomatic conference which led to the SUA Convention 1988, it became evident that a few regulations of the Convention could not be applied to fixed platforms. The Conference grew aware of the fact that fixed platforms could also be targeted by terrorists. Therefore it was decided that fixed platforms should be included in a separate protocol to the Convention. Accordingly the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf 1988 (SUA Protocol 1988)<sup>8</sup> was adopted together with the Convention.

Article 1 refers the implementation of the most fundamental provisions of the Convention by a cross reference. Basically, the scope of application of the SUA Protocol 1988 is limited to all fixed platforms within the continental shelf. Paragraph 2 of Article 1 contains a catch-all clause according to which the offender or alleged offender falls under the scope of paragraph 1 as long as he is apprehended in the territory of a State Party. Article 2 defines the catalogue of elements of offences which, when fulfilled intentionally and unlawfully, lead to the application of the Protocol. The Protocol adopts the clauses of the offences laid down in the Convention whereby the act of crime must be directed against the security of fixed platforms. The defined elements of a crime are likewise supposed to be part of the criminal code like those contained in the Convention. According to Article 3, every State Party is required to implement a jurisdiction that includes all offenders who commit a punishable act against a fixed platform on its continental shelf or all offenders who are citizens of that same State Party. The second requirement makes it necessary, even for landlocked countries, to include the criminal offences in their national penal code. In analogy to Article 6 paragraph 2 of the Convention, the Protocol provides a continual optional jurisdiction. Also in accordance with Article 6 paragraph 4 of the Convention, every State Party to the Protocol has to substantiate its jurisdiction in cases where the suspect is apprehended on its territory and is not extradited. Articles 5 to 10 contain the final clauses. Among the

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<sup>8</sup> Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (Rome, adopted 10 March 1988, entered into force 1 March 1992) 1678 UNTS 304 (SUA Protocol 1988).

final clauses, Article 5 paragraph 4 is worth mentioning: the Protocol can only be ratified in addition to the Convention, as it is wholly dependent on the latter.

### 13.3 The Revised Convention Contained in the New SUA Protocols

In the past decade, the terrorist threat at sea has risen. In 2000, there was a bomb attack against the US destroyer *COLE*, and another one against the French oil-tanker *LIMBURG* off the coast of Yemen which resulted in a number of dead and injured people. In February 2004, a ferry with a total of 1050 passengers on board sank off the coast of the Philippines as a result of the deposit of a TNT bomb hidden in a TV set in the under-deck of the vessel.

In fact, the weapons and communication devices employed by the terrorists have become technologically more efficient and their potential for destruction has increased considerably. Ships and their cargo can be an object of attack, yet they can also become a *means* for an attack, for instance if they are hijacked and launched against a vulnerable object. The transport of weapons of mass destruction by sea, in particular in containers, has become another serious threat. Since the entry into force of the 1988 SUA treaties in 1992, terrorism and the proliferation of weapons of mass destruction have been on the rise. International networks of terrorists have global reach and make common cause to pose a threat to all nations.

On a political level, the USA was at the forefront of various initiatives to increase the safety of maritime navigation. At the request of the UN General Assembly, the IMO Maritime Safety Committee adopted measures aimed at minimizing the risk of terrorist acts directed against ships and their crews on the basis of a proposal by the USA. In 2002, the USA launched the 'Container Security Initiative' which was supported by a number of international organizations, and in 2003 it initiated the 'Proliferation Security Initiative' which was destined to prevent the proliferation of weapons of mass destruction on land, in the air and at sea. As a logical result, it was the USA which pressed for a revision of the 1988 SUA Convention. The attacks on various buildings and objects which had taken place in the USA in September 2001 gave additional impetus to these endeavours. The US Government started an information campaign pointing to the deficiencies of the SUA treaties of 1988 and suggested it be revised. In spite of many reservations from various countries, negotiations were started.

The adoption of some political and practical measures to prevent and to counter terrorism against international shipping had proved to be insufficient. Most acts were perpetrated on the high seas. Due to the fact that both perpetrators and victims usually had different nationalities and that often neither their States of origin

nor the ships' flag States offered sufficient grounds for a penal prosecution, new international legislation was necessary. In addition, the original SUA treaties showed itself to be too limitative in scope and did not cover acts which had not been thought of when the Convention was initially created. Hence new rules relating to the arrest, prosecution, and subsequent detention of those responsible for acts of maritime terrorism had become necessary.

In November 2001, the IMO Assembly adopted a resolution calling for a review of the existing international legal and technical measures to prevent and suppress terrorist acts against ships at sea and in ports, and to improve security aboard and ashore. The IMO Legal Committee was given the mandate to review, on a high priority basis, the instruments under their purview to determine whether they should be updated or whether there was a need to adopt other, more stringent, maritime security measures. In October 2002, the Legal Committee began to re-examine the provisions of the SUA Convention 1988 and the SUA Protocol 1988 on the basis of a draft text submitted by an open-ended Correspondence Group. The conclusion was that the categories of unlawful acts set forth in the two instruments were too narrow and would require expansion in order to cope with modern-day terrorist threats including threats from biological, chemical, and nuclear weapons or material. It was also acknowledged that the existing instruments did not include provisions for law enforcement officials to board foreign flag ships on the high seas to search for alleged terrorists and/or weapons, or to render assistance to a vessel suspected of being under attack. The drafting also sought to ensure that the freedom of navigation, the right of innocent passage, and the basic principles of international public law—and particularly international commercial shipping law—would not be restricted. With respect to the question of whether the titles of the SUA Convention and Protocol should be amended to include the term 'terrorist acts', it was considered that such an amendment would not be appropriate since the amending instruments were merely protocols to an existing Convention and Protocol. Even though the modifying instruments retained the term 'unlawful acts', it was understood that the object and purpose was to deal with acts of terrorism and to provide a legal framework for the apprehension and prosecution of alleged terrorists.

In February 2005, the UN General Assembly adopted a resolution 'inviting States to participate in the review of these legal instruments and to take appropriate measures to ensure the effective implementation of the instruments in question, in particular through the adoption of legislation aimed at ensuring that there is a proper framework for responses to incidents of armed robbery and terrorist acts at sea'. The IMO Legal Committee completed its work of amending the SUA Convention and Protocol in April 2005. The amendments were adopted in the form of two Modifying Protocols at a Diplomatic Conference on the Revision of the SUA Treaties at the seat of the organization in London on 14 October 2005. By decision of the Conference, the original SUA Convention 1988 and the SUA Protocol

1988, amended respectively by the two 2005 Protocols, constitute two independent instruments now called the 2005 Protocol to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA Convention 2005)<sup>9</sup> and the 2005 Protocol to the 1988 Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (SUA Protocol 2005).<sup>10</sup> Both the SUA Convention 2005 and the SUA Protocol 2005 entered into force on 28 July 2010.

The new core provisions of the 2005 Convention are contained in Article 3bis which substantially enlarges the offences covered by the original Convention and Article 8bis which relates to ship boarding and provides a mechanism by which the international community can enforce the provisions. Because of the major changes brought about by the various amendments, it might have been more practical, from a legal point of view, to draw up an entirely new convention instead of inserting so many new substantive provisions into an existing text. Yet by experience, it is easier for States to adhere to new rules which are set onto an international instrument which has already been widely ratified. And it was obvious that progress in the fields of shipping, communication and weaponry had rendered parts of the original SUA Convention obsolete.

In its Preamble, the Protocol acknowledges that terrorist acts threaten international peace and security. Some references highlight the necessity to adopt provisions supplementary to those of the Convention in order to suppress additional terrorist acts of violence against the safety and security of international maritime navigation. Let me stress once again, however, that the Protocol does not contain a definition of terrorism, but instead a terrorist-purposes provision—Article 3bis (1)a – based on the definition contained in the 1999 International Convention for the Suppression of the Financing of Terrorism<sup>11</sup>. Thus an act is criminalized under the Protocol when its purpose, by its nature and context, is to intimidate a population or to compel a Government or an international organization to do an act or to abstain from doing it. According to Article 3bis(1)a, an offence within the meaning of the Convention is committed if a person unlawfully and intentionally:

- (i) uses against or on a ship or discharging from a ship any explosive, radioactive material or biological, chemical, nuclear weapon or other nuclear explosive devices in a manner that causes or is likely to cause death or serious injury or damage;

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<sup>9</sup> 2005 Protocol to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (London, adopted 14 October 2005, entered into force 28 July 2010) IMO Doc. LEG/CONF.15/21 (SUA Convention 2005).

<sup>10</sup> 2005 Protocol to the 1988 Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (London, adopted 14 October 2005, entered into force 28 July 2010) IMO Doc. LEG/CONF.15/22 (SUA Protocol 2005).

<sup>11</sup> Convention for the Suppression of the Financing of Terrorism (New York, 9 December 1999, entered into force 10 April 2002) 2178 UNTS 197.

- (ii) discharges, from a ship, oil, liquefied natural gas or another hazardous or noxious substance, in such quantity or concentration which causes or is likely to cause death or serious injury or damage;
- (iii) uses a ship in a manner that causes death or serious injury or damage; or
- (iv) threatens to commit any of these offences.

Article 3bis (1)b focuses on the transportation of materials that can be used in a terrorist attack. It prohibits the shipping of biological, chemical, and nuclear weapons, and other explosive or radioactive material to be used in a terrorist attack or any equipment, materials, and software or related technology that is intended to contribute to the design, manufacture, or delivery of BNC weapons. Yet the transportation of nuclear material is not considered an offence, if such material is transported to or from the territory of a State Party to the Treaty of Non-Proliferation of Nuclear Weapons. States which are recognized to have nuclear weapons are therefore privileged and this may prevent certain countries from adhering to the new Convention.

A person also commits an offence within the meaning of the new Convention if that person unlawfully and intentionally transports another person on board a ship knowing that that person has committed an act that constitutes an offence under the new Convention. Thus Article 3ter considerably broadens the scope of conduct relevant to the existing SUA Convention offences. Article 3quater makes it an offence: to unlawfully and intentionally injure or kill any person in connection with the commission of any of the offences in the Convention; to attempt to commit an offence; to participate as an accomplice; to organize or direct others to commit an offence; or to contribute to the commissioning of an offence.

An important innovation is the new Article 8bis covering cooperation and procedures to be followed if a State Party desires to board a ship flying the flag of another State Party whenever the requesting State Party has reasonable grounds to suspect that the ship or a person on board the ship is, has been, or is about to be involved in the commission of an offence under the Convention. However, before boarding, the express authorization and cooperation of the flag State is required. Such authorization may be given in general or ad hoc. A flag State may further authorize the boarding State to exercise powers of arrest, detention, forfeiture, and prosecution. A State Party may notify the Secretary-General of the International Maritime Organization that it will allow authorization to board and search a ship flying its flag, its cargo, and persons on board, if there is no response within four hours. A State Party can also notify that it authorizes another State Party to board and search the ship, its cargo, and persons on board to determine whether an offence has been, or is about to be committed. Finally, a State Party may grant the authorization to board a ship under its flag if requested.

During the negotiations, no agreement could be reached on the principle that a flag State would automatically be deemed to have authorized a boarding when it



failed to respond to a request by another State to board within a certain timeframe. Quite understandably, this issue was the most controversial one during the entire negotiations. One big nation pushed for a general authorization to board a foreign ship if an offence was imminent; many others were adamantly against it. The formula found reflects the numerous opinions and represents a compromise from among the various views expressed. In addition, Article 8bis includes important safeguards for innocent seafarers and carriers when a State Party takes measures against a ship, including boarding. These safeguards include: not endangering the safety of life at sea; ensuring that all persons on board are treated in a manner which preserves human dignity and in keeping with human rights law; taking due account of the safety and security of the ship and its cargo; ensuring that measures taken are environmentally sound; and taking reasonable efforts to avoid a ship to be unduly detained or delayed. When carrying out the authorized action under this provision, the use of force is to be avoided except when necessary to ensure the safety of officials and persons on board, or when the officials are obstructed in the execution of these actions. Any use of force shall not exceed the minimum degree necessary and reasonable under the circumstances. The provisions concerning the use of force are consistent with current practice on the use of force in international law.

States Parties shall also be liable for any damage, harm, or loss attributable to them arising from measures taken pursuant to this Article (ie boarding a foreign ship) when the grounds for such measures prove to be unfounded, or unlawful, or exceed those reasonably required in light of available information. This provision concerning liability of States for an illegal or unfounded boarding constitutes an important safeguard ensuring that vessels are not stopped and searched without reasonable grounds. The boarding procedures do not change any rules of international law, since they are in conformity with the legal framework established by the relevant provisions contained in the UN Convention on the Law of the Sea. These allow flag States to adhere to international treaties granting a non-flag State the right to board their vessels on the high seas. This issue, however, will always be one of the most delicate ones in international shipping as political pressure cannot be excluded in its implementation.

The new Article 11bis states that, for the purpose of extradition, none of the offences shall be regarded as a political offence or as an offence connected therewith or inspired by political motives. According to the new Article 11ter, the obligation to extradite or afford mutual legal assistance need not apply if the requested State Party has substantial grounds for believing that the request for extradition has been made for the purpose of prosecuting or punishing a person on account of that person's race, religion, nationality, ethnic origin, political opinion or gender, or that compliance with the request would cause prejudice to that person's position for any of these reasons. In line with the recent UN anti-terrorist conventions, the Protocol also contains a safeguard clause, namely Article 2bis: it reads that nothing

in the Convention shall affect other rights, obligations or responsibilities of States and individuals under international law, nor does it apply to activities of the armed forces during armed conflict or the activities undertaken by military forces of a State in the exercise of their official duties.

The SUA Protocol 1988 had been created as an Annex to the original SUA Convention. Its amendments reflect those in the SUA Protocol 2005. A new Article 2bis broadens the range of offences included in the Protocol. A person commits an offence if that person unlawfully and intentionally uses on or against a fixed platform any explosive, radioactive material or BCN weapon in a manner that causes or is likely to cause death, or serious injury or damage; or discharges from a fixed platform oil, liquefied natural gas, or other hazardous or noxious substance, in such quantity or concentration that it causes or is likely to cause death or serious injury or damage; or threatens to commit any of these offences when the purpose of the act, by its nature or context, is to intimidate a population, or to compel a government or an international organization to do an act or to abstain from it. The new Article 2ter includes the offences of unlawfully and intentionally injuring or killing a person in connection with the commission of any of the offences, attempting to commit an offence, participating as an accomplice, or organizing or directing others to commit an offence.

To conclude: the original SUA Convention 1988 and its Protocol addressed the danger of terrorism at sea for the first time. The SUA instruments constituted an important milestone in the development of international anti-terrorist legislation. These and similar conventions were the result of dealing with international terrorism in a wide variety of fora and with a large number of international instruments. Moreover, they represented an important extension of a cooperative law enforcement regime into a wholly new area, as they contained a finely balanced *aut dedere aut iudicare* and gave preference to the specific enumeration of offences over any attempt to define terrorism or terrorist acts. The 2005 amendments to the two instruments significantly expanded their scope by providing an international treaty framework for combating and prosecuting individuals who use a ship as a weapon or means of committing a terrorist attack, or transport by ship terrorists or cargo intended for use in connection with weapons of mass destruction. As the core provision, there is a mechanism facilitating the boarding in international waters of vessels suspected of engaging in these activities. The freedom of navigation had to be restricted, but only with the explicit authorization of the flag State. Since their entering into force, it is no longer possible for a State Party to refuse a request for extradition or for mutual legal assistance on the grounds that the offence may be characterized as politically inspired or motivated. The SUA Convention and its Protocol in their revised form are complementary to the various practical measures put in place over the past years within the framework of the International Maritime Organization. Along with the SUA Convention 2005 and its Protocol, the Proliferation-Security Initiative (PSI) announced by the USA in

2003, which has since been endorsed by around ninety States, will remain the most important tool to fight the proliferation of weapons of mass destruction in maritime transportation. As with any international instrument, it is as strong as its membership. This means that certain States can escape it simply by not adhering to it. But the pressure is and will always be there, particularly for smaller countries. And combating terrorism is a topic which will engage the world community for a long time to come.

The revised SUA Convention and Protocol do not explicitly address piracy, but they do constitute an international legal basis for the prosecution and judgment of pirates. The absence of a definition of terrorism leaves a wide scope of appreciation and allows for the inclusion of acts perpetrated to extort money. It is only a matter of time before the SUA Convention will be involved in the prosecution of piracy. Piracy in its original form is certainly different from terrorism. However, the modern form of piracy practised to get a ransom from the ship owner or even from the flag State contains elements of terrorism, especially with violence increasing. The fact that terrorism has not been defined and hence narrowed to limited specific acts, makes the SUA instruments applicable to this vile form of blackmail which the international community is confronted with.

The SUA Convention is a complex instrument, and its revised version makes it the more complex. It would doubtlessly have been more profitable and more easily understandable to create a new instrument. Yet there was the fear that negotiating a new international convention would have taken much longer than the simple revision of an existing one. Another drawback is the lack of transparency: there are now four different instruments in this area, each with a different denomination. But this was the price for the swift adoption of a revision which may have lasted much longer if a different approach had been chosen.

It is interesting to note that the SUA Convention 1988 and the SUA Protocol 1988 have been adhered to by a large number of countries compared to the 2005 treaties. There is obviously a big time lapse between the adoption of the 1988 and the 2005 instruments. Yet this may not be the only reason for the big gap in the number of ratifications: in 1988, there was a much wider political consensus to create an international instrument to combat terrorism at sea. In 2005, there was more reluctance: a number of countries did not like the way this revision was imposed. Certain countries feared that their sovereignty could be curtailed by adopting the new instruments. In my opinion, the two new instruments are hybrid legal texts: they are modelled on top of two existing instruments amending them in a way that can contribute to misunderstanding. That is why they are rather weak, and the procedure has lacked clarity from the very beginning. While the impact of the *Achille Lauro* accident had prompted an effective legal instrument in 1988, the incidents which led to its revision were not of the same impetus. Hence the general political will to amend the original Convention was such that just a

minimal consensus could be found. That is why the progress of the revision with respect to the Convention was just minor. The Convention and its revised Protocol must therefore be seen as a package.

Whatever the legal and practical measures devised by the international community in order to combat maritime terrorism may be, no one can ever say with certainty that these will be sufficient or effective to deter a terrorist attack. The measures can only prove their true value in the face of a planned, imminent, or actual attack. And this will inevitably be the case one day.

# 14

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## SHIP AND PORT FACILITY SECURITY

*James Kraska*

### 14.1 Introduction

Ship and port facility security are the critical elements of contemporary maritime security.<sup>1</sup> The common language and operational concepts for ship and port facility security begin with customary international law. Sovereignty over ports and port facilities provides jurisdictional authority for port States to prescribe and enforce port State control rules. Likewise, customary international law of the sea, codified principally in the United Nations Convention on the Law of the Sea 1982 (UNCLOS) recognizes the plenary authority of the flag State over ships flying its flag—reflected in the concept of ‘exclusive flag state jurisdiction’.<sup>2</sup>

Article 94 of UNCLOS requires flag States to conform to ‘generally accepted international regulations, procedures and practices’ in the ‘construction, equipment and seaworthiness’ of ships, and this rule has important implications for vessel safety and security. In general, flag States have a legal duty to give effect in their national laws to international agreements to which they are party. The terms of UNCLOS require States to ‘give effect to’, ‘implement’, or ‘conform to’ internationally recognized standards, often reflected treaties, codes, and guidelines developed at the International Maritime Organization (IMO), which complement and implement obligations under UNCLOS.<sup>3</sup> Along with UNCLOS, the International Convention for the Safety of Life at Sea 1974 (SOLAS), as amended, is a

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<sup>1</sup> See generally, chaps 12, 13, and 14 of J Kraska and R Pedrozo, *International Maritime Security Law* (Martinus Nijhoff Publishers, 2013), from which the present chapter is derived. Material from those chapters is used here with permission of the publisher, Brill, an imprint of Martinus Nijhoff.

<sup>2</sup> United Nations Convention on the Law of the Sea (Montego Bay, opened for signature 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS).

<sup>3</sup> IMO Doc. LEG/MISC.6, Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization: Study by the Secretariat of the International Maritime Organization, 10 September 2008, at 12.

landmark treaty that is key to constructing and maintaining a global system of oceans governance.<sup>4</sup> The SOLAS Convention sets forth the major provisions on ship and port security for ships on international voyages.

The original version of the SOLAS Convention emerged in response to the Titanic disaster, and the treaty was adopted by a meeting of States in London on 20 January 1914. The second iteration of SOLAS was adopted by a group of eighteen nations meeting in London from 16 April to 31 May 1929. Successive major updates to SOLAS were produced in 1948, 1960, and 1974. There have been numerous revisions to the 1974 version of SOLAS, which were adopted by the Member States of the IMO under the tacit acceptance procedure that was built into the Convention. Under tacit acceptance, all subsequent amendments automatically enter into force on a specified date unless, before that date, a specified number of states object to the amendment. Consequently, the 1974 SOLAS Convention has been updated numerous times, and remains in force, as amended.

Today, SOLAS, with its 1978 protocol and many amendments, including the International Safety Management Code (ISM Code)<sup>5</sup> and the International Ship and Port Facility Security Code (ISPS Code), contains comprehensive measures for securing ship and shore installations.

## 14.2 The ISPS Code

The most far-reaching maritime security instrument in decades—the *International Ship and Port Facility Security Code*—emerged in the wake of the 9-11 terrorist attacks on the United States.<sup>6</sup> In November 2001, only two months after the terrorist attacks of 9-11, the twenty-second session of the IMO Assembly adopted a resolution committing to a review of measures and procedures to prevent acts of maritime terrorism.<sup>7</sup> An extraordinary meeting of the Maritime Safety Committee (MSC), also held in November 2001, began work on amending SOLAS to address the threat of maritime terrorism. Work continued during an MSC Inter-sessional Working Group in February 2002, which reported

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<sup>4</sup> International Convention for the Safety of Life at Sea (London, adopted 1 November 1974, entered into force 25 May 1980) 1184 UNTS 278 (SOLAS).

<sup>5</sup> International Management Code for the Safe Operation of Ships and for Pollution Prevention 2010; IMO Doc. A.741(18), International Safety Management Code, 4 November 1993, *reprinted in* 6D BENEDICT ON ADMIRALTY, Doc. 14-2, at 14-449 (7th rev. edn 1998), *amended by* IMO Doc. MSC.104(73), 5 December 2000, IMO Doc. MSC.179(79), 10 December 2004, IMO Doc. MSC.195(80), 20 May 2005, and MSC.273(85), 4 December 2008 (Hereinafter ISM Code).

<sup>6</sup> Resolutions of the Conference of Contracting Governments to the International Convention for the Safety of Life at Sea 1974, adopted 12 December 2002, Conference resolution 2, Annex: International Code for the Security of Ships and of Port Facilities (Hereinafter ISPS Code).

<sup>7</sup> IMO Doc. A.924(22), Review of Measures and Procedures to Prevent Acts of Terrorism which Threaten the Security of Passengers and Crews and Safety of Ships, 20 November 2001.

findings of the gathering to a meeting of the seventy-fifth session of the MSC in May 2002, when an ad hoc MSC Working Group was established to further develop proposals. An Inter-sessional MSC Working Group met in September 2002, and the results of the meeting were considered by the seventy-sixth session of the MSC in December 2002, immediately prior to the final text of the ISPS Code being sent to a Diplomatic Conference that same month.

The MSC and its associated Maritime Security Working Group led development of far-reaching amendments to the existing chapter XI of SOLAS. The amendments were adopted by the IMO Assembly and re-identified as chapter XI-1 of SOLAS. At the Conference of Contracting Governments to the *International Convention for the Safety of Life at Sea, 1974* (Diplomatic Conference on Maritime Security), from 9–13 December 2002, the Member States of the IMO adopted a series of resolutions and measures amending SOLAS, which incorporated the new ISPS Code. Adopted by the Assembly and States Parties to the IMO, the ISPS Code incorporates international standards concerning maritime safety and security. The abbreviated name is *ISPS Code*, and it is the most comprehensive effort to institutionalize a global culture of maritime security.<sup>8</sup>

One hundred and nine States Parties to the SOLAS Convention participated in the negotiations. The meeting included representatives from numerous international, intergovernmental, and non-governmental organizations. The ISPS Code, included as a new SOLAS chapter XI-2 concerning special measures, was drafted at the same time. Chapter V of SOLAS was also amended. Due to the urgency and heightened sense of vulnerability on the waterfront and at sea, negotiations for the ISPS Code were completed in just over a year. The Diplomatic Conference also adopted resolutions to facilitate cooperation with the International Labour Organization (ILO) and the World Customs Organization (WCO).<sup>9</sup>

The ISPS Code contains a detailed mandatory section (Part A), which sets forth thirteen requirements for governments, port authorities, and shipping companies. A second, non-mandatory section (Part B) provides guidance on how the measures might be implemented. Generally, the distinction between the mandatory provisions and supporting guidance may be discerned from the use of the term ‘must’ or ‘is/are required’ in mandatory provisions, and ‘may’, ‘could’ or ‘should’ in recommendatory guidance.

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<sup>8</sup> See, generally, TA Mensah, *The Place of the ISPS Code in the Legal International Regime for the Security of International Shipping* (2004) 3 *World Maritime University Journal of Maritime Affairs* 17.

<sup>9</sup> Conference Resolution 8, Enhancement of Security in Cooperation with the International Labour Organization (Seafarer’s Identity Documents and work on the wider issues of port security), including Annex, IMO/ILO work on port security, 12 December 2002 and Conference Resolution 9, Enhancement of Security in Cooperation with the World Customs Organization (Closed cargo transportation units), 12 December 2002.

Since its entry into force on July 1, 2004, States Parties are obligated to establish security levels under the provisions of chapter XI-2 and Part A of the Code.<sup>10</sup> SOLAS now consists of general articles, with the main features included in an Annex comprised of 12 chapters, as follows, with the ISPS Code contained as Chapter XI-2:

Chapter I, General Provisions

Contains regulations concerning various types of ships, required documents and certifications, and provisions for port state control.

Chapter II-1, Construction, Subdivision and Stability, Machinery and Electrical Installations

Contains requirement that passenger ships be subdivided into watertight compartments, plus standards for machinery, electrical systems, watertight integrity, and stability. In 2010, 'Goal-based standards' for new construction of oil tankers and bulk carriers were adopted.

Chapter II-2, Fire Protection, Fire Detection and Fire Extinction

Contains provisions on fire safety and firefighting, including division of ship into main and vertical zones separated by thermal and structural boundaries.

Chapter III, Life-saving Appliances and Arrangements

Contains requirements for lifeboats, rescue boats and life jackets, with technical requirements in the International Life-Saving Appliance Code (LSA Code).

Chapter IV, Radio-communications

Contains the Global Maritime Distress and Safety System (GMDSS), which apply to passenger ships and all cargo ships of 300 gross tons on international voyages. Ships must carry distress radio beacons called emergency position-indicating radio beacons (EPIRBs) and search and rescue transponders (SARTs) to aid in search and rescue.

Chapter V, Safety of Navigation

Contains navigation safety services applicable to all ships on all voyages, such as meteorological, ice patrol service; ships' routing, carriage of the automatic ship identification system (AIS) and voyage data recorders (VDRs), and search and rescue services. The chapter reiterates the legal duty of masters to provide assistance to mariners in distress.

Chapter VI, Carriage of Cargoes

Contains regulations concerning cargo ships (excepting liquids and gases in bulk).

Chapter VII, Carriage of Dangerous Goods

Part A contains special regulations on carriage of dangerous goods in packaged form, including labelling and storage, making mandatory the International Maritime Dangerous Goods Code (IMDG Code), which came into effect on 1 January 2004. Part B makes mandatory the International Bulk Chemical

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<sup>10</sup> ISPS Code, para. A/7.1.



Code (IBC Code) for chemical carriers, and Part C promulgates International Gas Carrier Code (IGC Code) for gas carriers and ships carrying liquefied gases in bulk. Finally, Part D contains rules for the carriage of packaged irradiated nuclear fuel, plutonium and high-level radioactive wastes on board ships, which are set forth in the International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on Board Ships (INF Code).

Chapter VIII, Nuclear Ships

Incorporates requirements for nuclear-powered ships in accordance with the Code of Safety for Nuclear Merchant Ships 1981.

Chapter IX, Management for the Safe Operation of Ships

Mandates shipowners adhere to the International Safety Management Code (ISM Code).

Chapter X, Safety Measures for High-speed Craft

Mandates the International Code of Safety for High-Speed Craft (HSC Code).

Chapter XI-1, Special measures to enhance maritime safety

Contains responsibilities for ship surveys and inspections and port state control.

Chapter XI-2, Special Measures to Enhance Maritime Security

Contains Regulation XI-2/3 incorporating the *International Ship and Port Facilities Security Code (ISPS Code)*. Part A of the Code is mandatory and part B contains guidance for complying with Part A.

Chapter XII, Additional Safety Measures for Bulk Carriers

Contains structural requirements for bulk carriers greater than 150 meters in length.

The new security measures create a governing framework for cooperation among governments and the shipping and port industries to deter and respond to security threats affecting international seaborne trade. States must provide updates to IMO on their security measures every five years, with the last interval being 1 July 1999, and the next due on 1 July 2019. The ISPS Code focuses on the ship or the port facility as a target, the potential use of the ship as a weapon, and the use of the ship as a means for transporting persons intending to cause a security incident. The use of ships in lawful trade to generate revenue to finance terrorist activities is not explicitly covered by the Code. But SOLAS ships are required to carry documentation concerning passengers and cargo that may be used to investigate terrorist financing. The respective roles and responsibilities of participants in the global marine transportation system were set forth, and a methodology was created for governments and the private sector to assess and react to a fluid threat environment. Designated governmental authorities, ship and port facility officers, and personnel on the shore and at sea each play an integral part in maintaining systemic security.

The ISPS Code applies to ships on international voyages (including passenger ships, cargo ships of 500 gross tons and upwards, and mobile offshore drilling units) and now, the port facilities serving such ships.<sup>11</sup> The Code does not apply to vessels entitled to sovereign immunity, however, including warships, naval auxiliaries or vessels owned or operated and used by a government on non-commercial service.<sup>12</sup> The SOLAS Convention applies to most ships that are engaged in 'international voyage', and the port facilities that serve such ships. An 'international voyage' is one that occurs from one country to which the SOLAS Convention applies to a port outside such a country.

Although SOLAS applies to passenger and cargo vessels on international voyages, for example, a flag State could choose to apply the rules to ships solely involved in cabotage or domestic voyages. Similarly, although the maritime security measures do not extend to offshore activities or installations located on a coastal State's continental shelf, governments may adopt the exact or similar requirements for ships, mobile offshore drilling units on location, and fixed and floating platforms engaged in oil or gas production. When foreign flagged ships are operating in support of these activities, they may be covered by both the security measures adopted by IMO as well as additional coastal State regulations. Some coastal States have defined fixed platforms, or even floating production storage and offloading (FPSO) vessels used in oil and gas exploration and located on the continental shelf, as port facilities, which require appointment of a PFPSO and preparation of a PFSP.<sup>13</sup>

Tugboats and other harbour craft, offshore supply and support ships, fishing vessels and recreational vessels, and the facilities that serve these craft also may be regulated by maritime security measures through domestic legislation.<sup>14</sup> Notably, however, the security measures do not apply to the activities of foreign-flagged ships operating off the shore of a coastal State in water beyond the territorial sea. That is, the measures do not apply within a state's Exclusive Economic Zone (EEZ) or Continental Shelf, even though it is common for SOLAS ships to operate in these waters and interface with off-shore installations such as mobile offshore drilling units on location, and FPSOs or other vessels, including non-SOLAS ships. Consequently, governments may develop bilateral or other multi-lateral security regimes that regulate interaction in areas beyond the territorial sea.

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<sup>11</sup> ISPS Code, para. A/3.1.

<sup>12</sup> ISPS Code, para. A/3.3.

<sup>13</sup> Governments are required to provide an updated list of their ISPS Code-compliant port facilities at five yearly intervals. The next updated list has to be submitted by 1 July 2019. IMO Doc. MSC 89/INF.13, Measures to Enhance Maritime Security, Maritime Security Manual—Guidance for port facilities, ports and ships, 5 March 2011, at para. 2.19.11 (Hereinafter Maritime Security Measures).

<sup>14</sup> Maritime Security Measures, at para. 2.2.52.

Since the requirements of Part A of the ISPS Code are mandatory, most of the legislative focus among States Parties has focused on rules to implement that part. Part B is non-mandatory. Numerous governments, however, have integrated provisions of Part B into their national legislation as well. Some States lack the legal and policy architecture needed to fully implement the measures, including resolution of jurisdictional issues among government agencies. Resource constraints also limit the amount and quality of training for security officers and professionals, such as security officers, facility guards, and port managers. These factors have led to different levels of diligence, just as new threat patterns and incidents continually test the effectiveness of the existing rules.

The Member States of the IMO balanced the risks with the costs of security. Besides the obvious financial burden of implementing the security measures, there are associated intangible costs. For example, tight security still must accommodate reasonable access to shore and shore leave by seafarers and permit access to ships by persons representing organizations promoting seafarer welfare. The rules contained in the ISPS Code are integrated into other ongoing IMO initiatives and require a balance between the openness needed to facilitate trade and economic prosperity, and security measures, such as effective screening of ships and cargo, and the maintenance of port and ship security.

Because of the many different types and sizes of ships and facilities, the ISPS Code does not specify specific measures that each port and ship must take. Instead it outlines a standardized framework for evaluating and responding to risk. The risk assessment enables governments to offset changes in the threat condition with adjustments in the security measures. For ships, the new security measures include requirements for creation of ship security plans, designation of ship security officers for each vessel, appointment of company security officers for each company, and requirements for certain equipment to be carried on board ships. Similarly, port facilities are required to develop security plans, designate security officers, and install certain security equipment. Both ships and port facilities are required to monitor and control access, maintain awareness of the activities of people and cargo, and maintain viable communications.

The requirements contained in the ISPS Code are in force for 148 States, which together constitute over 99 per cent of the gross tonnage of the world's merchant fleet. Security is a risk management exercise and in order to determine appropriate security measures for ships and ports, an assessment of the risk must be made in each specific case. The Code sets forth a standardized and consistent formula for evaluating risk, and in assisting governments in synchronizing changes in the threat level with security measures in order to reduce vulnerability of the assets and infrastructure. First, governments are required to conduct port facility assessments that identify and evaluate important shipping infrastructure that, if damaged, could cause significant loss of life or damage to the economy or the environment.

Second, governments identify actual threats to critical infrastructure and prioritize security measures. Finally, governments conduct vulnerability assessments to accurately gauge and evaluate risk. These comprehensive security assessments include the areas of physical security, structural integrity, utilities, communications, and port procedures.

Accomplishing the complete implementation of the ISPS Code is unfolding—a work in progress—with some States struggling to enter into compliance. Application of the Code has been imperfect, but already it has had a global impact by linking ship and port facility security programmes between governments and commercial enterprise in a more integrated fashion.

The ISPS Code complements the World Customs Organization's (WCO) Safe Framework of Standards that facilitates uniform rules for screening and inspection for national customs administrations, representing 99 per cent of global trade. The International Labour Organization (ILO) works with the shipping industry to promulgate training and standards for seafarers whose job it is to implement security protocols. These three interlocking international organizations—IMO, WCO, and ILO—create an institutional rule set for protecting the global cargo supply.

### **14.3 Ship Security—Exclusive Flag State Jurisdiction**

Flag States have inherent authority to prescribe and enforce domestic laws and adopt and implement international rules for ships flying their flag. Normally vessels are subject to the exclusive jurisdiction of the flag State—the nation in which the ship is registered. Flag States are responsible for ensuring ships flying their flag comply with internationally accepted standards. Flag State responsibilities normally are undertaken by the Administration for each country, which is responsible for verifying the compliance of ships with the provisions of chapter XI-2 and Part A of the ISPS Code applicable to ships. Thus, the flag State Administration approves ship security plans and issues International Ship Security Certificates.<sup>15</sup>

All officers, security officers, vessel crew, and shipboard personnel should satisfy training in a security awareness programme. It is incumbent on the various government agencies, port facility operators and administrators, and industry shippers and carriers to maintain awareness of security in the supply chain. Core elements of security awareness include vigilance, information sharing, and training. Security drills or exercises help officers and crew to acclimate to security issues. Local communities, land-holders, and small boat operators may be reached through general media concerning threats and countermeasures, whereas messages with greater fidelity, such as those targeted to mariners or the shipping industry,

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<sup>15</sup> ISPS Code, paras A/7.2 and B/1.6.

increase the effectiveness of law enforcement and enhance the vigilance of ships' crews.

The ISPS Code promulgated a standardized methodology for conducting security assessments on board ships and in port facilities, extending earlier work at the IMO to strengthen maritime security.<sup>16</sup> For example, greater guidance on the security of cruise ships and the ports that they use was issued by the IMO Maritime Safety Committee (MSC) in the wake of the 1985 attack on the *Achille Lauro*. This initial guidance covered the appointment of responsible officials within governments and in the private sector. Governments were required to appoint a Designated Authority (DA), who is responsible for cruise ship and port security. Shipping companies operating cruise ships must appoint a Company Security Officer (CSO) for the fleet, as well as individual Ship Security Officers (SSO) for every cruise ship. Commercial shipping firms also were required to undertake a Ship Security Survey (SSS) of each cruise ship, and then prepare a Ship Security Plan (SSP) tailored to each vessel. The SSP is subject to approval by the Designated Authority within the flag State government.

Each ship is required to carry a Ship Security Plan approved by the flag state administration. A ship security plan should describe actions the crew will take in response to the threat of piracy and armed robbery at sea, maritime terrorism, or other maritime crime or violence. The Ship Security Plan also should set forth measures based on three security levels designed to deter such attacks, and specific steps that will be taken in reaction to an attack. At the time a Ship Security Plan is submitted for approval, it is accompanied by the Ship Security Assessment, on which the plan or amendment was based.

Shipping companies bear responsibility for ensuring that each ship in their fleet has a Ship Security Plan that clearly states the master's plenary authority over each vessel, including the authority to make decisions with respect to the safety and security of the ship, and to request assistance from the company or governments. Shipping companies also have to support their Company Security Officers, vessel masters, and their Ship Security Officers. Companies must ensure that each ship has a security assessment conducted and that documentation is retained on board the vessel.

The mandatory portion of the ISPS Code stipulates that shipping companies are required to ensure that the ship security plan underscores the clear authority of the master of the vessel.<sup>17</sup> The master has 'overriding authority and responsibility' to make decisions concerning safety and security of the ship, and to request the assistance of governments.<sup>18</sup>

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<sup>16</sup> ISPS Code, para. A/1.2.4.

<sup>17</sup> ISPS Code, para. A/6.1.

<sup>18</sup> ISPS Code, para. A/6.1.

Furthermore, the company has a duty to ensure that the company security officer, the master, and the ship security officer are provided with the necessary support to fulfil their responsibilities under the ISPS Code.<sup>19</sup> Shipping companies must supply masters of ships in their fleet with information concerning appointment of crew members or other persons on board their ship and their duties at sea, the party responsible for deciding on the employment and schedule of the ship, and identifying parties to any charter that the ship is employed under.<sup>20</sup> The company should keep such information current, and make the information available in English, French, or Spanish.<sup>21</sup> The Maritime Security Measures reflect the broad obligations for ships and companies relating to Ship Security Plans.

Ship Security Plans include detail regarding the following issues:

- a. measures designed to prevent weapons, dangerous substances, and devices intended for use against persons, ships, or ports from being taken on board;
- b. delineate restricted areas and access control measures;
- c. measures and equipment to prevent unauthorized access to the ship while in port or at sea;
- d. responses to security threats or breaches of security;
- e. minimum operational and physical security measures for all security levels;
- f. evacuation plan in case of security threats or breaches of security;
- g. security-related duties of shipboard personnel;
- h. procedures for auditing, training, drills, and exercises of the Ship Security Plan;
- i. procedures for interfacing with port facilities and ships;
- j. circumstances and procedures for admitting first responders and military or law enforcement boarding team on board the ship;
- k. reporting procedures and communications protocols, including 24-hour contact details for the Ship Security Officer and Company Security Officer and guidance on Ship Security Alert System usage; and,
- l. security-related equipment maintenance.<sup>22</sup>

The Ship Security Plan should set forth the organizational structure of ship security, and the vessel's relationship with the shipping company, port facilities, other ships, and relevant authorities with security responsibility. The basic security measures at Level 1—including operational and physical measures—should always be in place. The Ship Security Plan should stipulate the circumstances that authorize movement to security Level 2 or 3 (and back down). To avoid a conflict of interest,

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<sup>19</sup> ISPS Code, para. A/6.2.

<sup>20</sup> ISPS Code, para. B/6.1.

<sup>21</sup> ISPS Code, para. B/6.2-6.3 and SOLAS regulation XI-2/5.

<sup>22</sup> Maritime Security Measures, para. 4.8.5.

if the company is large enough, different persons should be responsible for conducting internal security audits than those responsible for implementing them.<sup>23</sup>

Generally, Administrations review Ship Security Plans once per year, taking into account drills or exercises, security breaches or actual security threat involving the ships, changes in shipping operations including the operator; completion of a Ship Security Assessment. The Ship Security plan sets forth security threats and the appropriate security measures to mitigate such threats. Specific guidance may be provided by the flag state to their Company Security Officers concerning security for particular types of ships—cruise ships, Ro-Ro passenger or cargo ships, chemical, oil, and gas tankers, container ships, and special purpose ships and mobile offshore drilling units. Typically, the annual review is sufficient, but the Ship Security Plan may be reviewed more frequently in response to changes in ship operations, ownership, and structure, or as a consequence of failing a drill or exercise.

Administrations should notify Company Security Officers of the type of amendments to an approved Ship Security Plan that must be approved by the flag State. If the administration permits a Company Security Officer or Ship Security Officer to amend a Ship Security Plan without flag State approval, the new provisions must be passed to the Administration. Ship Security Plans should establish procedures for new security measures adopted based upon changes in the security level. If the flag State elects to permit the use of armed security on board ships, the Administration should ensure that security personnel are duly authorized and appropriately trained.

Finally the Ship Security Plan should specify the security records that a ship is required to keep and be available for inspection, including the Declarations of Security agreed with port facilities and other ships; security threats or incidents and breaches of security; what issues or events might precipitate changes in the security level; communications protocols concerning threats to the ship; records of ship security training, drills and exercises, and reviews of the ship security assessments, Ship Security Plans and amendments thereto.<sup>24</sup> Security equipment should have appropriate records of maintenance.<sup>25</sup> Ship Security Plans also should establish internal audit procedures to be followed by a company or ship.<sup>26</sup>

Shipping companies must appoint at least one CSO for the company and a SSO for each of its vessels. Governments also are responsible for setting the security level for their ports and for ships that fly their flag.<sup>27</sup> Only government officials may set

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<sup>23</sup> Maritime Security Measures, para. 4.8.7.

<sup>24</sup> Maritime Security Measures, para. 2.9.38.

<sup>25</sup> Maritime Security Measures, para. 2.9.41. Such equipment may include perimeter intruder detection systems (eg, CCTV, lighting) and detection equipment (eg, x-ray equipment, metal, explosive).

<sup>26</sup> Maritime Security Measures, para. 2.9.39.

<sup>27</sup> ISPS Code, paras A/4.1 and B/1.8.

the applicable security level, as well as approve port facility assessments and security plans, determine the ports that require a Port Facility Security Officer (PFSO), exercise compliance measures pursuant to regulation XI-2/9 and establish requirements for a Declaration of Security.<sup>28</sup>

There are three levels of security in the ISPS Code: Level 1 (normal risk), Level 2 (heightened risk), and Level 3 (imminent risk). Ensuring ship and port facility security is an exercise in risk management, which involves gauging the appropriate security level. The security measures put in place should match the risk presented by each particular case. The ISPS Code provides a standardized and consistent framework for states to evaluate risk, informing the setting or changing of security levels based upon the vulnerability of ships and port facilities. Factors to be considered in setting security levels include the degree that the threat information is credible, corroborated, specific (or imminent), and the potential consequences of a security incident.<sup>29</sup>

Governments collect and assess information about potential threats to ports and ships flying their flag. Based on the threat information, the Designated Authority (for ports) and the Administration (for ships) set a security level that reflects the degree of risk that a security incident, such as piracy, maritime terrorism, or sabotage, will occur or be attempted. Credible information that is corroborated and specific, or that poses greater risk of a higher potential consequence, such as an attack with weapons of mass destruction, is more apt to trigger an increase in the security level. There are three levels of risk commonly used:

- Security Level 1—the minimum appropriate protective security measures are implemented at all times that are sufficient to counter most forms of criminality associated with ports and ships, such as trespass, cargo tampering and pilferage, and stowaways;
- Security Level 2—additional protective security measures that are maintained for a period of time as a consequence of heightened risk. Generally, if a government sets a higher security for a reason other than the threat of terrorist attack, a brief statement describing the type of threat that caused the change may be published or transmitted to the commercial sector;
- Security Level 3—is used in exceptional circumstances and establishes specific enhanced protective measures that are maintained for the duration of a period when a security incident is probable or imminent, and could even result in suspension of activities. Security Level 3 normally is appropriate as a measure in response to information that a security incident is probable or imminent.

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<sup>28</sup> ISPS Code, para. A/4.3.

<sup>29</sup> ISPS Code, para. A/4.1.



Governments may set a single security level for all ships registered to their flag, and all of their ports and port facilities, or differentiate levels among vessels and ports, or between different parts of a port or port facility. Similarly, governments may apply a standardized security level throughout their territorial sea, or set different security levels in different parts of their territorial sea.

Typically, the security level for port authorities is shared by the Designated Authority with the port or harbour security officer, who transmits it to PFSOs and ship masters and SSOs of ships already in port or bound for port. Many administrations transmit ship Security level information via terrestrial or satellite-based facsimile or NAVTEX and Inmarsat-C SafetyNET directly to ships flying their flag, the latter of which are received through the ship's Global Maritime Distress Safety System (GMDSS). Other administrations may alert CSOs of security levels, and rely on them to forward the information to ships. Finally, Administrations will update ship security levels through general Notice to Mariners (NOTMARs).

Foreign-flagged ships traversing the territorial sea may be informed of the Security level through NAVTEX, Inmarsat-C SafetyNET and SureFax. Changes to the Security level in the territorial sea may be transmitted by Maritime Rescue Coordination Centers (MRCCs). Although foreign-flagged vessels in innocent passage (and not entering port) are not compelled by international law to adopt the Security level set by the coastal state in the territorial sea, some Administrations have specified that ships flying their flag will apply the same security level as the coastal State when transiting the coastal state's territorial sea or even when operating within its EEZ. When a higher security level is set, ships should be able to communicate with a Contact Point ashore, who can accept security reports and advise ships. In some situations, the advice offered by the Contact Point may be sufficient to delay a transit or cause a change in course or speed, or help the vessel to take advantage of the protection afforded by escort and patrol vessels.

#### 14.4 Port Facility Security—Port State Control

A State's sovereign power over its territory includes, with a very few caveats, absolute power to regulate civil or merchant maritime transportation and traffic in internal waters. A port State has virtually absolute discretion in admitting foreign vessels into its ports and internal waters, although all nations also have a duty to provide places of refuge for ships in need of assistance. The scope of *force majeure*, however, appears to be diminishing by state practice, as port states have become quite bold in refusing requests based on emergency circumstances. Port States also are entitled to establish and enforce conditions on entry, which may include actions to be taken before entry. States also may enter into agreements with other nations to limit this right, however, in order to facilitate traffic with neighbouring nations.

In general, international law recognizes the authority of the port State to set conditions for the entry into internal waters or to call at ports. States may limit or suspend passage or movement of any vessels in internal waters. Nations also have responsibility to take action against unsafe, unsecure, or unseaworthy vessels. The overarching framework for oceans law and policy contains additional guidance. Article 25 of UNCLOS authorizes States to take action in the territorial sea as necessary to prevent any breach of conditions of port entry. Likewise, coastal States may temporarily suspend innocent passage in specified areas of the territorial sea for the purpose of protecting the nation's security. Suspension of innocent passage must be published, and may not discriminate among foreign flag administrations. The authority of the port State to control foreign-flagged shipping also extends throughout archipelagic waters, but not archipelagic sea lanes. In both archipelagic sea lanes and straits used for international navigation, port states may not enforce controls on shipping unless vessels are making port call. In such case, the assertion of coastal State jurisdiction is done as a condition of port entry, and not pursuant to coastal State authority.

A coastal State also has authority under international law to enact and enforce laws for the protection of certain artificial islands, installations, and facilities that are located beyond its territorial sea in its EEZ or over or on its outer continental shelf. Under Articles 60 and 80 of UNCLOS, a State can regulate the operation and use of such facilities related to the coastal states jurisdiction over the EEZ. Lawful measures include reasonable safety zones of up to 500 meters in width encircling such facilities. As part of its port State control programme, a state may inspect a ship's papers and on board safety equipment, such as firefighting systems and lifeboats.

In rare circumstances, the port state has authority to detain a foreign-flagged vessel. Under Article 219 of UNCLOS, for example, port States are authorized to prevent a vessel from sailing that may threaten the marine environment due to its failure to comply with internationally accepted rules with regard to seaworthiness. Unseaworthy ships frequently pose a risk of oil pollution, for example. In taking action, the port State must act reasonably, in a transparent fashion, and not discriminate against or among flag state registries.

International standards for vessel safety and security flow from customary international law and UNCLOS, as well as a slate of additional multilateral and bilateral agreements. The standards contained in international law inform domestic rules and provide uniform benchmarks for implementation of port State control programs in municipal law. Shortcomings in safety standards suggest the ships may present security risks to the port State. Port State controls help to eliminate substandard vessels from the waters of the port State, enhancing general safety as well as security. The experience of the U.S. Coast Guard, for example, indicates that substandard vessels—those ships that have hull, machinery, equipment

deficiencies or discrepancies, or crew qualifications that are below internationally accepted standards—pose the greatest safety risk to ports.<sup>30</sup>

Domestic legislation generally establishes rules applicable to industry for submission and approval of port facility and ship security plans, and for amending approved plans. Municipal State law also authorizes officials in Designated Authorities and flag State administrations and any others who may undertake inspection duties on their behalf, authority to enter port facilities or board ships to assess compliance with the Maritime Security Measures. The powers include authority to inspect a port facility or ship to assess compliance, inspect security equipment, documents, records, and plans, conduct security-related interviews of port or ship personnel, and initiate and assess port facility or ship security drills.

Inspections may include examination of a port facility's Statement of Compliance or verification of a ship's International Ship Security Certificate (ISSC) or Interim ISSC, or any other activities to assess the compliance of a port facility or ship with the Maritime Security Measures. The ISSC is a Certificate issued by, or on behalf, of the ship's Administration attesting to a vessel's compliance with the measures set forth in SOLAS Chapter XI-2 and the ISPS Code.

States may adopt legislation specifying enforcement actions that a Designated Authority and Administration can take against a deficient port facility or on a SOLAS ship. If the deficiency compromises the ability of a port facility or ship to operate at Security Levels 1, 2, or 3, municipal law may authorize restriction or suspension notices that limit the operation of the port facility or ships until the deficiency is corrected. In such cases, port facilities and ships may be subject to administrative, civil, or criminal penalties, as set forth in domestic statute. Ships covered under SOLAS appoint at least one SSO who has authority to conduct a ship security assessment and prepare a SSP for each vessel. Likewise, port facilities have similar obligations. Governments also are responsible for determining which of their port facilities require designation of a port facility security officer (PFSO), completion of port facility security assessments and approval of port facility security plans (PFSP).<sup>31</sup> The Port Facility Security Plan (PFSP) promulgated by the designated authority sets forth the conditions under which a port facility will request ships to comply with a DOS. Similarly, a ship can request another ship or a port facility to agree to a DOS, and the circumstances under which such a request is made are specified in the Ship Security Plan. Port facilities are required to acknowledge request for a DOS made by a ship, but do not have to comply unless the request is consistent with the prescribed PFSP. Facility Security Officers

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<sup>30</sup> US Coast Guard, Dep't Homeland Security, Coast Guard Port State Control Targeting and Boarding Policy for Vessel Security and Safety, Navigation Vessel Inspection Circular (NVIC) NO. 06-03, Change 2, Encl. (4), 27 March 2007, at 1.

<sup>31</sup> ISPS Code, para. B/1.6.

(FSOs) are responsible for security at cruise ports, and they are required to conduct Facility Security Surveys (FSSs) for each one. The FSS are also subject to the approval of the Designated Authority.

The SOLAS Convention previously did not apply to port facilities, but States Parties at the IMO determined that inserting the ISPS Code into the multilateral treaty was the most expeditious method of bringing new shore-side requirements into force. Under the ISPS Code, port facilities and ships are required to produce and implement security plans, which are reviewed by appropriate government agencies. Port States may establish control measures for foreign-flagged ships calling at their ports, or indicating an intention to enter port. These measures include ship inspection, delay of entry into port or refusal of port entry, detention of the ship, restrictions on operations, and expulsion from port. Under some circumstances, foreign-flagged ships may claim compensation if they are unduly detained or delayed. The port State's criminal law or civil code may apply to foreign-flagged ships calling on ports of the state. Foreign-flagged ships are under obligation to provide information on the vessel, cargoes, and passengers, to the port State's Designated Authority or Administration.

The case of the M/S *Thor Liberty*, for example, illustrates how effective port State control can affect security in distant regions. On 21 December 2011, Finnish port authorities impounded 160 tons of explosives and 69 Patriot surface-to-air missiles from the British Isle of Man-flagged cargo ship *Thor Liberty*.<sup>32</sup> The ship sailed from the north German port of Emden on December 13, and arrived in Missalo Harbour at the Finnish port of Kotka on December 15 in order to on load a cargo of anchor chains. The missiles and explosives appeared to be owned by a Danish company and to be lawful cargo, destined for South Korea via trans-shipment through Shanghai, China. But the explosives and missiles were marked improperly as 'fireworks', and they were stored on open pallets rather than protective containers.

When entering and while in a port, ships are required to observe the security level of the port. Similarly, port States may board foreign ships at the pier under authority of SOLAS Chapter XI-2, Regulation 9, to determine the validity of vessel ISPS certificates. If 'clear grounds' exist for believing that a ship is not in substantial compliance with the requirements of the ISPS Code, a port State may impose a number of control measures on the vessel. Control measures include inspection of the ship, delay or detention of the ship, restrictions on ship operations, expulsion from port, movement of the ship within the port, or denial of port entry. Port States are authorized to impose less severe administrative remedies to sanction noncompliance.

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<sup>32</sup> *Finland Still Probing Patriot Missile Ship*, CBS News/Associated Press, 22 December 2011.

## 14.5 Interface between Ships and Port Facilities

A Declaration of Security (DOS) is an agreement between a ship and another ship, or between a ship and a port facility, with which it interfaces, specifying the security measures each will implement during the period of time they will interact. The DOS also specifies what security measures may be shared with the other party.<sup>33</sup> Governments are responsible for determining when a DOS is required for ships flying their flags and ports under their authority, depending upon the risk of the interaction between ships and ports to life or property.<sup>34</sup> The Designated Authority typically determines the circumstances requiring a DOS, and Recognized Security Organizations do not enjoy the same authority in this regard.<sup>35</sup>

DOS may be warranted in the following circumstances:

- a. A ship is operating at a higher security level than the port facility with which it is interfacing;<sup>36</sup>
- b. A security threat or incident has occurred that involves the port facility or another ship with which it is interfacing;<sup>37</sup>
- c. A port facility or ship is operating at Security Level 3;
- d. The port facility or a ship with which it is interfacing has changed its security level;
- e. A specific ship to ship or ship to port interface that poses a danger to local facilities or residents, or presents a significant risk of marine environmental pollution;
- f. A ship or port interface involves embarkation or disembarkation of passengers or dangerous cargo, or transfer of passengers or dangerous cargo at sea;
- g. A ship is using a non-SOLAS port facility;<sup>38</sup>
- h. A ship is undertaking a ship-to-ship activity, such as taking on bunker fuel, and one ship is operating at a higher security level than the other vessel, or the ship is interacting with a non-SOLAS ship;
- i. Two governments have agreed that a DOS is required during a ship-to-ship interface;
- j. A non-SOLAS ship seeks to enter a port facility covered by SOLAS;
- k. The Designated Authority of the port facility or ship's Administration requires it;
- l. A ship is without a valid International Ship Security Certificate (ISSC).<sup>39</sup>

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<sup>33</sup> ISPS Code, para. A/5.5.

<sup>34</sup> ISPS Code, para. A/5.

<sup>35</sup> ISPS Code, para. A/4.3.6.

<sup>36</sup> ISPS Code, para. A/5.2.1.

<sup>37</sup> ISPS Code, para. A/5.2.3.

<sup>38</sup> ISPS Code, para. A/5.2.4.

<sup>39</sup> ISPS Code, para. A/19.

Security considerations drive the decision when a port facility may require a DOS from a ship.<sup>40</sup> When both the port facility and the ship are operating at security level 1, a DOS normally is not required, although a port facility can establish conditions for which a ship must produce a DOS. Similarly, a ship security assessment can set the precise conditions when a DOS is to be requested of another ship or port facility. Furthermore, some national authorities have imposed additional requirements concerning the period that the DOS must be retained; modifications to the model DOS Form issued by the IMO; and, provisions to allow the use of a single DOS for multiple visits by a ship to the same port.

A government-to-government agreement generally covers specific voyages between two nations, and specific passenger and cargo movements between the two states that pose a higher security risk. The agreement provides a mechanism for greater security without the burden of imposing a higher security level. In contrast, an Alternative Security Agreement (ASA) applies to shorter and regularized shipping between adjacent countries.

A Continuous Declaration of Security (CDS) permits transit without a separate DOS for each port or ship interface encountered during either a specified time or under certain specified condition. The CDS remains in force under the terms of the port and flag state security conditions. Typically, port facilities and ships retain a DOS for three to five years, although national authorities may set any period of time. But ships should have their DOS available for inspection for the period covering the previous ten ports of call.

Security levels are set by the government, and generally by the Designated Authority. The Designated Authority is identified by each nation, usually as part of implementing legislation. Typically, the Designated Authority is the government official responsible for implementation of earlier provisions in the SOLAS Convention and other IMO legal instruments. Designated Authorities have plenary responsibility to designate port facilities as requiring appointment of a PFSO and preparation of a PFSP, or to appoint a person ashore to be responsible for shore-side security. In the latter case, the Designated Authority must undertake a PFSA. The PFSA will involve entry of the land or premises of the port, inspection of the relevant documents, records and plans, and inspection of port security installations and equipment.

The company security officer (CSO) is designated by a commercial shipping company to ensure that a ship security assessment is completed, that a ship security plan is developed, approved and implemented, and for liaison with port facility security officers and the ship security officer. The company has a duty to support the master, the CSO, and each ship security officer (SSO). The CSO also should designate a ship security officer for each ship, who is accountable to the master of the

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<sup>40</sup> Maritime Security Measures, at para. 2.6.5.

vessel in implementing the ship security plan. Shipping companies are responsible for ensuring that each ship security plan ‘contains a clear statement emphasizing the master’s authority’ over the vessel.<sup>41</sup> The ship security plan should indicate that the master has ‘overriding authority’ and responsibility to make decisions related to ship safety and security.<sup>42</sup>

Ships have an obligation to act under the security levels set by their flag State.<sup>43</sup> At Security Level 1, ships should carry out the following measures:

- a. ensure the performance of all ship security duties;
- b. control access to the ship;
- c. control embarkation of persons and baggage;
- d. monitor restricted areas inside and outside the ship;
- e. ensure security communications are readily available.<sup>44</sup>

At Security Levels 2 and 3, ships should add additional protective measures for each of the above activities, as set forth in the SSP. Recommended measures for each security level are contained in Part B of the ISPS Code.<sup>45</sup>

Under a number of IMO conventions, governments may authorize certain non-governmental organizations (recognized organizations) to act on their behalf in fulfilling some flag State responsibilities.<sup>46</sup> There are two types of such entities: classification societies and Recognized Security Organizations (RSOs). Classification societies are nongovernmental societies that establish technical standards in relation to the design, construction, and survey of marine related facilities, such as ships and offshore structures.<sup>47</sup> RSOs operate in accordance with a written agreement between the administration and the recognized organization, with the recognized organization acting on behalf of the flag state. RSOs may implement a handful of selected State responsibilities under the Maritime Security Measures.

The following functions may be delegated in whole or in part to RSOs by the Administration or the Delegated Authority:

- a. approval of ship security plans;
- b. verification for ships (such as inspections and audits);

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<sup>41</sup> ISPS Code, para. A/6.1.

<sup>42</sup> ISPS Code, para. A/6.1.

<sup>43</sup> ISPS Code, para. A/7.1.

<sup>44</sup> ISPS Code, para. A/7.2.

<sup>45</sup> ISPS Code, para. B/9.14–9.49.

<sup>46</sup> IMO Doc. MSC/Circ.1074, Measures to Enhance Maritime Security, Interim Guidelines for the Authorization of Recognized Security Organizations Acting on Behalf of the Administration and/or Designated Authority of a Contracting Government, June 10, 2003. *See also*, regulation SOLAS, Regulation I/6, LL Convention, Article 13, MARPOL Annex I, regulation 4, and Annex II, regulation 10, and TONNAGE 1969, regulation 6.

<sup>47</sup> *See, eg* IACS Explained—Members, at <<http://www.iacs.org.uk>> accessed on 10 February 2016.

- c. issuance and endorsement of International Ship Security Certificates; and,
- d. development of port facility security assessments.<sup>48</sup>

The Ship Security Plan may be prepared by an RSO on behalf of Company Security Officers. RSOs also may review and even approve Ship Security Plans and their amendments, if so delegated by a flag state administration (and provided they were not involved in the preparation of the Ship Security Plan under review or its related Ship Security Assessment).<sup>49</sup> Flag state administrations may authorize Recognized Security Organizations (RSOs) to act on their behalf to approve Ship Security Plans and to certify compliance of the commercial fleet with the regulations of the Maritime Security Measures. Shipping companies also may use RSOs to provide advice and assistance on Ship Security Assessments and Ship Security Plans, but RSOs should not approve Ship Security Plans if they have been involved in conducting Ship Security Assessments.

The flag state administration may delegate responsibility for approving the Ship Security Plan to the RSO so long as the RSO has not assisted in preparation of the Ship Security Plan. The Ship Security Plan should provide for three security levels, and corresponding security measures for each level. Flag State Administrations have responsibility for establishing the procedures for Declarations of Security that are in the Ship Security Plan.

Thus, if RSOs are used, the Designated Authority may delegate port security responsibility, whereas a flag State Administration can delegate responsibilities relating to ship security. Not every State utilizes RSOs, however.

Often a port authority or port facility operator serves as an RSO, but the scope of authority delegated to RSOs that undertake government responsibilities for flag state administrations is even broader. SOLAS and other IMO Conventions provide Administrations with a framework to empower RSOs to inspect, survey, verify and approve certificates for ships flying its flag. In each case, however, the RSO should have a record of organizational competency and technical proficiency, and the capabilities necessary to undertake the specific duties that may be delegated to them.<sup>50</sup> RSO duties may include the conduct of PFSA, assisting ports in preparing PFSPs, training of CSOs and SSOs, and training PFSPs and other port security personnel. Even as states use RSOs, the authorizing government retains oversight and ultimate responsibility for the work undertaken on their behalf.

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<sup>48</sup> IMO Doc. MSC/Circ.1074, Measures to Enhance Maritime Security, Interim Guidelines for the Authorization of Recognized Security Organizations Acting on Behalf of the Administration and/or Designated Authority of a Contracting Government, 10 June 2003, para. 1.

<sup>49</sup> Maritime Security Measures, para. 4.8.2.

<sup>50</sup> These competencies are identified in IMO Doc. MSC 89/INF.13, Measures to Enhance Maritime Security (Maritime Security Manual—Guidance for port facilities, ports and ships), 5 March 2011, Criteria for Selecting Recognized Security Organizations, Appendix 2.3, Maritime Security Measures.



In general, IMO guidelines pertaining to recognized organizations require that the size and capability of the organization be 'commensurate with the type and degree of authority intended to be delegated'.<sup>51</sup> The thirteen largest marine focused classification societies are members of the International Association of Classification Societies (IACS).<sup>52</sup> The organization should be able to document experience in the area over which it exercises delegated authority, such as expertise in construction, design, and equipping of merchant ships.<sup>53</sup>

The IMO has offered guidance on criteria for selecting RSOs.<sup>54</sup> First, the organization should have demonstrated effectiveness, with clear lines of managerial oversight for the proposed delegation of authority, personnel with appropriate qualifications and experience, adherence to a company code of ethics or code of conduct, and an effective training and testing programme. The RSO also should have procedures established to avoid unauthorized disclosure of, or access to, security sensitive material.

The work of RSOs is technical in nature, requiring knowledge of ship and port operations, including design and construction considerations, as well as experience and knowledge of the Maritime Security Measures and national regulations pertaining to security for installation, ships, and personnel. Finally, the RSO should be familiar with the most likely security threats. For these reasons, many RSOs are managed by or employ former military or intelligence officials.

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<sup>51</sup> IMO Doc. A.739(18), Guidelines for the Authorization of Organizations Acting on Behalf of the Administration, Annex: Guidelines for the Authorization of Organizations Acting on Behalf of the Administration, Appendix, Minimum Standards for Recognized Organizations Acting on Behalf of the Administration, 4 November 1993, para. 1.

<sup>52</sup> The Croatian Register of Shipping became a member on 3 May 2011. Other member societies include: American Bureau of Shipping, *Bureau Veritas*, China Classification Society, *Det Norske Veritas*, Germanische Lloyd, Indian Register of Shipping, Korean Register of Shipping, Lloyd's Register, *Nippon Kaji Kyokai*, Polish Register of Shipping, *Registro Italiano Naval*, and Russian Maritime Register of Shipping.

<sup>53</sup> IMO Doc. A.739(18), Guidelines for the Authorization of Organizations Acting on Behalf of the Administration, Annex: Guidelines for the Authorization of Organizations Acting on Behalf of the Administration, Appendix, Minimum Standards for Recognized Organizations Acting on Behalf of the Administration, 4 November 1993, para. 2.

<sup>54</sup> IMO Doc. MSC/Circ.1074, Measures to Enhance Maritime Security, Interim Guidelines for the Authorization of Recognized Security Organizations Acting on Behalf of the Administration and/or Designated Authority of a Contracting Government, 10 June 2003.

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## THE ILLICIT TRAFFICKING OF DRUGS

*Efthymios Papastavridis*

### 15.1 Introduction

Illicit traffic in narcotic drugs and psychotropic substances has attained great prominence in the last decades of the 20th century and has been the subject of various international legislative and enforcement measures. The most important UN Conventions that are in force concerning the fight against drugs are the following: firstly, the 1961 Single Convention on Narcotics Drugs, which replaced all the previous relevant conventions;<sup>1</sup> secondly, the 1971 Convention on Psychotropic Substances, which was established as a companion instrument of the 1961 Convention, since it deals with psychotropic substances next to narcotic drugs;<sup>2</sup> lastly, the Vienna Drug Trafficking Convention, which was designed to deal specifically with the growing problem of international trafficking, which the earlier instruments only tackled in a marginal fashion.<sup>3</sup> In that Convention, the contracting parties are called upon to criminalize the illicit traffic in narcotic drugs, that is,

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<sup>1</sup> See Single Convention on Narcotic Drugs 1961 (New York, 30 March 1961, entered into force 13 December 1964) 520 UNTS 151; as amended by the 1972 Protocol, 976 UNTS 3. As early as 1912, the problems associated with the use of specified types of drugs were recognized as a matter of international concern, which led to the adoption of the first international instrument in this regard, the 1912 International Opium Convention, 8 LNTS 187. This was followed by a plethora of relevant treaties, such as the Second Opium Convention (1925), the Convention for the Limiting the Manufacture and Regulating the Distribution of Narcotic Drugs (1931), Convention for the Suppression of the Illicit Traffic in Dangerous Drugs (1936). For an overview of these treaties See B Renborg, *International Drug Control: A Study of International Administration by and through the League of Nations* (Carnegie Endowment for International Peace, 1947).

<sup>2</sup> See Convention on Psychotropic Substances (Vienna, 21 February 1971, entered into force 16 August 1976) 1019 UNTS 176. For a comparison of the Single Convention with the Psychotropic Convention, see also CH Vignes, 'La Convention sur les substances psychotropes' (1971) 17 *AFDI* 641.

<sup>3</sup> See UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (Vienna, 19 December 1988, entered into force 11 November 1990), 28 *ILM* 493 (Vienna Drug Trafficking Convention). As at 28 February 2015, it had 189 State parties; see at <[https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg\\_no=VI-19&chapter=6&lang=en](https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=VI-19&chapter=6&lang=en)>. For commentary

the production, manufacture, extraction; preparation, offering, offering for sale, distribution, sale, delivery on any terms whatsoever, brokerage, dispatch, dispatch in transit, transport, importation or exportation of any narcotic drug or any psychotropic substance contrary to the provisions of the 1961 Convention, the 1961 Convention as amended or the 1971 Convention.<sup>4</sup>

Although a wide variety of methods are utilized by drug traffickers in plying their trade, the use of private and commercial vessels has long been significant. This is particularly the case with drugs such as cocaine, opium, and its derivatives, and cannabis, where transportation from source to consumer country frequently involves passage over ocean areas.<sup>5</sup> For example, given its relatively high volume and low cost, the vast majority of marijuana and cocaine entering the US from abroad is said to be transported by private vessels.<sup>6</sup> As reported by the UN Office on Drugs and Crime (UNODC),

[f]or the North American market, cocaine is typically transported from Colombia to Mexico or Central America by sea and then onwards by land to the United States and Canada. Cocaine is trafficked to Europe mostly by sea, often in container shipments. Colombia remains the main source of the cocaine found in Europe, but direct shipments from Peru and the Plurinational State of Bolivia are far more common than in the United States market.<sup>7</sup>

Extremely interesting are the findings for the increase of maritime drug trafficking in Africa. In the 2013 World Drug Report, published by UNODC, it was reported that

given the large quantities of licit substances that make their way across oceans and continents every day, in containers and even small boats, maritime trafficking poses a particularly knotty challenge for the authorities. East and West Africa seem to be gaining in prominence with regard to routes for maritime trafficking. A new maritime route going southwards from Afghanistan via ports in the Islamic Republic of Iran or Pakistan is increasingly being used by traffickers to reach consumer markets through East and West African ports. Since 2009, seizures of heroin have risen sharply in Africa, especially in East Africa, where they increased almost 10-fold.<sup>8</sup>

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see inter alia UN Economic and Social Council, *Commentary on the UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances 1988* (1998) (hereinafter 'Vienna Commentary').

<sup>4</sup> Art. 3 (1) (a) Vienna Drug Trafficking Convention.

<sup>5</sup> See P Van der Kruit, *Maritime Drug Interdiction in International Law* (Druk OBT/TDS, 2007), 21.

<sup>6</sup> See W Gilmore, 'Narcotics Interdiction at Sea, US-UK Cooperation' (1989) *Marine Policy*, 218.

<sup>7</sup> See at <<http://www.unodc.org/unodc/en/drug-trafficking/index.html>> (accessed 28 February 2015).

<sup>8</sup> UNODC, World Drug Report 2013 (UN, 2013), at ix; available at <[http://www.unodc.org/unodc/secured/wdr/wdr2013/World\\_Drug\\_Report\\_2013.pdf](http://www.unodc.org/unodc/secured/wdr/wdr2013/World_Drug_Report_2013.pdf)>. See also the 2014 World Drug Report, at 25; available at <[http://www.unodc.org/documents/wdr2014/World\\_Drug\\_Report\\_2014\\_web.pdf](http://www.unodc.org/documents/wdr2014/World_Drug_Report_2014_web.pdf)>.

Also, the means employed by the drug-traffickers have become highly sophisticated: apart from 'go-fast' vessels,<sup>9</sup> drug-traffickers in Central America use semi-submersible vessels, which are almost impossible to be properly stopped and visited.<sup>10</sup> Such vessels are 'both difficult for the Coast Guard to detect and easy for crew members, who often prefer losing their cargo to being caught, to sink. At the first sign of the Coast Guard, drug traffickers can quickly sink the vessel and jump into the ocean, which destroys the evidence necessary to prosecute them for a drug offense . . .'.<sup>11</sup>

This traffic by sea has led to various initiatives taken by States most affected, such as the USA and European countries. Central to this has been the policy of interception of vessels not only in the territorial waters of the consumer States, but also on the high seas and even further, in the territorial waters of the source or transit States. This policy has been effectuated either through informal means, that is ad hoc consent of the flag State or of the vessel's master (consensual boarding), or through bilateral and multilateral treaties, such as the Caribbean ship rider agreements<sup>12</sup> and the Vienna Drug Trafficking Convention. Such maritime interceptions can be proven especially effective, albeit they are not very common. According to World Drug Report,

[e]xperience has shown that a maritime seizure is consistently more likely to be larger than a seizure involving transport by road or rail. In fact, although maritime seizures constitute no more than 11 per cent of all cases across all drug categories globally, each maritime seizure was on average almost 30 times larger than seized consignments trafficked by air. Targeted interdiction efforts by the authorities would enable them to seize larger quantities of drugs trafficked by water.<sup>13</sup>

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<sup>9</sup> These are typically 25–50ft open boats, powered by twin outbound engines and capable of sustaining speed of 20–40 knots in 1–3 ft seas. Such boats present significant detection problems and their high speed enables them to escape into foreign territorial waters when confronted by the possibility of interdiction on the high seas; See W Gilmore, *Agreement Concerning Co-operation in Suppressing Illicit Maritime and Air Trafficking in Narcotic Drugs and Psychotropic Substances in the Caribbean Area, 2003: Text and Explanatory Report* (The Stationery Office, 2005) at 2 (hereinafter: Gilmore, 'Caribbean Agreement').

<sup>10</sup> Drug submarines, which can be made for as little as \$500,000 each and assembled in fewer than three months, are thought to carry almost 30 per cent of Colombia's cocaine exports; see D Kushner, *Drug-Sub Culture*, *NY Times*, April 23, 2009, 30, available at <<http://www.nytimes.com/2009/04/26/magazine/26drugs-t.html>>. It is reported that 'One self-propelled semi-submersible vessel intercepted by the Coast Guard, for example, contained seven tons of cocaine, worth \$187 million'; see A Bennett, 'The Sinking Feeling: Stateless Ships, Universal Jurisdiction, and the Drug Trafficking Vessel interdiction Act' (2012) 37 *Yale J Int'l L* 433, 434.

<sup>11</sup> Bennett (n. 10), 434.

<sup>12</sup> The problem of maritime illicit traffic of narcotic drugs is particularly acute in the Caribbean region, where there exists a number of contiguous nations separated by relatively narrow bodies of water which serve, for the smugglers, as natural 'stepping stones' between source and consumer States. These nations provide the 'quintessential drug trafficking havens due to their sparse populations and limited enforcement capability'; see K Rattray, 'Caribbean Drug Challenges' in M Nordquist and JN Moore (eds), *Ocean Policy: New Institutions, Challenges and Opportunities* (Law of the Sea Institute, 1998) 179, at 185.

<sup>13</sup> See 2013 World Drug Report, Executive Summary (n. 8).

The purpose of this chapter is to canvass the legal regime governing the fight against illicit trafficking in narcotic drugs by sea. In particular, the chapter will firstly explore the legal bases for drug interdiction operations at sea, both on multilateral and unilateral levels; in more detail, the analysis will commence with the UN Convention on the Law of the Sea, which does, albeit scarcely, provide for the suppression of drug trafficking. Then, the focus will shift to the Vienna Drug Trafficking Convention and the other multilateral instruments, which set out the legal framework for interception operations and for the assertion of enforcement jurisdiction over the relevant crimes. This will be followed by the analysis of the respective bilateral arrangements especially in the Caribbean basin. In addition, all possible justifications under customary law, especially instances of ad hoc consent for drug-trafficking interdiction, will be canvassed.

## 15.2 Multilateral Treaty Law Bases for Interdiction of Drug Trafficking Vessels

### 15.2.1 The United Nations Convention on the Law of the Sea

The point of departure for assessing the legal contours of drug trafficking at sea is necessarily the United Nations Convention on the Law of the Sea 1982 (UNCLOS).<sup>14</sup> The UNCLOS scarcely refers to illicit drug trafficking at sea. Indeed, the only explicit authorization to States, in particular coastal States, to enforce their jurisdiction over vessels engaged in drug trafficking is in Article 27 UNCLOS, which sets out that the criminal jurisdiction of the coastal State 'should not' be exercised on board a foreign vessel passing through the territorial sea, save only 'if such measures are necessary for the suppression of illicit traffic in narcotic drugs or psychotropic substances'.<sup>15</sup>

In addition, given, obviously, that drug trafficking falls under the customs regulations of the coastal State, the latter may also prevent or suppress their infringement both within its contiguous zone. Under Article 33 UNCLOS, the coastal State may exercise the control necessary to: (a) prevent infringement of its customs, fiscal, immigration, or sanitary laws and regulations within its territory or territorial sea; (b) punish infringement of the above laws and regulations committed within its territory or territorial sea.

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<sup>14</sup> See the United Nations Convention on the Law of the Sea (Montego Bay, 10 December 1982, entered into force 16 November 1994) 1833 UNTS 397 (UNCLOS); as at 7 January 2015, the Convention had 167 parties, including the EC; see at <[http://www.un.org/Depts/los/reference\\_files/chronological\\_lists\\_of\\_ratifications.htm#The United Nations Convention on the Law of the Sea](http://www.un.org/Depts/los/reference_files/chronological_lists_of_ratifications.htm#The%20United%20Nations%20Convention%20on%20the%20Law%20of%20the%20Sea)> (accessed 28 February 2015).

<sup>15</sup> See further discussion in E Papastavridis, 'Crimes at Sea: A Law of the Sea Perspective' in E Papastavridis and K Trapp (eds), *La Criminalité en Mer/Crimes at Sea*, Hague Academy of International Law (Leiden, Martinus Nijhoff Publishers, 2014) 3 at 10.

Accordingly, coastal States may apprehend in the contiguous zone the outward ships that have committed the relevant offence within the territorial sea. Insofar as the inward ships are concerned, there seems to be a watershed difference, which is that typically there has been no violation of the municipal laws of the coastal State.<sup>16</sup> Thus, any assertion of jurisdiction, both prescriptive and enforcement, would have to be premised upon other international agreements, such as the Vienna Drug Trafficking Convention, which applies beyond the territorial waters, including the contiguous zone.

Similarly, enforcement powers are granted to coastal States with regard to such activities occurring on artificial islands or other installations pursuant to Article 60 (2) UNCLOS, which states that: '[t]he coastal State shall have exclusive jurisdiction over such artificial islands, installations and structures, including jurisdiction with regard to customs, fiscal, health, safety and immigration laws and regulations'.<sup>17</sup>

On the high seas, there is an explicit provision concerning drug trafficking, namely Article 108 that calls upon States to cooperate in its suppression.<sup>18</sup> In more detail, paragraph 1 sets out a general obligation upon all States to cooperate, when the illicit traffic is 'contrary to international conventions'. This obligation depends on the content of the above-mentioned Drug Conventions, that is, States should cooperate in the enforcement of these particular Conventions. More importantly, Article 108 (1) sets forth an obligation of conduct rather than result.<sup>19</sup> On the other hand, paragraph 2 addresses the issue of providing assistance to suppress the traffic in question. Nevertheless, only the State 'which has reasonable grounds for believing that the ship flying *its* flag is engaged in illicit traffic' in such drugs or substances 'may request the co-operation of other States to suppress such traffic'.<sup>20</sup> As Sohn observes, '[t]he opposite case of a State asking for cooperation of a State whose ship is suspected of smuggling drugs to other countries is noticeably not

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<sup>16</sup> On the distinction of outbound and inbound vessels in the context of the respective enforcement powers in the contiguous zone see I Shearer, 'Problems of Jurisdiction and Law Enforcement against Delinquent Vessels' (1986) 35 *International and Comparative Law Quarterly* 320, at 330.

<sup>17</sup> See also *M/V Saiga No. 2 case* (Judgment), (1999), para. 1127, 38 *ILM* 1323, 1351. This provision is similar to that of Art. 80 UNCLOS, which pertains to such installations or islands located on the continental shelf.

<sup>18</sup> The provision in question was proposed for the first time by Malta at the 1971 session of the Sea-Bed Committee; see A/AC.183/53, Art. 16, reproduced in SBC Report 1971 at 105, 123. See also M Nordquist (ed.), *United Nations Convention on the Law of the Sea, A Commentary*, Vol. III (Martinus Nijhoff, 1985) 224.

<sup>19</sup> Cf. A Bellayer-Roille, 'La Lutte contre le Narcotrafic en Mer Caraïbe' (2007) 111 *RGDIP* 355 at 365 wrote: '[u]ne obligation de coopération est donc bien inscrite dans cet Article, mais il ne s'agit en réalité que d'une obligation d'une 'obligation théorique', reposant sur la bonne volonté des Etats et, a fortiori, sur leur capacité réelle de réaction'. For the distinction between obligations of conduct and result see J Combacau, 'Obligations de résultat et obligations de comportement: quelques questions et pas de réponse' in *Mélanges offerts à Paul Reuter, Le droit international: unité et diversité* (Pedone, 1981) 181.

<sup>20</sup> Emphasis added; see Nordquist (n. 18) 224.

mentioned'.<sup>21</sup> Consequently, Article 108 falls short of providing any enforcement mechanism to complement the obligation to cooperate enshrined in paragraph 1.

More importantly, drug trafficking is missing from the list of the proscribed activities for which the right of visit on the high seas is acknowledged under Article 110 of the UNCLOS. This Article sets forth that the right to board and search a vessel on the high seas is accorded to warships against only those foreign-flagged vessels reasonably suspected of having engaged in certain proscribed activities. These activities are: a) piracy, b) slave trading, c) unauthorized broadcasting, d) absence of nationality of the ship, or e) though flying a foreign flag or refusing to show its flag, the ship is in reality of the same nationality as the warship.<sup>22</sup>

On the face of this provision, the only relevant heading under Article 110 of UNCLOS is the 'absence of nationality', since none of the other grounds, that is, piracy, slave trade, unauthorized broadcasting, and the same nationality would be applicable. Many drug traffickers operate in unregistered, stateless vessels, in which case Article 110 (1) (d) of UNCLOS applies. It is pursuant to this provision that warships or other duly authorized vessels of any State may exercise the right of visit on these vessels.

However, it is submitted that the right to visit stateless vessels does not *ipso jure* entail the right to seize the illicit cargo or exert any further enforcement jurisdiction over the persons on board the vessel. It is the view of the present author that the boarding States would have to rely on some positive basis of jurisdiction to exercise jurisdiction over persons and property on these vessels, since the statelessness itself would fall short of according them such jurisdiction. In any event, it would be in keeping with both the statelessness of the vessel and the nature of the illicit cargo aboard the delinquent vessel that the boarding State should have the right to escort the vessel to its ports and forfeit the illicit drugs cargo, as well as the vessel, provided, of course, that no other State makes any claim of nationality.<sup>23</sup> It must be stressed here that on the face of Article 91 (1) of UNCLOS, the registration of the vessel is not a *sine qua non* prerequisite for the claim of nationality and thus an unregistered vessel—often a small sailing boat—may have the right to sail under the flag of a State and eventually be subject to its jurisdiction.<sup>24</sup> If no relevant provision or any jurisdictional nexus grants the forum State jurisdiction to

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<sup>21</sup> See LB Sohn, 'International Law of the Sea and Human Rights Issues' in Th Clingan (ed.), *The Law of the Sea: What Lies Ahead?* (Law of the Sea Institute, 1988) 56 at 60.

<sup>22</sup> See inter alia RR Churchill and AV Lowe, *The Law of the Sea* (3rd edn, Manchester University Press, 1999) 203.

<sup>23</sup> This is in accord with the proposition of the Special Rapporteur of the ILC, Professor J François, with respect to stateless vessels in general; see 'Regime of the High Seas, Draft Articles, A/CN.4/79, section II', in (1955-I) *ILC Yearbook* at 26.

<sup>24</sup> Art. 91 (1) reads as follows: 'Every State shall fix the conditions for the grant of its nationality to ships, for the registration of ships in its territory, and for the right to fly its flag. Ships have the nationality of the State whose flag they are entitled to fly . . . '.

punish the master or the crew members, the State of nationality of the offenders should punish them in accordance with the well-established principle of nationality.<sup>25</sup>

This distinction between jurisdiction over the vessel and over the persons on board was also maintained before the Italian courts in the *Fidelio* case. In 1986 Italian naval units seized the Honduran vessel *Fidelio* on the high seas about eighty nm off the coast of Italy. Neither the captain nor any of the eleven crew members had Italian nationality and the *Fidelio* had not entered Italian territorial waters in any phase of the pursuit. In the proceeding brought against the drug smugglers, both the Tribunal and the Court of Appeal of Palermo held that Italian criminal jurisdiction could not apply to actions taking place beyond the territorial sea, and declared that Italian courts lacked jurisdiction in the matter.<sup>26</sup> The Court of Cassation (decision of 1 February 1993) confirmed this and the twelve accused persons were released, even though they were smuggling six tons of cannabis. The drugs, by contrast, were confiscated and destroyed under the relevant provisions of the Italian legislation. This legislation applied in respect of the cargo (*in rem*), but not in respect of the persons on board (*in personam*).<sup>27</sup>

However, there is a case in which the statelessness of the vessel suffices not only for the boarding but also for the assertion of jurisdiction *per se*; this is the case of submersible or semi-submersible vessels, according to the Drug Trafficking Vessel Interdiction Act (DTVIA), adopted by the US Congress in 2008.<sup>28</sup> The DTVIA purports to address the practical difficulties posed by the use of such vessels by criminalizing the operation of a submersible or semi-submersible vessel without nationality and with the intent to evade detection. Unlike other relevant laws, the DTVIA does not use a vessel's statelessness solely as a jurisdictional hook, but makes the operation of a stateless vessel a key component of the substantive crime it proscribes.<sup>29</sup> In *United States v Ibarguen-Mosquera*, the Eleventh Circuit upheld the DTVIA without noting any significant difference between the jurisdictional requirements of the DTVIA and of previous laws: in the words of the Court, 'international law permits any nation to subject stateless vessels on the high seas to its jurisdiction . . . Jurisdiction exists solely as a consequence of the vessel's status as stateless'.<sup>30</sup> Notwithstanding this case, there is no warrant for such reading of

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<sup>25</sup> See also E Papastavridis, 'Enforcement Jurisdiction in the Mediterranean Sea: Illicit Activities and the Rule of Law on the High Seas' (2010) 25 *International Journal of Marine and Coastal Law* 569, 589.

<sup>26</sup> Reproduced in (1992) *Rivista Di Diritto Internazionale*, at 1081.

<sup>27</sup> See further comments on the case by T Scovazzi, 'The Evolution of International Law of the Sea: New Issues and New Challenges' (2000) 286 *Recueil des Cours de l'Académie de Droit International* 39, 225.

<sup>28</sup> 18 U.S.C.A. § 2285 (West 2011).

<sup>29</sup> Bennett (n. 10), 434.

<sup>30</sup> 634 F.3d 1370 (11th Cir. 2011), at 1379 (quoting *Marino-Garcia* 6, 79 F.2d at 1382). The 11th Circuit also upheld the DTVIA in *United States v Saac*, 632 F.3d 1203, 1210–11 (11th Cir. 2011).



statelessness as a separate and independent head of jurisdiction under international law.

Besides Article 27 in relation to drug trafficking in the territorial waters and the limited application of Articles 33 and 60 (2), UNCLOS falls short of according broad powers of enforcement in this regard. On the high seas, the absence of nationality of a vessel seems to be the only relevant legal justification for interdicting drug trafficking vessels under UNCLOS. That said, it should be recalled that in accordance with Articles 92 and 110 of UNCLOS, such interference may also be authorized pursuant to a treaty. Indeed, there have been numerous bilateral agreements as well as a few multilateral treaties, which have granted such authorization to State parties with respect to drug trafficking.

### 15.2.2 The 1988 Vienna Drug Trafficking Convention

The most important multilateral instrument in this regard is the Vienna Drug Trafficking Convention, which contains provisions specifically directed to traffic at sea, including the right to board the vessels of other State parties engaged in illicit drug traffic. This Convention had been the outcome of protracted negotiations between States and various UN bodies since 1982.<sup>31</sup> In respect of the right to board the vessel, Article 17 (3) reads as follows:

A Party which has reasonable grounds to suspect that a vessel exercising the freedom of navigation in accordance with international law and flying the flag or displaying marks of registry of another Party is engaged in illicit traffic may so notify the flag State, request confirmation of registry and, if confirmed, request authorisation from the flag State to take appropriate measures in regard to that vessel . . .

This provision should be scrutinized in relation both to Article 17 as a whole, entitled 'illicit traffic by sea' and to other key provisions of the Vienna Drug Trafficking Convention, with which it is inextricably linked. For example, while the focus of the Article in question is on facilitating the exercise of enforcement jurisdiction in relation to suspect vessels, the overall effectiveness of the scheme is contingent upon the possession by States of appropriate prescriptive jurisdiction, which is accorded by Article 4.<sup>32</sup>

The first and most significant remark is that Article 17 (3) requires the explicit 'authorisation' of the flag State, a word which was included after lengthy informal consultations. As it is pointed out in the *travaux préparatoires*, this word was deliberately used to 'stress the positive nature of the decision and of the action which the flag State in the exercise of its sovereignty was to take with regard to the vessel. It is

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<sup>31</sup> See in this respect W Gilmore, 'The 1988 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances' (1991) 15 *Marine Policy* 183 and F Rouchereau, 'La Convention des Nations Unies contre le Trafic Illicite de Stupéfiants et de substances psychotropes' (1988) 36 *AFDI* 601.

<sup>32</sup> See Vienna Commentary (n. 3) at 323.

entirely within the discretion of that State to decide whether to allow another party to act against its vessel'.<sup>33</sup> Apart from the need for the explicit authorization, the requesting party has, first, to notify the flag State, then, request confirmation of the registry, and lastly request the authorization. This provision should be read in conjunction with paragraph 4, which stipulates that 'the flag State *may* authorize the requesting State to inter alia: a) board the vessel, b) search the vessel and c) if evidence of involvement in illicit traffic is found, take appropriate action with respect to the vessel, persons and cargo on board'.<sup>34</sup> What logically flows from these provisions is that the consent of the flag State is necessary for any measure taken against the vessel and the authorization by the latter State should exist with respect to each process individually, that is, the boarding, search, and detention of the vessel.

In addition, Article 17 addresses a number of issues, which are instrumental to the application of the provision in question. For example, there is the requirement for each Party to designate an authority to receive and respond to requests (para. 7).<sup>35</sup> While it is for each State party to determine the appropriate location for the designated national authority and the powers and functions to be entrusted, the need for it to be in a position to respond effectively and expeditiously to incoming requests is even more important here, in light of the often-difficult operational environment presented by open ocean areas. Notwithstanding this pragmatic need for flexibility and efficiency, there should always be certain guarantees that the process will not be abused and competent State agents will give the authorization.

To exemplify this, suffice it to refer to the *Regina v Charrington and others* case (1999), in which the British Crown Court granted a stay, because the boarding, search, and seizure of the vessel in question pursuant to Article 17 of the Vienna Drug Trafficking Convention were *mala fides*, thus unlawful, as was the subsequent taking of the boat to the United Kingdom.<sup>36</sup> It was considered, amongst others, that the boarding was authorized by an inappropriate authority, since the British official, who claimed to have telephoned the office of the Attorney-General

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<sup>33</sup> See *Official Records of the Vienna Convention*, Summary Records of Committee II, 29th meeting, para. 7.

<sup>34</sup> Art. 17 (4) Vienna Drug Trafficking Convention (emphasis added).

<sup>35</sup> As has been pointed out, 'this designation must be transmitted to the Secretary-General, who will notify all the participating States. This essential contact information, including addresses, telephone and facsimile numbers, and hours of operation, is published by the United Nations and updated on a periodic basis'; see Vienna Commentary (n. 3) at 335. See in this respect UN, *Competent National Authorities under the International Drug Control Treaties* (1995), at 89. It is also worth noting that a Practical Guide on this matter was published by UNODC in 2003 (hereinafter 'Practical Guide').

<sup>36</sup> See report of the case and extensive commentary in W Gilmore, 'Drug Trafficking at Sea: The Case of *R v Charrington and Others*' (2000) 49 *International and Comparative Law Quarterly* 477. The failure of the prosecution in this case prompted the Commissioners of Customs and Excise to commission an independent inquiry into this operation and its aftermath; see Inquiry into HM Customs and Excise Aspects of the *Simon de Danser* case: Report by Sir Gerald Hosker KCB QC (1999).

of Malta, that is, the designated authority under the laws of Malta for Article 17 (7) purposes, was unable to produce evidence to the satisfaction of the Court that such contact had been made. This judgment demonstrates how significant the written form of the authorization is for reasons of legal certainty and due process.

Article 17 is primarily concerned with making detailed provisions for procedures designed to allow State parties to exercise enforcement jurisdiction on the basis of flag State consent. Nevertheless, this Article hinges its application and effectiveness upon the existence of the respective prescriptive jurisdiction, which is the function of Article 4. This Article, the scope of which is confined to the most serious international drug trafficking offences specified in Article 3, commences by requiring State parties to establish jurisdiction over any such offences committed in its territory or on board its vessels. Interestingly, however, in spite of precedents,<sup>37</sup> the Vienna Drug Trafficking Convention fails to require the States to establish jurisdiction over offences committed by their nationals<sup>38</sup> as well as over the offences committed on board a vessel concerning which that State has been authorized to take appropriate measures pursuant to Article 17 (3). The assertion of legislative jurisdiction in these cases was made an option under Article 4 (1) (b) (i) and (ii) and it is reported that relatively few States have established such jurisdiction.<sup>39</sup> As a result, there could be a case where a State party will be authorized to seize the suspect vessel on the high seas by the flag State, yet it will lack the requisite jurisdiction to seize the cargo and try the offenders in its courts. Undoubtedly, this lack of mandatory establishment of jurisdiction undermines the effective application of Article 17.

In addition, neither the latter provision, nor Article 4 address the issue of which State's jurisdiction would apply in the case of the boarding of a vessel of another State party. What can be logically inferred from Article 17 (4), which requires the explicit authorization of the flag State for all the relevant measures, is that it is the flag State which enjoys primary jurisdiction. Nevertheless, it may delegate the relevant jurisdictional competence to the boarding State, which assumes concurrent jurisdiction over the persons and the cargo on board. It is regrettable, however, that while concurrent claims to jurisdiction will inevitably arise within this context, and Vienna Drug Trafficking Convention does not seek to solve the problem of what priority to give to such competing assertions.<sup>40</sup>

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<sup>37</sup> See eg Art. 6 (1) (c) of SUA Convention 1988; Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (Rome, adopted 10 March 1988, entered into force 1 March 1992) 1678 UNTS 221, IMO Doc. SUA/CONF/15, reprinted in (1988) 27 *ILM* 672.

<sup>38</sup> The decision to make this ground optional stemmed from a fundamental difference between common law and civil law States about whether nationality should be a sufficient ground to establish jurisdiction; see UN Doc. E/Conf.82/c.1/SR.18, at 7–12. See also DW Sproule and P St-Denis, 'The UN Drug Trafficking Convention: An Ambitious Step' (1990) XXVIII *Canadian Ybk Intl L* 263, at 275.

<sup>39</sup> See Vienna Commentary (n. 3), at 107.

<sup>40</sup> See Vienna Commentary (n. 3), at 101.

### 15.2.3 The 1995 Council of Europe Agreement

The shortcomings of the Vienna Drug Trafficking Convention were in the regional context to a certain extent mitigated by the 1995 Council of Europe Agreement (hereinafter the '1995 CoE Agreement').<sup>41</sup> Article 17 (9) of the Vienna Drug Trafficking Convention calls for the establishment of bilateral and regional arrangements to enhance the effectiveness of the provisions of Article 17. Such an arrangement is the 1995 CoE Agreement that supplements and strengthens the relevant treaty framework in the European context, consisting, besides the Vienna Drugs Convention, of few bilateral treaties.<sup>42</sup> The final 1995 CoE Agreement is intimately connected to the 1988 Convention, since Article 17 and other relevant provisions acted as a constant frame of reference for the drafters.<sup>43</sup>

As a result, following Article 17, parties to the 1995 CoE Agreement undertake to cooperate to the fullest extent possible to interdict narcotics trafficking at sea. Action towards this end is envisaged in respect of private and commercial vessels located beyond the territorial sea of any State<sup>44</sup> and includes the right of visit of vessels flying the flag of another State party, which has given its explicit authorization to this end. It was agreed from the outset that, as with the Vienna Drug Trafficking Convention, action of this kind would be firmly based on the concept of authorization of the flag State, as well as that there is no obligation for a flag State to respond affirmatively to a request for authorization.<sup>45</sup>

While the 1995 CoE Agreement draws significantly from the paradigm of the Vienna Drug Trafficking Convention, its merit lies not only in that it addresses some of the already observed weaknesses of the latter Convention, but also in that it espouses practices, which are more prevalent in the realm of bilateral agreements. Firstly, it is of great practical significance that it requires rather than merely

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<sup>41</sup> 1995 Council of Europe Agreement on Illicit Traffic by Sea, implementing Art. 17 of the UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, *European Treaty Series* No. 156. The Agreement entered into force on 1 May 2000 and as at 13 Mar. 2015, it had 15 States parties. <<http://conventions.coe.int/Treaty/Commun/ChercheSig.asp?NT=156&CM=8&DF=13/03/2015&CL=ENG>>. For the associated official Explanatory Report see Council of Europe Document CDPC (94) 22, Addendum of 27 June 1995 <<http://conventions.coe.int/Treaty/en/Reports/Html/156.htm>> (hereinafter '1995 Explanatory Report').

<sup>42</sup> See for further information on the negotiation W Gilmore, 'Narcotics Interdiction at Sea: The 1995 CoE Agreement' (1995) 20 *Marine Policy* 3.

<sup>43</sup> Because of the fact that this Agreement is implementing Art. 17 of the Vienna Drug Trafficking Convention, it was accepted from the outset that, for example, solutions, which were contrary to the letter or spirit of the Vienna Drug Trafficking Convention, would not be acceptable. In addition, it was decided to limit the possibility of becoming a party to the instrument to those member States of the Council of Europe, which have ratified the Vienna Drug Trafficking Convention (Art. 27).

<sup>44</sup> As the 1995 Explanatory Report (n. 41) notes, at 25: 'this would include the high seas, the contiguous zone and the EEZ within the meaning of the Montego Bay Convention and customary international law . . . '.

<sup>45</sup> See also Art. 17 of the 1995 CoE Agreement.

permits, as does the Vienna Drug Trafficking Convention, the extension of prescriptive criminal jurisdiction to relevant offences taking place on board both the flag vessels of other parties and stateless ships.<sup>46</sup> Especially with respect to vessels without nationality, it is worth recalling that Article 17 (2) of the Vienna Drug Trafficking Convention only makes provision for States to request assistance in suppressing the use of such vessels in illicit traffic without making any reference to legislative jurisdiction in this regard. Conversely, Article 3 (3) of the Agreement requires each participating State ‘to take such measures as may be necessary to establish its jurisdiction over the relevant offences on board a vessel without nationality’.<sup>47</sup>

Furthermore, it is certainly noteworthy that while as a consequence of the approach adopted in Article 3 the boarding State and the flag State will possess concurrent jurisdiction over the relevant offences, it was decided even within the Pompidou Group to follow the approach adopted in some bilateral treaties, that is in such circumstances the rights of the flag State should be accorded priority.<sup>48</sup> Hence, the so-called ‘preferential jurisdiction’ was recognized, which in the words of Article 1 (b) means that ‘in relation to a flag State . . . the right to exercise its jurisdiction on a priority basis, to the exclusion of the exercise of the other State’s jurisdiction over the offence’.<sup>49</sup>

In the European context, there is also an inter-governmental working group or taskforce comprising seven EU Member States: Spain, France, Ireland, Italy, the Netherlands, Portugal, and the UK, which is called Maritime Analysis and Operation Centre—Narcotics (MAOC-N) and aims to tackle maritime drug smuggling in Europe.<sup>50</sup> The mission of MAOC-N is to enhance intelligence and coordinate police action on the high seas, with a view to intercepting vessels carrying cocaine and cannabis. Naval and law-enforcement bodies (police, customs) participate in MAOC-N, although the latter leads the operations. This notwithstanding, there is no standing treaty giving boarding powers to Member States, while MAOC-N falls short of being an international organization *per se*.

#### 15.2.4 The 2003 Caribbean Agreement

Another regional arrangement to be regarded is the Agreement Concerning Co-operation in Suppressing Illicit Maritime and Air Trafficking in Narcotic Drugs and Psychotropic Substances in the Caribbean Area, concluded on 10 April

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<sup>46</sup> See Art. 3 of the 1995 CoE Agreement and the Explanatory Report (n. 41).

<sup>47</sup> See the pertinent remarks in Gilmore, ‘the 1995 CoE Agreement’ (n. 42) at 5; and Vienna Commentary (n. 3) at 110.

<sup>48</sup> See eg the terms of the 1990 Agreement between Italy and Spain (Art. 4 para. 2).

<sup>49</sup> See Art. 14 and Commentary in 1995 Explanatory Report (n. 41) at 34.

<sup>50</sup> See further information at <<http://www.emcdda.europa.eu/about/partners/maoc>> accessed on 4 October 2013.

2003, at San José, Costa Rica and entered into force on 18 September 2008.<sup>51</sup> This Agreement may be said to have emerged from the extensive practical experience of the States and territories of the region, which has also materialized in an extensive network of bilateral agreements in respect of drug trafficking. In addition, it has been significantly influenced by the special geographical circumstances of the Caribbean basin. It is observed that the existence, for example, of a series of navigational 'choke' points has a direct relevance to the increased drug trafficking in the region as well as to the difficulties that law enforcement operations face therein.

This Agreement, like the 1995 CoE Agreement in the European region, purports to enhance the effectiveness of Article 17 of the Vienna Drug Trafficking Convention in the Caribbean basin; however, it is far more innovative and ambitious than the latter, since it is based less on the Vienna Drug Trafficking Convention and more on the bilateral arrangements already in place in the region. Accordingly, this instrument contains detailed provisions concerning law enforcement operations of all State Parties in and over the territorial waters of the contracting States (Arts 11–15); a zone of coastal State sovereignty beyond the *ratione loci* reach both of the Vienna Drug Trafficking Convention and of the 1995 CoE Agreement.<sup>52</sup> It directly addresses issues arising in illicit trafficking by air and regulates in some detail assistance by aircraft for the suppression of illicit traffic in zones of coastal State jurisdiction, issues on which the aforementioned treaties are largely silent. By virtue of Articles 11 and 13 (6), however, the previous authorization of the coastal State is a prerequisite for such operations, which, in any event, are subject to the authority of the coastal State and should be carried out by, or under the direction of, its law enforcement authorities.<sup>53</sup>

Another innovative feature, which has been directly drawn from the bilateral treaties, is the already discussed 'ship-rider' institution, that is, each Party is required to designate law enforcement officials to embark on the vessels of other Parties in order to facilitate the timely provision of authorizations and the exercise of relevant national law enforcement powers within zones of jurisdiction of the former Party (Art. 9). Under this provision, such law enforcement officials, when duly authorized, may enforce the laws of the designating Party both in the waters of that Party or seaward of such waters, 'in the exercise of the right of hot pursuit or

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<sup>51</sup> The text and a short commentary is found in Gilmore, 'Caribbean Agreement' (n. 9). As at 5 June 2012, parties to the Agreement have been Belize, Costa Rica, Dominican Republic, France, Guatemala, Netherlands, Nicaragua, and the US. Signatures subject to ratification: Haiti, Honduras, UK; see at <<http://www.minbuza.nl/en/key-topics/treaties/search-the-treaty-database/2003/4/010467.html>> accessed on 4 October 2013. See also A Roach and R Smith, *Excessive Maritime Claims* (3rd edn, Martinus Nijhoff, 2012), Appendix 16 [hereinafter: Roach, Appendix].

<sup>52</sup> Art. 1 (h) of the Agreement defines 'waters of a Party' to mean the territorial sea and archipelagic waters of that Party. Importantly Nonetheless, Art. 15 provides a Party with the option of extending the application of the Agreement to some or all of its internal waters.

<sup>53</sup> See Gilmore, 'Caribbean Agreement' (n. 9) at 23.

otherwise in accordance with international law', such as in the proper exercise of contiguous zone jurisdiction. In addition, they may authorize the entry of the vessel on which they are embarked into the territorial sea of the designating Party and authorize the conduct of counter-drug patrols and boarding of suspect vessels therein. Given the obvious complexity of such arrangements from a formal legal perspective, Article 9 (4) clarifies that when enforcement action is conducted pursuant to the authority of the embarked law enforcement officials, any search, seizure, detention, or use of force shall be carried out by such officials.<sup>54</sup>

Furthermore, even in relation to subject areas common to the 1995 CoE Agreement or the Vienna Drug Trafficking Convention, namely the authorization to visit suspect vessels on the high seas, the Caribbean Agreement significantly departs from the latter treaties. In stark contrast to the requirement of explicit authorization prior to the visit of a vessel of another State Party, Article 16 of the Agreement under scrutiny stipulates that 'when law enforcement officials of one Party encounter a suspect vessel claiming the nationality of another Party located seaward of any State's territorial sea, this Agreement constitutes the authorization by the claimed flag State Party to board and search the suspect vessel, its cargo and question the persons found on board . . .'.<sup>55</sup> In other words, the ratification by the flag State of the Agreement itself constitutes henceforth an *a priori* and *ipso facto* authorization for every case of boarding on the high seas. This certainly enjoys the merit of expediency and efficiency, since there is no need for the intervening State to contact the flag State and request authorization prior to boarding, which might jeopardize the success of the operation in case of a delayed response, taking also into account the operational problems posed by the use of so-called 'go-fast' boats.<sup>56</sup> This is also in keeping with the overall philosophy of flexibility and practicality reflected in the text as a whole.<sup>57</sup>

Although this *a priori* authorization is the rule, the parties, mindful of the fact that such a radical departure from past multilateral treaty might pose policy, legal, or other difficulties for some States, provided in the Agreement for two additional alternatives: State Parties can either opt for the express authorization model of the Vienna Drug Trafficking Convention (Art. 16 (2)), or the implied or tacit authorization model (Art. 16 (3)). Under the paragraph 3 option, authorization is deemed to have been granted by the flag State if there is no response to an oral

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<sup>54</sup> Gilmore, 'Caribbean Agreement' (n. 9) at 21.

<sup>55</sup> See Art. 16 (1). The term 'suspect vessel' is defined in Art. 1 (l) as 'any vessel in respect of which there are reasonable grounds to suspect that it is engaged in illicit traffic', which is in conformity with the standards of Art. 110 of UNCLOS and Art. 17 of the Vienna Drug Trafficking Convention.

<sup>56</sup> For the same reasons of time efficiency, the States Parties are requested in Art. 6 to respond within four hours to incoming requests with regard to the verification of nationality of a vessel. Moreover, each request could be conveyed orally and later confirmed by written communication; cf. also 1995 CoE Agreement.

<sup>57</sup> See Gilmore, 'Caribbean Agreement' (n. 9) at 28.

request for verification of the nationality or the requested Party can neither confirm nor deny nationality within the four hour time frame envisaged in Article 6 (4).<sup>58</sup> Both options are available to State parties upon signing or ratifying the Agreement or any time thereafter by notifying the Depositary (Costa Rica); a notification that can be withdrawn at any time.<sup>59</sup> It is also of relevance to note here that the boarding and search of a suspect vessel under Article 16 'is governed by the laws of the boarding Party' (para. 8).

Like the 1995 CoE Agreement, Article 24 makes clear that in all cases of vessels subject to law enforcement operations seaward of the territorial sea, the flag State retains what is designated as 'primary' or 'preferential' jurisdiction over the detained vessel, cargo and the persons on board. When, however, the vessels are detained in the territorial waters of a State party, the coastal State has primary jurisdiction. Given that it is preferential and not exclusive, the flag or the coastal State respectively may waive the jurisdiction in favour of the intervening Party. A prerequisite to this would be that both States have prescriptive jurisdiction in respect of the relevant offences. In contemplation of this, Article 23, similarly to the 1995 CoE Agreement and contrary to the Vienna Drug Trafficking Convention, provides for the compulsory establishment of jurisdiction in respect of offences on own flag vessels, on vessels without nationality and on board the vessels of other Parties when located seaward of the territorial sea of any State. Given the mandatory nature of these jurisdictional provisions, all Parties should ensure that the relevant legislation would apply in all of the above circumstances.

### 15.2.5 The 2008 CARICOM Maritime Agreement

In the same region, that is, the Caribbean basin, the Caribbean Community (CARICOM) Member States decided in 2008 to have an all-encompassing maritime security agreement.<sup>60</sup> The 2008 CARICOM Agreement, which has been already discussed in relation to maritime terrorism and piracy, differs from the 2003 Caribbean Agreement both in its *ratione materiae* and *ratione personae* scope: on the one hand, it aims at addressing a series of threats to maritime security, including drug trafficking, and it is not restricted to the latter activity; on the other, it is open only to the Member States of the Caribbean Community and not to third States, such as the US and the UK.<sup>61</sup> In any case, it is characteristic that the first

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<sup>58</sup> See also relevant comments in N Klein, *Maritime Security and the Law of the Sea* (Oxford University Press, 2011), at 137.

<sup>59</sup> See Art. 16 (2) and (3), and relevant analysis in Gilmore, 'Caribbean Agreement' (n. 9) at 30.

<sup>60</sup> CARICOM Maritime and Airspace Security Cooperation Agreement, signed at Bolans, Antigua and Barbuda on 4 July 2008; available at <[http://www.caricom.org/jsp/secretariat/legal\\_instruments/agreement\\_maritime\\_airspace\\_security\\_cooperation.pdf](http://www.caricom.org/jsp/secretariat/legal_instruments/agreement_maritime_airspace_security_cooperation.pdf)>.

<sup>61</sup> None of the States that have signed or ratified the 2008 CARICOM Agreement are signatory States of the 2003 Caribbean Agreement.



‘threat to the security of a State party or to the region’ recognized by the CARICOM Agreement is ‘illicit trafficking in narcotic drugs, psychotropic substances . . . ’ which evidences how significant is the problem of drug trafficking in the region.

In terms of the measures that the parties to the CARICOM Agreement may adopt to counter drug trafficking, the following comments are in order: as far as the interception operations on the high seas are concerned, Article IX of the CARICOM Agreement appears more conservative than the 2003 Agreement, in the sense that it permits the exercise of the right of visit and search as well as the subsequent detention of the vessel, the cargo, and the crew only upon the flag State’s authorization (Art. IX paras 1 and 2). This authorization may be express or be tacit, that is, if two hours after the initial request the flag State has not responded (para. 3). Such request ‘may be conveyed orally but shall later be confirmed by written communication’ (Art. V). It also includes the ‘presumptive or provisional flag State authorisation’ model in paragraph 3. In contrast, Article 16 of the 2003 Caribbean Agreements sets forth the a priori authorization model and only alternatively the express authorization or the deemed or authorization. Another difference between the two Agreements lies in the fact that the CARICOM Agreement provides for a short time window, that is, two hours after the initial request, for the deemed authorization in comparison with four hours, which is the rule in the Caribbean Agreement.

With regard to the jurisdiction over the provisionally detained vessel, cargo, and crew, Article XI does not depart from the rule of the flag State’s preferential jurisdiction; however, the flag State may decide to waive its primary right to exert jurisdiction and authorize the enforcement of another State party’s law against the vessel, cargo, or persons on board (Art. XI para. 2). What seems missing in the Convention is the lack of any requirement for parties to assert their legislative jurisdiction over the respective crimes. However, it is true that the object of this Agreement is to facilitate the cooperation between the contracting States rather than to criminalize certain behaviour.

As regards operations within coastal States’ territorial waters, Article VIII provides expressly in para. 1 that

[t]his Agreement constitutes permission by each State party for any other State party to conduct law enforcement operations in the waters of the first-mentioned State party to address any activity likely to compromise the security of the Region or of any other State party, where a) on notification of the proposed operation, permission is granted; or b) authorized pursuant to paragraph 3(e) of Article XI . . .

In para 2, the said Article stipulates that

[n]otwithstanding paragraph 1, during the course of a routine patrol in the waters of a State party . . . the Security Force Officials engaged in the patrol may, in the

waters of the State party, conduct such law enforcement operations as may be necessary to address any activity likely to compromise the security of the Region or of any State party, where a) a suspect vessel detected in international waters enters the waters of the State party and i) no Security Force Official of that State is embarked on the Security Force vessel . . . ii) no Security Force vessel of that State party is in the immediate vicinity to investigate and iii) notice is given to the competent authority of that Party . . . and b) a suspect vessel is detected within the waters of that State party . . .

While paragraph 1 of Article VIII seems innovative, providing that any State party may exercise interception operations against drug trafficking vessels within another party's waters, should the latter or one of its designated Security Force Official give their permission, this is not the case. These interception operations would again be contingent upon the permission of the coastal State or its officials. On the contrary, paragraph 2 is far more interesting, since it incorporates both the reverse hot pursuit model and the entry-to-investigate model, which are common in numerous relevant bilateral treaties.

### **15.3 Bilateral Treaty-Law Bases for Interdiction of Drug Trafficking Vessels**

There is an array of bilateral agreements, which include the right to visit foreign-flagged vessels suspected of illicit traffic in narcotic drugs on the high seas as well as in the territorial seas of the State Parties. The US and many States in the Central and South American continent have concluded the majority of them. In general, they mirror rather the recent Caribbean Agreement or the CARICOM Agreement than the Vienna Drug Trafficking Convention or the 1995 CoE Agreement. They are noticeably flexible and practical, which, on the one hand, has considerable merits, while on the other, might create certain hazards for legal certainty and the rule of law in the oceans. This corresponds to their bilateral nature, that enables the negotiating Parties to circumvent many of the procedural hurdles that unavoidably arise in a multilateral process when more than two jurisdictions are involved.

#### **15.3.1 The 1981 US–UK Agreement**

In 1981, the UK and the US signed an Exchange of Notes concerning Co-operation in the Suppression of Unlawful Importation of Narcotic Drugs into the United States.<sup>62</sup> This Exchange of Notes permits the US authorities to board private British vessels on the high seas in the Gulf of Mexico, the Caribbean Sea, a portion of the Atlantic Ocean, and all other areas within 150 miles of the Eastern

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<sup>62</sup> UKTS (1982); Cmnd. 8470 (hereinafter the 'US–UK Agreement'). For commentary See J Siddle, 'Anglo-American Cooperation in the Suppression of Drug Smuggling' (1982) 31 *ICLQ* 726.

seaboard to search for drugs destined for unlawful importation into the United States. If drugs are found on board, the vessel may be seized and taken to the US where the vessel is liable to forfeiture and the crew to stand trial.<sup>63</sup>

It should be noted, from the outset that it is an 'unequal' or non-reciprocal agreement, since the right to visit is ascribed only to US vessels and not to both State Parties.<sup>64</sup> To emphasize the unique character of such a treaty as well as the 'special relationship' between the two State Parties in this regard, in a letter accompanying their Note, the Government of the UK asserted that 'they do not consider that this Exchange of Notes should be regarded as setting a precedent for the conclusion of any further agreement affecting the freedom of passage of British ships on the high seas'.<sup>65</sup>

Another unique feature of this Treaty is that it restricts its *ratione loci* scope to a certain geographical area by virtue of paragraph 9 of Note No. 1. This is not found in other bilateral or multilateral treaties of this nature, which apply generally on the high seas; nevertheless, as it is rightly observed, the 'agreement gives the US Coast Guard a very wide amount of latitude in the performance of its tasks'.<sup>66</sup> It may be fitting to note here that there has been a case, where this *ratione loci* scope was expanded in defiance of the text of the agreement, which reflects exactly what was underscored at the outset, namely the flexibility or practicality, yet also the legal uncertainty that surrounds such arrangements.<sup>67</sup> Another interesting point in this regard is that neither in paragraph 1 nor in paragraph 9 is any mention made of the high seas or maritime zones of third States. Hence, the boardings can take place on the high seas and within the various EEZs and contiguous zones of third States in the region.<sup>68</sup>

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<sup>63</sup> Noteworthy here is that this treaty is reminiscent of the old Convention between the UK and the US respecting the Regulation of the Liquor Traffic (1924), which dealt in a similar fashion with an exceptional situation; see (1924) *UKTS* 22.

<sup>64</sup> It is worth quoting Siddle (n. 62) in this respect, who observes: 'there is no *quid pro quo* for the new agreement, beyond the satisfaction for the British Government that it is protecting the good name of the British flag and cooperating in the suppression of a trade which is part of a universal problem': at 726.

<sup>65</sup> Siddle (n. 62) at 740.

<sup>66</sup> Siddle (n. 62) at 739.

<sup>67</sup> Reference is made to the arrest of the UK sailing vessel *The Myth of Ecurie* in June 1987 on the high seas off the coast of California whilst en route from Hong Kong to San Francisco, resulting in the case of *US v Biermann*. As Judge Legge pointed out 'in this case the Coast Guard did request the consent of the UK to board the vessel and in its reply telex the United Kingdom gave its consent under the terms and conditions of the 1981 Agreement'; see *US v Biermann*, 678 F. Supp. (1988), 1437. This arrest and the subsequent reply of the UK authorities were palpably beyond the area stipulated in para. 9. See also Gilmore, 'Narcotics Interdiction at Sea' (n. 6) at 226.

<sup>68</sup> It is put forward by Gilmore that, 'given the prior consent of the coastal State in question there would appear to be nothing to prevent the Agreement constituting a sufficient basis for the US boarding of a UK vessel within the territorial waters of a third State': 'Narcotics Interdiction at Sea' (n. 6) at 224. Indeed, on the face of the agreement, that will not create any problem; however, the legal basis for the boarding here would not only be the US-UK Agreement, but also, concurrently, the consent of the coastal State granted ad hoc or prior with a relevant treaty.

The Agreement states that the UK ‘will not object’ to the exercise of the right of visit by the US on board the latter vessels, ‘in any case in which those authorities reasonably believe that the vessel has on board a cargo of drugs for importation into the United States in violation of the laws of the United States’. In providing that the UK ‘will not object’ to the boarding, it actually signifies that there is no need for any prior positive permission or authorization by the flag State, which is also found, for example, in the Caribbean Agreement, albeit not in such negative formulation. The condition is the existence of ‘reasonable belief’ that the vessel is engaged in illicit drug trafficking, which is in keeping with the pertinent provisions of the Vienna Drug Trafficking Convention and of the UNCLOS in general.<sup>69</sup>

Apart from ‘reasonable belief’, an additional requirement for the application of the relevant provision is that the US Coast Guard takes the necessary steps to establish that ‘an offence against the law of the United States relative to the importation of narcotic drugs is being committed’. Accordingly, the Notes under scrutiny presuppose that the US has already asserted legislative jurisdiction in relation to such offences, which would enable the US courts to exert the corresponding enforcement jurisdiction. Assuming that all these requirements are satisfied, the US authorities are entitled to forfeit the vessel and its cargo as well as to prosecute the persons found on board having committed the relevant offences. The sole exception is that the UK may, within fourteen days of a vessel’s entry into port, object to the continued exercise of US jurisdiction over the vessel.

### 15.3.2 Caribbean Bilateral Treaties

In addition to these US–UK Agreements, the US has concluded a number of bilateral agreements with neighbouring States in the Caribbean region as well as generally in Central and South America.<sup>70</sup> According to the latest International Narcotics Control Strategy Report (March 2013), ‘There are 45 maritime counterdrug bilateral agreements or operational procedures in place between the United States and partner nations’.<sup>71</sup> The US has concluded agreements with the following countries in the region: Antigua Barbuda, the Bahamas, Barbados, Belize, Colombia, Cook Islands, Costa Rica, Dominica, Dominican Republic, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Panama, St. Kitts and Nevis, St. Lucia, St. Vincent and Grenadines, Suriname, Trinidad and

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<sup>69</sup> Cf. the case of *US v Reeh*, for example, which arose out of the seizure of the Cayman registered *Jim Hawkins* in January 1982, Circuit Judge Vance held that ‘[t]he agreements standard of “reasonable belief” appears quite similar, if not identical, to the “reasonable suspicion” standard of US law’, see *US v Reeh* 780 F 2d (1986), 1541.

<sup>70</sup> A list of United States Maritime Law Enforcement Agreements is included in Roach, Appendix.

<sup>71</sup> See International Narcotics Control Strategy Report (Vol. I 2013), at 42; available at <<http://www.state.gov/documents/organization/204265.pdf>>.

Tobago, and Venezuela. There is also an agreement with the UK and eight Memoranda of Understanding and Operational Procedures with other States having overseas territories in the region, such as the Netherlands or Belgium.<sup>72</sup>

Moreover, the US has concluded a counter-narcotics agreement with Malta,<sup>73</sup> a major flag State, as well as three operational agreements for aerial counter-narcotic activities. Finally, it must be mentioned that the US has entered into a series of ship-rider and ship-boarding agreements with States in Africa and the Pacific Ocean concerning cooperation to suppress illicit transnational maritime activity in general, including drug trafficking.<sup>74</sup> It goes beyond of the scope of the chapter to discuss in detail these agreements; suffice it to say that they are subject to the same legal framework applicable to all relevant bilateral arrangements.

The majority of the aforementioned bilateral treaties provide for 'ship-rider' law enforcement personnel and for interdictions in either party's territorial waters. This bilateral network of counter-drug interdiction agreements has culminated, as was noted above, mainly in the 2003 Caribbean Agreement and, partially, in the 2008 CARICOM Agreement, which build upon these treaties and have adopted many of their common characteristics.

Firstly and as far as the right of visit is concerned, the treaties in question include two of the three options set forth in the pertinent Article of the Caribbean Agreement, namely, prior or automatic authorization and tacit or implied authorization.<sup>75</sup> On the one hand, the US–Haiti and US–Costa Rica Agreements exemplify the first model, that is, they provide automatic consent to boarding where

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<sup>72</sup> See eg Memorandum of Understanding between the Government of the United States of America and the Government of the Kingdom of Belgium concerning the deployment of United States Coast Guard Law Enforcement Detachments on Belgian Navy vessels in the waters of the Caribbean Sea, signed at Washington 1 March 2001; available at Roach, Appendix.

<sup>73</sup> See Agreement between the Government of the United States of America and the Government of the Republic of Malta concerning cooperation to suppress illicit traffic in narcotic substances and psychotropic substances by sea, signed at Valletta 16 June 2004; entered into force 24 January 2008. TIAS 08-110, available at <<http://www.state.gov/documents/organization/108878.pdf> and /178588.pdf>.

<sup>74</sup> See eg Agreement between the Government of the United States of America and the Government of the Republic of Senegal Concerning Operational Cooperation to Suppress Illicit Transnational Maritime Activity [shiprider and shipboarding], signed at Dakar 29 April 2011; entered into force 29 April 2011; TIAS 11-429; available at <<http://www.state.gov/documents/organization/169471.pdf> and /184719.pdf> and Cooperative Shiprider Agreement between the Government of the United States of America and the Government of the Republic of Palau to support ongoing regional maritime security efforts, effected by an exchange of notes on 5 and 8 March 2008; entered into force 20 March 2008, TIAS 08-320, available at <<http://www.state.gov/documents/organization/108937.pdf> and /177848.pdf>.

<sup>75</sup> See Art. 16 of the 2003 Caribbean Agreement. It should be mentioned that Art. 3 of the US–Jamaican Agreement of 1997, before being amended in 2004, provided for the express authorization model. According to the 2004 Protocol, the authorization may be presumed after three hours from the initial request; Protocol signed at Kingston 6 February 2004; entered into force 6 February 2004; 2004 *U.S.T. LEXIS* 1.

boarding officials act upon reasonable suspicion.<sup>76</sup> On the other hand, the US–Guatemala agreement is typical in providing for either actual or presumed consent to boarding flag vessels.<sup>77</sup> Under the agreements with Colombia,<sup>78</sup> or Barbados<sup>79</sup> consent may be presumed after three hours. This deemed or tacit authorization only arises, however, if there is no response to the request, while the flag State maintains, in principle, the right to refute the boarding.

As regards the assertion of jurisdiction over the illicit cargo and the drug traffickers on board the interdicted vessel, there is also no uniform practice. Some agreements, such as the US–Haiti Agreement,<sup>80</sup> provide for the preferential jurisdiction of the flag State similarly to the 1995 CoE Agreement. Others reverse the presumption against the flag State jurisdiction setting forth that only the US may waive its jurisdiction and authorize the enforcement of foreign law against its flag vessel.<sup>81</sup>

In general, the agreements under scrutiny usually take the form of a four-part or six-part model. The six-part model includes ‘a) ship boarding, b) entry-to-investigate, c) over flight, d) ship rider, e) pursuit and f) order-to-land’,<sup>82</sup> while the four-part model excludes airborne provisions.<sup>83</sup> Obviously, of paramount importance in the application of these agreements is the right to enter in territorial waters and the ship-rider element. As was stated above, these are prevalent in this context mainly due to the geographic conditions of the area, which require very close cooperation between the interested parties in order to suppress effectively the drug

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<sup>76</sup> See Art. 5 of the Agreement between the US and Costa Rica Concerning Cooperation to Suppress Illicit Traffic, 1998, as amended by the Protocol signed at San Jose 2 July 1999 and entered into force on 19 November 1999.

<sup>77</sup> While consent must be requested, ‘[i]f there is no response . . . within two (2) hours . . . the requesting Party will be deemed to have been authorized to board the suspect vessel for the purpose of inspecting . . . documents, questioning the persons on board, and searching the vessel to determine if it is engaged in illicit traffic’; see Art. 7 (3) (d) of the Agreement between the US and Guatemala Concerning Cooperation to Suppress Illicit Traffic in Narcotic Drugs and Psychotropic Substances by Sea and Air, 19 June 2003.

<sup>78</sup> See Art. 8 of the Agreement between the US and Colombia to Suppress Illicit traffic by Sea, 1997, signed at Bogota 20 February 1997; entered into force 20 February 1997. TIAS 12835.

<sup>79</sup> See Art. 14 of the Agreement between Barbados and the US Concerning Cooperation in Suppressing Illicit Maritime Drug Trafficking, 1997, 1997 *U.S.T. LEXIS* 5.

<sup>80</sup> The Agreement provides that where illicit traffic is uncovered US officials may detain persons and cargo ‘pending expeditious disposition instructions’; from Haiti, which retains ‘the primary right to exercise jurisdiction’ over detained vessels, cargoes and persons but may waive it to ‘authorize the enforcement of US law against the vessel’ (Arts 14 and 16).

<sup>81</sup> See eg Art. 10 of the Agreement between the US and Nicaragua Concerning Cooperation to Suppress Illicit Traffic by Sea and Air, (2001); 2001 *U.S.T. LEXIS* 63.

<sup>82</sup> See J Kramek, ‘Bilateral Maritime Counter-Drug and Immigrant Interdiction Agreements: Is this the World of the Future?’ (2000) 31 *Univ Miami Inter Am Law Rev* 121, 133.

<sup>83</sup> See relevant analysis and relevant chart (valid as of 1999) with the categorization of the agreements to the respective models in Kramek (n. 82), at 150. See also L Davis-Mattis, ‘International Drug Trafficking and the Law of the Sea’ (2000) 14 *Ocean Yearbook* 381.

smuggling.<sup>84</sup> Thus, for example, the Agreement between US and Trinidad and Tobago stipulates that qualified authorized officers called ‘ship-riders’ of the latter State may board a United States vessel for the purpose of authorizing the US Coast Guard to pursue a vessel that is fleeing into Trinidad and Tobago waters as well as to conduct counter-drug patrols in Trinidad and Tobago waters.<sup>85</sup> They may also enforce the laws of Trinidad and Tobago within that State’s waters or seaward in the exercise of the right of hot pursuit or otherwise in accordance with the international law.<sup>86</sup> In summary, the agreements under scrutiny:

enable the Parties to maximise their cooperation by enabling them to make the most efficient use of their law enforcement resources. Scarce patrol units, which have high operating costs, are able to respond immediately, or as the tactical situation dictates, without the need to await authorisations sought on a case-by-case basis through lengthy diplomatic channels.<sup>87</sup>

These agreements, based upon the consent of the States involved, are designed to surmount the legal obstacles that State sovereignty usually places to such operations and guarantee the maximum effectiveness in suppressing drug trafficking. Nonetheless, on the one hand, they are conspicuously unequal, in the sense that they are drawn with the purpose mainly of facilitating the US counter-drug policy and on the other; they may appear problematic in relation to the position of third States.

### 15.3.3 Spain–Italy Treaty

Finally, in the European region, there is also a relevant bilateral instrument, that is, the Treaty between Spain and Italy on the Suppression of the Illicit Traffic in Drugs at Sea (23 March 1990).<sup>88</sup> In particular, this treaty includes mutual recognition of a right of interdiction that is exercisable outside the territorial waters by each of the Parties with respect to ships flying the other Party’s flag. There is no need for prior authorization from the flag State; thus, the treaty itself operates as the requisite

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<sup>84</sup> According to Kramek (n. 82) at 134, ‘the use of ship-riders is sometimes more attractive to nations that do not wish to grant the US Coast Guard blanket consent to enter their territorial seas or board their vessels on the high seas’. See also M Williams, ‘Caribbean Shiprider Agreements’ (2000) 31 *Univ Miami Inter Am Law Rev* 163.

<sup>85</sup> In this Agreement ‘waters’ means the territorial sea, archipelagic waters, and internal waters, and the airspace over such waters; see para. 3 of the Agreement between the US and Trinidad and Tobago concerning maritime counter-drug operations, signed at Port of Spain 4 March 1996; *TIAS* 12732.

<sup>86</sup> See also, inter alia, the Agreements with the eastern Caribbean States, Antigua and Barbuda, St Kitts and Nevis, Dominica, Grenada, St. Lucia, and St. Vincent and the Grenadines. For analysis see Davis-Mattis (n. 83), at 382. On the high seas, however, the authority is granted by the ship-boarding element rather than by the ship-rider.

<sup>87</sup> Williams (n. 84), at 195.

<sup>88</sup> The treaty is in force since 7 May 1994. See a short commentary in VC Gualde, ‘Suppression of the Illicit Traffic in Narcotic Drugs and Psychotropic Substances on the High Seas: Spanish Case Law’ (1996) 4 *Spanish Ybk Intl L* 91, 97.

legal basis for the exercise of the right to visit on the high seas.<sup>89</sup> Furthermore, concerning the Parties' jurisdiction in actions relating to the illicit traffic of drugs on board vessels, the treaty establishes the obligation of the State Parties to make such offences punishable under their domestic laws, even though, as in the 1995 CoE Agreement, the preferential jurisdiction of the flag State is recognized. Nevertheless, the boarding Party may request the flag State to renounce its preferential jurisdiction pursuant to Article 6 (1) of the Treaty. The latter provides in the next paragraph that the flag State shall 'take into consideration, among other criteria, the place of seizure, the conditions under which evidence was obtained, any correlation between proceedings, the nationality of those involved and their place of residence'.<sup>90</sup> Lastly, in 1994 Spain concluded a broadly similar treaty with Portugal, though it provides for reciprocal right of interdiction only where 'circumstances prevent . . . prior [flag State] authorization being obtained in a timely manner'.<sup>91</sup>

## 15.4 Customary Law Bases for Interdiction of Drug Trafficking Vessels

In the previous section there was a thorough scrutiny of the treaty-based exceptions to the exclusivity of the flag-State jurisdiction on the high seas with regard to drug trafficking. Can general international law offer additional justifications for such operations? In more detail, this enquiry is twofold: firstly, is there any customary rule that permits the right to visit of drug smuggling vessels on the high seas and secondly, can the secondary rules of State responsibility provide such basis?

### 15.4.1 Is there any separate customary basis for interdiction?

As far as the first question is concerned, it can be argued that there is a customary obligation to cooperate in the suppression of drug trafficking on the high seas, which is drawn from the relevant provision of UNCLOS (Art. 108) and of the Vienna Drug Trafficking Convention (Art. 17 (1) and (2)). These treaties of universal participation may have crystallized or generated a posteriori a corresponding rule of customary law.<sup>92</sup> Nevertheless, this would be an obligation of conduct, that is, to cooperate in this respect, which might entail the obligation not to

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<sup>89</sup> See Art. 5 (1).

<sup>90</sup> See Art. 6 (2) of the Treaty. It may be fitting to note here that the flag State has a period of 60 days, instead of 14 days according to the 1995 CoE Agreement, from receipt of the request to notify its decision, on the understanding that failure to answer within this period indicates waiver of the jurisdiction.

<sup>91</sup> See Practical Guide (n. 35) at 157.

<sup>92</sup> See the decision of the ICJ in the *North Sea Continental Shelf Cases (Federal Republic of Germany v Denmark; Federal Republic of Germany v Netherlands)* [1969] ICJ Reports para. 71.



unjustifiably refuse to correspond to the request for authorization by another State, but it would be quite different from the obligation to grant permission to all other States to board suspect vessels on the high seas. Such an obligation or conversely, such a right to visit without the express consent of the flag State is not accorded even in the context of the Vienna Drug Trafficking Convention; *a fortiori*, it cannot be accorded respectively in the realm of customary international law.

Having said that, it has been questioned whether there could be a regional custom emanating from the network of the Caribbean agreements to this effect.<sup>93</sup> Guilfoyle rightly concludes that

given the diversity of options and the language of individual treaties, it would clearly be a mistake to suggest that any regional custom has emerged. The treaties usually contain a provision formally requiring express consent but stating that such consent is provided by the treaty. This negates any claim that general rights exists, independent of treaty and absent express consent, to conduct such pursuits.<sup>94</sup>

It could be added that the treaties in question lack this norm-creating character that it would be requisite, according to the *North Sea Continental Shelf* cases, to generate such customary norm.

#### 15.4.2 Secondary rules as excuses for interdiction

Furthermore, it is questioned whether secondary rules or circumstances precluding wrongfulness could be invoked *in ultima ratio* to justify the infringement of a primary rule of international law, such as the exclusivity of the flag State jurisdiction on the high seas. It goes without saying that the circumstances of self-defence, *force majeure* or distress are of no relevance to the present context.<sup>95</sup> Similarly, the plea of necessity, which under certain circumstances could be invoked in the terrorism context, seems to be devoid of any merit in respect of drug trafficking. It is not only that the boarding of suspect vessels on the high seas must be the 'only way' available to safeguard the protected interest, which might be identified as the public health and social order,<sup>96</sup> but also that it is only when this interest is threatened by a grave and imminent peril that this condition is satisfied.<sup>97</sup> It would be rather

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<sup>93</sup> For regional custom see *Right of Passage Case* (Merits) [1960] ICJ Reports 6, 39–43.

<sup>94</sup> D Guilfoyle, *Shipping Interdiction and the Law of the Sea* (Cambridge University Press, 2009) 94.

<sup>95</sup> See Arts 21, 23, and 24 of the ILC Articles on Responsibility of States for Internationally Wrongful Acts with Commentaries in *Yearbook of the International Law Commission* (2001- II), Part Two (hereinafter: ARSIWA).

<sup>96</sup> The plea is excluded if there are other (otherwise lawful) means available, even if they may be more costly or less convenient. Thus, in the *Gabcikovo-Nagymaros* case, the Court was not convinced that the unilateral suspension and abandonment of the Project was the only course open in the circumstances, having regard in particular to the amount of work already done and the money expended on it, and the possibility of remedying any problems by other means: *Gabcikovo-Nagymaros Project* (Hungary/Slovakia), Judgment, [1997] ICJ Reports para. 55.

<sup>97</sup> See Commentary to ILC Articles in *Yearbook of the International Law Commission* (2001- II), Part Two, at 83 (hereinafter 'ILC Articles Commentary').

difficult for the interdiction of a vessel suspected of illicit traffic in narcotic drugs on the high seas to fulfil either of these requirements. Firstly, the shipments of narcotic drugs would fall short of qualifying as an exceptional threat, since they do not usually run randomly and exceptionally, but rather have a regular and systematic pattern. Also, the relevant traffic could not be designated as an imminent peril to the interests of the State, as the effect to public health is not direct or automatic. In addition, it can be maintained that the interdiction of these shipments on the high seas is not the only way to safeguard the interests in question, since there are other lawful means of achieving the same result: namely, to interdict the shipments in the contiguous zone or in the territorial waters of the consumer State.<sup>98</sup>

The same conclusion can be drawn in relation to countermeasures, which are taken by the 'injured State' against the State responsible for the internationally wrongful act in question.<sup>99</sup> The vexed question in this regard is whether the rules concerning drug trafficking entail rights attributed individually to States, which can thus be considered *qua* 'injured States'. It is true that the rules under scrutiny purport, on the one hand, to regulate and criminalize the relevant offences<sup>100</sup> and on the other, as far as the law of the sea is concerned, to establish the cooperation of flag States in the suppression of this traffic on the high seas.<sup>101</sup> These rules set out only obligations of conduct rather than of result; ergo, to establish their breach becomes a difficult task. This could arise only exceptionally, when, arguably, the wrongdoer repetitively displayed non-cooperation in this regard vis-à-vis a particular State, which was specifically affected by this conduct. More importantly, however, they fall short of providing for a synallagmatic or reciprocal type of obligation against a particular State, and thus it is difficult to identify the injured State, which would be entitled to take countermeasures.

In theory, however, it could be maintained that the obligations under scrutiny are *erga omnes partes*, that is, owed to all State parties of UNCLOS or Vienna Drugs Convention or *erga omnes*, that is, owed to the international community as a whole and therefore collective countermeasures could arguably be plausible.<sup>102</sup> However, neither the UNCLOS nor the Vienna Drugs Convention is the classical type of 'integral' treaties or treaties established for the collective interest, whose

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<sup>98</sup> Nonetheless, it cannot be a priori excluded that in a single and isolated case of a great shipment of drugs, the interdiction on the high seas, would be, under the circumstances prevailing at the time, the only available way to safeguard the society from the destructive effects of the drugs.

<sup>99</sup> See Arts 49 *et seq.* ARSIWA.

<sup>100</sup> It should be noted here that there is no formal obligation to criminalize the use of drugs within the UN Conventions; rather the possession with the purpose of trafficking is to be criminalized; see B de Ruyver, *Multidisciplinary Drug Policies and the UN Drug Treaties* (Maklu, 2002) 15.

<sup>101</sup> See Arts 108 of UNCLOS and Art. 17 (1) of the Vienna Drug Trafficking Convention.

<sup>102</sup> Cf. Art. 54 of ARSIWA which leaves open the question of 'collective countermeasures'.

infringement would involve the collective action of all the State parties.<sup>103</sup> In addition, as the law stands, it would be rather difficult to hold the argument that the prohibition of drug trafficking has attained the status of an obligation *erga omnes* or *jus cogens*, which, in international criminal law context, arguably reflects crimes of universal jurisdiction.<sup>104</sup> Drug trafficking is not widely recognized as a crime of such nature. In the light of the foregoing, it seems unlikely that the plea of countermeasures could afford a legal justification for the interdiction of drug smuggling vessels on the high seas.

Contrary to the above-mentioned circumstances precluding wrongfulness, 'consent' is of relevance and of extreme practical importance. Indeed, the practice of obtaining the consent of the master of the vessel ('consensual boarding') and later of the flag State in order to interdict the suspect vessels and subsequently exert enforcement jurisdiction, that is, seize the illicit cargo and arrest the traffickers has been very common especially in the Caribbean region and before the network of bilateral agreements was developed.<sup>105</sup> The ad hoc consent of the flag State could be legally characterized under the veil of both primary rules of international law, namely *qua* treaties, and of secondary rules of state responsibility, namely *qua* 'consent' (Art. 20 of the ARSIWA).<sup>106</sup> Such was the case in the *Medvedyev* case before the European Court of Human Rights,<sup>107</sup> where the basis for the interdiction of the Cambodian-flagged *Winner*, was a Note Verbale from the Cambodian Minister of Foreign Affairs after a request of authorization by France, namely an ad hoc accord according to the Court.

There are cases where it is not clear whether these arrangements contain both the legal bases for the boarding of the vessel and for the assertion of enforcement jurisdiction. Usually, they would contain the requisite consent for the boarding in question and they would be silent over the matter of the jurisdiction over the vessel and over the offenders. Nevertheless, it would often be the case that the injured State would not react to this assertion of enforcement jurisdiction, which, in theory, would qualify as a unilateral act of waiver of rights or acquiescence.<sup>108</sup> It

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<sup>103</sup> See in this regard Art. 48 of ARSIWA. See also the recent use of the term 'obligations *erga omnes partes*' with regard to the prohibition against torture included in the 1984 Convention against Torture by the ICJ in *Questions relating to the Obligation to Prosecute or Extradite (Belgium v Senegal)* Judgment of 20 July 2012; para. 69.

<sup>104</sup> See eg the ICTY Trial Chamber in *Furundžija*, Trial Chamber II, Judgment of 10 December 1998 (case No IT-95-17/1-T), para. 156.

<sup>105</sup> See the USCG, *Guide to the Law of Boarding Operations* (June 2008) (on file with the author). Courts have upheld jurisdiction where the USCG boarded first with master's consent and obtained flag State consent later; see eg *United States v Khan*, 35 F.3d 426, 430 (9th Cir. 1994).

<sup>106</sup> See ARSIWA Commentary, at 72.

<sup>107</sup> *Medvedyev et al v France*, Judgment of 29 March 2010 (Grand Chamber, Application No 3394/03) and commentary in E Papastavridis, 'ECHR, *Medvedyev v France*' (2010) 59 *ICLQ* 867–82.

<sup>108</sup> See I Brownlie, *Principles of Public International Law* (7th edn, Oxford University Press, 2008) 641.

would also result in the loss of the right of the injured State to invoke responsibility, provided that it has 'validly acquiesced in the lapse of the claim'.<sup>109</sup>

With regard to the requirement of a jurisdictional nexus over interdicted vessels, the previous discussion in relation to the stateless vessels is pertinent also here.

It is significant, first, to draw a distinction between the types of jurisdiction for which this nexus is arguably required. In cases where the flag State has consented via a 'treaty or other arrangement' to the enforcement jurisdiction, the nexus in question is requisite for the assertion of prescriptive jurisdiction in this regard. The relevant laws should be sufficiently precise and accessible to persons under the jurisdiction of the State, as was emphatically posited in the *Medvedyev* judgment,<sup>110</sup> which pertained to such ad hoc arrangements.

Conversely, when the flag State has only given consent to board and not to the further assertion of jurisdiction, then in principle jurisdictional priority is afforded to the flag State and not to the boarding State. Consequently, the boarding State should, for example, first, contact the flag State and inquire whether it is willing to enforce its jurisdiction and then, if the latter declines to do so, confiscate the cargo and prosecute the offenders. However, at this particular stage, it should be scrutinized whether there is any jurisdictional nexus between the alleged offences and the requesting State, which is a prerequisite for the assertion of both legislative and enforcement jurisdiction in this regard. Also, valid jurisdictional claims by third States, such as from the States of the nationality of the offenders, might exist simultaneously.<sup>111</sup>

## 15.5 Concluding Remarks

The problem of the illicit trade and use of narcotic drugs has aptly been considered as especially detrimental to the social fabric and to the public health of nations. The fact that the oceans are extensively used for drug trafficking has reasonably given rise to forceful claims for interference with such vessels on the high seas. In consequence, various treaties, such as the Vienna Drug Trafficking Convention and the Caribbean bilateral agreements have provided for the right of visit in this respect. Furthermore, States may invoke further legal justifications for interference in the present context: besides the 'no-nationality' ground of Article 110 of UNCLOS, the circumstances precluding wrongfulness may occasionally apply.

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<sup>109</sup> See: Art. 45 of the ARSIWA and Commentary, at 121. The International Court of Justice endorsed the principle that a State may by acquiescence lose its right to invoke responsibility in *Certain Phosphate Lands in Nauru, Preliminary Objections (Nauru v Australia)*, Judgment, [1992] ICJ Reports para. 32.

<sup>110</sup> See *Medvedyev* case (n. 107), para. 100.

<sup>111</sup> See eg the *MV Hermann* case, US Dept. of State, Digest of US Practice in International Law, 1989–90 (Kluwer, 2003) at 452–6.

Amongst them, the ad hoc consent of the States is most commonly used. In any case, it is the question of jurisdiction over the related drug crime that poses the most significant hurdles in both the legislative and the judicial practice. The case of *Medvedyev* before the European Court of Human Rights corroborated the perils enshrined in the concept of jurisdiction under international law.

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## THE HUMAN ELEMENT OF MARITIME CRIME

STOWAWAYS, HUMAN TRAFFICKING,  
AND MIGRANT SMUGGLING

*Patricia Mallia*

### 16.1 Maritime Security and Irregular People Flows

The contemporary understanding of maritime security goes beyond direct threats to national sovereignty. It has expanded significantly, thus placing a greater demand on the enforcement capacity of States and presenting a challenge which each State cannot counter alone.<sup>1</sup> Uncontrolled movements of people, particularly, through migrant smuggling and (where international borders are crossed) trafficking in individuals, may be included in this group of threats to maritime security constituting threats to national sovereignty and to political and economic stability, aside from causing major disruption to national immigration policies and to the international protection framework as a whole.

Today's security climate is typified by an increasing readiness of coastal States to exercise jurisdiction beyond their maritime zones. Apparent in various Conventions is the gradual extension of State jurisdiction. This evidences a new impetus in international lawmaking which further develops the concept of cooperation as the only tool by which current security threats can be effectively countered.<sup>2</sup> Combating the transnational crimes of people smuggling and trafficking of individuals however, presents a challenge somewhat different to the fight against drug smuggling by sea, for instance. It compels States to consider principles other than mere

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<sup>1</sup> See for example, UNGA, 'Oceans and the Law of the Sea' (12 March 2010) A/RES/64/71.

<sup>2</sup> S Kaye, 'Freedom of Security in a Post 9/11 World: Security and Creeping Jurisdiction' in D Freestone, R Barnes, and D Ong (eds), *The Law of the Sea: Progress and Prospects* (Oxford University Press, 2006) 347–64.

policing and interdiction since at the core of the illicit activity lie *persons* on the move, therefore requiring consideration of issues of human welfare and dignity:

Discourses that include refugees and irregular migrants together with terrorists, saboteurs and drug traffickers as wholly undesirable, or categorise them merely as 'a problem' and 'a threat', ignore the complexities of the issue. It is not even accurate to regard people who are travelling on the high seas as having an 'illegal migrant' status. Until they cross into another state's jurisdiction, they are subject to the jurisdiction of the state of their own citizenship and of the boat's registration, and only become 'illegal' by definition of the receiving state's controls.<sup>3</sup>

Therefore, precisely because human beings are involved, any response to these crimes must be focused on ensuring the protection of the trafficked or smuggled individual or stowaway. In this light, enforcement action against such threats must be built around human rights foundations. Responses must adopt a human-rights based approach, and not merely consider such principles as an addendum to the main response framework. The 'human element' is thus central to the repression of these crimes invoking respect for humanitarian and human rights considerations.

In its 1998 Note on International Protection, the United Nations High Commissioner for Refugees (UNHCR) noted the difficulties faced by States all too clearly:

States face considerable challenges as they try and reconcile their obligations under the [Refugee] Convention with problems raised by the mixed nature of migratory movements, misuse of the asylum system, increasing costs, the growth in smuggling and trafficking of people, and the struggle to manifest international solidarity to resolve the refugee situation.<sup>4</sup>

At the same time, States have security interests to protect and are entitled to take any action in accordance with international law, which will minimize the risk caused thereby. At once therefore, one confronts a number of increasingly pressing questions: How strong can a State's border control be without infringing on human rights? How much protection can an immigrant be given without this impinging on the socio-economic fabric of society?<sup>5</sup>

A number of problems surround these considerations. Firstly, international human rights law does not address the crucial aspect of the *implementation* of the right to leave one's country. Coupled with this, most reactions to people flows have been unilateral or at best, regional in nature. To date, States have been unable to address the concept effectively in the international context. Furthermore, the current legal regime as regulated by the United Nations Convention on the Law of the Sea 1982

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<sup>3</sup> M Pugh, 'Europe's Boat People: Maritime Cooperation in the Mediterranean', Institute for Security Studies, Western European Union, Paris (July 2000, Chaillot paper 41) 9.

<sup>4</sup> UNHCR, 'Note on International Protection' (3 July 1998) A/AC.96/898, para. 1.

<sup>5</sup> UNHCR, 'Note on International Protection' (13 September 2001) A/AC.96/951, para. 11.

(UNCLOS)<sup>6</sup> does not adequately cater for many of the current threats which plague the coastal State for the simple reason that '[t]he framers of the Convention never envisaged many of the crimes that exist today, and as a result either included only a general provision or none at all regarding their suppression'.<sup>7</sup> Of course, vessels may be boarded in pursuance of the right of self-defence, or when authorized by the United Nations Security Council. However, on the high seas, save for a few exceptions, such as piracy and the slave trade, unauthorized broadcasting<sup>8</sup> and the exercising of jurisdiction over stateless vessels,<sup>9</sup> maritime interdiction or interception must be accompanied by flag State consent.<sup>10</sup>

This paper will seek to give an overview of the legal regime relevant to stowaways, migrant smuggling and trafficking in individuals. While the human element is a common thread which runs throughout all these, the latter two offences share a much closer connection since they constitute the subject of two of the three Protocols to the United Nations Convention against Transnational Organized Crime 2000 (CATOC).<sup>11</sup> This link will be reflected in this contribution. Similarly, while certain elements are common to all three offences, others, such as rescue at sea and the problems of disembarkation, are more imminent and difficult to solve in cases of smuggling and trafficking, as shall be noted below. Consequently, the regime relating to stowaways shall be dealt with first, and the duties of States with regard to rescue at sea and State rights and powers under the law of the sea regime will be discussed in relation to migrant smuggling and trafficking in individuals. This joint consideration also reflects the IMO's approach to dealing with these forms of organized crime, the focus being on combating unsafe practices associated with the trafficking or transport of migrants by sea.

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<sup>6</sup> United Nations Convention on the Law of the Sea (Montego Bay, opened for signature 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3; 21 *ILM* 1261 (UNCLOS).

<sup>7</sup> Oceans: The Source of Life, United Nations Convention on the Law of the Sea, 20th Anniversary (1982–2002), 8.

<sup>8</sup> In these scenarios, the right of visit applies as per Art. 110 of the UNCLOS. See generally: Telegram from the US Department of State, September 15, 1990, reported in M Pickering, S Cummins, and D Stewart (eds), *Digest of United States Practice in International Law 1989–1990* (Office of the Legal Advisor, United States Department of State International Law Institute, Washington, DC, 1989–1990) 451–2; Model Maritime Operations Guide, Pattern of Enforcement Activity of US Coast Guard as delineated in United States Coast Guard, Department of Homeland Security, 2003, 2–17.

<sup>9</sup> See *Naim Molvan v Attorney-General for Palestine* (The *Asya* [1948] AC 351, AD 1948, Case No. 37214).

<sup>10</sup> In this regard note IMO MSC/Circ. 1133 Reminder of the Obligation to Notify Flag States when Exercising Control and Compliance Measures (14 December 2004) and MSC.1/Circ. 1191 Further Reminder of the Obligation to Notify Flag States when Exercising Control and Compliance Measures (30 May 2006).

<sup>11</sup> United Nations Convention on Transnational Organized Crime (Palermo, adopted 15 November 2000, entered into force 29 September 2003) 40 *ILM* 335 (CATOC).



## 16.2 Stowaways

It is the IMO which has spearheaded efforts with respect to the allocation of responsibility to enable the successful resolution of cases involving stowaways.<sup>12</sup> With the International Convention relating to Stowaways 1957 (Brussels Convention 1957)<sup>13</sup> not having come into force, it is the Convention on the Facilitation of International Maritime Traffic 1965 (FAL Convention)<sup>14</sup> which has provided the legal regime regulating stowaways since 2002. In 2000, the IMO's Facilitation (FAL) Committee agreed at its 28th session to introduce these provisions, consisting of both 'standards' and 'recommended practices'.<sup>15</sup> To this end, Resolution FAL.7(29) was adopted at the 29th Session of the FAL Committee which introduced a new Section 4 to the Annex of the FAL Convention, entering into force on 1 May 2003.

The provisions thereby introduced were heavily based upon an earlier IMO Assembly Resolution adopted on 27 November 1997, entitled 'Guidelines on the Allocation of Responsibilities to See the Successful Resolution of Stowaway Cases'.<sup>16</sup> However, it was later noted that 'the parallel existence of the Guidelines and the FAL provisions on stowaways raised questions in relation to the procedures to be followed for dealing with stowaways by Member States which are also Contracting Governments to the FAL Convention'.<sup>17</sup> The need was therefore felt to align these provisions and update them in a manner which reflected developments in the area. The Guidelines were consequently reviewed by the FAL and Maritime Safety Committees (MSC) with the result that the 'Revised Guidelines on the Prevention of Access by Stowaways and the Allocation of Responsibilities to seek the Successful Resolution of Stowaway Cases' were adopted by the MSC in December 2010.<sup>18</sup> The FAL Committee adopted these Guidelines in September of the following year.<sup>19</sup> Presently, these revised guidelines only apply in the case of

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<sup>12</sup> A 'stowaway' is defined in the FAL Convention and Revised Guidelines as '[a] person who is secreted on a ship, or in cargo which is subsequently loaded on the ship, without the consent of the ship-owner or the master or any other responsible person and who is detected on board the ship after it has departed from a port, or in the cargo while unloading it in the port of arrival, and is reported as a stowaway by the master to the appropriate authorities'. An 'attempted stowaway' is 'detected before the ship has left the port'. (FAL Convention, Annex, Section 1).

<sup>13</sup> International Convention relating to Stowaways (Brussels, 10 October 1957) (Brussels Convention 1957).

<sup>14</sup> Convention on the Facilitation of International Maritime Traffic (London, adopted 9 April 1965, entered into force 5 March 1967) 591 UNTS 265; 4 *ILM* 502 (FAL Convention).

<sup>15</sup> 'Standards' are defined as internationally-agreed measures which are 'necessary and practicable in order to facilitate international maritime traffic'; 'recommended practices' are measures whose application is 'desirable'.

<sup>16</sup> A.871(20).

<sup>17</sup> A 26/Res.1027 (18 January 2010) and MSC.312(88) (2 December 2010).

<sup>18</sup> MSC.312(88), 2 December 2010.

<sup>19</sup> FAL 11(37), 9 September 2011.

Member States which are not parties to the FAL Convention and also, to those Member States which, although parties to the Convention, have made notifications to the Secretary-General of the IMO in accordance with Article VIII(1) and Article VIII(3).

The Revised Guidelines contain the same basic principles as their predecessor. Indeed, the concern as to the serious consequences of incidents involving stowaways remains the same, being: 'the consequent potential for disruption of maritime traffic, the impact such incidents may have on the safe and secure operation of ships and the considerable risks faced by stowaways, including loss of life'. Similarly, there is the recognition of the difficulty in resolving stowaway cases due to the number of States which are potentially involved in any one incident. A reading of the Revised Guidelines and also of the relevant provisions of the FAL Convention shows that the regime is characterized by two main elements, namely: the duty of cooperation in the prevention and expeditious resolution of stowaway incidents and repatriation or return of stowaways, and the necessity of humane treatment to all stowaways.

The duty of cooperation is fast becoming a fulcrum upon which rests any attempt to prevent and suppress threats to maritime security, among other issues of a transnational nature. The regulation and resolution of stowaway incidents is no exception, as noted in Article 4.2 of the Annex to the FAL Convention<sup>20</sup> wherein it is stated that all stakeholders (including Masters, ship-owners, public authorities, port authorities, those providing security services ashore) 'have a responsibility to cooperate to the fullest extent possible in order to prevent stowaway incidents and to resolve stowaway cases expeditiously and secure that an early return or repatriation of the stowaway will take place. Furthermore, all appropriate measures are to be taken in order to avoid situations where stowaways must stay on board ships indefinitely'.<sup>21</sup> This notion of 'shared responsibility' has been described as the 'core provision' of the Section dealing with stowaways in the FAL Convention's Annex.<sup>22</sup>

Also central to the resolution of stowaway incidents is the human treatment of stowaways, whether or not they also qualify as asylum seekers. Indeed, the provisions of Section 4 of the Annex are to be applied 'in accordance with international protection principles as set out in international instruments'.<sup>23</sup> The Article refers to the Refugee Convention 1951 and Protocol as

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<sup>20</sup> The same provision is found in Art. 1.1 of the Revised Guidelines; see also: Revised Guidelines, Arts 3.1–3.5.

<sup>21</sup> Latter necessity reiterated in Revised Guidelines Art. 3.8.

<sup>22</sup> Explanatory Memorandum to the Convention on Facilitation of International Maritime Traffic, 1965, as amended. FAL.3/Circ.202 (11 October 2010) Annex, 48.

<sup>23</sup> FAL Convention, Annex, 4.1; See also: Revised Guidelines, 3.1 and 3.7.

examples.<sup>24</sup> Others are clearly also relevant, as is noted in the Explanatory Memorandum, which mentions for example, relevant provisions of the International Covenant on Civil and Political Rights 1966 (ICCPR)<sup>25</sup> and the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment 1984.<sup>26</sup>

Following Section B on Preventive Measures, the 'Treatment of the Stowaway on Board' is covered in relative detail. Aside from the necessity of treating the stowaway in accordance with humanitarian principles (4.4.1), there is also imposed the responsibility placed upon shipmasters to 'take appropriate measures to ensure the security, general health, welfare and safety of the stowaway while he/she is on board, including providing him/her with adequate provisioning, accommodation, proper medical attention and sanitary facilities' (4.4.2). Consideration is also given to the need for the shipmaster to treat as confidential any declaration of intent to seek asylum on the part of the stowaway (4.6.3). Stowaway asylum seekers have also been the subject of an UNHCR ExCom Conclusion<sup>27</sup> recommending inter alia that:

Without prejudice to any responsibilities of the flag State, stowaway asylum-seekers should, whenever possible, be allowed to disembark at the first port of call and given the opportunity of having their refugee status determined by the authorities, provided that this does not necessarily imply durable solution in the country of the port of disembarkation.

Irrespective of whether or not the stowaway declares his intention to lodge an asylum claim, he is to be treated in accordance with human rights protection principles. Linked to this is that 'every effort should be made to avoid situations where a stowaway has to be detained on board a ship indefinitely. In this regard States should co-operate with the ship-owner in arranging the disembarkation of a stowaway to an appropriate State'.<sup>28</sup>

It is recognized that 'obtaining agreement as to where a stowaway asylum-seekers should disembark is . . . no simple task'<sup>29</sup> and that, 'as a result of disagreement between States over which of them is responsible for admitting the stowaway asylum-seeker, so-called orbit situations are created. In several such situations,

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<sup>24</sup> Refugee Convention (Geneva, adopted 28 July 1951, entered into force 22 April 1954) 189 UNTS 137 (Refugee Convention) and Refugee Protocol (Geneva, adopted 31 January 1967, entered into force 4 October 1967) 606 UNTS 267 (Refugee Protocol).

<sup>25</sup> International Covenant on Civil and Political Rights (New York, adopted 16 December 1966, entered into force 23 March 1976) GA Res. 2200A (XXI), 21 UN GAOR Supp (No 16) at 52, UN Doc A/6316 (1966); 999 UNTS 171; 6 *ILM* 368 (ICCPR).

<sup>26</sup> Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (New York, adopted 10 December 1984, entered into force 26 June 1987) GA Res. 39/46, annex, 39 UN GAOR Supp (No 51) at 197, UN Doc A/39/51 (1984); 1465 UNTS 85.

<sup>27</sup> UNHCR ExCom Conclusion No. 53 (XXXIX)–1988.

<sup>28</sup> Revised Guidelines 3.8; FAL Convention 4.2.

<sup>29</sup> UNHCR Note on Stowaway Asylum-Seekers EC/ECP/51 (22 July 1988) para. 2.

stowaway asylum-seekers have been confined for many weeks and even months on board ships travelling from one port to another'.<sup>30</sup>

Disembarkation is one of the thorniest issues currently taking centre stage in the context of rescue at sea scenarios generally. As shall be discussed, the international legal regime in this area does not adequately present a clear default State of disembarkation. In the case of stowaways however, the situation is provided for with more specificity, presumably owing to the lower numbers involved.<sup>31</sup> The FAL Convention presents a comprehensive outline of stages in determining what to do about stowaways found on board a vessel. The Explanatory Memorandum explains as follows:

The question of expeditious disembarkation of stowaways is one of the most important regarding a solution to stowaway cases. It falls to the ship-owner to secure the repatriation of the stowaway, but it will often be necessary for this to happen in close co-operation with the parties involved, mainly the authorities in the first port of call after the stowaway has been detected . . . The standards concerning the obligation to allow disembarkation are primarily aimed at the authorities in the first scheduled port of call after the stowaway has been detected. If disembarkation in the first scheduled port of call however does not happen, the subsequent ports of call also have a corresponding obligation.<sup>32</sup>

Further ports are called upon when it comes to the return of stowaways, such as the State of Nationality or Residence of the stowaway and the State of Embarkation.<sup>33</sup> All these duties are to be read in the light of the core provision section 4.2 regarding shared responsibility of all the parties involved. While the duty of cooperation and shared responsibility is also a hallmark of efforts to combat human smuggling and the trafficking in individuals, relevant documentation emphasizes the necessity to avoid confusion between cases involving stowaways and cases of human smuggling, the prevention of which should be sought through different methods.<sup>34</sup> Indeed, Resolution MSC.312(88) by which the Revised Guidelines

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<sup>30</sup> UNHCR Note on Stowaway Asylum-Seekers EC/ECP/51 (22 July 1988) para. 3.

<sup>31</sup> In 1998 the FAL Committee issued Circular FAL.2/Circ.50, revised in 1999 by FAL.2/Circ.50.Rev.1, inviting Governments and relevant international organizations to provide the IMO with information relating to stowaway incidents. The latest report at the time of writing is FAL.2/Circ.124 (16 December 2011) reporting the total number of stowaway incidents from 1 May to 16 December 2011 to be 56 incidents, involving 166 stowaways. The total number of incidents reported to the IMO from January 1998 to December 2011 is 4,196, involving 13,387 stowaways. By contrast, the statistics provided for incidents resulting from unsafe practices associated with the trafficking or transport of migrants by sea for the same period of time (May to December 2011) is 103 incidents, involving 12,661 migrants. Ref: MSC.3/Circ.20 (16 December 2011). The total number of such incidents reported to the IMO from 1998 to the end of 2011 is 1879 incidents involving 87,114 migrants. There is also the consideration that while most stowaways will be detected by authorities at some point during their irregular journey, a significant portion of the migrant population who attempt to reach land in unseaworthy vessels perish during their journey.

<sup>32</sup> See FAL Convention Annex, 4.9 and 4.10. The Revised Guidelines follow the same pattern, ref: 3.9 and 3.10.

<sup>33</sup> FAL Convention Annex, 4.11 and 4.12.

<sup>34</sup> Ref: FAL 28/19 (8 November 2009) para. 10.6. See also FAL 28/INF.13 and MSC.312(88).

were adopted by the MSC makes clear that the existence of the Guidelines is in no way to undermine efforts to combat the 'separate problems of alien smuggling or human trafficking'.

Stowaways and the group presently referred to as irregular migrants and trafficked individuals comprise two different categories of individuals. While human rights violations must be prevented in both, especially due to the mode of travel which is both surreptitious and dangerous, their consequent vulnerability, and the possibility that asylum claims be made by members of either category, a basic difference is that while migrants are not to be subject to prosecution for the mere fact of being smuggled,<sup>35</sup> stowaways on the other hand are considered to be 'illegal entrants' once they arrive or enter a State without the required documents.<sup>36</sup> To this end, Standard 4.3.3.1 permits prosecution of stowaways should the individual Member State determine this to be appropriate.

Furthermore, stowaways are not legally considered to be victims of organized crime. The smuggling of migrants and trafficking in individuals are facets of organized crime. The means of their repression must therefore be different. Another stark difference relates to the circumstances surrounding their detection and the consequent question as to which State is to receive the stowaways or migrants/trafficked individuals. Precisely because maritime migrant smuggling or trafficking in individuals often culminates in a rescue scenario or interception exercise, there is an urgency often necessitated by the imminent threat to life with which the individuals are faced. Large numbers of persons are loaded onto vessels which in turn need to disembark these individuals at an appropriate port. Due to the numbers involved and the high incidence of asylum claims made, coupled with a lack of solidarity among States in this regard, disembarkation of those rescued at sea is a grave problem. This is not so apparent in the case of stowaways, where, as has been noted, the FAL Convention succeeds in delineating a number and hierarchical order for States to receive stowaways. Further, there is no need, indeed, there is the exhortation for shipmasters *not* to deviate from the planned voyage in order to seek to disembark stowaways save in three limited circumstances, namely: i) where permission to disembark the stowaway has been granted by the public authorities of the State to whose port the ship deviates; ii) in the case where repatriation has been arranged elsewhere with sufficient documentation and permission for disembarkation; or iii) where there exist extenuating security, health, or compassionate reasons.<sup>37</sup>

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<sup>35</sup> See Art. 5 Smuggling Protocol: migrants are not to become liable to criminal prosecution under the protocol for the fact of being smuggled. Note however that this provision would not stop a State from prosecuting a smuggled migrant for violation of national immigration laws (see Art. 6(4)).

<sup>36</sup> Revised Guidelines 3.6.

<sup>37</sup> FAL Convention, Standard 4.9.

### 16.3 Maritime Migrant Smuggling and Trafficking in Individuals

Both maritime migrant smuggling and trafficking in individuals using sea channels are facets of organized crime and are among the fastest-growing transnational crimes today. Yet, despite this innate connection to maritime affairs, the UNCLOS fails to consider either offence in its provisions.<sup>38</sup> However, aside from the fact that the jurisdictional powers available to States within the various maritime zones do indeed continue to apply insofar as concerns action available for the repression of these crimes, it would be a gross underestimation of the pertaining regulatory regime were one to stop at the jurisdictional powers available under the UNCLOS. What is also needed is a consideration of other aspects of the international legal regime such as rescue at sea (itself an obligation found in the UNCLOS and elaborated upon, despite lack of agreement in interpretation, in the SAR Convention and SOLAS)<sup>39</sup> and also, refugee law and humanitarian principles of protection, mainly, in this regard, the obligation of *non-refoulement*.

The first attempt at a holistic legal regime catering for the crimes of migrant smuggling and trafficking in individuals, was the creation of two Protocols to the CATOC.<sup>40</sup> CATOC defines an organized criminal group for the purposes of the Convention as ‘a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences established in accordance with this Convention, in order to obtain, directly or indirectly, a financial or other material benefit’.<sup>41</sup> Indeed, organized crime groups function like any business: their motivation is profit, and they operate on business-like principles such as taking up market opportunities—the difference being that the markets they exploit are prohibited. All the hallmarks of an organized criminal syndicate, based on a clear hierarchical structure and division of labour, are evident in these crimes. To name but a few of the characteristics,

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<sup>38</sup> The most relevant provision would be Art. 99 dealing with the repression of slavery on the high seas and this due to the nature and conditions of the operations which may be assimilated to modern day slavery. However, this provision is not effective in repressing the crime and therefore is of peripheral importance for immediate purposes.

<sup>39</sup> International Convention for the Safety of Life at Sea, 1974, as amended (London, adopted 1 November 1974, entered into force 1 May 1991) 1184 UNTS 278; 14 *ILM* 959 (SOLAS) and International Convention on Maritime Search and Rescue (Hamburg, adopted 27 April 1979, entered into force 22 June 1985) 1405 UNTS 97 (SAR Convention).

<sup>40</sup> Protocol against the Smuggling of Migrants by Land, Sea and Air, Supplementing the United Nations Convention against Transnational Organized Crime (Palermo, adopted 15 November 2000, entered into force 28 January 2004) 40 *ILM* 384 (Smuggling Protocol) and Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children, Supplementing the United Nations Convention against Transnational Organized Crime (Palermo, adopted 15 November 2000, entered into force 25 December 2003) 40 *ILM* 335 (Trafficking Protocol).

<sup>41</sup> CATOC Art. 2(a).

one finds well-equipped forgery workshops to create the essential travel documents; the ability to modify the syndicate's operations to adapt to changing risks by using different routes, entry schemes, and conveyances; operation centres, accommodations, and hideouts in transit countries; the economic wealth for substantial bribes and the best forms of technology; the contacts and networks required to secure the assistance of corrupt officials; diversification of criminal activities and an ability to use violence to obtain payments from undocumented migrants. Lastly, the inherent difficulty of controlling such crimes due to their transnational nature is exacerbated by the fact that people smuggling and trafficking are usually classed as 'safe crimes': the criminals usually benefit from absent or low criminal sanctions and from the silence of their victims (due to their illegal status, fear of retribution by the criminals, and risk of deportation). Furthermore, they are sometimes aided by official corruption—of local police, border guards, and customs officers.

These Protocols are to be applauded both for the regulatory framework provided and also for their recognition of the human element central to these offences.<sup>42</sup> For instance, in the Smuggling Protocol, the rights and powers of States in the context of interception exercises are staged alongside State obligations as dictated by refugee law. It also presents a regime which works within the recognized system provided by the UNCLOS—avoiding problems of flag State exclusivity on the high seas, not by challenging the general principles of the law of the sea but rather, by working within their parameters. An overview of the salient features of the Protocols follows, to be followed up with a discussion of the problems related to rescue at sea.

### 16.3.1 Trafficking in individuals, especially women and children

'Effective action to suppress the crime of trafficking in individuals requires a comprehensive approach'. This is the opening sentence of the relatively brief Preamble to the Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children, Supplementing the United Nations Convention against Transnational Organized Crime 2000 (Trafficking Protocol).<sup>43</sup> This Protocol, which supplements the CATOC and is to be interpreted together with it,<sup>44</sup> is the first universal instrument to address all aspects of trafficking in persons.<sup>45</sup> The

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<sup>42</sup> Note UNODC, 'A Comprehensive Strategy to Combat Trafficking in Persons and Smuggling of Migrants' (February 2012) 7.

<sup>43</sup> Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children, Supplementing the United Nations Convention against Transnational Organized Crime (Palermo, adopted 15 November 2000, entered in force 25 December 2003) 40 *ILM* 335 (Trafficking Protocol).

<sup>44</sup> Art. 1(1) Trafficking Protocol.

<sup>45</sup> A compilation of relevant League of Nations and United Nations instruments is available at the United Nations Treaty Collection, available online: <<http://treaties.un.org/pages/Treaties.aspx?id=7&subid=A&lang=en>> (accessed 9 October 2012).

statement of purpose, in Article 2, expresses the aims of the Protocol to be three-fold, focusing on prevention of the crime, protection of the victims and promotion of cooperation amongst Parties to achieve these ends.

*16.3.1.1 The crimes compared*

The characteristic features of this form of organized crime are brought out in the definition provided in Article 3(a).<sup>46</sup> It is through this definition that the differentiating factors to migrant smuggling are highlighted. Article 3(a) of the Trafficking Protocol presents the reader with a complex definition involving the acts committed, the means used and the intended purpose and, contrary to the related crime of migrant smuggling, further envisages the use of force, fraud, coercion, or exploitation directed at the individual:

The recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs.

‘Smuggling’ on the other hand is defined in Article 3(a) of the Protocol against the Smuggling of Migrants by Land, Sea and Air, Supplementing the United Nations Convention against Transnational Organized Crime (Smuggling Protocol)<sup>47</sup> as:

The procurement, in order to obtain, directly or indirectly, a financial or other material benefit, of the illegal entry of a person into a State Party of which the person is not a national or a permanent resident.

Migrant smuggling focuses on the facilitation of the illegal crossing of international borders for profit, and the subsequent treatment of the migrants is not a constitutive element of the crime. Indeed, the offence of smuggling ends with the arrival of the migrants at the destination country, while trafficking involves a continuing exploitative relationship in order to generate profits for the traffickers.

Migrants are perceived as willing parties to a transaction; indeed, the offence of smuggling requires the consent of the migrants.<sup>48</sup> On the other hand, a trademark feature of the crime of trafficking includes the improper form of recruitment, through coercion, deception or some abuse of authority, and the element of

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<sup>46</sup> See further A Gallagher, ‘Human Rights and the New UN Protocols on Trafficking and Migrant Smuggling: A Preliminary Analysis’ (2001) 23 *Human Rights Quarterly* 23 984–8.

<sup>47</sup> Protocol against the Smuggling of Migrants by Land, Sea and Air, Supplementing the United Nations Convention against Transnational Organized Crime (Palermo, adopted 15 November 2000, entered into force 28 January 2004) 40 *ILM* 384 (Smuggling Protocol).

<sup>48</sup> See K Abramson, ‘Beyond Consent. Towards Safeguarding Human Rights: Implementing the United Nations Trafficking Protocol’ (2003) *Harvard International Law Journal* 473.



obtaining a profit as a result of an exploitative purpose for which the trafficking was undertaken, although this aim need not necessarily be fulfilled.<sup>49</sup> Trafficked persons have either never given their consent, or if they have, have had their consent vitiated by coercion, deceit, or abusive action on the part of the traffickers. This raises additional human rights concerns for victims of trafficking which concerns may not be present in the case of smuggled migrants.<sup>50</sup>

Aside from the element of coercion, another major difference between these crimes is that, unlike smuggling, the crime of trafficking does not necessitate the crossing of national borders in order to subsist and therefore this offence is not necessarily linked to the concept of international migration. It is in this sense that while the smuggling of migrants could be said to constitute a crime against the State and often involves a mutual interest between the smuggler and the smuggled, trafficking in human beings constitutes a crime against a person and involves an exploitative purpose.<sup>51</sup>

Theory aside, notwithstanding their separate treatment at international law, these offences do share overlapping elements.<sup>52</sup> In many ways, there seems to be a continuum between the more voluntary forms of undocumented migrations and the non-voluntary forms:

The distinction that has been made between trafficked persons and smuggled migrants is evidently a useful one. However . . . such distinctions are less clear on the ground, where there is considerable movement and overlapping between the two categories.<sup>53</sup>

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<sup>49</sup> 'Implementation of the Protocol against the Smuggling of Migrants by Land, Sea and Air, supplementing the United Nations Convention against Transnational Organized Crime, Analytical Report of the Secretariat' (2 September 2005) UN Doc CTOC/COP/2005/4, point 22.

<sup>50</sup> UNGA, 'Note by the Office of the United Nations High Commissioner for Human Rights, the United Nations Children's Fund and the International Organisation for Migration on the draft protocols concerning migrant smuggling and trafficking in persons' (8 February 2000) UN Doc A/AC.254/27, 1–2.

<sup>51</sup> This was the view taken by the European Commission in the Communication from the Commission to the European Council and the European Parliament in the Proposal for a Council Framework decision on Combating Trafficking in Human Beings and on Combating the Sexual Exploitation of Children and Child Pornography, COM (2000) 854, final/2, page 8. This resulted in a Council Framework Decision on Combating Trafficking in Human Beings OJ L203/1 (2002/629/JHA). This is also the view taken by some authors; see, for example: JK Meese et al, 'Multidisciplinary Research on the Phenomenon of Trafficking in Human Beings from an International and National Perspective' quoted in IOM, *Migrant Trafficking and Smuggling in Europe: A Review of the Evidence with case studies from Hungary, Poland and Ukraine* (Geneva, IOM, 2000) 22.

<sup>52</sup> UNHCR, 'Refugee Protection and Migration Control: Perspectives from UNHCR and IOM' Global Consultations on International Protection (31 May 2001) EC/GC/01/11, para. 9; UNODC, 'A Comprehensive Strategy to Combat Trafficking in Persons and Smuggling of Migrants' (29 February 2012) 7. See also: F David, 'Human Smuggling and Trafficking: On Overview of the Response at Federal Level' *Australian Institute of Criminology, Research and Public Policy Series*, No. 24, 10.

<sup>53</sup> Ad-Hoc Committee on the Elaboration of a Convention Against Transnational Organised Crime, Note by the United Nations High Commissioner for Human Rights, the United Nations

There is an assumption that the smuggled migrants have acted voluntarily and that therefore, have less need of protection.<sup>54</sup> Consequently, one notes a strengthened regime relating to border control in the Smuggling Protocol in which the protection measures are in no way as comprehensive as in the Trafficking Protocol. The different treatment accorded to victims of smuggling and victims of trafficking, though theoretically justifiable, does not take into account the difficulties in identification of the respective victims:

The regime created by the two protocols (whereby trafficked persons are accorded greater protection and therefore impose a greater financial and administrative burden on States Parties than smuggled migrants) creates a clear incentive for national authorities to identify irregular migrants as having been smuggled rather than trafficked . . . The possibility of individuals being wrongly identified was not even considered during the drafting process . . . Nor was there any acknowledgement of the fact that someone can be a smuggled migrant one day and a trafficked person the next.<sup>55</sup>

A recognition of this overlap is also evident in international documentation and initiatives.<sup>56</sup> While there is nothing wrong in principle with this approach, it is important not to lose sight of the particularities of the two crimes when framing the appropriate response, whether national, regional, or international.<sup>57</sup>

#### *16.3.1.2 The Trafficking Protocol*

The general tenor of the Trafficking Protocol, aside from the issue of criminalization<sup>58</sup> is focused on assistance and protection of victims, the status of victims in the receiving State and their repatriation.<sup>59</sup> In the Article dealing with the prevention of trafficking in persons, one also notes the reference to 'protection'.<sup>60</sup> From a humanitarian perspective, governments are not to lose sight of the fact that all

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Children's Fund, the United Nations High Commissioner for Refugees, and the International Organization for Migration on the draft protocols concerning migrant smuggling and trafficking in persons, 8 February 2000, UN Doc A/A.254/27, para. 2.

<sup>54</sup> For an overview of the protective provisions in the Migrant Smuggling Protocol and the differences in this regard to the Trafficking Protocol, see Gallagher, 'Human Rights and the New UN Protocols' (n. 46) 997–9.

<sup>55</sup> A Gallagher, 'Trafficking, Smuggling and Human Rights: Tricks and Treaties' (2002) 12 *Forced Migration Review* 27.

<sup>56</sup> See for instance, UNODC, 'Thematic Programme on Action Against Transnational Organized Crime and Illicit Trafficking, including Drug Trafficking sets out its strategic priorities for the period of 2011–2013' (April 2011). This outlines three sub-programmes of UNODC's activities in relation to transnational organized crime. Sub-Programme 3 deals with 'Human Trafficking and Migrant Smuggling'. Furthermore, a new Human Trafficking and Migrant Smuggling section is to be created as a third section under the Organized Crime Branch with full responsibility for implementing this third Sub-Programme.

<sup>57</sup> UNODC, Issue Paper, 'Organized Crime Involvement in Trafficking in Persons and Smuggling of Migrants' (2010) 17.

<sup>58</sup> See Art. 5.

<sup>59</sup> Arts 6–8 Trafficking Protocol.

<sup>60</sup> Art. 9(1) Trafficking Protocol.

individuals deserve treatment in accordance to their inherent dignity as a human being; apart from this, many individuals seeking to cross international borders (whether by way of smuggling or trafficking) are genuine refugees who have the right to protection.

The dangers to nation States however is also clear and because of this, initiatives ought to be taken, in line with international law, in order to minimize the risk to the State. A recognition of this is noted in Article 11(1) wherein border measures are provided for so that 'States Parties shall strengthen, to the extent possible, such border controls as may be necessary to prevent and detect trafficking in persons'. Indeed, it has been argued that despite the mention of the necessity to protect the victims of trafficking and despite the late introduction of the obligation of *non refoulement* in the saving clause found in Article 14,<sup>61</sup> the victim protection measures are in the most part optional and there is 'very little in the way of hard obligation' in this area. Indeed, it has been contended that the focus of the instrument remains the interception of traffickers, not the protection of victims:<sup>62</sup>

The failure of the two protocols to include mandatory protections provides a strong indication that, for many governments, trafficking and smuggling are issues of crime and border control, not human rights.<sup>63</sup>

Indeed, the saving clause was only introduced due to a preoccupation that the border control provisions in the Trafficking Protocol could further limit the rights already available. This may not be surprising seeing that the Protocol is not primarily a human rights instrument and not initiated by a human rights body, but by the UN body charged with dealing with drug control and crime prevention. Furthermore, the fact that much of the border control material was taken from the corresponding provisions in the Migrant Smuggling Protocol may also explain this disproportionality in the balance between the potentially dichotomous interests involved: protection of victims and protection of State sovereignty and security.

Insofar as repression of the crime from the maritime aspect is concerned, trafficking in persons is considered to be a particularly abusive form of migration. Human trafficking is clearly not to be reduced to a migration problem alone, however, for the purposes of this contribution, especially in view of the fact that the Trafficking Protocol does not contain any reference to suppression of illicit trafficking by sea, and bearing in mind the overlap between the two forms of organized crimes outlined above, victims of trafficking are considered only in the context that among

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<sup>61</sup> Art. 14(1) was inserted into the Trafficking Protocol from the Migrant Smuggling Protocol during the First Session of the Ad Hoc Committee; A/AC.254/Add.3/Rev.1, 9–10. The obligation of *non refoulement* was introduced at the final reading of the Protocol, in order to bring it into line with the Migrant Smuggling Protocol. Ref: D McClean, *Transnational Organized Crime: A Commentary on the UN Convention and its Protocols* (Oxford University Press, 2007) 367.

<sup>62</sup> Gallagher, 'Human Rights and the New UN Protocols' (n. 46) 990.

<sup>63</sup> Gallagher, 'Trafficking, Smuggling and Human Rights' (n. 55) 27.

the boatloads of intercepted or rescued vessels carrying individuals through the oceans, trafficked individuals may also be present.<sup>64</sup>

### 16.3.2 Maritime migrant smuggling

A 2011 UNODC Issue Paper<sup>65</sup> underlines the key facts that migrant smuggling by sea is the most dangerous type of smuggling for the migrants concerned<sup>66</sup> and also that efforts to combat this crime will be unsuccessful unless cooperation is strengthened between all the States involved, including that is, countries of departure, arrival, transit, origin, and destination. The benefits of cooperation are recognized in the Smuggling Protocol which (albeit not innovative as far as it requires States Parties to criminalize certain acts in their domestic law, to make them punishable by appropriate sanctions and to subject them to various measures such as extradition and mutual legal assistance)<sup>67</sup> seeks to create a framework for cooperation while ensuring the protection of victims and respect for their inherent rights. In this way, the Migrant Smuggling Protocol is the first instrument of its kind to recognize the multi-faceted nature of migrant smuggling which also calls for protection of fundamental rights of the individual, thereby necessitating consideration of humanitarian principles of protection throughout operations to repress the crime. Aside from the preambular paragraph which echoes the need to 'provide migrants with humane treatment and full protection of their rights', one also finds the general statement of purpose in Article 2 referring to the 'rights of smuggled migrants' and more specifically in the maritime context, Article 9 which provides for safeguard clauses which inter alia provide, in sub-article (1) that the 'safety and human treatment of the persons on board' must be ensured.

The section on migrant smuggling by sea in Part II of the Protocol is particularly valuable as it ties in interception operations under the Protocol with the general rubric of the law of the sea in particular, the UNCLOS provisions of Articles 91, 92, and 94. These latter provisions encapsulate the reigning principle of the high seas: the principle of exclusivity of flag State jurisdiction. In this way, the maritime provisions of the Protocol graft onto the Law of the Sea regime which remains

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<sup>64</sup> See UNHCR, Protection Policy Paper: 'Maritime Interception operations and the processing of international protection claims: legal standards and policy considerations with respect to extraterritorial processing' (November 2010), 8, para. 28. In the context of maritime interception operations and the processing of international protection claims, there may be persons with specific needs who may require special considerations in terms of reception and processing facilities; among these were listed: woman, children, and trafficked persons.

<sup>65</sup> UNODC, Issue Paper: 'Smuggling of Migrants by Sea' (November 2011).

<sup>66</sup> Conditions on board are deplorable: smugglers use boats and engines that are unseaworthy and which cannot withstand the elements; boats are overcrowded and passengers may not be provided with life vests. See 'Smuggling of Migrants by Sea' (n. 65) at 33.

<sup>67</sup> This pattern can be noted in other Conventions such as the Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (Vienna, adopted 20 December 1988, entered into force 11 November 1990) UN Doc E/CONF.82/15; 28 *ILM* 493 (Vienna Drugs Convention).

unchanged so that the *lacuna* in the general rubric of the international law of the sea is filled in a way which strengthens—rather than challenges—the principle of flag State exclusivity on the high seas.<sup>68</sup>

Controlling maritime migrant smuggling within the territorial sea falls within the parameters of Article 19(2)(g) UNCLOS which prohibits any loading or unloading of any person contrary to, inter alia, immigration laws and regulations of the coastal State.<sup>69</sup> As for the high seas, while the right of visit under Article 110 does not specifically list the smuggling of migrants as an instance in which this right may be exercised, the right of visit is sometimes carried out in respect of ships engaged in the smuggling of migrants on the basis that these ships usually lack nationality. As for other grounds for enforcement action on the high seas, the UNCLOS merely lays the foundations for cooperation in the suppression of the slave trade, and even if one could assimilate migrant smuggling to slavery, effective enforcement action is minimal: the duty to ‘take effective measures to prevent and punish the transport of slaves’ is couched in terms as to oblige only the flag State.<sup>70</sup> Similarly, although Article 98(1) UNCLOS<sup>71</sup> obliges every State to require the master of a ship flying its flag to render assistance to persons in distress while on the high seas this provision does not sanction subsequent seizing and arrest of the vessel.

Part II of the Protocol lays out the general framework of permissible action at sea and preserves the supremacy of flag State jurisdiction and, in Article 7, provides for the overriding duty to ‘cooperate to the fullest extent possible to prevent and suppress the smuggling of migrants by sea, in accordance with the international law of the sea’. This obligation is not unknown to instruments aimed at suppressing maritime crime and indeed, the Protocol echoes these other instruments by expressly providing for further agreements of a bilateral or regional nature to be established to this end. However, although the law enforcement and cooperation regime has indeed been inspired in large part by the set of measures included in Article 17 of the Vienna Drugs Convention, because of the fundamental difference between trafficking in drugs and smuggling of persons, the Smuggling Protocol considers specific factors in judging the appropriateness of intervening at sea against migrant smuggling and in ensuring that adequate safeguards are taken regarding the safety and humane treatment of persons on board.

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<sup>68</sup> For an overview of the zonal jurisdiction pertaining to migrant smuggling under the law of the sea regime see P Mallia, *Migrant Smuggling by Sea: Combating a Current Threat to Maritime Security through the Creation of a Cooperative Framework* (Martinus Nijhoff Publishers, 2010) Part II Cap 5.

<sup>69</sup> Arts 21 and 27 UNCLOS permit the exercise of prescriptive and enforcement jurisdiction, respectively.

<sup>70</sup> Although note that the rights of visit and of hot pursuit are still admitted.

<sup>71</sup> UNCLOS, Art. 98(1). See also: SOLAS Convention Arts V/7, V/33 and International Convention on Salvage (Brussels, adopted 28 April 1989, entered into force 14 July 1996) 1996 UKTS 93 (1996), Cm3458, Art. 10.

A concretization of the duty of cooperation is evident in the Protocol, Article 8<sup>72</sup> of which provides for the steps to be taken prior to and during a boarding procedure by a non-flag State Party to the Convention. It is true that the flag State remains the prime actor in this regard, however, the problems of lack of action on the part of the flag State or failure to respond to requests for verification of registry and authorization to board are allayed by Article 8(4) which requires that any such requests must be considered and responded to 'expeditiously'. This is an approach that has been adopted in other spheres, such as maritime drug smuggling and terrorism; the net effect of this may be an emerging definition of the concept of cooperation as compelling a response from the flag State should it choose not to take action itself.

#### *16.3.2.1 Interception operations and rescue at sea*

As noted above, Article 8 of the Smuggling Protocol provides for enforcement action, including interception,<sup>73</sup> by non-flag State actors. This exercise of jurisdiction and control over vessels becomes increasingly significant from the point of view of humanitarian considerations since through such acts, obligations of human rights bind the intercepting State.<sup>74</sup> Furthermore, while human rights protections apply to all persons on board, a number of these individuals may warrant additional protection by virtue of them being asylum seekers. The central obligation applying at this stage is the principle of *non-refoulement*, set out in Article 33(1) of the Refugee Convention which mandates that no asylum seekers be sent back to a place of persecution, that is, 'where [their] life or freedom would be threatened on account of his race, religion, nationality, membership of a particular social group or political opinion'.<sup>75</sup>

The prohibition against *refoulement* has an extraterritorial application, applying whenever a State 'acts', a term which includes territorial and extra-territorial waters. The notion of jurisdiction and control and consequent extraterritorial application is very significant especially in the light of recent decisions of the European Court of Human Rights including its first on interception at sea: *Hirsi Jamaa and others v Italy*.<sup>76</sup> This is a much-needed decision which directly contradicts the position taken by the majority of the US Supreme Court in *Sale v Haitian Centres*

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<sup>72</sup> The origins of the text of this Article can be found in Art. 17 of the Vienna Drugs Convention and para. 11 of the IMO Interim Measures (MSC/Circ.896, Annex).

<sup>73</sup> For a description of 'interception' see: UNHCR ExCom Conclusion No 97 (LIV) 'Conclusion on Protection Safeguards in Interception Measures' (2003).

<sup>74</sup> See further P Mallia, *Migrant Smuggling by Sea: Combating a Current Threat to Maritime Security through the Creation of a Cooperative Framework* (Martinus Nijhoff Publishers, 2010) 592–5.

<sup>75</sup> Also mentioned in Art. 19(1) of the Smuggling Protocol.

<sup>76</sup> *Hirsi Jamaa and Others v Italy* (Judgment), (2012) Application No. 27765/09, 23 February 2012.

*Council* and destabilizes the rationale of arrangements such as the Italy–Libya Agreement<sup>77</sup> in which context it had been argued that ‘from a legal perspective, it is under dispute whether States’ obligations towards refugees are fully engaged as long as refugees have not managed to enter their territory’.<sup>78</sup>

The practical implications of the *non refoulement* obligation necessitate that a status determination procedure be carried out in order to ascertain that no asylum seeker will be returned to a place where he risks persecution. This is the only way to draw the distinction between a genuine asylum seeker and any other irregular migrant. A State would be therefore be in breach of the obligation of *non refoulement* were it to intercept and turn back a vessel to the borders of persecution without reviewing any asylum claims made on board the intercepted vessel.

These considerations may also dictate rescue at sea scenarios. It is true that rescue at sea is different to the act of maritime enforcement amounting to interception, differing in both intention and purpose (as has recently been pointed out by the Grand Chamber of the European Court of Human Rights in *Hirsi v Italy*).<sup>79</sup> Indeed, these scenarios raise different legal and policy questions and may also require different responses.<sup>80</sup> However, the two sometimes overlap, and disembarkation is common to both processes.<sup>81</sup> Furthermore, an interception exercise may pre-empt the need for a rescue as many times, State vessels on surveillance patrols may be required to assist passengers on unseaworthy boats often by transferring them onto the Coast Guard vessels. International law is not clear on what is to happen post-rescue. In such cases, it would seem that disembarkation should usually take place in the State whose officials have conducted the rescue operation, or else by agreement, which is not often forthcoming. Even less clear is the case of rescue operations conducted by private vessels. Disagreement between States as to the specification of the port of disembarkation in such cases has led to ship masters

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<sup>77</sup> A Treaty of Friendship, Partnership and Cooperation was concluded in August 2008 with an Implementing Protocol (the contents of which are not publicly available) being concluded in February 2009. These instruments provided the basis for joint Libya–Italy maritime patrols and Italy’s so-called push-back practice, commencing in May 2009. See further: N Ronzitti, ‘The Treaty on Friendship, Partnership and Cooperation between Italy and Libya: New Prospects for Cooperation in the Mediterranean?’ (2009) 1 *Bulletin of Italian Politics* 125–33. See also, for history of the Agreement: UNHCR, ‘UNHCR’s Third Party Submission to the ECHR in the case of *Hirsi and Others v Italy*’ (Application No. 27765/09), 2.

<sup>78</sup> A di Pascale, ‘Migration Control at Sea: the Italian Case’ in B Ryan and V Mitsilegas (eds), *Extraterritorial Immigration Control: Legal Challenges* (Martinus Nijhoff Publishers, 2010) 307.

<sup>79</sup> Application no. 27765/09, para. 65.

<sup>80</sup> See UNHCR, Protection Policy Paper, ‘Maritime Interception Operations and the processing of international protection claims: legal standards and policy considerations with respect to extraterritorial processing’ (November 2010).

<sup>81</sup> This link is recognized in the UNHCR’s Model Framework wherein Art. II states that it applies to rescue at sea operations involving refugees and asylum seekers, *irrespective of the nature of the rescuing vessels* thereby implicitly including operations by official vessels which become rescue operations even though they occur in the context of what was originally a patrolling exercise.

being reticent to provide assistance to vessels in distress, with the result that a number of distress calls go unheeded.<sup>82</sup>

*16.3.2.2 Rescue at sea: the legal regime*

Article 98 UNCLOS imposes a duty on Masters to render assistance to those in distress at sea, and therefore any boarding by non-flag State vessels is permitted insofar as it is incidental to the required rescue operation. This duty may also be regarded as part of customary international law. However, while the rescue obligation exists almost unconditionally, it is hampered with inherent flaws: enforcement of the duty is difficult if not impossible considering that it is mainly the flag State which can enforce the obligation and that nearly one-third of all ocean-going vessels are registered under flags of convenience. Furthermore, the incomplete exposition of the obligation, which makes no reference to the obligations incumbent upon States following the immediate alleviation of distress is another drawback.

Amendments to the SOLAS<sup>83</sup> and SAR<sup>84</sup> Conventions carried out in 2004 and coming into force on 1 July 2006, sought to rectify this situation.<sup>85</sup> A new paragraph thus clarifies that disembarkation is indeed part of the rescue operation.<sup>86</sup> The text reads that States are to 'make the necessary arrangements in cooperation with other RCCs to identify the most appropriate place(s) for disembarking persons found in distress at sea'.<sup>87</sup>

Furthermore, Contracting Governments are now obliged to coordinate and cooperate to release Masters who have assisted persons in distress at sea from their obligations with minimum further deviation from the ship's voyage. Problems of interpretation and application have not ceased however. The SAR Convention, in paragraph 3.1.9 of its Annex,<sup>88</sup> imposes a duty of cooperation and coordination on States parties to the Convention, placing upon the State in whose search and rescue (SAR) zone the rescue occurs 'the primary responsibility for ensuring such co-ordination and co-operation occurs, so that survivors assisted are disembarked from the assisting ship and delivered to a place of safety'.<sup>89</sup> A more clearly defined

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<sup>82</sup> UNODC, Issue Paper, 'Smuggling of Migrants by Sea' (November 2011) 41.

<sup>83</sup> Chap. V/33.1.1.

<sup>84</sup> Para. 3.1.9.

<sup>85</sup> Associated Guidelines were also adopted in order to provide guidance to governments and to shipmasters in the implementation of the amendments.

<sup>86</sup> See para. 3.1.6.4 in chap. 3 of the Annex to the SAR Convention.

<sup>87</sup> Indeed, prior to the 2004 amendments to the SAR Convention, the necessity of disembarkation could only be implied from provisions such as para. 1.3.2 of chap. 1 of the Annex to the SAR Convention itself, which defines a rescue operation as also including the delivery of the rescuees to a place of safety.

<sup>88</sup> Note that SOLAS Regulation V/33.1.1 imposes the same obligation on Contracting Governments.

<sup>89</sup> Note the definition of a SAR region in the Annex to the SAR Convention (chap 1, para. 1.3.4) as an 'area of defined dimensions associated with a rescue co-ordination centre within which search



direction is found in a January 2009 Circular of the IMO's FAL Committee entitled 'Principles relating to Administrative Procedures for Disembarking Persons Rescued at Sea'.<sup>90</sup> The problem in this regard is that this amendment and Circular have not been accepted by certain States such as Malta, with the result contracting States to the SAR Regime are bound by different rules, militating against a uniform and coordinated approach to a common problem.

Fundamentally, a core challenge in any particular rescue at sea operation involving asylum-seekers and refugees is often the timely identification of a place of safety for disembarkation . . . If a shipmaster is likely to face delay in disembarking rescued people, he/she may be less ready to come to the assistance of those in distress at sea. Addressing these challenges and developing predictable responses requires strengthened cooperation and coordination among all States and stakeholders implicated in rescue at sea operations.<sup>91</sup>

## **16.4 Safeguarding Human Rights Protection through Cooperation**

The benefits of the duty of cooperation cannot be underestimated. While this is an essential component in the fight against any contemporary maritime threat, be it drug smuggling or carriage of weapons of mass destruction, it is also at the forefront of the human aspect of other threats to maritime security, namely migrant smuggling and trafficking in human beings.

A cooperative enforcement regime safeguarding the human dignity of individuals, aside from ridding the seas of these threats which endanger maritime and national security, is therefore essential. The CATOC Protocols thus emerge as worthy tools to this end: aiming to fight the crimes of migrant smuggling and trafficking in individuals by creating a framework for legal and judicial cooperation while ensuring the protection of victims and respect for their inherent rights, a crucial element in combating maritime crimes in which humans are the unfortunate subjects.

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and rescue services are provided'. This area defines which State has primary responsibility for coordinating rescue operations in response to a distress situation.

<sup>90</sup> FAL Circular FAL.3/Circ.194, 22 January 2009. The relevant text provides that: 'if disembarkation from the rescuing ship cannot be arranged swiftly elsewhere, the Government responsible for the SAR area should accept the disembarkation of the persons rescued into a place of safety under its control'.

<sup>91</sup> UNHCR, 'Summary Conclusions, Refugees and Asylum-Seekers in Distress at Sea—how best to respond?' (Djibouti, 8–10 November 2011) para. 10.

## NEW MARINE SECURITY THREATS

*Darren Calley, Karen Hulme, and David M Ong*

## 17.1 Introduction

This chapter will address the wider range of threats to *marine* security, as opposed to the threats that relate primarily to *maritime* security addressed by other chapters within these volumes. The distinction between *marine* and *maritime* security threats that is being made here relates to the notion that *marine* security threats denote a different type of security threat, being not merely a threat to shipping and other traditional maritime activities, but also to coastal communities and even the non-human environment. However, this is not to suggest that these two concepts—*maritime* and *marine* security—are in any way mutually exclusive. Indeed, more comprehensive notions of *maritime* security do include the issues addressed in this chapter within their list of security threats. Klein, for example, includes activities such as piracy and armed robbery at sea, terrorism, human/drug-trafficking, proliferation in weapons of mass destruction, illegal fishing, and those that cause environmental damage within her designation of ‘contemporary maritime security threats’.<sup>1</sup> The comprehensive nature of Klein’s approach corresponds with the analysis undertaken by Rahman on the different conceptions and approaches to maritime security, in which he notes that: ‘The question is less one of what, exactly, is maritime security? Rather, it perhaps is better phrased as what are the different ways in which to conceive of maritime security?’<sup>2</sup>

More recently, Feldt, Roele, and Thiele describe ‘maritime security’ as being composed of the following elements: international and national peace and security; sovereignty, territorial integrity and political independence; security of sea lines of

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<sup>1</sup> N Klein, *Maritime Security and the Law of the Sea* (Oxford University Press, 2011).

<sup>2</sup> C Rahman, *Concepts of Maritime Security: A strategic perspective on alternative visions for good order and security at sea, with policy implications for New Zealand*, Center for Strategic Studies: New Zealand, University of Victoria, Wellington, Discussion Paper 07/09. 62pp, at p.3. Accessible at: <<http://www.victoria.ac.nz/hppi/centres/strategic-studies/documents/Concepts-of-Maritime-Security-DP07-09.pdf>>.

communications (SLOCs); protection for seafarers and fishermen from crimes at sea; resource security, including access to resources at sea and to the seabed; and environmental protection.<sup>3</sup> This is an admirably comprehensive list of components that encompass both the 'maritime/marine' and 'security' dimensions. On the other hand, it is possible to disagree with Feldt et al when they attempt to distinguish between maritime *security* and maritime *safety* threats/issues, especially when they state that: 'safety is a civilian responsibility'. Their emphasis in favour of limiting 'maritime security' threats to those which need the intervention of armed forces may be argued to be unduly constraining, especially when 'security' issues are increasingly being viewed in comprehensive and holistic terms. Rahman too betrays his leanings on this matter when he follows up the question posed above with this one: 'And what are the implications for policy, and *for navies*, of these different conceptions?',<sup>4</sup> thereby emphasizing the military aspects of any response to new/different maritime/marine security threats.

Indeed, the very fact that the IMO, which Feldt et al correctly identify as being primarily responsible for safety and environmental protection issues at sea, has also responded to the new security challenges post 9/11 in the maritime sphere suggests that these concepts of *maritime* and *marine* security, as well as maritime *safety*, are interchangeable, depending on the nature of the threat and the means adopted to address it. As Trelawny notes, the IMO has acted in response to the perceived maritime terrorism threat through

the development of the new SOLAS chapter XI-2 on Special measures to enhance maritime security and the International Ship and Port Facility Security Code (ISPS Code). The new regulatory regime entered into force on 1 July 2004. These requirements represent the culmination of co-operation between Contracting Governments, Government agencies, local administrations and shipping and port industries to assess security threats and take preventive measures against security incidents affecting ships or port facilities used by international seaborne trade.<sup>5</sup>

Thus, we can see that certain newly identified *maritime* security threats have already been addressed by the international legal system to varying degrees. This chapter will therefore engage with the arguably more overtly *marine* (environmental) aspects of such security threats that need to be addressed, three of which are highlighted here, as follows: first, illegal dumping of hazardous wastes and substances within the high seas and maritime jurisdiction zones of other States,

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<sup>3</sup> L Feldt, P Roell and RD Thiele, *Maritime Security – Perspectives for a Comprehensive Approach*, The Institute for Strategic, Political, Security and Economic Consultancy (ISPSW) Strategy Series: Focus on Defense and International Security, Issue No.222 (April 2013) 25pp. Accessible at: <<http://www.ispsw.de>>.

<sup>4</sup> Rahman (n. 2), emphasis added.

<sup>5</sup> C Trelawny, *IMO Maritime Security Measures: Implementation of the ISPS Code*, IMO, presented at the 3rd Intermodal Africa 2005 Tanzania Exhibition and Conference, Dar es Salaam, 3 to 4 February 2005, Accessible at: <[http://www.imo.org/blast/blastDataHelper.asp?data\\_id=17987&filename=Maritime.pdf](http://www.imo.org/blast/blastDataHelper.asp?data_id=17987&filename=Maritime.pdf)>.

especially off the coastlines of weak or failing States; second, illegal, unreported, and unregulated (IUU) fishing; and third, possible future marine security threats by so-called 'geo-engineering' strategies aimed at ocean-based mitigation of climate change. All three marine security threats addressed here can arguably be characterized as 'environmental' in nature.<sup>6</sup> As one of the co-authors has previously noted in this regard, 'a broad understanding of environmental security would include the minimization of any harm to the ecosystem (*including the marine ecosystem*) that is vital to the maintenance of its biological viability and, consequently, for human survival'<sup>7</sup> (emphasis added).

However, it should be acknowledged that this argument is made in the face of the scepticism displayed by traditional approaches to 'security' studies, which argues that an environmental focus 'tends to transform environmental security into security for the environment *per se*',<sup>8</sup> and moreover, that environmental security threats *per se* do not ultimately affect the individual, national, and international levels of analysis for 'security' studies, as established by Buzan.<sup>9</sup> According to Rahman, Buzan's levels of analysis are individual, national, and international (both regional and system-wide) security, while his issue sectors comprise military, political, societal, economic, and environmental security.<sup>10</sup> It is submitted here that each of the marine (environmental) security case studies examined below do in fact impact on the analytical levels identified by Buzan, whether on an individual/community, national, and even international/regional/global basis. As Sielen observes in relation to the existential threat posed to human security from such large-scale environmental destruction, 'the disruption of entire ecosystems threatens our very survival, since it is the healthy functioning of these diverse systems that sustains life on earth. Destruction on this level will cost humans dearly in terms of food, jobs, health, and quality of life'.<sup>11</sup>

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<sup>6</sup> For an early example see R Ullman, 'Redefining Security' (1983) 8 *International Security*, no. 1. For a brief history of the environmental security movement, see J Barnett, 'Environmental Security' in A Collins (ed.), *Contemporary Security Studies* (Oxford University Press, 2007) at 184–8, as cited in Rahman (n. 2) 12, n. 39.

<sup>7</sup> K Hulme, 'Environmental Security: Implications for International Law' (2008) 19 *Yearbook of International Environmental Law* 3–26, at 21.

<sup>8</sup> T Terriff, S Croft, L James, and PM Morgan, *Security Studies Today* (Polity Press, 1999) at 130, as cited in Rahman (n. 2) 12, n. 45.

<sup>9</sup> B Buzan, *People, States and Fear: An Agenda for International Security Studies in the Post-Cold War Era* (2nd edn, Harvester Wheatsheaf, 1991) at 363–8. In B Buzan, O Wæver, and J de Wilde, *Security: A New Framework for Analysis* (Lynne Rienner, 1998) at 5–7, the authors alternatively employ five levels of analysis: international systems, international subsystems, units (actors), sub-units (groups) and individuals, as cited in Rahman (n. 2) 7, n. 8.

<sup>10</sup> Rahman (n. 2) 6.

<sup>11</sup> AB Sielen, 'The Devolution of the Seas: The Consequences of Oceanic Destruction' (2013) 92 *Foreign Affairs* (No. 6) 124–32, at 125.

A further significant trend to note in each of the following three sections of this chapter is the presence of new international and domestic actors addressing these new marine security threats. Carolin Liss has recently addressed this phenomenon and its implications for traditional State-centred security responses within the global marine space generally, and specifically, within the Southeast Asian maritime region.<sup>12</sup> Paraphrasing Liss within the present context, it is possible to observe that the growing economic, political, social, and environmental problems caused by, inter alia, the global financial crisis and climate change, now seriously challenge the capacities of States and State-based institutions to address these new marine/maritime security threats worldwide. It has become increasingly clear that many contemporary non-traditional security threats, such as terrorism, piracy, and other transnational crimes, cannot be addressed by existing national agencies or individual States alone. Indeed, the notion of the State as the sole provider of security is being increasingly challenged in many parts of the world, with 'new' actors such as non-governmental organizations (NGOs) and even private business organizations playing ever more important roles in providing security. One specific area where new actors are playing such a role is in responses to national and international marine/maritime security threats. These new actors offer a wider range of governance responses to current problems at sub-national, national, and international levels, especially within the marine/maritime sectors. As a result, the line between national and international marine/maritime security has become blurred and marine/maritime security challenges are today met by a range of new actors. According to Liss, at least three kinds of 'new' actors play significant roles in addressing these different/new marine/maritime security challenges: (1) for-profit actors; (2) not-for-profit actors; and (3) multilateral institutions.<sup>13</sup> Examples of each type of 'new' actor noted here can be found in the following substantive sections of this chapter. As Liss notes, the nature and scale of their involvement in each type of activity examined here depends on their motivations, capacities, and interests.<sup>14</sup> Their involvement can also be assessed in different ways—either positive or negative. On the one hand, the involvement of new actors can be seen as ineffective or problematic. On the other hand, their facilitative roles in terms of awareness-raising and canvassing of different possible responses to continuing and new marine security threats cannot be discounted.

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<sup>12</sup> Carolin Liss, 'New Actors and the State: Addressing Maritime Security Threats in Southeast Asia' (2013) 35 *Contemporary Southeast Asia: A Journal of International and Strategic Affairs* (No. 2) 141–62.

<sup>13</sup> Liss (n. 12).

<sup>14</sup> Liss (n. 12).

## 17.2 Illegal Dumping of Hazardous Wastes and Toxic Substances

### 17.2.1 Illegal dumping of hazardous wastes and toxic substances off the coastlines of weak/failing States: the case of Somalia<sup>15</sup>

The illegal discharge, disposal, and/or dumping of hazardous wastes or substances, especially within the broader/wider maritime jurisdiction zones lying beyond the territorial seas of coastal States, such as their Exclusive Economic Zones (EEZs) and continental shelves, is a growing marine security threat, not only for these States, but also for the international community as a whole. The problem is exacerbated when such illegal activities take place off the coastlines of weak/failing States that are poorly-resourced in financial terms, as well as ill-equipped from the technical and technological standpoints. For example, based on reports from the United Nations Environment Programme (UNEP)<sup>16</sup> and other multilateral institutions, as well as Greenpeace, a non-profit, environmental non-governmental organization (NGO),<sup>17</sup> Hussein is able to assert that:

Somalia has been used extensively by foreign companies and their partners as a dumping ground to dispose large quantities of highly toxic waste from the industrialized countries. Although the country already had become a victim of what is sometimes called 'toxic colonialism' as early as the mid-1980s, the illegal dumping of the hazardous wastes in Somalia has become a rampant phenomenon after 1990. The impact of the toxic wastes dumping has been devastating as it has gravely compromised the human health, livelihoods sources for the local population and the quality of the natural environment.<sup>18</sup>

Dr Mostafa Tolba, the then UNEP Executive Director, confirmed the maritime dimension of this problem, observing that European companies had been taking

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<sup>15</sup> This section as well as the Introduction and Conclusion sections of this chapter, were written by David M Ong.

<sup>16</sup> In 1997, the joint UNEP/Office for the Coordination of Humanitarian Affairs Environment Unit and the United Nations Coordination Unit for Somalia undertook an assessment mission based on reports that marine pollution in Somali coastal waters was being caused by maritime traffic in the Indian Ocean. The mission found traces of oil pollution along part of the coastline in the form of tar balls, which were frequently found on beaches, with estimates of 25–30 mg per square metre. This was believed to be caused by Indian Ocean maritime traffic, in particular tankers sailing to and from oil ports in the Gulf of Aden. See Report of the UN Secretary-General on the protection of Somali natural resources and waters, to the UN Security Council, 25 October 2011, S/2011/661, at para. 52, 14 of the report. Accessible at: <[http://unpos.unmissions.org/Portals/UNPOS/Repository%20UNPOS/S-2011-661%20\(25Oct\).pdf](http://unpos.unmissions.org/Portals/UNPOS/Repository%20UNPOS/S-2011-661%20(25Oct).pdf)>.

<sup>17</sup> See, for example, *The toxic ships: The Italian hub, the Mediterranean area and Africa*, A Greenpeace report (June 2010) 36pp. Accessible at: <<http://www.greenpeace.it/Report-The-toxic-ship.pdf>>.

<sup>18</sup> BM Hussein, 'The Evidence of Toxic and Radioactive Wastes Dumping in Somalia and its Impact on the Enjoyment of Human Rights: A Case Study', paper presented at a Panel Discussion on Toxic Wastes, United Nations Human Rights Council, 14th Session, Geneva, 8 June 2010, at 4.

advantage of the on-going political chaos and civil war in Somalia in order to dump illegally hazardous toxic wastes onto the country's long coastlines.<sup>19</sup>

Following the tsunami in December 2004, UNEP responded to an urgent request from the Ministry of Fisheries, Ports, and Marine Transport to assess potential environmental damage in the Puntland region of Somalia, situated at the very tip of the Horn of Africa.<sup>20</sup> In February 2005, UNEP released a report outlining the environmental risks caused by the tsunami.<sup>21</sup> The ongoing concern over the possible contribution to these identified environmental risks from illegal waste dumping/discharge activities is evidenced by an official statement by UNEP issued on the 22 February 2005, stating that: 'Somalia's coastline has been used as a dumping ground for other countries' nuclear and hazardous wastes for many years as a result of the long civil war and, thus, the inability of the authorities to police shipments or handle the wastes'.<sup>22</sup> Based on the findings of the UNEP report, an inter-agency technical fact-finding mission, which included UNEP, the United Nations Development Programme (UNDP), the World Health Organization (WHO), and the Food and Agriculture Organization (FAO), was fielded to Puntland in March 2005. It investigated three sample sites along a 500 km coastal stretch between the three main populated coastal locations of Xaafuun, Bandar-beyla and Eyl where toxic waste had reportedly been uncovered by the tsunami. The mission focused exclusively on areas in Puntland that were impacted by the tsunami, as it lacked access to any sites around Mogadishu owing to security concerns. Though no evidence of toxic waste was found by the mission, the team cited the urgent need for a more comprehensive assessment of alleged dumping of illegal toxic waste in Somalia both on land and at sea.<sup>23</sup>

The relative lack of response that this serious pollution issue as a marine security threat has generated from the international community is at least partly explained by the observation from Ibrahim that:

A variety of threat situations exist in Africa's waters, most of which are well known, while others such as maritime terrorism are still emerging. The contemporary threats are manifest in the form of piracy and sea robbery; organised crime; including gun-running, smuggling, human and drug trafficking; illegal exploitation of marine resources; and the destruction of marine resources through dumping and pollution. These threats cut across virtually the entire African maritime domain. For instance, instability in states in the Horn of Africa arising from persistent intra-state and inter-state conflicts has generally led to neglect of security in the maritime

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<sup>19</sup> D MacKenzie, 'Toxic Waste adds to Somalia's woes' 135 *New Scientist*, no. 1839 (19 September 1992).

<sup>20</sup> Report of the UN Secretary-General on the protection of Somali natural resources and waters, to the UN Security Council (n. 16) at para. 54.

<sup>21</sup> UNEP, *After the Tsunami: Rapid Environmental Assessment* (Nairobi, 2005). Available from <[http://www.unep.org/tsunami/tsunami\\_rpt.asp](http://www.unep.org/tsunami/tsunami_rpt.asp)>.

<sup>22</sup> UNEP, Press Release UNEP/268, 22 February 2005.

<sup>23</sup> UNDP/UNEP/FAO/WHO, Report of the United Nations Mission to Puntland to investigate toxic waste in the coastal areas of Somalia (Nairobi, 2005).

domain, which is largely characterised by illegal fishing, dumping of hazardous waste and piracy.<sup>24</sup>

Enlarging on the dumping issue, he notes that:

The dumping of nuclear/toxic wastes in the sea area has become a multi-billion dollar enterprise involving various unscrupulous agencies. Besides that, oil spillage has also become a serious threat to the maritime environment. The resultant effect is the destruction of the natural habitat for several species of fish, thereby in turn threatening food security.<sup>25</sup>

More recently, Hussein summarizes the case for addressing illegal toxic waste disposal off the coast of Somalia in the following statement:

Although many developing countries, especially African countries, have been victim of the adverse effects of highly toxic wastes (HTW) originated from the developed countries, the case of Somalia is particularly preoccupying. The country has been subjected to extensive illegal dumping operations of toxic and radioactive wastes since the 1980s. The HTW dumping operations that have taken place both along the coast and the hinterland have extremely adverse effects on health, livelihoods and the future prospect of sustainable development of the local population.<sup>26</sup>

#### **17.2.2 Illegal dumping of hazardous wastes and toxic substances as a human rights/security issue**

Already in 1995, the then United Nations Commission on Human Rights (now Human Rights Council) noted that the illicit dumping of toxic and dangerous wastes and products has an adverse effect on the enjoyment of several human rights, and decided to appoint, for a period of three years, a Special Rapporteur with a mandate to examine the human rights aspects of this issue. The scope of the mandate of the Special Rapporteur was reviewed in September 2011, during the 18th session of the Human Rights Council. The Council decided to strengthen the mandate so as to cover not only the movement and the dumping of hazardous substances and waste, but also the whole life-cycle of hazardous products, from their manufacturing to their final disposal (cradle-to-grave approach). Accordingly, the title of the Special Rapporteur has been changed by a Human Rights Council resolution to the 'Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes'.<sup>27</sup> On the basis of this Human Rights Council resolution, the Special Rapporteur has now the task to monitor the adverse effects that the generation, management, handling, distribution and final disposal of hazardous

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<sup>24</sup> OS Ibrahim, 'To patrol is to control: Ensuring situational awareness in Africa's maritime exclusive economic zones' (2009) 18 *African Security Review* 124–31, at 124–5.

<sup>25</sup> Ibrahim (n. 24) 125.

<sup>26</sup> Hussein (n. 18) 2.

<sup>27</sup> (UN) Human Rights Council resolution 18/11, adopted on 13/10/2011. Doc A/HRC/RES/18/11. Accessible at: <[http://ap.ohchr.org/documents/dpage\\_e.aspx?si=A/HRC/RES/18/11](http://ap.ohchr.org/documents/dpage_e.aspx?si=A/HRC/RES/18/11)>.



substances and wastes may have on the full enjoyment of human rights, including the right to food, adequate housing, health and water. Resolution 18/11 requests the Special Rapporteur to include in his report to the Council comprehensive information on:

- (a) Human rights issues relating to transnational corporations and other business enterprises regarding environmentally sound management and disposal of hazardous substances and wastes;
- (b) The question of rehabilitation of and assistance to victims of human rights violations relating to the management and disposal of hazardous substances and wastes;
- (c) The scope of national legislation in relation to the implications for human rights of the management and disposal of hazardous substances and wastes;
- (d) The human rights implications of waste-recycling programmes, the transfer of industries, industrial activities and technologies from one country to another and their new trends, including e-wastes and the dismantling of ships;
- (e) The question of the ambiguities in international instruments that allow the movement and dumping of hazardous substances and wastes, and any gaps in the effectiveness of international regulatory mechanisms.

In addition, this Human Rights Council Resolution requests the Special Rapporteur to develop, in consultation with relevant stakeholders, a set of best practices on the human rights obligations related to environmentally sound management and disposal of hazardous substances and waste.<sup>28</sup> Within the context of illegal toxic waste disposal activities off the Somali coastline, this mandate for the Special Rapporteur at least in part addresses the warnings issued by the (then) UN Special Representative for Somalia, Ahmedou Ould Abdallah in 2008, who repeatedly sounded the alarm about illegal fishing and toxic dumping off Somalia by European firms. Abdullah had even stated that his organization had received 'reliable information' that European and Asian companies were dumping waste—including nuclear waste—in this region.<sup>29</sup>

Addressing, *inter alia*, the threats posed by illegal dumping of hazardous wastes and toxic substances within the EEZs of African countries, Ibrahim summarizes the problems they face as follows: inadequate enforcement capacity, lack of domestic/national political will, and following on from this local incapacity and indifference, inadequate synergy between neighbouring countries within sub-regional/regional initiatives.<sup>30</sup> Within this context, it is relevant to note that Somalia appears not to have proclaimed an EEZ in accordance with the United

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<sup>28</sup> Accessible at: <<http://www.ohchr.org/EN/Issues/Environment/ToxicWastes/Pages/SRTToxicWastesIndex.aspx>>.

<sup>29</sup> See Greenpeace report (n. 17) 21, text to n. 22.

<sup>30</sup> Ibrahim (n. 24) 127.

Nations Convention on the Law of the Sea.<sup>31</sup> Its national legislation, Law No. 37 on the Territorial Sea and Ports (1972), transmitted to the Secretary-General by a letter from the Permanent Representative of Somalia dated 20 December 1973, provides for a 200 nautical mile territorial sea—a conceptually outdated notion within modern international law of the sea. As the UN Secretary General notes presciently for our purposes in this section of the chapter: ‘The lack of information on the harmonization of national legislation of Somalia with the Convention creates legal ambiguity’.<sup>32</sup> Responding to the general lack of African enforcement capacity within their respective EEZs, Ibrahim recommends that African littoral States must individually and collectively upgrade their maritime Command, Control, Communication, Computers and Intelligence (C4I) systems.<sup>33</sup> Southeast Asian efforts, especially in relation to the level of international co-operation between littoral States and external regional (eg Japan and Australia) as well as global powers (eg USA) may be useful examples in this regard.<sup>34</sup> Indeed, prior to the Horn of Africa-based piracy threat taking centre stage, in the previous two decades, maritime security threats such as piracy, illegal fishing, and maritime terrorism in Southeast Asia had attracted greater attention and concern. Again, it is relevant to paraphrase Liss in this context: Responding to these regional maritime security threats and ensuring national security have long been seen as the responsibility of governments. In recent years, new actors have also become involved in addressing national and regional maritime security threats in Southeast Asia such as smuggling, piracy, and illegal fishing. However, their participation has affected the role of the State as the primary provider of maritime security, thereby offering insights into alternative methods for tackling contemporary maritime security threats in Southeast Asia, including hybrid forms of maritime security governance. The contribution of new actors in Southeast Asia, a region where government responses and sovereignty have long played a central role, demonstrates how established patterns of security governance in Southeast Asia are changing.<sup>35</sup> It also offers insights as to how new possibilities for synergies between African governments and private security firms might be able to overcome the lack of maritime enforcement capacity highlighted by Ibrahim.

### **17.2.3 The international legal framework for sea-based disposal of hazardous wastes and toxic substances**

Examining in more detail the issues raised by the reference to the *ambiguities in international instruments* noted in the reporting mandate of the UN Special

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<sup>31</sup> United Nations Convention on the Law of the Sea (Montego Bay, opened for signature 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS).

<sup>32</sup> See Report of the UN Secretary-General on the protection of Somali natural resources and waters (n. 16) at para. 29, at 8.

<sup>33</sup> Ibrahim (n. 24) 129.

<sup>34</sup> Ibrahim (n. 24) 130.

<sup>35</sup> Liss (n. 12).

Rapporteur (above), the applicable international *legal* framework governing the cross-border movement and disposal of hazardous wastes/substances in the marine environment refers to the Basel Convention 1989,<sup>36</sup> as well as the 1972 London Convention and its 1996 Protocol,<sup>37</sup> respectively. Within this framework, Article 9(1) of the 1989 Basel Convention, entitled: 'Illegal Traffic', states unequivocally that for the purpose of this Convention, any transboundary movement of hazardous wastes or other wastes, inter alia, that '(e) results in deliberate disposal (eg dumping) of hazardous wastes or other wastes in contravention of this Convention and of general principles of international law, shall be deemed to be illegal traffic'. Article 4.1.1 of the 1996 London Protocol to the 1972 Convention, also provides that all dumping is prohibited, except for wastes (or other matter) on the so-called 'reverse list' in Annex 1, which can be dumped only by permit.

Given the establishment through the Basel and London Conventions (and Protocol) of what is effectively a substantive prohibition of dumping activities at sea, the analytical focus shifts to the question of which States can exert jurisdictional controls over sea-based dumping activities. Within this context, the definition of 'dumping' at sea is provided by Article 1(5)(a) of UNCLOS, in accordance with Article III(1)(a) of the 1972 London Convention, as follows:

- (i) any deliberate disposal of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea;
- (ii) any deliberate disposal of vessels, aircraft, platforms or other man-made structures at sea; . . .'; to which the 1996 London Protocol has now added the following provisions in Article 1.4.1:
- (iii) any storage of wastes or other matter in the seabed and the subsoil thereof from vessels, aircraft, platforms or other man-made structures at sea; and
- (iv) any abandonment or toppling at site of platforms or other man-made structures at sea, for the sole purpose of deliberate disposal.

On the other hand, Article 1(5)(b) of UNCLOS and Article III(1)(a)(i) of the London Convention, specifies that 'dumping' does *not* include:

- (i) the disposal of wastes or other matter *incidental to, or derived from the normal operations of* vessels, aircraft, platforms or other man-made structures at sea and their equipment, other than wastes or other matter transported by or to vessels, aircraft, platforms or other man-made structures at sea, operating for the purpose of disposal of such matter or derived from the treatment of such wastes or other matter on such vessels, aircraft, platforms or structures; . . . (emphasis added)

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<sup>36</sup> Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel, adopted on 22 March 1989, entered into force 5 May 1992) 1673 UNTS 126 (Basel Convention). UNEP/Secretariat of the Basel Convention (1989) Accessible at: <<http://archive.basel.int/index.html>>.

<sup>37</sup> Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London, adopted on 29 December 1972, entered into force 30 August 1975) 1046 UNTS 120 (London Convention). Now superseded by the 1996 Protocol (itself amended in 2006) to the 1972 Convention as between parties to the Protocol which are also parties to the 1972 Convention. All accessible at: <<http://www.imo.org/OurWork/Environment/LCLP/Pages/default.aspx>>.

Moreover, the application of the regulatory regime established by the Basel Convention based on the legal requirement of State consent to the movement of hazardous wastes shipments through national maritime jurisdictions is arguably constrained by the combined legal effects of the following provisions of this Convention, as follows: First, section 9 of Article 2, entitled: 'Definitions' provides as follows: "Area under the national jurisdiction of a State" means any land, marine area or airspace within which a State exercises administrative and regulatory responsibility in accordance with international law in regard to the protection of human health or the environment'. However, section 12 of Article 4, entitled: 'General Obligations' then provides as follows:

Nothing in this Convention shall affect in any way the sovereignty of States over their territorial sea established in accordance with international law, and the sovereign rights and the jurisdiction which States have in their exclusive economic zones and their continental shelves in accordance with international law, and the exercise by ships and aircraft of all States of *navigational rights and freedoms* as provided for in international law and as reflected in relevant international instruments. (emphasis added)

The difficulties that arise here relate to the question of whether/how any sea-based waste disposal operations by vessels or aircraft exercising their *navigational rights and freedoms* can be ascertained to be *incidental to, or derived from the normal operations of* the vessels or aircraft concerned. For example, the 1997 joint UNEP/Office for the Coordination of Humanitarian Affairs Environment Unit and the United Nations Coordination Unit for Somalia report referred to above, noted that pollution on Somali beaches was believed to have been caused by Indian Ocean maritime traffic, in particular tankers sailing to and from oil ports in the Gulf of Aden. Although such vessels normally dispose of waste at ports, since Somali ports lack both security and services, ships dispose of their waste offshore while at sea, with annual discharges estimated at 33,000 tons.<sup>38</sup>

#### **17.2.4 The international jurisdictional framework for sea-based disposal of hazardous wastes and toxic substances**

Thus, it becomes equally important to assess the international *jurisdictional* framework established by the UNCLOS for the legislation and enforcement of these substantive prohibitions against illegal movement and dumping of toxic/hazardous wastes/substances provided by the Basel and London Conventions, respectively. Further legal ambiguities abound here, as an assessment of the applicable jurisdictional provisions over such activities reveals. First, Article 210 entitled: 'Pollution by Dumping', provides in section 5 that:

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<sup>38</sup> Report of the Secretary-General on the protection of Somali natural resources and waters, to the UN Security Council, 25 Oct 2011, S/2011/661, at para. 52, p.14. Accessible at: <[http://unpos.unmissions.org/Portals/UNPOS/Repository%20UNPOS/S-2011-661%20\(25Oct\).pdf](http://unpos.unmissions.org/Portals/UNPOS/Repository%20UNPOS/S-2011-661%20(25Oct).pdf)>.

Dumping within the territorial sea and the exclusive economic zone or onto the continental shelf shall not be carried out without the express prior approval of the coastal State, which has the right to permit, regulate and control such dumping after due consideration of the matter with other States which by reason of their geographical situation may be adversely affected thereby.

Article 216 entitled: 'Enforcement with respect to pollution by dumping', then provides in Section 1 that:

Laws and regulations adopted in accordance with this Convention and applicable international rules and standards established through competent international organizations or diplomatic conference for the prevention, reduction and control of pollution of the marine environment by dumping shall be enforced:

- (a) by the coastal State with regard to dumping within its territorial sea or its exclusive economic zone or onto its continental shelf;
- (b) by the flag State with regard to vessels flying its flag or vessels or aircraft of its registry; . . .

Correspondingly, Article 10 of the 1996 London Protocol provides for enforcement jurisdiction over dumping activities as follows:

- 1 Each Contracting Party shall apply the measures required to implement this Protocol to all:
  1. vessels and aircraft registered in its territory or flying its flag;
  2. vessels and aircraft loading in its territory the wastes or other matter which are to be dumped or incinerated at sea; and
  3. vessels, aircraft and platforms or other man-made structures believed to be engaged in dumping or incineration at sea in areas within which it is entitled to exercise jurisdiction in accordance with international law.

Within this context, it is interesting to note that the London Protocol appears to extend coastal State jurisdiction over such sea-based dumping activities through an expansive definition of the word 'sea', in Article 1(7) as follows: "Sea" means all marine waters other than the internal waters of States, as well as the seabed and the subsoil thereof'. This suggests that coastal State enforcement jurisdiction over dumping activities at 'sea' would extend to include 'all marine waters' as well as 'the seabed and the subsoil thereof' in areas within which the coastal State is entitled to exercise jurisdiction in accordance with international law. Thus, coastal State jurisdiction over its continental shelf (seabed and subsoil) areas arguably extends to cover sea-based dumping activities as well, even when such activities take place beyond the 200-nautical mile EEZ limit, where the superjacent waters are in the high seas. In any case, the net effect of all these applicable provisions appears to allow for overlapping and concurrent coastal and flag State jurisdictions over such dumping activities, without providing definitively for either the coastal or flag State enforcement jurisdiction to prevail in circumstances where there is a clash of jurisdictions.

Moreover, where there is uncertainty as to whether the illegal activity concerned falls within the strict UNCLOS definition of 'dumping' under Art. 1(5)(a), but

instead constitutes waste ‘incidental to, or derived from the normal operations of vessels’, and so forth under Art.1(5)(b) (see above), then it is Article 217, entitled: ‘Enforcement by flag States’ which applies, Section 1 of which provides that:

States shall ensure compliance by vessels flying their flag or of their registry with applicable international rules and standards, established through the competent international organization or general diplomatic conference, and with their laws and regulations adopted in accordance with this Convention for the prevention, reduction and control of pollution of the marine environment from vessels and shall accordingly adopt laws and regulations and take other measures necessary for their implementation. Flag States shall provide for the effective enforcement of such rules, standards, laws and regulations, *irrespective of where a violation occurs*. (emphasis added)

This provision appears to accord primacy to flag State enforcement jurisdiction over their flagships wherever they are located in the world’s seas, notwithstanding the physical impossibility that this entails, even for the most vigilant and well-equipped of flag States. To conclude this section of the chapter, and in line with Hussein’s recommendation that effective legal deterrents and coercive measures against toxic waste traffickers should be adopted,<sup>39</sup> it is suggested here that the international legal community needs to address the uncertainties over international legal enforcement of sea-based dumping activities exposed by the analysis above.

### 17.3 Illegal, Unreported and Unregulated (IUU) Fishing

In August 2012 United Nations Secretary General Ban Ki-Moon unveiled *The Oceans Compact*, a policy document that sets out, in broad terms, some of the potential threats to the prosperity of the oceans and, in equally broad measure, some of the potential solutions to the problems faced. The purpose of this section<sup>40</sup> of the present chapter is not, however, to provide a detailed critique of the *Compact*—this would, because of the *Compact*’s general and aspirational nature, be inappropriate and yield few results of any significance. Instead, this section will draw upon one of the main threats posed to oceans highlighted by the *Compact*—illegal, unreported, and unregulated (IUU) fishing and consider the manner in which existing international law *should* remedy these failings. Thankfully however, the *Compact* does not simply call for further new laws to govern the oceans’ use: as will be shown below there are presently a plethora of laws, agreements and codes of conduct currently in place to deal with this issue and so the *Compact*’s emphasis on the implementation of these laws and guidelines is a particularly welcome one. The view presented in this section of the chapter is that

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<sup>39</sup> Hussein (n. 18) 14.

<sup>40</sup> This section was written by Darren Calley.

whilst the physical threats highlighted in the *Compact* and elsewhere are very real, so is the threat to the oceans from State ambivalence or indifference to enforcement and implementation. Indeed, in many ways unenforced laws and codes of conduct that simply exist in the ether are potentially more of a threat to the oceans than the physical activities that cause harm to the marine environment: by creating a sense of 'all is well' the unenforced or unenforceable commitments act as a panacea for even those responsible States who might pay lip service to their obligations.

### 17.3.1 What is IUU fishing?

The term 'IUU' was first coined by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) in 1997<sup>41</sup> but the most widely accepted definition is that which informs the United Nations Food and Agriculture Organisation (FAO) 2001 International Plan of Action, which states that:

*Illegal fishing refers to fishing activities:*

- (1) *conducted by national or foreign vessels in waters under the jurisdiction of a State, without the permission of that State, or in contravention of its laws and regulations;*
- (2) *conducted by vessels flying the flag of States that are parties to a relevant regional fisheries management organization but operate in contravention of the conservation and management measures adopted by that organization and by which the States are bound, or relevant provisions of the applicable international law; or*
- (3) *in violation of national laws or international obligations, including those undertaken by cooperating States to a relevant regional fisheries management organization.*

*Unreported fishing refers to fishing activities:*

- (1) *which have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and regulations; or*
- (2) *undertaken in the area of competence of a relevant regional fisheries management organization which have not been reported or have been misreported, in contravention of the reporting procedures of that organization.*

*Unregulated fishing refers to fishing activities:*

- (1) *in the area of application of a relevant regional fisheries management organization that are conducted by vessels without nationality, or by those flying the flag of a State not party to that organization, or by a fishing entity, in a manner that is not consistent with or contravenes the conservation and management measures of that organization; or*
- (2) *in areas or for fish stocks in relation to which there are no applicable conservation or management measures and where such fishing activities are conducted in a manner inconsistent with State responsibilities for the conservation of living marine resources under international law.*<sup>42</sup>

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<sup>41</sup> CCAMLR 16th Meeting of the Parties, 1997. Cited in CT Agnew and DJ Barnes, 'Economic Aspects and Drivers of IUU Fishing: Building a Framework' in *Fish Piracy: Combating Illegal, Unreported and Unregulated Fishing*, OECD, Paris, 2004 at 171–2; and RG Rayfuse, *Non-Flag State Enforcement in High Seas Fisheries* (Brill, 2004), at 37.

<sup>42</sup> Para. 3 of the FAO *International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing* (UNFAO, 2001) (herein after 'IPOA-IUU').

### **17.3.2 What action has been taken against IUU fishing?**

The threat posed by IUU fishing is, of course, one that predates the *Compact* by many years and has, for over a decade, been viewed as one of the gravest challenges faced by the international community. To rise to this challenge the FAO has, over the course of the last two decades embarked upon a series of initiatives and produced a number of guidelines and soft laws directly aimed at tackling the scourge of IUU fishing. In 1993, for instance, the FAO Compliance Agreement<sup>43</sup> was opened for signature, followed two years later by the voluntary Code of Conduct for Responsible Fisheries, and then, in 2001 the aforementioned FAO International Plan of Action was introduced. In addition to these FAO initiatives, there is, of course, the UNCLOS and its progeny, the Fish Stocks Agreement.<sup>44</sup> Hence, the next sections of this chapter will, necessarily briefly, consider—in chronological order—the most salient features of each of these initiatives and instruments and, crucially, chart the levels of acceptance (by States) of the provisions contained therein.

### **17.3.3 United Nations Convention on the Law of the Sea**

UNCLOS is, of course, the authoritative statement of the law of the sea and with over 160 State parties is widely accepted as such by the majority of the international community. Whilst it might be an authoritative statement of law, insofar as IUU fishing is concerned, it is far from definitive. Instead UNCLOS proceeds on the basis of setting out broad and general principles: States must, for instance, cooperate to conserve and maintain fish stocks (and dependent and associated species) in the high seas;<sup>45</sup> within their EEZs States may—if not must—exploit the natural living resources (that is fish and other living creatures) in a manner that does not endanger them by over-exploitation.<sup>46</sup> Beyond these rather vaguely stated and aspirational aims UNCLOS is, however, almost entirely silent on how, exactly, States should go about putting these obligations into practice. Thus, to fill this void, we should now consider the supplemental agreements and codes of conduct that have been promulgated since UNCLOS.

### **17.3.4 The FAO Compliance Agreement**

Ten years after it was opened for signature, the Compliance Agreement received its twenty-fifth instrument of acceptance, and consequently came into force in

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<sup>43</sup> Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, FAO, 1993.

<sup>44</sup> The 1995 United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks.

<sup>45</sup> UNCLOS, Arts 63–8 and 116–20.

<sup>46</sup> UNCLOS, Arts 61–2.



August 2003.<sup>47</sup> Dealing specifically with high seas fishing the Compliance Agreement seeks to address one of the most fundamental problems of high seas fishing—the failure of States to exercise adequate jurisdiction over their registered vessels. The obvious problem with the Compliance Agreement is, consequently, that it is, in simple terms, an exercise in preaching to the converted: the ‘problematic’ States—flag of convenience States and those operating as havens for IUU vessels—are not parties to the Agreement and, it is confidently asserted, nor are they ever likely to be. These so-called flags of non-compliance exist for the single and avowed purpose of evading detailed international laws that might govern fisheries and so, irrespective of how laudable the aims of the Compliance Agreement are, they simply do not, and cannot, apply to the States that cause the problems.

### **17.3.5 The UN Fish Stocks Agreement**

The same is true, in the most part, for the United Nations Fish Stocks Agreement (UNFSA). Whilst it is now in force, having received the necessary thirty instruments of ratification or succession, the State coverage of UNFSA remains, as of November 2015, only half that of UNCLOS. Notably a number of ‘historic’ flag of convenience States, such as Belize, Panama, and Liberia are party to UNFSA: equally noteworthy, however, is the fact that by virtue of their failure to indicate their compliance with the provisions of UNFSA over 100 States remain unbound by the provisions of UNFSA—in other words over 100 States are potential flags of non-compliance. This is particularly problematic because, like the Compliance Agreement before it which attempted to supplement UNCLOS’ provisions on flag State control, UNFSA has the potential to properly flesh out, in a meaningful way, the provisions of UNCLOS that require States to cooperate with one another to protect the oceans. For instance, Article 8 mandates and institutionalizes cooperation by placing competency for conservation and management measures with regional fisheries management organizations (RFMO) and compels interested States to either become members or participants of the RFMO or to agree to abide by the RFMO’s decided conservation and management stratagem. A failure by any State party to adhere to the requirements of co-operation debars that State from engaging in the fisheries to which the management measures apply. In short, the UNFSA challenges the hitherto unfettered freedom to engage in high seas fishing by stating that only members of the RFMO or States implementing the RFMO’s management and conservation measures may participate in the fishery. Hence, in an ideal world, all States (if parties to UNFSA) would be obliged to implement the

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<sup>47</sup> Fisheries and Aquaculture Department of the FAO, Compliance Agreement homepage, available at: <<http://www.fao.org/fishery/topic/14766/en>>.

often very detailed and comprehensive rules adopted by RFMOs which, again in an ideal world, would severely curtail the activities of the international IUU fishing fleet. Correlatively, if States are not parties to UNFSA—which most are not—they have no obligation to adhere to these rules and regulations and absent of any means of lawful compulsion<sup>48</sup> (which would be offensive to principles of State sovereignty) there is very little that can be done to compel States to so do.

### **17.3.6 The Code of Conduct for Responsible Fisheries**

The Code of Conduct was adopted unanimously by all 170 members of the FAO in 1995, and although voluntary in application by States, this Code arguably represents the most detailed and accepted statement of principle underpinning international fisheries. Whilst UNFSA specifies that all States should work together, under the auspices of RFMOs, the Code of Conduct's provisions (and those of the International Plans of Action (IPOAs), discussed below) go some way in characterizing what States and groups of States should do, and how they should achieve these aims. Consequently, when read together UNFSA and the Code of Conduct (and its associated IPOAs) *should* operate as the mandate and constitution for all regional bodies: whereas UNFSA authorizes States to act together to conserve and protect, the Code of Conduct—acting as the 'any generally recommended international minimum standards for the responsible conduct of fishing operations'<sup>49</sup>—provides these States with the necessary direction, strategy, and detail. Although the Code itself does not expressly deal with IUU fishing there are a number of noteworthy provisions that, if applied properly by all States, should impact on the ability of the IUU fleet to operate. Notably in this regard are the 'general principles' enunciated under Article 6 which require that all fisheries operations are conducted in a manner that neither threatens the fish stocks, non-target species or the environment.

### **17.3.7 The FAO International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing**

Building upon the Code of Conduct, and issued under its auspices, the International Plan of Action (IPOA/IUU) is, as its name suggests, explicitly targeted at the global IUU fleet. Highly significantly the IPOA/IUU considered the problem of IUU fishing from an economic perspective, and crucially empowered hitherto toothless coastal States and port States to take action. Whilst prior initiatives placed the obligation to deal with IUU vessels onto the flag States (which, as noted

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<sup>48</sup> Although the possibility of political and economic compulsion always remain viable, of course, and have, in recent years, proved to be successful against certain notorious FOC States.

<sup>49</sup> UNFSA Art. 10(c).

above, was a fundamentally flawed policy because most flag of non-compliance States operate a deliberate or consequential policy of non-regulation, hence why they are non-compliant in the first place) paragraph 52 to the IPOA/IUU permits/ requires coastal States to block access to their ports to known and identified<sup>50</sup> IUU vessels and those vessels that are flagged to non-RFMO member or co-operating States. The restriction of access to ports is clearly significant as, except in cases of *force majeure*, no IUU vessels can re-fuel, re-supply, or land or tranship their catches. States should also, under the IPOA/IUU refuse imports of fish or fisheries products into their territories, so even if, for instance, a consignment of fish was landed in a so-called port of convenience (one that turns a blind eye to the requirements of the IPOA/IUU) it cannot enter the international market place via the back door: importing States should require proof, in the form of catch documentation schemes, that any fish being brought into their territory is not the product of IUU activity. To give further effect to the port State provisions of the voluntary IPOA/IUU, the FAO agreed in 2009 the Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated fishing. The Port State Agreement, whilst largely replicating many of the relevant provisions of the IPOA/IUU has, at least, the benefit of binding signatory States to its provisions and to date a total of fifty States have implemented the national measures required under the Agreement to prevent the use of ports by IUU vessels.

On the basis of the framework, and interplay between the treaties and guidelines, it is abundantly clear that sufficient rules and structural arrangements exist to prevent IUU fishing remaining a major threat to the oceans. The fact, however, that two decades after the process of finite and detailed regulation was begun, in the form of the Compliance Agreement, and later UNFSA, and the Code of Conduct et al, the issue of IUU fishing remains as a perceived threat reveals that something has, despite the best efforts of the UN and the FAO, gone wrong. The *Oceans Compact*, by recognizing that the framework for the protection of the oceans requires, for its efficacy, to be properly implemented is, therefore, a timely reminder that States must take their responsibilities seriously: for those ‘responsible States’—those that have signalled their intent to be bound by the provisions of the Compliance Agreement and UNFSA (many of which are those States in which the majority of fish products are consumed)—the IPOA/IUU and the 2009 FAO Agreement on Port State offer the opportunity to avoid the hypocrisy of castigating flag States for their failure to exercise effective jurisdiction over their vessels, whilst at the same time turning a blind eye to unlawful imports of the fruits of the IUU activities.

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<sup>50</sup> Paras 80.5 and 81 of the IPOA/IUU requires States and RFMOs to identify and record all IUU vessels and publicize these records.

## 17.4 Marine Geo-Engineering

Possibly the greatest single threat to marine security, let alone global security, is climate change.<sup>51</sup> On land, climate change will cause temperature rises, drought, increased salinity of rivers through salt water intrusion, glacial melt, flooding, greater weather unpredictability, and intensity of storms, as well as impacts on biodiversity.<sup>52</sup> For the remaining two-thirds of the Earth's surface, climate change will cause the melting of the Arctic polar ice cap, sea level rise, ocean warming and acidification, and coral bleaching, as well as the decline of certain fish and marine species.<sup>53</sup> With such severe and wide-scale impacts predicted, it is no surprise that scientists have been researching ways to mitigate or slow down the rising CO<sub>2</sub> levels in the atmosphere, by seeking to store or divert CO<sub>2</sub> elsewhere, or by shading the Earth's surface from the sun's warming rays.<sup>54</sup> Such technological fixes might prove to be even more important if global climate change talks continue to end in pitiful legal commitments on emissions reductions.<sup>55</sup> Yet, these scientific fixes are not without controversy and while the process of climate change will have fairly predictable impacts on the oceans and marine species, the future threat posed to marine security by ocean-based climate change mitigation strategies (often referred to as 'geo-engineering'<sup>56</sup>) remains unclear.

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<sup>51</sup> This section was written by Karen Hulme.

<sup>52</sup> See generally Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: Impacts, Adaptation and Vulnerability*, Contribution of Working Group II to the Fourth Assessment Report of the IPCC (Cambridge University Press, 2007).

<sup>53</sup> IPCC, *Climate Change 2007: Impacts, Adaptation and Vulnerability* (n. 52). See also IPCC, *Climate Change 2007: The Physical Science Basis*, Contribution of Working Group I to the Fourth Assessment Report of the IPCC (Cambridge University Press, 2007), chap. 5, Observations: Oceanic Climate Change and Sea Level.

<sup>54</sup> See eg The Royal Society (UK), *Geoengineering the Climate: Science, Governance and Uncertainty*, September 2009, 1–3; PJ Crutzen, 'Albedo Enhancement by Stratospheric Sulfur Injections: A Contribution To Resolve A Policy Dilemma?' (2006) 77 *Climate Change* 211–19; JJ Cullen and PW Boyd, 'Predicting and Verifying the Intended and Unintended Consequences of Large-Scale Ocean Iron Fertilization' (2008) 364 *Marine Ecology Progress Series* 295–301; RA Kerr, 'Pollute the Planet for Climate's Sake?' (2006) 314 *Science* 401–3; E Kintisch, 'Scientists Say Continued Warming Warrants Closer Look at Drastic Fixes' (2007) 318 *Science* 1054–5.

<sup>55</sup> S Leahy, 'Doha Climate Summit Ends With No New CO<sub>2</sub> Cuts or Funding', Inter Press Service, 10 December 2012, available at <<http://www.globalissues.org/news/2012/12/10/15484>>.

<sup>56</sup> The term appears to have first been adopted by C Marchetti, 'On Geoengineering and the CO<sub>2</sub> Problem' (1977) 1 *Climate Change* 59. The Royal Society definition of geo-engineering is the 'deliberate large-scale manipulation of the planetary environment to counteract anthropogenic climate change': see The Royal Society (UK) Report (n. 54) 1; United States Government Accountability Office (GAO), *Technology Assessment: Climate Engineering: Technical Status, Future Directions and Potential Responses*, (U.S. Government Accountability Office, Washington DC, USA, 2011); W Rickels, G Klepper, J Dover, G Betz, N Brachatzek, S Cacean, K Güssow, J Heintzenberg, S Hiller, C Hoose, T Leisner, A Oschlies, U Platt, A Proelß, O Renn, S Schäfer, and M Zürn, *Large-Scale Intentional Interventions into the Climate System? Assessing the Climate Engineering Debate*, Scoping report conducted on behalf of the German Federal Ministry of Education and Research (BMBF), (Kiel Earth Institute, 2011).

In October 2012 the Intergovernmental Oceanographic Commission (IOC) of UNESCO issued a statement<sup>57</sup> in which it disapproved of the actions of a US company (Planktos Inc.) which had carried out a large-scale ocean iron fertilization experiment in the Pacific Ocean 300km off the Canadian west coast.<sup>58</sup> Iron (as well as phosphorous and nitrogen) is a nutrient for certain marine species and its introduction into the oceans is designed to mimic natural photosynthesis in encouraging the growth of phytoplankton ('algal bloom'), which as it dies sinks to the oceans depths—carrying the CO<sub>2</sub> stored within it.<sup>59</sup> Certain areas of the oceans are nutrient-depleted and so it is here (notably the Southern Oceans) where iron fertilization experiments have been most prevalent with varying degrees of success. Ocean iron fertilization (OIF) is undoubtedly the most controversial of proposed ocean mitigation strategies because of the unpredictability of its long-term environmental impacts, for example the potential for the creation of more toxic algal blooms,<sup>60</sup> increased ocean acidification or altered ocean chemistry, deep-water oxygen depletion, and reverberating food-web effects,<sup>61</sup> and thus its high potential for ecosystem-level environmental change. Although small-scale well-monitored OIF experiments have taken place,<sup>62</sup> such large-scale unregulated and unmonitored experiments by private companies is a clear threat to marine environmental security and ocean governance. The gravity of the potential threat to marine environmental security is compounded, however, by the confusing regulatory situation. At present there exists a patchwork of customary environmental law principles and laws, including the fundamental Principle 21, precautionary principle and the requirement of environmental impact assessment, overlaid with a number of relatively diffuse treaty-based regulatory efforts, and it is highly

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<sup>57</sup> Statement by the Intergovernmental Oceanographic Commission of UNESCO regarding Ocean Fertilization, UNESCO, 19 October 2012, available at <[http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/SC/pdf/IOC\\_statement\\_Ocean\\_fertilization.pdf](http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/SC/pdf/IOC_statement_Ocean_fertilization.pdf)>.

<sup>58</sup> M Lukacs, 'World's Biggest Geoengineering Experiment "Violates" UN Rules', *The Guardian*, 15 October 2012, available at <<http://www.guardian.co.uk/environment/2012/oct/15/pacific-iron-fertilisation-geoengineering>>.

<sup>59</sup> See recent survey results suggesting that 'at least half the bloom biomass sank far below a depth of 1,000 metres' representing a good level of CO<sub>2</sub> sequestration via OIF, by V Smetacek et al, 'Deep Carbon Export From a Southern Ocean Iron-Fertilized Diatom Bloom' (2012) 487 *Nature* 313–19, 313; although these results are not without question, see KO Buesseler, 'The Great Iron Dump' (2012) 487 *Nature* 305–6; see also MH Huesemann, 'Ocean Fertilization and Other Climate Change Mitigation Strategies: An Overview' (2008) 364 *Marine Ecology Progress Series* 243–50.

<sup>60</sup> According to the US National Oceanic and Atmospheric Administration (NOAA) the economic effects of harmful algal blooms (HABs) in the US are at least \$82 million per year, available at <[http://www.cop.noaa.gov/stressors/extremeevents/hab/current/HAB\\_Econ.aspx](http://www.cop.noaa.gov/stressors/extremeevents/hab/current/HAB_Econ.aspx)>.

<sup>61</sup> See, among others, Cullen and Boyd (n. 54); Smetacek et al (n. 59); Buesseler, (n. 59); Eli Kintisch, 'Should Oceanographers Pump Iron?' (2007) 318 *Science* 1368 at 1370; KO Buesseler et al, 'Ocean Iron Fertilization—Moving Forward in a Sea of Uncertainty' (2008) 319 *Science* 162; KO Buesseler, S Doney and H Kite-Powell, 'Should We Fertilize the Ocean to Reduce Greenhouse Gases?' (2008) 46 *Oceanus* 1.

<sup>62</sup> SW Chisholm, PG Falkowski, and JJ Cullen, 'Dis-Crediting Ocean Fertilization' (2001) 294 *Science* 309–10; Kintisch (n. 61).

questionable whether these rules add up to a sufficient global governance structure.<sup>63</sup>

Filling the regulatory void at present is the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention or LC)<sup>64</sup> and its 1996 successor the London Protocol as amended in 2006 (LP).<sup>65</sup> The LC/LP forum has proven to date to be the most fruitful, first, in establishing OIF as an issue of international concern (note the 2008 statement of concern which limited OIF projects to those of legitimate scientific research<sup>66</sup> and thus in effect prohibiting commercial uses), and, second, in adopting in 2010 an Assessment Framework for Scientific Research Involving Ocean Fertilization<sup>67</sup> to determine whether individual proposed experiments qualify as 'legitimate scientific research'. As part of that process the (non-binding) guidance required that an extensive environmental impact and risk assessment is carried out. Then, finally, in 2013 State Parties negotiated Article 6bis to the 1996 Protocol regulating the use of 'marine geoengineering activities (including OIF)'.<sup>68</sup> Accordingly, Article 6bis reads:

Contracting Parties shall not allow the placement of matter into the sea from vessels, aircraft, platforms, or other man-made structures at sea for marine geoengineering activities listed in Annex 4, unless the listing provides that the activity or the sub-category of an activity may be authorized under a permit.

Under the new instrument, Marine 'geoengineering' is defined as 'a deliberate intervention in the marine environment to manipulate natural processes, including to counteract anthropogenic climate change and/or its impacts, and that has

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<sup>63</sup> For a review of the applicability and value of environmental principles more generally, including Principle 21, see R Bodle, 'Geoengineering and International Law: The Search For Common Legal Ground' (2010) 46 *Tulsa L Rev* 305–22; KN Scott, 'International Law in the Anthropocene: Responding to the Geoengineering Challenge' (2013) 34 *Michigan Journal of International Law* 309–58.

<sup>64</sup> In force 1975, (1972) 1046 UNTS 120.

<sup>65</sup> Opened for signature 7 Nov 1996, in force 24 Mar 2006, (1997) 36 *ILM* 1; and Notification of amendments to Annex 1 to the London Protocol 1996, see LC-LP.1/Circ.5, 27 Nov 2006, available at <<http://www.imo.org/OurWork/Environment/SpecialProgrammesAndInitiatives/Pages/London-Convention-and-Protocol.aspx>>.

<sup>66</sup> See Statement of Concern Regarding Iron Fertilization of the Oceans to Sequester CO<sub>2</sub>, LC-LP.1/Circ.14, 13 July 2007, available at <[http://www.whoi.edu/cms/files/London\\_Convention\\_statement\\_24743\\_29324](http://www.whoi.edu/cms/files/London_Convention_statement_24743_29324)>; Resolution LC-LP.1 (2008) on the Regulation of Ocean Fertilization, (Adopted on 31 Oct 2008), available at <<http://www.imo.org/OurWork/Environment/SpecialProgrammesAndInitiatives/Pages/London-Convention-and-Protocol.aspx>>.

<sup>67</sup> Resolution LC-LP.2 (2010) on the Assessment Framework For Scientific Research Involving Ocean Fertilization, (Adopted on 14 Oct 2010), available at <[http://www.imo.org/blast/blastDataHelper.asp?data\\_id=311100&filename=2010resolutiononAFOF.pdf](http://www.imo.org/blast/blastDataHelper.asp?data_id=311100&filename=2010resolutiononAFOF.pdf)>.

<sup>68</sup> See Annex 4, Resolution LP.4(8), on the Amendment to the London Protocol to Regulate the Placement of Matter for Ocean Fertilization and Other Marine Geoengineering Activities, (Adopted on 13 Oct 2014), available at <<http://www.imo.org/OurWork/Environment/LCLP/EmergingIssue/s/geoengineering/Pages/default.aspx>>.

the potential to result in deleterious effects, especially where those effects may be widespread, long-lasting or severe'. The concept of 'ocean fertilization', also defined in the new Annex 4, refers to 'any activity undertaken by humans with the principal intention of stimulating primary productivity in the oceans. Ocean fertilization does not include conventional aquaculture, or mariculture, or the creation of artificial reefs'. According to Article 1(3) of the new Annex 4, an 'ocean fertilization activity' can only be permitted if it constitutes 'legitimate scientific research', and, thus, developments in this area have finally been brought within a coherent and clear legal regime. Thus, once the provisions are brought into effect (requiring ratification by two thirds of the members of the Protocol), state parties to the LC/LP will be able to do more than simply issue a statement expressing their 'grave concern' over experiments such as that undertaken by Planktos Inc. in 2012.<sup>69</sup>

Yet, there are clear problems with the LC/LP management of the OIF issue. Many states remain outside the regime and many others are yet to make the transition to the Protocol, created as the successor instrument to the Convention. At present its numbers stand at a mere forty-five ratifications compared with eighty-seven for the Convention.<sup>70</sup> As Rayfuse recognized the LC/LP regime stalled under questions as to its appropriateness in governing this issue.<sup>71</sup> Initial concerns had surrounded the issue of whether OIF even fell within the regime's definition of 'dumping',<sup>72</sup> but this question has now been addressed with the definitions and permitting requirements.<sup>73</sup> There is clearly still the need for the permitting system to be robust, as is shown by the Planktos Inc. suggestion that its fertilization exercise was intended not as a carbon storage experiment but as a salmon enhancement project (ocean nutrient project to increase fish resources).<sup>74</sup>

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<sup>69</sup> 'International concern over ocean fertilization receives unanimous backing from key meeting in London', see Statement of concern regarding the iron fertilization project in ocean waters west of Canada, 2/11/2012, available at <<http://www.imo.org/OurWork/Environment/SpecialProgrammesAndInitiatives/Pages/London-Convention-and-Protocol.aspx>> See also M Eick, 'Geoengineering: A Navigational System For Uncharted Waters: The London Convention and London Protocol's Assessment Framework on Ocean Iron Fertilization' (2010) 46 *Tulsa L Rev* 351–78.

<sup>70</sup> Correct as at 7/12/2015, see <<http://www.imo.org/OurWork/Environment/SpecialProgrammesAndInitiatives/Pages/London-Convention-and-Protocol.aspx>>.

<sup>71</sup> R Rayfuse, 'Climate Change and the Law of the Sea' in R Rayfuse and SV Scott (eds), *International Law in an Era of Climate Change* (Edward Elgar, 2012) 147–74 at 169–172.

<sup>72</sup> Art. 1(4)(11), LP.

<sup>73</sup> For opinions on OIF and the LC/LP regime see also Rickels et al (n. 56) at 94–7; RS Abate and AB Greenlee, 'Sowing Seeds Uncertain: Ocean Iron Fertilization, Climate Change, and the International Environmental Law Framework' (2009–2010) 27 *Pace Envtl L Rev* 555, 578–9; R Rayfuse, 'Drowning Our Sorrows to Secure A Carbon Free Future? Some International Legal Considerations Relating to Sequestering Carbon By Fertilising the Oceans' (2008) 31 *UNSWLJ* 919, at 924; R Rayfuse, MG Lawrence, and KM Gjerde, 'Ocean Fertilisation and Climate Change: The Need to Regulate Emerging High Seas Uses' (2008) 23 *International Journal of Marine and Coastal Law* 297–326, 309–17.

<sup>74</sup> Lukacs (n. 58).

On the other hand, at the global treaty level the United Nations Convention on the Law of the Sea 1982 (UNCLOS)<sup>75</sup> does not at present offer specific regulation of OIF.<sup>76</sup> There are clearly provisions in UNCLOS promoting the freedom of the seas,<sup>77</sup> allowing the conduct of marine scientific research,<sup>78</sup> and reiterating the sovereign right of states to exploit resources within their jurisdiction,<sup>79</sup> albeit all must take place in conformity with provisions requiring the protection of the marine environment<sup>80</sup> (especially of rare or fragile ecosystems<sup>81</sup>), in particular the prohibition on dumping.<sup>82</sup> Yet, while many of these obligations are clearly customary in nature, the substance of such provisions appears to produce the same quandaries as previously found within the 'dumping' dilemma debated among the LC/LP parties. Similarly, the United Nations Framework Convention on Climate Change (UNFCCC)<sup>83</sup> and the Kyoto Protocol (KP)<sup>84</sup> appear to offer little, if anything, by way of regulation for OIF. While perceived mitigation strategies did include the increase of carbon sinks,<sup>85</sup> the regime refers only and specifically to increasing forest-based carbon storage.<sup>86</sup>

Thus, while it seems that the two most pertinent instruments to govern OIF should be the UNFCCC and UNCLOS, these fora have so far proven to be completely inadequate. Certainly, the complexity and sheer enormity of the phenomenon of climate change has proven to be too much for the singular

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<sup>75</sup> See also the regional seas agreements establishing enhanced marine protection, for example the 1992 Convention for the Protection of the Marine Environment of the North East Atlantic (Paris, 22 September 1992, entered into force 25 March 1998) 2354 UNTS 67, 32 *ILM* 1072 (OSPAR). The Convention was amended in 2007 to allow for carbon sequestration in geological formations but not in the water column or on the seabed, OSPAR Decision 2007/2 on the Storage of Carbon Dioxide Streams in Geological Formations, and guidelines were issued, see OSPAR Guidelines for Risk Assessment and Management of Storage of CO<sub>2</sub> Streams in Geological Formations, 2007, available at <<http://www.ucl.ac.uk/ccdp/pdf/OSPAR2007-Annex-7.pdf>>; see also KN Scott, 'The Day After Tomorrow: Ocean CO<sub>2</sub> Sequestration and the Future of Climate Change' (2005–6) 18 *Geo Int'l Envtl L Rev* 57–108.

<sup>76</sup> Currie and Wowk, among others, suggest that a new implementing agreement is needed to close the governance gap in UNCLOS. Governance of ocean fertilization activities would fall within the proposals for inclusion related to adoption of the precautionary principle and environmental impact assessments for marine activities and an integrated, ecosystem-based management approach. See DEJ Currie and K Wowk, 'Climate Change and CO<sub>2</sub> in the Oceans and Global Oceans Governance: Improving Governance of the World's Oceans' (2009) *Carbon & Climate L Rev* 387–404, 402.

<sup>77</sup> Art. 87 UNCLOS.

<sup>78</sup> Arts 238–40, and Part XIII, UNCLOS.

<sup>79</sup> Art. 77(1) UNCLOS.

<sup>80</sup> See Part XII, in particular Arts 192–5, 204, 206, 207, and 208, UNCLOS; for consideration of the value of such general principles see also P Verlaan, 'Geo-engineering, the Law of the Sea, and Climate Change' (2009) *Carbon & Climate L Rev* 446–58.

<sup>81</sup> Art. 194(5) UNCLOS.

<sup>82</sup> Art. 210 UNCLOS.

<sup>83</sup> (New York, 9 May 1992, entered into force 21 March 1994) 1771 UNTS 107, (1992) 31 *ILM* 849.

<sup>84</sup> (1998) 37 *ILM* 22.

<sup>85</sup> Art. 2(1)(a)(ii), KP.

<sup>86</sup> Art. 3(3), KP.



UNFCCC regime to cope with. And since the linkages and synergisms between climate change and other environmental concerns, such as biodiversity and the health of ecosystems, have grown, other regimes have been forced to take on the mantle. Pertinent also here, therefore, due to the potentially long-term and unknown impacts of OIF on the marine ecosystem and its species, is the recent moratorium<sup>87</sup> adopted at the 9th Conference of the Parties to the 1992 Convention on Biological Diversity<sup>88</sup> (CBD). According to paragraph 4 of the 2008 Decision, the Conference of the Parties

*requests* Parties and *urges* other Governments, in accordance with the precautionary approach, to ensure that ocean fertilization activities do not take place until there is an adequate scientific basis on which to justify such activities, including assessing associated risks, and a global, transparent and effective control and regulatory mechanism is in place for these activities; with the exception of small scale scientific research studies within coastal waters. Such studies should only be authorized if justified by the need to gather specific scientific data, and should also be subject to a thorough prior assessment of the potential impacts of the research studies on the marine environment, and be strictly controlled, and not be used for generating and selling carbon offsets or any other commercial purposes.<sup>89</sup>

With a more impressive figure of 196 state parties this move under the auspices of the Biodiversity Convention was certainly a crucial step in international regulation.<sup>90</sup> Yet, since the Conference of the Parties does not have the power to bind the parties to its decisions, the moratorium, while a powerful and influential statement, remains technically a non-binding obligation.<sup>91</sup> Furthermore, in 2010 the tenth Conference of the Parties extended the OIF moratorium to include all climate-related geo-engineering activities that may affect biodiversity,<sup>92</sup> which would appear to include most ocean-based mechanisms.

And so what of the other proposed geo-engineering mechanisms? The Royal Society distinguishes between two broadly distinct approaches to geo-engineering.<sup>93</sup> The first involves so-called solar radiation management, called 'sunshade schemes'

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<sup>87</sup> CBD COP9, Decision IX/16 on Biodiversity and Climate Change, Part C. Ocean Fertilization, UNEP/CBD/COP/DEC/IX/16, 9 October 2008, Bonn, available at <<http://www.cbd.int/doc/decisions/cop-09/cop-09-dec-16-en.pdf>>.

<sup>88</sup> (Rio de Janeiro, 5 June 1992, entered into force 29 December 1993) 1760 UNTS 79, 31 (1992) *ILM* 818.

<sup>89</sup> Decision IX/16, (n. 87).

<sup>90</sup> See Bodle (n. 63); A Proelss and M Krivickaite, 'Marine Biodiversity and Climate Change' (2009) *Carbon & Climate L Rev* 437–45; Secretariat of the Convention on Biological Diversity, *Geoengineering in Relation to the Convention on Biological Diversity: Technical and Regulatory Matters*, CBD Technical Series No. 66 (Montreal, September 2012) available at <<http://www.cbd.int/doc/publications/cbd-ts-66-en.pdf>>.

<sup>91</sup> Art. 23, CBD.

<sup>92</sup> CBD COP10, Decision X/33, Biodiversity and Climate Change, para. w., available at <<http://www.cbd.int/decision/cop/?id=12299>>

<sup>93</sup> The Royal Society (UK) Report (n. 54) at 1.

by Bala<sup>94</sup>, where techniques are employed to reduce the amount of solar radiation reaching the Earth's surface. Such mechanisms can range from the very simple, such as painting white the roofs of houses, to the more complex, such as the use of sulphur particles, dust, large balloons, highly reflective nanoparticles, or mirrors in the atmosphere/stratosphere to reflect the sunlight.<sup>95</sup> As regards the oceans more specifically, one proposed mechanism would see small reflecting particles scattered over the surface of the oceans by fleets of ships or platforms or the non-chemical method of using microbubbles<sup>96</sup> to increase the reflectivity (or albedo) of the oceans and thus to prevent the harmful effects of the sun's energy reaching the oceans.<sup>97</sup> The maritime security dimensions of such ocean-based reflectivity exercises would clearly again be concerned with any particular substances used and their impact on the marine environment and biodiversity, as well as the potential harmful effects of cooling temperatures and decreased light penetration on species in all affected layers of the water column, and thus may fall within the CBD moratorium, as well as the UNCLOS freedoms of navigation and fishing where such platforms or shipping fleets were located on the high seas.<sup>98</sup> Other ocean-based sunshade schemes include the artificial increase in cloud formation,<sup>99</sup> with primary maritime security threats being due to the shipping or platform/facility required to undertake the cloud seeding, as well as the substances concerned.

The second of the Royal Society's categories is that of increasing the uptake of atmospheric CO<sub>2</sub> in other locations, either by its removal and sequestration or the artificial adjustment of ecosystem processes to encourage its uptake. One example of the latter is OIF, another would be the notion of ocean alkalization which seeks to increase the CO<sub>2</sub> absorptive power of the oceans by the use of chemicals to reduce its acidity (known as 'enhanced weathering').<sup>100</sup> With a more ph neutral or alkaline chemistry the oceans would be able again to increase their uptake of CO<sub>2</sub>. Wave-driven pumps placed on the ocean floor is a further possibility, suggested to pump to the surface the nutrient-rich seabed waters and with it encourage the growth of phytoplankton, as with OIF, and consequently the sinking to the ocean floor of the dead phytoplankton and the CO<sub>2</sub> contained within (so-called 'carbon dioxide drawdown').<sup>101</sup> Regarding other storage options, in addition to

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<sup>94</sup> G Bala, 'Problems with Geoengineering Schemes to Combat Climate Change' (2009) 96 (1) *Current Science* 41–8, 42.

<sup>95</sup> Bala (n. 94) 42–3.

<sup>96</sup> R Seitz, 'Bright Water: Hydrosols, Water Conservation and Climate Change' (2011) *Climatic Change*, available at <<http://nrs.harvard.edu/urn-3:HUL.InstRepos:4737323>>.

<sup>97</sup> Bala (n. 94) 42–3.

<sup>98</sup> M Cunliffe, RC Upstill-Goddard, and JC Murrell, 'Microbiology of Aquatic Surface Micro-layers' (2011) 35 *FEMS Microbiology Review* 233–46.

<sup>99</sup> GAO Report (n. 56) 35–6.

<sup>100</sup> The Royal Society (UK) Report, (n. 54) at 12–15.

<sup>101</sup> Warner refers to a more overarching global instrument on protection of the marine environment beyond national jurisdiction more broadly, see R Warner, 'Preserving a Balanced Ocean:

simpler, more natural CO<sub>2</sub> sequestration in land-based vegetation format (reforestation and afforestation), sequestration mechanisms are also proposed for deep land-based geological formations, and sub-seabed formations (known as 'carbon capture and storage' or CCS).<sup>102</sup>

Such CCS mechanisms involve the capture of CO<sub>2</sub> emissions directly from a large source (such as a power station) and its removal via undersea pipelines to underground pockets of rock (such as saline aquifers or depleted oil and gas seams) providing suitable and secure storage.<sup>103</sup> Successful CCS trials have been conducted which show a very high retention rate of the sequestered carbon dioxide.<sup>104</sup> Again, however, a number of dangers for maritime security are clear, including the potential hazards to navigation and shipping from such pipelines and offshore facilities, but it is the less predictable ones that could raise more problems. A major concern is the seepage of CO<sub>2</sub> in the future, and how the release of a large volume of sequestered CO<sub>2</sub> might have severe localized impacts on the marine environment and, indeed, how it might add to the already saturated atmospheric emissions level at that point in time.<sup>105</sup> Such future tipping points are, by their nature, unpredictable. A second threat could arise from the marine environmental impacts of any additional contaminants or chemicals sequestered along with the CO<sub>2</sub>, such as pollutants not removed at the source of the carbon capture facility. Furthermore, while most current projects and proposals concern sequestration within areas of national jurisdiction, once viable sources of storage within these areas are exhausted there is the possibility of states moving to storage sites beyond national jurisdiction, and this then becomes a more urgent issue for international regulation.<sup>106</sup>

As regards regulation of CCS mechanisms it is again the LC/LP regime that has been most active, amending the LP in 2006 to allow and regulate the disposal of CO<sub>2</sub> via CCS facilities.<sup>107</sup> Further LP regulation requires the licensing of CCS facilities and extensive risk assessment and management.<sup>108</sup> More recent

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Regulating Climate Change Mitigation Activities in Marine Areas beyond National Jurisdiction' (2007) 14 *Austl. Int'l LJ* 99–120, 103–4.

<sup>102</sup> IPCC: B Metz, O Davidson, HC de Coninck, M Loos, and L A Meyer (eds), *IPCC Special Report on Carbon Dioxide Capture and Storage*, prepared by Working Group III of the Intergovernmental Panel on Climate Change, (Cambridge University Press, 2005).

<sup>103</sup> *IPCC Special Report on Carbon Dioxide Capture and Storage* (n. 102) 3–10.

<sup>104</sup> Note a mechanism for oil extraction (enhanced oil recovery) already uses the pressure values of CO<sub>2</sub> to force out the oil.

<sup>105</sup> See generally Warner (n. 101) at 102; The Royal Society (UK) Report (n. 54) 54–7.

<sup>106</sup> See Warner (n. 101) 104–7.

<sup>107</sup> LC-LP.1/Circ.5 (n. 65).

<sup>108</sup> Risk Assessment and Management Framework for CO<sub>2</sub> Sequestration in Sub-Seabed Geological Structures (CS-SSGS), LC/SG-CO<sub>2</sub> 1/7, Annex 3, adopted 2006, available at <<http://www.imo.org/OurWork/Environment/SpecialProgrammesAndInitiatives/Pages/London-Convention-and-Protocol.aspx>>; London Protocol: Specific Guidelines For Assessment Of Carbon Dioxide Streams

amendments of the LP have allowed the export of CO<sub>2</sub> by states for carbon storage purposes,<sup>109</sup> thus demonstrating the speedy general acceptance by states of the perceived viability and safety of sequestration mechanisms.<sup>110</sup> Indeed, the European Union (EU) has accepted the use of CCS as a carbon mitigation strategy which it is hoped will aid the EU to realize its stringent CO<sub>2</sub> reduction commitments.<sup>111</sup> In 2009 the European Council adopted Council Directive 2009/31/EC on the Geological Storage of Carbon Dioxide,<sup>112</sup> and many EU member states are adopting their own policies and legislation to stimulate and regulate this growing area of activity. With preliminary estimates of the value of CCS by the European Commission suggested to translate into some 15 per cent of the reductions required in the EU by 2030,<sup>113</sup> it is no surprise that the EU member states have started to explore the possibilities of large-scale CCS. The Commission in February 2012 issued its first (non-binding) opinion on a proposed CCS facility off the coast of Rotterdam in the Netherlands in which it reviewed positively the Dutch process for the granting of permits.<sup>114</sup> Emissions will be collected from the Maasvlakte Power Plant 3 located in the port of Rotterdam and the CO<sub>2</sub> will be transported by pipeline to an offshore platform, where it will be injected into the storage

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For Disposal into Sub-Seabed Geological Formations, adopted by the 2nd Meeting of Contracting Parties in November 2007, available at <<http://www.imo.org/OurWork/Environment/SpecialProgrammesAndInitiatives/Pages/London-Convention-and-Protocol.aspx>>.

<sup>109</sup> Resolution LP.3(4) on the Amendment to Article 6 of the London Protocol, (Adopted on 30 October 2009), available at [www.imo.org/blast/blastData.asp?doc\\_id=14442&filename=3.doc](http://www.imo.org/blast/blastData.asp?doc_id=14442&filename=3.doc).

<sup>110</sup> Rayfuse, 'Climate Change and the Law of the Sea' (n. 71) 169.

<sup>111</sup> Under the Kyoto Protocol the EU's combined emissions reductions stood at 8% (the so-called EU bubble). At the 2012 COP 18 climate talks held in Doha the EU agreed to accept a further reduction commitment of 20% in the new commitment period from 2013–2020, see Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP), Eighth Session, Outcome of the work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol, FCCC/KP/CMP/2012/L.9, 8 December 2012, available at <<http://unfccc.int/resource/docs/2012/cmp8/eng/l09.pdf>>.

The EU suggested that it would raise this commitment to a 30% reduction if other developed states agreed to comparable emission reductions and if developing countries contributed adequately according to their responsibilities and respective capabilities. The EU has further set itself the target, unilaterally and voluntarily, to achieving cuts of 80–95% (measured against 1990 levels) by 2050 in its Roadmap, see Communication from The Commission to The European Parliament, The Council, The European Economic and Social Committee and The Committee of The Regions, 'A Roadmap for moving to a competitive low carbon economy in 2050', Brussels, 8.3.2011, COM(2011) 112, available at <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0112:FIN:EN:PDF>>.

<sup>112</sup> OJ 2009 L140/114.

<sup>113</sup> Directive (n. 112), Recital 5.

<sup>114</sup> Commission Opinion of 28.2.2012 relating to the draft permit for the permanent storage of carbon dioxide in block section P18-4 of block section P18a of the Dutch continental shelf, in accordance with Article 10(1) of Directive 2009/31/EC of 23 April 2009 on the geological storage of carbon dioxide, Brussels, 28.2.2012, C(2012) 1236 final, available at <[http://ec.europa.eu/clima/policies/lowcarbon/ccs/implementation/docs/c\\_2012\\_1236\\_en.pdf](http://ec.europa.eu/clima/policies/lowcarbon/ccs/implementation/docs/c_2012_1236_en.pdf)>. For details of the Netherlands' legislation, see A Haan-Kamminga, MM Roggenkamp, and E Woerdman, 'Legal Uncertainties of Carbon Capture and Storage in the EU: The Netherlands as an Example' (2010) *Carbon & Climate L Rev* 240–9.

reservoir at a depth of over 3 km.<sup>115</sup> The UK has adopted a 'CCS Roadmap' which suggests the adoption of privately-funded CCS facilities on the basis that 'Carbon Capture and Storage (CCS) has the potential to be one of the most cost effective technologies for decarbonisation of the UK's power and industrial sectors'.<sup>116</sup> While in Germany controversy over the use of CCS caused some delay in Parliamentary approval of new legislation, with the resulting compromise document seeing a reduced maximum level of permitted storage capacity and more power to individual states to determine CCS locations within their borders as well as to veto storage (while having to accept pipelines).<sup>117</sup> Only days later in July 2012 the German coastal state of Schleswig-Holstein announced its intention to prohibit CCS within its borders.<sup>118</sup> Beyond the EU, other states, including Australia, for example, have also enacted regulation for CCS.<sup>119</sup> According to the *Global CCS Institute* in 2014 there were some twenty-two large-scale CCS projects in operation or construction around the world, with the projected capacity to store about 40 million tonnes of CO<sub>2</sub> each year.<sup>120</sup>

Thus the range of potential geo-engineering proposals is vast, with many being specific to either land-based or ocean-based solutions, while others could occur over both, thus incurring greater need for international cooperation and coordination of governance policies. Yet, since the very question of the value of geo-engineering, bearing in mind its potential for harm, remains unanswered, it is no surprise that global regulation has not been forthcoming. On the value of geo-engineering, Rickels et al, in their scoping report for the German Federal Ministry of Education and Research, suggest that 'It may ultimately prove necessary to accept a certain degree of environmental damage in this process in order to advance the comprehensive goal of climate protection'.<sup>121</sup> The Scoping Report was referring to the use of the precautionary principle in the context of balancing the risks to the environment at the research and, later, the deployment stages with the

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<sup>115</sup> For details see Commission Opinion (n. 114) 3.

<sup>116</sup> Department of Energy and Climate Change (DECC), 'CCS Roadmap: Supporting deployment of Carbon Capture and Storage in the UK' April 2012, available at <<http://www.decc.gov.uk/assets/decc/11/cutting-emissions/carbon-capture-storage/4899-the-ccs-roadmap.pdf>> Executive Summary, 6.

<sup>117</sup> Act on the Demonstration and Use of the Technology for the Capture, Transport and Permanent Storage of CO<sub>2</sub>, see Section 2 para. 2, and 5 respectively.

<sup>118</sup> K-A Scholz, 'No green light yet for clean coal technology', 20 July 2012, available at <<http://www.dw.de/no-green-light-yet-for-clean-coal-technology/a-16132024>>.

<sup>119</sup> See R Rayfuse and R Warner, 'Climate Change Mitigation Activities in the Ocean: Turning up the Regulatory Heat' in R Warner and C Schofield (eds), *Climate Change and the Oceans: Gauging the Legal and Policy Currents in the Asia Pacific and Beyond* (Edward Elgar, 2012) 234–61, at 249–52; MI Jeffery, 'Carbon Capture and Storage: Wishful Thinking or a Meaningful Part of the Climate Change Solution' (2009–10) 27 *Pace Envtl L Rev* 421–72.

<sup>120</sup> Global CCS Institute, *The Global Status of CCS: 2014*, Melbourne, Australia, available at <http://www.globalccsinstitute.com/publications/global-status-ccs-2014>. The Institute is a company advocating CCS projects.

<sup>121</sup> Rickels et al (n. 56) 102.

‘potentially climate-relevant advantages of climate engineering’.<sup>122</sup> And so, better late than never, it was a very positive development that geo-engineering was included by the IPCC in all three Working Groups for its Fifth Assessment Reports in 2014.<sup>123</sup>

The starting point then is that clearly, at present, there is no legally-binding international ban on geo-engineering. And while clearly a decisive and global move towards regulation and a precautionary approach to new techniques for climate change mitigation, the limits of the 2010 CBD moratorium are manifest, in that (1) it is non-binding and (2) only geo-engineering techniques that may impact biodiversity are covered. Thus, the moratorium is patchy as regards geo-engineering techniques as a whole, and the international community is still some way off effective global regulation of all geo-engineering techniques. Thus, the question is, therefore, whether the current ad hoc, patchwork approach to regulation is sufficient?<sup>124</sup>

Given the full range of land-based and marine-based geo-engineering proposals it is unlikely that a single overarching instrument could be sufficiently specific to establish effective governance.<sup>125</sup> Thus, it is more likely that any instruments that do evolve will emerge from the existing platforms for discussion, such as has already occurred with the LC/LP, and will be specific to a particular form of geo-engineering, such as CCS or OIF. The regulatory moves undertaken by the LC/LP had been predicted by a number of authors,<sup>126</sup> while Scott suggests that the best forum for such discussions to avoid the segregation of geo-engineering from climate change mitigation and adaptation more generally is that of the UNFCCC and, consequently, proposes a geo-engineering protocol to the Climate Change Convention itself.<sup>127</sup> Yet, the UNFCCC regime remains stymied by the Kyoto II process and so may not be the most efficient forum. On the other hand, it is suggested that due to its dynamism in coordinating multi-stakeholder projects, UNEP might provide a more valuable forum for coordinated efforts (1) for preliminary discussion of the key ethical, policy and legal questions<sup>128</sup> arising from geo-engineering proposals, and in (2) designing a geo-engineering governance framework. As it is, any future global instrument will clearly need to include key

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<sup>122</sup> Rickels et al (n. 56).

<sup>123</sup> IPCC, *Meeting Report: IPCC Expert Meeting on Geoengineering*, Lima, Peru, 20–22 June 2011, available at <[http://www.ipcc.ch/pdf/supporting-material/EM\\_GeoE\\_Meeting\\_Report\\_final.pdf](http://www.ipcc.ch/pdf/supporting-material/EM_GeoE_Meeting_Report_final.pdf)>. The Fifth Assessment Reports are available at <<http://www.ipcc.ch/index.htm>>.

<sup>124</sup> C Redgwell, ‘Geoengineering the Climate: Technological Solutions to Mitigation—Failure or Continuing Carbon Addiction’ (2011) *Carbon & Climate L Rev* 178–89.

<sup>125</sup> Warner refers to a more overarching global instrument on protection of the marine environment beyond national jurisdiction more broadly, see Warner (n. 101) at 118.

<sup>126</sup> See Eick (n. 69) 378.

<sup>127</sup> Scott, ‘Anthropocene’ (n. 63) 355.

<sup>128</sup> A discussion of these broader policy dimensions is suggested by Scott; see Scott, ‘Anthropocene’ (n. 63) 354.

principles such as the precautionary principle, as well as governance mechanisms for authorizing and monitoring scientific research permits and development projects (as does the LC/LP regime), a central oversight body, compliance and liability provisions.<sup>129</sup>

## 17.5 Conclusions

The three substantive sections of this chapter have each in their own way highlighted the different means by which international law is engaging with both continuing and new marine security threats in the form of illegal ocean dumping, IUU fishing, and marine geo-engineering activities/projects. While the international community appears to have little difficulty identifying new marine/maritime security threats, ambiguities remain in at least two aspects of the international legal responses to such new threats. First, flag and coastal State enforcement jurisdictional uncertainties remain over sea-based disposal (or operational discharge) of hazardous wastes/substances and IUU fishing activities, both within and beyond the EEZs of coastal States. Second, the need for better international co-operation and co-ordination between States, attendant multilateral institutions/organizations, and increasingly, relevant private actors in the form of special interest NGOs and business organizations, is now paramount to ensure the overall effectiveness of these international regimes. In other words, increasingly complex marine/maritime security threats require the participation of all stakeholders involved, irrespective of whether they are public or private actors, to be properly resolved.

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<sup>129</sup> See S Rayner, C Redgwell, J Savulescu, N Pidgeon, and T Kruger (2009) Memorandum on draft principles for the conduct of geoengineering research, (the 'Oxford Principles') reproduced in *House of Commons Science and Technology Committee, The Regulation of Geoengineering*, Fifth Report of the Session 2009–10, Report together with formal minutes, oral and written evidence, HC 221, 18 Mar 2010, available at <<http://www.publications.parliament.uk/pa/cm200910/cmsselect/cmsselect/221/221.pdf>>.

# 18

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## MILITARY USES OF THE SEA

*Natalino Ronzitti*

### 18.1 Introduction

The oceans offer several opportunities for military users, ranging from hard security to soft security. The former involves navies' mobility, capability of self-defence, and exercise of sea power for a number of reasons, including military action or simply showing the flag to assert a claim, countering other States' excessive claims and the use of the sea in wartime. The latter is related to maintaining law and order in the oceans or to implement coastal States' jurisdiction, such as the fight against illegal immigration, drug trafficking and vindicating coastal States laws beyond the territorial sea. Other naval activities, such as the fight against terrorism and piracy, fall between the two main uses of the sea. The present chapter is devoted only to 'hard security'. Soft security is dealt elsewhere in this volume as well as those activities that fall between, like terrorism and piracy. This does not mean that some reference is to be made to them, mainly when their relevance becomes a topic for hard security.

### 18.2 Military Uses

#### 18.2.1 Warships: Definition

Oceans may be used for multiple purposes, such as leisure, fishing, transportation, and commerce. Military purposes are one of the possible uses of the oceans. The main military users are navies. Hence the importance to define warships and their status.

The United Nations Convention on the Law of the Sea 1982 (UNCLOS)<sup>1</sup> restates in its Article 29 the definition of warship given by Article 8, para. 2

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<sup>1</sup> United Nations Convention on the Law of the Sea (Montego Bay, opened for signature 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3 (UNCLOS).



of the Convention on the High Seas 1958 (HSC).<sup>2</sup> According to the definition

warship means a ship belonging to the armed forces of a State bearing the external marks distinguishing such ships of its nationality, under the command of an officer duly commissioned by the government of the State and whose name appears in the appropriate service list or its equivalent, and manned by a crew which is under regular armed forces discipline.

There is another category of vessels which is not defined by the UNCLOS even though their regime is similar to that of warships in many respects: naval auxiliaries and other government ships operated for non-commercial purposes. In the commentary of the United Nations Convention on Jurisdictional Immunities of States and Their Property 2004<sup>3</sup>, the following examples are given under Article 16, para. 2: police patrol boats, custom inspection boats, hospital ships, oceanographic ships, training vessels and dredgers, owned and operated by a State and used or intended for use in government non-commercial service.

A commercial vessel may be transformed into a warship. The pertinent rules are embodied in the Hague Convention No. VII of 1907 relating to the conversion of merchant ships into warships. For this purpose, the merchant ship should be placed under direct authority, control, and responsibility of the flag State, bear the external marks which distinguish the warships of the nationality of the flag State, and be under a commander in the service of the State and duly commissioned. The crew must be subject to military discipline and the converted warship, which should appear in the list of warships, must observe in its operation the laws and customs of war. The law dictates a procedure which has been drafted for wartime. The rules of the Hague Convention may in principle be applied also in peacetime, even though it is extremely improbable that States would have recourse to the conversion of merchant ships given the contemporary complexity of warships.

Sunken warships are no longer considered to be warships since they are lacking the element of 'flottabilité' (navigability). However, they remain State property unless abandoned, and are still entitled to sovereign immunity.<sup>4</sup>

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<sup>2</sup> Convention on the High Seas (Geneva, adopted 29 April 1958, entered into force 30 September 1962) 450 UNTS 11 (HSC).

<sup>3</sup> United Nations Convention on Jurisdictional Immunities of States and Their Property (New York, 2 December 2004, not yet in force) UN Doc A/59/508.

<sup>4</sup> See generally N Ronzitti, 'The Legal Regime of Wrecks of Warships and Other State-owned Ships in International Law' (2012) 74 *Yearbook of Institute of International Law*, Rhodes Session, 131–70; S Dromgoole, *Underwater Cultural Heritage and International Law* (Cambridge University Press, 2013) 134–64.

### 18.2.2 Innocent passage through the territorial sea

Both the Convention on the Territorial Sea and the Contiguous Zone 1958 (Territorial Sea Convention)<sup>5</sup> and the UNCLOS allow the innocent passage through the territorial sea but do not specify whether warships may engage the passage. However since both Conventions contain rules on measures which may be taken against warships violating the rules on passage, they will be deprived by their purposes if the passage is denied: the Territorial Sea Convention embodies Article 23 applicable to warships and Articles 30–31 of UNCLOS dictate rules for warships. It is controversial whether the passage of warships is made conditional upon the consent of the coastal State, or only previous notification is required. The existence of a right of passage of warships according to the customary international law is likewise controversial. The point was not clarified by the International Court of Justice (ICJ) in its judgment on the Corfu Channel case referred below, since the Court dictum refers only to the right of passage through an international strait but does not consider the right of passage through territorial waters.

Third world countries continue to assert that passage is subject to the consent or previous notification of the coastal State. A number of States have changed their position. In this connection the practice of the Union of Soviet Socialist Republics (USSR) is of paramount importance. At the time of ratification of the 1958 Territorial Sea Convention, the Soviet Union and a number of socialist countries entered a reservation according to which the transit of warships was made conditional upon the consent of the coastal State. However on 23 September 1989 the Soviet Union and United States (US) signed a common declaration stating that all ships, including warships, enjoy the right of innocent passage through territorial waters in time of peace.<sup>6</sup> Since then the right of passage through territorial sea without prior notification/authorization has gained currency in State practice. This right is enjoyed by all warships without any distinction as to armament and means of propulsion. Submarines are required to navigate on the surface and to show their State flag. According to a number of authorities a norm of customary international law allowing the passage of warships through territorial waters is already in existence or at least in progress. The number of States subjecting the passage to their consent or prior notification is being reduced.

### 18.2.3 Innocent passage through international straits

Article 16 (4) of the 1958 Territorial Sea Convention grants a right of passage in straits used for international navigation connecting two parts of open sea or one

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<sup>5</sup> Convention on the Territorial Sea and the Contiguous Zone (Geneva, adopted 29 April 1958, entered into force 10 September 1964) 516 UNTS 205 (Territorial Sea Convention).

<sup>6</sup> 'Uniform Interpretation of Rules of International Law Governing Innocent Passage', United Nations, *Law of the Sea Bulletin*, No. 14 (1989), 12–13.

part of the high seas and the territorial sea of a foreign State. Passage cannot be suspended. Overflight is not allowed without the consent of the riparian State/States, unless specifically granted as stated by the 1979 Peace treaty between Egypt and Israel which preserves the right of navigation for all flags through the strait of Tiran and the Gulf of Aqaba, the waterway allowing the entry into the Israeli port of Eilat.

Freedom of passage is enjoyed both by merchant vessels and warships, and this rule—as far as straits connecting two parts of open seas are concerned—is a codification of customary international law, as can be inferred from the Corfu Channel Case, where the Court clearly stated that straits used for international navigation are open both to merchant and military vessels.<sup>7</sup>

The UNCLOS, while introducing the regime of transit passage for straits connecting two parts of the open seas or two Exclusive Economic Zones (EEZ(s)) or an EEZ and the high seas, maintains the regime of innocent passage with no suspension for international straits connecting the territorial sea and the open seas or the territorial sea and the EEZ (Art. 45).

#### **18.2.4 Transit passage through international straits and archipelagic waters**

The UNCLOS is very innovative as far as the passage through international straits connecting two parts of open seas or two EEZs or an EEZ with the open seas, since it grants transit passage (Art. 38).

The transit passage allows more navigational rights than the innocent passage since it allows: a) a unimpeded right of transit for both civilian ships and warships; b) the right of overflying the straits with civilian or military aircraft; c) the right of submarines to a submerged passage along all the waters of the strait. Ships and aircraft in transit should refrain from any threat or use of force and in general from any activity not directly connected with the normal mode of operation of ships and aircraft. Normal mode of operation for warships means that they may transit singularly or in squadron. Aircraft carriers are allowed to transit and aircraft on board may take off and deck during the transit.<sup>8</sup>

The right of transit passage was inserted because of the necessity of mobility of fleets and was promoted by the then superpowers. It serves their interest and it is recognized together with other military navigational rights by the US, even though they are not party to UNCLOS.

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<sup>7</sup> [1949] ICJ Reports 28.

<sup>8</sup> DR Rothwell and T Stephens, *The International Law of the Sea* (Hart Publishing, 2010) 273. However that interpretation of the rule on transit passage is subject to controversy: see N Klein, *Maritime Security and the Law of the Sea* (Oxford University Press, 2011) 33.

The Strait of Gibraltar is subject to the law of transit passage, which means that every vessel, including warships, has an unimpeded right of transit, and submarines may transit the strait submerged. There is also a right of overflight as proved during the US air bombing of Libya on 15 April 1986. The US aircraft coming from British bases overflew the Strait of Gibraltar since their continental allies denied them transit right over their territories.

The two States bordering the Strait of Gibraltar, Spain and Morocco, tried to resist the stipulation of transit passage at the III Law of the Sea Conference. However, subsequent practice shows that the two States acquiesced in the right of transit passage, including overflight, as proven by the declaration issued at the time of the overflight of US aircraft in 1986.<sup>9</sup>

As far as the Strait of Hormuz is concerned, the only waterway allowing the entry in the Persian Gulf, it should be subject to the regime of transit passage. However, one of the States bordering the Strait, Iran, is not party to UNCLOS and does not recognize the regime of transit passage as belonging to customary international law. Consequently Iran claims that its territorial waters lying in the Strait are only subject to the regime of innocent passage and warships are admitted to passage only after their duly notification to the Iranian authorities. In time of crisis Iran threatened to close the Strait or at least the part belonging to its territorial waters. During the Iran–Iraq war (1980–1988) Iran firstly declared that it would leave the Strait open to navigation. Subsequently it changed its policy and declared the part lying within its territorial waters as a war zone, obliging neutral States to navigate along the coastal belt lying under Oman's sovereignty. Threats by Iran to close the Strait of Hormuz are often repeated but not implemented.

#### **18.2.5 Straits under a long-standing regime: The Dardanelles and other straits**

Article 35c of UNCLOS preserves the navigation through straits under a long-standing regime regulated by a convention specifically devoted to the strait. The most celebrated example is the 1936 Montreux Convention regulating the passage through the Bosphorus and Dardanelles.<sup>10</sup> The Convention distinguishes between commercial shipping and warships and between peacetime and wartime.

In time of peace all private flags enjoy freedom of navigation through the straits. They may be subject to sanitary control and to the payment of a fee.

As far as warships are concerned it is necessary to distinguish ships belonging to non-Black Sea States and ships belonging to Black Sea States.

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<sup>9</sup> Cf. T Treves, 'Codification du droit international et pratique des Etats dans le droit de la mer' (1990-IV) 223 *Recueil des cours de l'Académie de droit international* 130–32.

<sup>10</sup> Convention Regarding the Regime of the Straits, (Montreux, adopted on 20 July 1936, entered into force 9 November 1936) 173 LNTS 213 ('Montreux Convention').

The first category of ships may passage through the Turkish straits provided that they are light surface vessels. Submarines are thus excluded. Ships may be subject to the sanitary control of the Turkish authorities and to the payment of a fee. Moreover the total tonnage of all 'foreign' warships (ie belonging to States other than Turkey) passing the Straits cannot exceed 15,000 tons and their number cannot exceed nine vessels. Previous notification is required.

The second category enjoy a more favourable treatment. Black Sea States have the right to passage through the Straits with warships over 15,000 tons provided they transit one at a time. Submarines may transit provided they have been built or purchased outside the Black Sea and need to reach a State naval facility inside the Black Sea or need to exit from the Black Sea in order to be repaired. In both cases submarines may transit one at a time, but should emerge and transit during daytime. Black Sea States should notify the transit to the Turkish authorities. There is another limitation: the total tonnage of foreign warships operating in the Black Sea cannot exceed 45,000 tons.

There is no mention of aircraft carriers in the Montreux Convention. The majority of writers, however, are of opinion that the passage of this kind of ship is not allowed. In 1976 Turkey allowed the passage of the Soviet aircraft carrier *Kiev* capable of transporting 25–30 aircraft with vertical take-off and the same number of helicopters. In notifying the passage the Soviet Union referred to the *Kiev* as a cruiser equipped for anti-submarine warfare.

During the Georgia conflict (2008) Turkey did not authorize the passage of the US hospital ships *Mercy* and *Comfort*, the total tonnage of which amounted to 140,000 tons.

In time of war if Turkey is neutral, non-belligerent powers enjoy the freedom to use the straits in a manner equal to time of peace. Belligerent powers are forbidden to pass through the straits except in the case of an action undertaken under the League of Nations (which nowadays may be read United Nations) or a pact of mutual defence to which Turkey is party (eg the North Atlantic Treaty Organization (NATO)). If Turkey is at war the passage is left entirely to the discretion of Turkey.

#### 18.2.6 The exclusive economic zone

The rights of navigation and overflight both for commercial/military shipping and civil/military aircraft are guaranteed by Article 58, para. 1, of UNCLOS which recalls Article 87 where those rights are specifically mentioned as belonging to the freedom of the high seas. Problems are raised by military exercises carried out in a foreign EEZ. During the negotiation of UNCLOS a number of States tabled a proposal according to which military exercises in the EEZ should

be authorized by the coastal State. However the proposal was not accepted. Article 19, para. 2, specifically forbids military exercises during the passage through the territorial sea. Should negotiating States prohibit military exercises within a foreign EEZ, they should have clearly affirmed the prohibition. One may conclude that military exercises are a manifestation of the freedom of high seas to which Article 58 refers.

At the moment of UNCLOS ratification a number of States, mainly third world countries, have issued a declaration stating that foreign military exercises are forbidden in their EEZ. These declarations were followed by the insertion of the prohibition in the legislation on EEZ.<sup>11</sup>

The above claims were met by opposite declarations by Western countries made upon signature/ratification of UNCLOS or autonomously formulated in order to avoid any implied recognition of the claim.<sup>12</sup>

### **18.2.7 The continental shelf**

The continental shelf can be used for military purposes such as the emplacement of dormant mines or more innocent listening posts for submarine tracking. Third world countries are usually opposed to such uses of their continental shelves by foreign States and claim that the emplacement of such devices hampers their sovereign right to exploit the natural resources of the seabed. Even more innocent activities as charting and mapping raise their protests. There are no specific provisions in UNCLOS. On the one hand, Article 77 grants sovereign rights to the coastal State for exploring and exploiting continental shelf natural resources; on the other Articles 79 and 80 deal, respectively, with cable and pipelines and artificial islands, installations, and structures. They are civilian devices which are not comparable with military assets. The point is not explicitly regulated by UNCLOS and a possible conclusion is that military activities on the continental shelf fall within the freedom of the sea and are permitted in so far as they do not interfere with the right of exploration and exploitation granted to the coastal State. Extreme examples are always possible. For instance, building an artificial island to serve as a platform for military purposes, or laying an extensive minefield attached to the seabed compromising the capacity of the coastal State to exploit and explore its continental shelf, and constituting a danger for the preservation of marine environment would certainly be forbidden under Article 80.

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<sup>11</sup> Declarations excluding foreign exercises or making them conditional upon the consent of the coastal State were made for instance by Bangladesh, Brazil, Cape Verde, Malaysia, India, Pakistan: see J Geng, 'The Legality of Foreign Military Activities in the Exclusive Economic Zone under UNCLOS' (2012) 28 *Utrecht Journal of International and European Law* 25–6.

<sup>12</sup> According to Y Tanaka, *The International Law of the Sea* (Cambridge University Press, 2012) 369, claims and counter-claims together with the 'high degree of political sensitivity involved in this subject' do not allow giving a definitive answer to the question of military exercises in a foreign EEZ.

During the Kosovo war in 1999, NATO aircraft still carrying weapons on board after having accomplished their mission discharged them in the Adriatic before landing at the Italian base in Aviano. The practice of 'jettison areas' raised protests from Croatia, since the weapons were discharged on its continental shelf and caused casualties among Italian fishermen. However, neither NATO nor the US accepted any responsibility. The weapons were cleared away by a NATO squadron, which claimed that the sweeping operation was a mere exercise and was not the result of any duty of reparation for an illegal act.<sup>13</sup> It is open to inquiry, however, whether NATO's attitude is in conformity with the general obligation, stemming from customary international law, to pay due regard to the marine environment, even in case of belligerency.<sup>14</sup>

### 18.2.8 The high seas

The freedom of the high seas includes a number of rights which are exemplified by Article 87 of UNCLOS. The list therein stated is not conclusive. Freedom of navigation and overflight are obviously the most important as far as military uses of the seas are concerned. Problems arise when the content of these freedoms should be spelled out. They are qualified by the obligation to take due account of the interests of the other States exercising the same freedoms, and by the rights conferred by the UNCLOS provisions on the Area (ie the seabed and ocean floor beyond the national jurisdiction).

Article 87 lists two liberties which may have a military significance among the freedoms of the high seas: the laying of cables and pipelines and the construction of artificial islands and other installations. The former should be installed taking into account the provisions on the continental shelf if they lie on that part of sea and the consent of the coastal State should be sought for the delineation of their course (Art. 79); the latter should be in line with the provisions of the EEZ, which reserves any emplacement to the coastal State (Art. 60), and with the relevant provisions of international law. In this connection Article 89 should be considered and the installation of artificial islands should not become a means for claims of sovereignty of the part of the high seas where they are floating.

Warships on the high seas enjoy a complete immunity and are only subject to the jurisdiction of the flag State (Art. 95). They cannot be boarded and are not subject to any exception that the law foresees for private shipping. For instance, by definition, a warship cannot commit an act of piracy unless the crew has mutinied (Art. 102). Article 221 on the prevention of pollution for accidents on the high seas cannot be applied to warships.

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<sup>13</sup> See M Mancini, 'Air Operations against the Federal Republic of Yugoslavia (1999)' in N Ronzitti and G Venturini (eds), *The Law of Air Warfare. Contemporary Issues* (2006) 293–5.

<sup>14</sup> See eg the *San Remo Manual on International Law Applicable to Armed Conflicts at Sea* (1995), drafted under the auspices of the International Institute of Humanitarian Law, Rule 44.

Usually the relevant law relating to interference with foreign warships on the high seas should be found in the law of self-defence, naval interdiction and other forceful measures which may be lawfully exerted in time of peace. All these issues will be considered below.

### **18.3 Naval Interdiction: Blockade and Quarantine**

The blockade is a measure of warfare which may be employed during an international armed conflict. Although no longer as frequent as during the 18th and 19th centuries, it has not become totally obsolete. Modern examples are the controversial blockade by the United States of the port of Haiphong (1972) during the Vietnam War, the blockade by Israel of the Lebanon coast in 2006 and the blockade by Israel of the Gaza strip, which is still in existence at the time of writing. During the NATO intervention against the Federal Republic of Yugoslavia in 1999, the United States proposed the blockade of the port of Bar, but the proposal was not endorsed by France and Italy as they deemed it required authorization by the UN Security Council (UNSC). Blockade is often an example of asymmetric warfare in that it is not easy to enforce a blockade against a powerful adversary, with the blockading force running the risk of being exposed to missile fire from the coastal State. Under the UNSC Resolution 1973 (2011) States were allowed to inspect vessels to impede weapons delivery to Libya. However the NATO fleet cruising off the Libyan coast did not establish a blockade in a proper meaning since it was only tasked to visit and search vessels suspected to transport military equipment.

According to the 1909 London Declaration, a blockade, in order to be lawful, has to be effective (ie maintained by a naval force able to impede the entry or exit of vessels via the blockaded coast); non-discriminatory (ie enforced against all flags, even those belonging to the blockading State); and duly notified by diplomatic means or by the commander of the blockading force, since all States should know the existence of the blockade. Merchant vessels in breach of blockade may be captured and adjudicated as a prize.

Blockades aimed at starving the civilian population of the blockaded coast are forbidden. As can be implied from both Article 23 IV Geneva Convention and Article 70 Additional Protocol I, the effectiveness of the blockade is not frustrated by humanitarian actions. For instance, during the Israeli blockade of Lebanon (2006), Italy was permitted to evacuate its own and other countries' nationals. Humanitarian action requires the consent of the blockading State.

If terrorists act at the order of the coastal State or are part of its governmental structure, the blockade is a lawful means for implementing an antiterrorist strategy, since it takes place within an international armed conflict.



The problem is whether a blockade may be employed against a non-State actor controlling a coastal territory. The precedents are related to insurgents' communities and involve the relations between the constituted government and insurgents as well as those between the constituted government and third State. The most quoted precedent is that of the blockade of Confederate States by the United States during the American civil war (1861–1865). Modern examples include the blockade of Biafra's ports by the Federal Government of Nigeria (1967). Usually it is admitted that the constituted government may blockade the ports in the hands of insurgents, but this implies a recognition of belligerency.

The very controversial example is the blockade of the Gaza strip by the Israeli navy in order to prevent the Palestinian Authority and now Hamas from reaching the open sea. On 3 January 2009 Israel proclaimed a formal blockade off the Gaza waters at 50 miles from the coast. There are precedents of blockade of ports controlled by insurgents, but the blockade of coasts controlled by non-State entities regarded by the blockading State as a terrorist organization is new. In this case the blockading State can invoke the right of self-defence, but the problem is that the blockade generally affects the rights of third countries since it is established against all flags. The Israeli blockade was challenged by a flotilla of six ships organized by a number of NGOs. On 31 May 2010 an Israeli commando intervened against a Turkish ship, the *Mavi Marmara*, causing a number of deaths and injuries. In that case the legal problems are twofold: the ships stopped and seized were 70 miles off the coast, and a blockade aiming at starving the civilian population is prohibited. The Israeli defence claim was that the flotilla attempted to breach the blockade and a belligerent is allowed to take action to impede it; moreover that humanitarian aid should be authorized by the blockading force. The international panel established by the UN Human rights Council took the stance that the blockade was illegal because it was held to be out of proportion in respect to the suffering caused to the civilian population and was considered a collective punishment forbidden by the Geneva Conventions.<sup>15</sup>

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<sup>15</sup> See UN doc. A/HRC15/21, 22 September 2010. For the opinion according to which the blockade was lawful even though implemented with an excessive use of force see, however, the conclusion of a panel of inquiry established by the UN Secretary General: J Crawford (ed.), *Brownlie's Principles of Public International Law* (8th edn, Oxford University Press, 2012) 309. On 22 March 2013, thanks to the good offices of the US, relations between Israel and Turkey were re-established. Israel expressed its apology to Turkey and at the same time declared itself to be ready to compensate the families of the victims. The relations between the two governments were again frozen after the Criminal Court of Istanbul tried in absentia 4 Israeli officers held responsible for the assault of *Mavi Marmara* and issued an arrest warrant (26 May 2014) (cf. the comment by M Bianchi, 'The Mavi Marmara Case: State Security and Human Rights at Sea' in G Andreone (ed.), *Jurisdiction and Control at Sea: Some Environmental Security Issues* (Giannini Editore, 2014) 169–87). The ship, Turkish owned, had the flag of the Union of the Comoros, a party to the International Criminal Court Statute. The Comoros referred the case to the ICC, but it was later dismissed (2014), being declared not of sufficient gravity by the Prosecutor.

Recent practice (October 2010) includes the request by the African Union to the UNSC of a resolution authorizing the blockade of the Somalia coast and the establishment of a no-fly zone that would stop the shipment of weapons to rebels suspected of being infiltrated by Al-Qaida.

While blockade is a belligerent measure carried out in wartime, pacific blockade is a forceful measure adopted in time of peace. Usually such a measure is selective since it is enforced only against a number of flags and not against all ships. For instance in 1902 Germany, Italy, and UK blockaded the coast of Venezuela as a measure to recover the debts owned by the Latin-American State. Currently Such a blockade should be unlawful unless authorized by the UNSC.<sup>16</sup>

A blockade should be distinguished from a quarantine, such as the one established by the United States around Cuba in 1962 in order to impede the shipment of Soviet missiles to the Fidel Castro government. Eastern bloc ships suspected of transporting the missiles were diverted from their route. The quarantine was not a blockade since it did not seal Cuba's coastline. Ships were allowed to sail from Cuba. The legitimacy of the Cuba quarantine is doubtful for it was not authorized by a UNSC but only an OAS resolution.

## **18.4 Insurgency and Civil War**

During a civil war the constituted government usually takes measures against insurgents that may also involve naval actions.

The French Navy conducted naval operations aimed at intercepting weapons destined for Algerian rebels during the Algerian war of independence in the 1960s, visiting and searching third States vessels and seizing their cargo. Such actions are not easily justifiable if conducted on the high seas. The Yugoslav central government subjected the city of Dubrovnik to naval bombardment in 1991–2 and that action was considered unlawful in so far as it hit cultural property. As already recalled, Israel is also currently patrolling the waters off the Gaza Strip, thus preventing the Palestinian Authority and now Hamas from reaching the open sea.

Naval operations may also be mandated by the UNSC. During the embargo against Yugoslavia (1992–4), the Italian navy, alone or in conjunction with NATO and the Western European Union (WEU), implemented the embargo decided upon by UNSC resolutions 713, 724, 757, 787, and 820 by visiting and searching vessels bound for Yugoslavian ports. Vessels accused of violating the embargo were diverted to the Italian port of Bari and weapons and military equipment confiscated.

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<sup>16</sup> For other examples see L Oppenheim, *International Law. A Treatise*, vol. II, *Disputes, War and Neutrality*, H Lauterpacht (ed.) (7th edn, Longmans Green & Co. 1952) 146–7.

## 18.5 The PSI and the 2005 SUA Protocol

There are two main instruments to counter the proliferation of Weapons of Mass Destruction (WMD) that are of interest for the law of the sea: the Proliferation Security Initiative (PSI) and the 2005 Protocol to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA Convention 2005).<sup>17</sup> The former is a soft-law instrument, which was adopted in Paris in 2003, the latter is a treaty concluded in 2005.

The PSI relies on a 'Statement on Interdiction' and more than 100 States are now parties to the PSI, including all permanent members of the Security Council except China, which considers PSI at variance with the law of the sea. The PSI applies on land, air, and sea. As far as the sea is concerned, the rules to be applied are those embodied in the UNCLOS to which all the PSI States are parties with the main exception of the US, which however considers the navigation rules as declaratory of customary international law. According to the Statement of Principles, PSI States should take action in the following sea areas: internal waters, including ports used for transshipment, territorial sea, contiguous zone, and high seas. Action should be taken to the extent that it is allowed by international law, including UNSC resolutions.

Inspection of ships in the territorial State's ports does not raise any particular problem of international law, unless the foreign ship is a warship. But this would not be apposite, since the PSI rules address merchant vessels, and warships are allowed in port only after admission by the port State. The main subject of the PSI rules is that of trans-shipment, an activity usually carried out by merchant vessels anchored in a port or in a sea terminal.

The same regulation applies, *mutatis mutandis*, to vessels entering or leaving internal waters or the territorial sea. Suspected vessels should be subject to boarding, search, and seizure of prohibited cargo.

A problem arises when a ship enters a territorial sea with the intention of traversing it without proceeding into internal waters or into a port of the territorial State. The ship is in lateral passage and the question is whether it may be stopped by the territorial State. This depends on whether transit with a PSI prohibited cargo is considered contrary to the rules of innocent passage as the activity is prejudicial to the peace, good order, and security of the coastal State. The transport of WMD is not listed in Article 19, paragraph 2 of UNCLOS as an activity in contravention of innocent passage. UNSC resolution 1540 (2004) has rendered the proliferation

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<sup>17</sup> 2005 Protocol to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (London, adopted 14 October 2005, entered into force 28 July 2010) IMO Doc. LEG/CONF.15/21 (SUA Convention 2005).

of WMD and their means of delivery a threat to international peace and security whenever shipped to 'non-State actors'. It may be argued that a cargo destined to a non-State actor should be considered a threat to peace, while a cargo destined to a State should not, even though it is difficult to see a latent threat constituted by a cargo destined elsewhere as a threat to the security of the coastal State,<sup>18</sup> in particular when the cargo is made of 'related materials', for instance, schedule 3 chemicals under the 1993 Chemical Weapons Convention<sup>19</sup> (CWC) which are usually employed in agriculture.

The above conclusion should be applied, *a fortiori*, to transit passage and archipelagic passage, both of which give the coastal State fewer rights of interference. In these cases as well, a latent threat cannot be considered an actual threat against the sovereignty, territorial integrity, or political independence of the territorial State, allowing it to take action (Art. 39, 1.b UNCLOS). The question of transit or archipelagic passage is not addressed by the PSI principles.

In contrast, the contiguous zones of the States that have instituted them are taken into consideration. States are requested to take action. According to Article 33 UNCLOS, States are allowed, within their 24 miles contiguous zone, to exercise the control needed to prevent infringement of their customs, fiscal, immigration, or sanitary regulations within their territory or territorial sea and to punish infringement of the above regulations committed within their territory or territorial sea. Even though the power of exercising control is less intense than stopping a ship and bringing it into port, the majority of States consider the contiguous zone a zone with special rights of jurisdiction, where the power of boarding, inspection, and seizure can be exercised against foreign vessels. On this point, the PSI principles, which call upon the participant States to stop and search vessels and to seize prohibited cargoes, are in keeping with international law. The law of the sea allows for action to be taken if there is transshipment with the aid of a hovering vessel between a ship anchored beyond the contiguous zone and the coast (Constructive Presence doctrine).

The Statement of Interdiction Principles do not address the EEZ. For the purposes of the Interdiction Principles, this is a zone of high seas and States are not allowed to take action against foreign vessels, unless an exception to the freedom of the high seas can be invoked. Article 110 of UNCLOS, which lists those exceptions, is not of much help. The only two relevant exceptions are related to ships without nationality and the right of approach (*vérification du pavillon*), with the

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<sup>18</sup> D Guilfoyle, 'Maritime Interdiction of Weapons of Mass Destruction' (2007) 12 *Journal of Conflict & Security Law* 16–17. See also by the same author *Shipping Interdiction and the Law of the Sea* (2009) 240–2.

<sup>19</sup> Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (Geneva, 3 September 1992, entered into force 29 April 1997) 1974 UNTS 45 (CWC).

latter giving only limited rights unless it is discovered that the ship is without nationality or has the same nationality as the visiting ship. The right of hot pursuit should be added (and the pursuit may start from internal waters, the territorial sea, or the contiguous zone).

WMD proliferation is not a valid excuse for boarding a foreign vessel transporting a PSI prohibited cargo on the high seas. UNSC resolution 1540 does not give the right to board foreign vessels and the resolutions against North Korea and Iran (1718 (2006), 1737 (2006) and subsequent resolutions) do not confer the right to stop North Korean and Iranian vessels on the high seas. The same is true for resolutions 1874 (2009) and 1929 (2010), concerning respectively North Korea and Iran, inviting States to visit ships suspected to have a prohibited cargo only with the consent of the flag State.

The consent by the holder of the jurisdiction is a valid title for boarding a vessel. The principle *volenti non fit iniuria* applies and it is considered a circumstance excluding wrongfulness by the International Law Commission (ILC) Draft Articles on State Responsibility (Art. 20), that on this point is restating customary international law.

On the high seas, consent should be given by the flag State and may be expressed ad hoc or may be consigned in a international agreement. The United States has concluded several treaties, called 'ship boarding agreements' in PSI jargon, with States having an open registry policy and allowing the flying a flag of convenience.<sup>20</sup>

It is not permitted to enter foreign territorial waters to carry out police operations. Such an activity would run counter to the provisions on innocent passage that allow a State to enter territorial waters only for traversing the territorial sea. This is more so for warships even though they are entitled to exercise the right of passage. The consent by the coastal State is required in order to carry out a police activity in foreign territorial waters. Moreover, a foreign vessel may be arrested as long as it is in violation of the right of innocent passage, for instance if a ship in the hands of terrorists performs any activity prejudicial to the coastal State.

The Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation 1988 (SUA Convention 1988)<sup>21</sup> covers acts of maritime terrorism. It did not properly address WMD terrorism. An Additional Protocol was

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<sup>20</sup> Boarding agreements account for over 60% of world tonnage and dictate a standard procedure for arresting vessels, with small differences. Boarding should be operated by warships. The boarded vessel remains under the jurisdiction of the flag State, which may renounce in favour of the jurisdiction of the boarding State.

<sup>21</sup> Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (Rome, adopted 10 March 1988, entered into force 1 March 1992) 1678 UNTS 221 (SUA Convention 1988).

negotiated to fill that lacuna. The Protocol does not deal only with nuclear weapons but with all three classes of WMD: bacteriological, chemical, and nuclear weapons (BCN weapons).

The Protocol establishes a number of offences that States are obliged to insert into their penal codes and contains provisions for legal cooperation, such as extradition. The use of a BCN weapon against or on a ship, causing or likely to cause death or serious injury or damage, is considered an offence 'when the purpose of the act, by its nature or context, is to intimidate a population, or to compel a Government or an international organization to do or to abstain from doing any act'. This special motive is not requested when BCN weapons are transported on board a ship. The mere transport is an offence, provided that the transport is carried out by a person doing it 'unlawfully and intentionally'. Also the transport of fissile material constitutes an offence if it is destined to build nuclear weapons or to be employed for any other nuclear activity not allowed under the International Atomic Energy Agency (IAEA) safeguard agreement. Transport in compliance with the Non-proliferation Treaty (NPT) is not an offence: shipment of fissile material coming from or destined to an NPT State is not forbidden.

The Protocol does not apply to the activity of armed forces in time of armed conflict or in time of peace and thus military transports do not fall within the provisions of the Protocol.

The Protocol does not add new causes for boarding besides those established by traditional law of the sea. Boarding thus requires the consent of the flag State and machinery has been drafted to facilitate the consensus. Rules have also been dictated to ensure that boarding take place in conformity with human rights provisions and to provide for the possibility of asking for compensation if the visit does not uncover any prohibited items.

## 18.6 Self-defence on the High Seas

States may use the high seas for exercising their right of self-defence (individual and collective). If a State is attacked it can take action on the high seas, for instance against the navy or air force of the attacking State. Obviously an action can be taken also when an armed attack takes place on the high seas. For instance, Article 6 of the NATO Treaty, in qualifying the notion of armed attack triggering the alliance mechanism of collective self-defence, states that an armed attack against vessels or aircraft located in the area covered by the Treaty (the Mediterranean and the North Atlantic) is considered a *casus foederis*.

Article 51 of the UN Charter allows the exercise of the right of self-defence if an armed attack has occurred. Article 51 does not qualify the notion of armed attack.

It does not indicate (a) either the nature of the target of the armed attack that gives rise to the exercise of the right of self-defence (b) or the subject to whom the attack is attributable for allowing to react in self-defence.

According to the narrow interpretation, self-defence can be resorted to only if the territory of the State or its warships or military aircraft on the high seas are attacked. According to the broad interpretation, the right of self-defence can be exercised even if commercial ships and airplanes on the high seas are attacked. In the Oil Platform case, the ICJ held, albeit implicitly, that an attack against a merchant ship could constitute an armed attack for the purpose of self-defence. The ship in question was the US oil tanker *Sea Isle City*, which was anchored in the territorial waters of Kuwait at the time it was struck. The United States claimed a right of individual self-defence for the attack against its ship. It could not pretend to act in collective self-defence on behalf of Kuwait, since no request of assistance from Kuwait was made. The Court did not question the US claim because the object hit was a merchant ship. It only said that the proof that the *Sea Isle City* was struck by an Iranian missile had not been discharged.<sup>22</sup>

The standard interpretation has been in the sense that an armed attack should be attributed to a State in order to take action in self-defence. After the attack to the Twin Towers (2001) this interpretation has changed. It is now widely accepted, for instance by NATO, OSCE, and the EU, that an armed attack by a non-State entity allows to react in self-defence under Article 51 of the UN Charter. The ICJ has not taken a definitive stance on this point, for instance when it has delivered the advisory opinion on the Wall in Palestine (2004) or in its judgment on the controversy between the DRC and Uganda (2005). However one can count a number of opinions by ICJ judges arguing that an armed attack by terrorists may be considered as an armed attack for the purposes of Article 51 of the UN Charter. R Higgins has for instance affirmed that the dictum of the Court in the Wall in Palestine was too narrow since it referred to an armed attack only by a State, without considering non-State entities.<sup>23</sup> The same line of reasoning has been followed by judges Kooijmans and Simma in their separate opinion to the judgment on *DRC v Uganda*.<sup>24</sup> The *Institut de droit international (IDI)* in its resolution of Santiago of Chile (2007) has adopted a very narrow interpretation of armed attack stating that an armed attack coming from a non-State entity allows reaction against the State hosting the armed bands only if it is proved that the armed band acted under the control, direction, or instruction of the hosting State. According to the *IDI*, it is permitted to react against the non-State entity if the attack takes place in an area under no State's jurisdiction. Following the indication by the *IDI* it is certain that

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<sup>22</sup> [2003] ICJ Reports 26, paras 48–63.

<sup>23</sup> [2004] ICJ Reports *Separate Opinion of Judge Higgins*, para. 33.

<sup>24</sup> [2005] ICJ Reports *Separate Opinions of Judges Kooijmans, and Simma*.

a ship attacked by terrorists on the high seas is allowed to react in self-defence. A warship may also intervene under the rationale of collective self-defence if a ship flying a third State flag is attacked.

### 18.7 Showing the Flag: Challenging Excessive Claims

It is traditionally admitted that a State can exercise its navigational rights and, if attacked, react in self-defence. Such a conduct constitutes neither a violation of the principle to peacefully solve international controversies, enshrined in Article 2, paragraph 3 of the UN Charter nor a threat of force contrary to Article 2, paragraph 4 of the same instrument. The Corfu Channel judgment is a case in question. The ICJ, while condemning the UK for the minesweeping in Albanian territorial waters, found the passage by the British squadron in conformity with international law.<sup>25</sup> The same is true for other instances, for example the exercise of a right recognized by the freedom of the high seas to oppose an excessive claim by the coastal State. The US carried out naval exercises in the waters of the Gulf of Sidra, which it considered a part of high seas and contested Libya's claim to consider the Gulf an historic bay. The US ships were attacked by Libyan missiles from the coast. The US reacted in self-defence (24–5 March, 1986).

Sometimes the challenge is covertly operated. This happened for the Gulf of Taranto. Italy claims the Gulf as an historic bay subject to its sovereignty. This claim is not recognized by the US which sent a note of protest at the time of delimitation. In 1982, a submarine intruded into the Gulf of Taranto in what was deemed a covert Soviet protest against the Italian delimitation. Italy filed an official protest against the Soviet Union, which denied its presence. Indeed the real nationality of the submarine was never officially assessed. Roach and Smith in their book on excessive claims referred in a footnote to 'foreign submarines transited Gulf of Taranto submerged on February 24, 1985'.<sup>26</sup>

The US maintains a programme aimed at preserving the freedom of navigation, contesting excessive claims, and impeding acquiescence. The programme, which was inaugurated in 1979, has never been discontinued. It consists not only in diplomatic representations and consultations, but also in asserting navigation and overflight rights and freedoms on a worldwide basis.<sup>27</sup>

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<sup>25</sup> [1949] ICJ Reports 28–9. See also R Jennings and A Watts (eds), *Oppenheim's International Law* (9th edn, Oxford University Press, 1996) 444.

<sup>26</sup> A Roach and RW Smith, *United States Responses to Excessive Maritime Claims* (3rd edn, Martinus Nijhoff, 2012) 46, n. 22.

<sup>27</sup> Roach and Smith (n. 26) 6–9.



## **18.8 War Games and Rules of the Road**

Navigation and military exercises are often sources of naval incidents. Thus, 'rules of the road' for navies are important. The most relevant document in this field is the US–Soviet Treaty of 25 May 1972. This model was followed by subsequent treaties stipulated with the Soviet Union by the UK (1986), France (1989), and Italy (1989). After the brief parenthesis of Russia's absence in the Mediterranean, those treaties have regained their strategic importance. Greece and Turkey concluded a memorandum of understanding concerning military activities on the high seas and in the international airspace in 1988. Two agreements were concluded between Italy and Tunisia on 10 November 1988: an Executive Protocol on the cooperation between the Italian Navy and the Tunisian Navy, and a Technical Arrangements on practical measures aimed at avoiding incidents at sea and facilitating cooperation between the Italian Navy and the Tunisian Navy.

Navy war games are a manifestation of the freedom of the high seas. However, a number of third world countries, as already pointed out, claim that military manoeuvres cannot be undertaken in foreign EEZs.

## **18.9 Nuclear Weapons/Weapons of Mass Destruction Free Zones**

Except for the Treaty of Semipalantisk (2006) relating to Central Asia States, which comprises only inland countries, all other nuclear-weapon-free zone (NWFZ) treaties have littoral or archipelagic States as States parties (Treaty of Tlatelolco, 1967; Treaty of Rarotonga, 1985; Treaty of Bangkok, 1995; Treaty of Pelindaba, 1996). Such treaties oblige States parties not to install nuclear weapons on their territories, including their territorial and archipelagic waters. Problems may arise for navigational rights of third States having on board nuclear armaments in the zone covered by the NWFZ treaty, in particular when the zone exempt of nuclear weapons encompasses archipelagic States or States controlling important international straits. As a rule NWFZ treaties guarantee the freedom of navigation also for States possessing nuclear weapons. The Treaty of Pelindaba prohibits the transportation of nuclear weapons in the inland waters. The overflight of the EEZ of NWFZ States is covered by the freedom of the seas and thus is admitted also for aircraft with nuclear weapons. The same is true for the marine areas where transit passage or archipelagic passage is allowed since it embodies also the air transit (Art. 5 of the Treaty of Rarotonga; Art. 2 of the Treaty of Bangkok; Art. 2 of the Treaty of Pelindaba). The overflight of territorial waters and of straits not subject to the transit passage is conditional upon the consent of the territorial

sovereign. Usually NWFZ treaties admit that the littoral State may allow the over-flight without infringing the treaty.

Other disarmament treaties may foresee limitations to the freedom of States to use their waters or their continental shelf. The 1971 Seabed Treaty prohibits emplacement of nuclear weapons or any other types of mass destruction on the seabed up to 12 miles from the baseline for measuring the territorial sea,<sup>28</sup> the 1963 Partial Test Ban Treaty (PTBT)<sup>29</sup> forbids any nuclear test under territorial waters or high seas,<sup>30</sup> and the 1996 Comprehensive Nuclear-Test-Ban Treaty (CTBT) (not yet in force) prohibits all nuclear tests.<sup>31</sup>

### **18.10 The Peaceful Purposes Clause and the Notion of Zones of Peace**

The 'peaceful purposes' clause has been incorporated in a number of UNCLOS provisions. Article 88 states that the high seas shall be reserved for peaceful purposes. The notion is also referred to in Article 141 according to which the Area shall be open to use exclusively for peaceful purposes by all States. The same is true for marine scientific research in the Area (Art. 143) and for the general principles for conducting marine scientific research under Part XIII of UNCLOS (Art. 240, a). Article 301, located at the end of UNCLOS under Part XVI (General Provisions), is named 'peaceful uses of the seas' and spells out the real meaning of this notion incorporating the language of Article 2, paragraph 4, of the UN Charter, stating that States in exercising their rights and performing their duties are obliged to refrain from any threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the principle of international law embodied in the Charter of the United Nations.

The peaceful purposes clause is not meant to ban any military activity in the oceans and/or to restrict their use for military purposes. It only means that States are obliged to comply with the prohibition of the use of force embodied in the Charter of the UN and should not pursue aggressive policies.

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<sup>28</sup> See Articles I and II of the Treaty on the Prohibition of the Emplacement of Nuclear Weapons and other Weapons of Mass destruction on the Seabed and the ocean Floor and in the Subsoil Thereof.

<sup>29</sup> The treaty is officially known as the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water, but is often abbreviated as the Partial Test Ban Treaty (PTBT).

<sup>30</sup> Treaty banning nuclear Weapon Tests in the Atmosphere, in Outer Space and under Water, Art. I.

<sup>31</sup> Comprehensive Nuclear-Test-Ban Treaty, Article 1.

Sometimes the notion of peaceful purposes is read in conjunction with that of enclosed or semi-enclosed seas under UNCLOS Articles 122 and 123 in order to establish a 'zone of peace'. However the notion of enclosed or semi-enclosed seas does not encompass, as a necessary ingredient, the institution of a zone of peace.

It was a Soviet proposal for the Mediterranean aimed at pulling out the US navy. The proposal was also endorsed by the Non-Aligned countries at the Special session of the General Assembly devoted to disarmament (1978). This idea was never implemented for obvious reasons. The transformation of the Mediterranean into a zone of peace would entail, at least, the prohibition of giving military facilities and the exclusion of navies not belonging to the littoral States, or their limitation in number. In legal terms, this outcome would result in a curtailment of the freedom of the high seas and of the principle of collective self-defence. The idea of a zone of peace is also mixed with that of a nuclear weapons-free zone, which has previously been considered.

Similar proposals were formulated in the 1960s by the Soviet Union and the Non-Aligned Movement (NAM). The Soviet Union was interested in the denuclearization of the Mediterranean, while NAM was mainly in favour of making the Mediterranean Sea a zone of peace. The idea was to remove all foreign navies from the Mediterranean and to shut all US bases abroad. Obviously those proposals were not acceptable to the US and its Mediterranean allies, including Israel.

Article 22 of the Treaty on Friendship, Partnership and Cooperation between Italy and Libya of 2008 states that the two countries will cooperate in the field of non-proliferation of WMD. Both countries will take the necessary steps to make the Mediterranean a WMD-free zone. However, even this engagement is not absolute in that it qualifies that the two States will act within the limits of their obligations stemming from relevant treaties and agreements in the field.

The idea of zone of peace has also been proposed for the Indian Ocean. The formal endorsement of the notion of zone of peace goes back to the UNGA Resolution 2831 (XXVI) of 16 December 1971 which declared the Indian Ocean a zone of peace and was repeated in subsequent resolutions. The latest resolution was adopted on 13 December 2011 (A/RES/66/22) and it was decided to include the item entitled 'Implementation of the Declaration of the Indian Ocean as a zone of peace' in the provisional agenda of the GA sixty-eighth session.

Though there is not only one notion of a zone of peace, its implementation would entail the prohibition of granting military facilities and the exclusion of fleets not belonging to the littoral States, or their limitation in number. As a rule, a zone of peace should also be a nuclear weapon-free zone. The proposal of instituting zones of peace has been in principle opposed by major naval powers, since its enforcement would curtail the principle of freedom of navigation on the high seas and that of collective self-defence. For non-littoral States, freedom of the high seas would be

limited to non-military navigation. This is why France, the UK, and the US, which have naval interests in the Indian Ocean, voted against GA resolution 47/59 mentioned above, while the positive vote of the Russian Federation was nothing but lip service to the idea of zones of peace. In 2012 Sri Lanka announced that it would like to pursue a new approach to turning the Indian Ocean into a zone of peace.

In connection with a semi-enclosed sea, the idea of zone of peace has been proposed not only for the Mediterranean, but also by Iran for the Persian Gulf. Iran would remove outside naval powers from the Persian Gulf, a proposal that runs counter the defence agreements stipulated with the Gulf States. Moreover foreign navies are not ready to abandon the Gulf, given the strategic and commercial importance of the region.

### **18.11 The Immunity of Foreign Warships**

There are a number of provisions on immunity of warships both in the Geneva Conventions (the Territorial Sea Convention and the Convention on the High Seas) and in the UNCLOS, which are merely declaratory of international law.

Warships and other government ships operated for non-commercial purposes enjoy sovereign immunity. This rule is enshrined in customary international law as well as in conventional law. Both Article 22 of the 1958 Geneva Territorial Sea Convention and Article 32 of the UNCLOS provide for sovereign immunity. Warships and government vessels should comply with certain rules indicated by those conventions, but they do not derogate from the principle of sovereign immunity. If a warship does not abide by the laws and regulations of the coastal State concerning passage in the territorial sea, the coastal State is not entitled to take any act of coercion and may only ask the ship to leave the territorial sea (Art. 23 of the Territorial Sea Convention, Art. 30 of the UNCLOS). In other words they are immune from the enforcement jurisdiction of the coastal State, unless the coastal State is entitled to take necessary steps to meet significant violations requiring enforcing measures. As far as the prevention of marine pollution is concerned, Article 236 of the UNCLOS exempts warships, naval auxiliary, and government vessels from rules on the protection and preservation of marine environment. The provision specifies, however, that every State should adopt appropriate measures in order to ensure that such vessels operate in a manner consistent with the UNCLOS rules 'so far as is reasonable and practicable'. The Convention on Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 (London Convention)<sup>32</sup> does not apply to ships entitled to sovereign immunity under

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<sup>32</sup> Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London, adopted on 29 December 1972, entered into force 30 August 1975) 1046 UNTS 120 (London Convention).

international law. As far as the high seas are concerned, both the Geneva Convention on the High Seas (Art. 8, para. 1) and UNCLOS (Art. 95) state that warships on the high seas have complete immunity from the jurisdiction of any State other than the flag State. The same is true for ships owned by a State and operated only on government non-commercial service (Art. 9 Geneva Convention on the High Seas; Art. 96 UNCLOS).

The principle of sovereign immunity is reflected in other sectors of international law. Article 16 of the United Nations Convention on Jurisdictional Immunities of States and their Property 2004 confirms the immunity from jurisdiction of a foreign State in relation to its warships, naval auxiliaries and government vessels (ie 'vessels owned or operated by a State and used, for the time being, only on government non-commercial purposes'<sup>33</sup>). The same rule applies to any cargo on board those ships. The 1926 Brussels Convention on the Unification of certain rules on State-owned vessels<sup>34</sup> lays down the customary rule on warships, stating that warships 'shall not be subject to seizure, attachment or detention by any legal process, nor to judicial proceedings *in rem*' (Art. 3). The category also includes State owned yachts, patrol vessels, hospital ships, fleet auxiliaries, supply ships, and other vessels owned or operated by a State and employed exclusively on governmental and non-commercial service. The only exceptions, which most probably are not in keeping with customary law, are related to collisions, salvage, and claims for repairing the ship. The 2004 UN Convention on Jurisdictional Immunities of States and their Property sets out immunity for the cargo on board of warships, naval auxiliaries, and other government vessels as well as for 'any cargo owned by a State and used or intended for use exclusively for government non-commercial purposes' (Art. 16, para. 4). The ILC Commentary includes, for instance, 'cargo involved in emergency operations such as food relief or transport of medical supplies'.

The conventions on civil liability for nuclear damage by nuclear powered ships have provisions on immunity of warships only for measures of seizure and attachment,<sup>35</sup> while the 1952 Brussels Convention on the arrest of seagoing ships

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<sup>33</sup> See Art. 16, para. 2 of the 2004 UN Convention. The following examples are given in the Commentary by the ILC on Article 16, para. 2 in relation to this category of vessels: police patrol boats, custom inspection boats, hospital ships, oceanographic ships, training vessels and dredgers, owned and operated by a State and used or intended for use in government non-commercial service. See further H Fox, *The Law of State Immunity* (2nd edn, Oxford University Press, 2008) 568–9. On 2 October 2012 the port authorities of Tema (Ghana) detained and impeded the departure of an Argentinian frigate pursuant to an order of the High Court of Accra activated by creditors of Argentinian government. The International Tribunal of the Law of the Sea issued provisional measures on 15 December 2012, ordering the release of the Argentine frigate: ITLOS, Case No. 20, The '*ARA Libertad*' Case (*Argentina v Ghana*).

<sup>34</sup> 1926 International Convention for the Unification of Certain Rules concerning the Immunity of State-owned Vessels (Brussels, 10 April 1926, entered into force 8 January 1937) 179 LNTS 199.

<sup>35</sup> See eg Art. X, para. 3 of the Brussels Convention on the Liability of Operators of Nuclear Ships (Brussels, 25 May 1962).

does not contain any provision on immunity of warships. That is the reason why a number of States parties (inter alia, the UK and the Russian Federation) made a reservation for warships and government vessels.<sup>36</sup>

Note that immunity of State-owned vessels or government vessels is enjoyed as long as they are employed solely for government non-commercial purposes. Otherwise the ordinary rules apply and, for instance, a foreign State-owned vessel may be the object of measures of attachment if it is used for transport of commercial goods.

Special provisions for warships and governmental vessels are also embodied in the 2007 Nairobi International Convention on the Removal of Wrecks<sup>37</sup> negotiated within the framework of the International Maritime Organization (IMO). The Convention authorizes the coastal State within its EEZ or equivalent distance to take measures for the removal of wrecks posing a hazard to navigation. It does not apply to the territorial sea, unless the coastal State declares its willingness to submit such body of water to its regime, nor to the high seas beyond the EEZ. The Convention excludes from its field of application 'any warship or other ship owned and operated by a State and used, for the time being, only on Government non-commercial service' (Art. 4, para. 2). However the flag State may decide otherwise.

As far as collisions are concerned one should refer to the Convention on the International Regulations for Preventing Collisions at Sea 1972 (COLREGs):<sup>38</sup> Article 1 states that the Rules apply to 'all' ships and thus warships are included since they are not expressly exempted. The Regulations cannot be applied in wartime, but also in peacetime when warships are conducting law enforcement missions (for instance a warship engaged in hot pursuit), as is stated by a number of navy manuals and by many authorities.

Visiting warships are admitted in inland waters and ports with the consent of the coastal State. They are immune from any search or arrest and the immunity extends to the crew. It sometimes happens that members of the crew commit while ashore a wrongful act in the hosting State. If they return on board the warship no arrest may be operated by the local authorities unless the naval commander decides to hand over those responsible for having breached the local law. The practice also shows that political dissenters can take refuge on board a foreign ship. The local authorities cannot board and cannot impede the departure of the warship. If it reaches the open sea naval asylum is successfully implemented.

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<sup>36</sup> Status of ratifications to Brussels Conventions, in *CMI Yearbook 2014*, 488–92, <<http://www.comitemaritime.org/Status-of-Ratification-of-Maritime-Conventions/0,2769,16932,00.html>>.

<sup>37</sup> 2007 Nairobi International Convention on the Removal of Wrecks (Nairobi, 18 May 2007, not yet in force).

<sup>38</sup> Convention on the International Regulations for Preventing Collisions at Sea (London, adopted on 20 October 1972, entered into force 15 July 1977) 1050 UNTS 18 (COLREGs).

## **18.12 Air Defence and Identification Zones (ADIZ)**

The freedom of the high seas includes the freedom of overflying on the high seas, including the contiguous zone and the EEZ. They are open both to commercial and military air navigation.

Recent practice shows that a number of States (namely US, Canada, and France) claim the right to establish off their coasts air defence and identification zones (ADIZs) which stretch over adjacent EEZ and the high seas. Their extension varies; however the ADIZ extends for several miles. Usually the coastal State asks aircraft bound for its territory to identify and to give information on its flight plan. ADIZs are connected with the high speed of the aircraft and the need of the coastal State to protect from a sudden attack due to a State or a non-State actor. Security considerations may justify the establishment of an ADIZ, provided that measures against non-complying aircraft are in keeping with international law. However ADIZs are in principle justified to control the air navigation of aircraft bound for the coastal State territory (vertical passage); the limitation of the freedom of high seas is less justified when the aircraft is proceeding in a lateral passage, thus it is not representing an immediate threat to the coastal State security. In 2013 China declared an ADIZ over the whole South China Sea raising the protest of the US and South China Sea riparian States.

The ADIZ should be kept separated from the FIRs (Flight Information Regions) which are regulated by the 1944 Chicago Convention<sup>39</sup>. They are instituted for controlling the commercial air navigation and for establishing traffic corridors on international skies. The aircraft should communicate the information requested to the FIR controller according to the ICAO procedures. Aircraft are requested to pay a fee for services provided. The Chicago Convention rules do not apply to military aircraft, which are not obliged to disclose their flight plans or to pay any fee. They are only requested to take in due account the security of civilian aircraft (Art. 3d of the Chicago Convention).

## **18.13 Carrying on Enforcing Measures Mandated/Allowed by the Security Council**

It is well established that the use of force by individual States may be exerted not only in self-defence, but also if the force is authorized by the UN Security Council. The pre-condition is that the UNSC had determined the existence of a threat to the peace, breach of peace, or an act of aggression under Article 39 of the UN

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<sup>39</sup> Convention on International Civil Aviation (Chicago, 7 December 1944, entered into force 4 April 1947) 15 UNTS 295 ('Chicago Convention').

Charter. The UNSC may authorize acts of maritime interdiction and the practice shows that this has been for instance done in connection with sanctions to Rhodesia (UNSC 217 (1965)), against Iraq for the invasion of the Kuwait (665 (1990)), the situation in the former Yugoslavia (UNSC 713 (1991), 757 (1991), 820 (1993)). UNSC Resolution 1373 (2001) and Operation Enduring Freedom, which in its maritime dimension covered the Arabian Sea, should also be cited. Resolution 1373 did not explicitly say that naval interdiction measures were allowed on the high seas, but one may consider that their authorization was implied and they were effectively carried out by navies of the States taking part in Enduring Freedom. Measures of interdiction were taken off the Somalia waters for preventing smuggling of weapons into the mainland (eg UNSC Res. 1356 (2001)). A number of measures of embargo, including the right to inspect vessels on the high seas, were authorized by resolution 1973 (2011) on Libya (para. 13).

The UNSC may authorize naval interdiction and other forms of forceful action in foreign territorial waters. The case in point is that of Somalia. Navies were asked to intervene in territorial waters off the Somalia coast in order to protect humanitarian convoys from armed robbery. The resolutions are connected with piracy and the chaotic status of Somalia. They are backing the consent of the Transitional Federal Government of Somalia and its lack of effectiveness. The Somalia experience may also be applied to international terrorism. Piracy and terrorism are dealt elsewhere in this volume.

### **18.14 Military Use of the Sea in Wartime**

The sea is used by navies in wartime in order to conduct their operations against the enemy. The use of the sea in wartime also limits the freedom of navigation of States not taking part in the hostilities. The law of the sea in wartime substantially differs from its regime in peacetime.

The areas of sea warfare are the high seas and the territorial waters of the enemy. Neutral waters are excluded unless they become an area of operations of the enemy. Neutral waters encompass internal and territorial waters of a neutral State. This statement should be qualified, taking into account the new law of the sea. Archipelagic waters of neutral archipelagic States should be immune from hostilities. The contiguous zone, now extending up to 24 miles, should be considered an area of the high seas for naval warfare. The same is true for the continental shelf and the EEZ. Neutral States are only entitled to claim that naval operations do not totally hamper their economic rights, for instance drilling on the continental shelf or fishing in their EEZ. This rule, vague as it is, implies that belligerents should have due regard for the economic rights of neutral States. For instance, belligerents are not allowed to destroy fixed platforms of a neutral State unless they become a base for hostile operations. Belligerents cannot conduct hostilities in neutralized waters such as those around Antarctica, the



territorial waters of the Aaland Islands, or the waters of the Strait of Magellan. Artificial waterways such as the Suez Canal are excluded from hostilities by the treaty regulating their regime, but the rule has frequently been violated. Belligerents have the right to transit (innocent passage or transit passage according to the nature of the strait) through neutral straits serving for international navigation. They also have the right to archipelagic sea lane passage through the archipelagic waters of neutral States. In contrast, international straits under the control of a belligerent may become an area of operation by the enemy. The belligerent strait State is also entitled to exercise its belligerent rights towards neutral vessels, exercising visit and search. The area beyond the continental shelf may become an area of hostilities. Enemy enterprises exploiting the area are subject to control by the belligerent, which has the right to confiscate them and the mineral resources excavated. As stated by the British Manual of the Law of Armed Conflict, belligerents should take care to avoid damage to cables and pipelines which do not exclusively serve them.<sup>40</sup>

### 18.15 The Control of Contraband

Belligerents are entitled to visit neutral flags in order to check if they are transporting war contraband, that is, goods destined to the enemy. If the visit determines *prima facie* that the cargo is contraband, the ship is diverted to a port of the visiting State in order to be submitted to a prize judgment. The London Declaration of 1909 contains a list of goods which can be claimed to constitute contraband of war. However such list is completely obsolete and the goods considered to constitute contraband are currently very numerous. Goods destined to the survival of the civilian population of the enemy cannot be considered as contraband and the rule, which may be considered declaratory of customary international law, is now enshrined in Protocol I of 1977 additional to the Geneva Convention of 1949.<sup>41</sup> It is to be pointed out that only goods destined to the enemy may constitute contraband, not those coming from the enemy territory, since there is no prohibition on neutrals trading with the enemy.

### 18.16 War Zones and Total Exclusion Zones

Belligerents may curtail the freedom of the seas but they are not allowed to totally exclude it. During both World Wars I and II Germany declared the North Atlantic

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<sup>40</sup> *The Manual of the Law of Armed Conflict* (UK Ministry of Defence) (2004), 354, rule 13.21.

<sup>41</sup> See Arts 54, 70. and 71 of Protocol I. The Protocol applies in principle only to land warfare, but in our opinion Art. 54 also applies to sea warfare as well as Arts 70 and 71: see N Ronzitti, 'Introductory: The Crisis of the Traditional Law Regulating International Armed Conflicts at Sea and the Need for its Revision' in Ronzitti (ed.), *The law of Naval Warfare. A Collection of Agreements and Documents with Commentaries* (Martinus Nijhoff, 1988) 32–4.

a war zone where all ships, neutral and belligerent, ran the risk of being sunk at sight. The Nuremberg Tribunal stated that war zones were illegal, namely when neutral ships were involved. During the Gulf war between Iran and Iraq, the latter proclaimed a war zone around the Kharg oil terminal. UNSC resolutions 582 (1986) and 589 (1987) addressed the freedom of navigation in the Gulf, condemning the attacks against neutral commercial shipping.

A Total Exclusion Zone (TEZ) was proclaimed by the UK around the Falkland during the war with Argentina in 1982 and had a radius of 200 miles: ships and aircraft not authorized by the UK entered the zone at risk of being attacked. Several States protested including the then Soviet Union and a number of Latin-American States. The TEZs are a modern version of the World Wars war zones and their establishment is unlawful if they have the aim to exclude the navigation of neutral States. At most they may be used as a tool for controlling navigation within the zone, which cannot imply the sinking on sight of shipping venturing into the zone.<sup>42</sup>

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<sup>42</sup> See for instance the conditions set out in the *British Manual of the Law of Armed Conflict* (n. 40), 364 rule 13.78.



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