

LEGAL ASPECTS OF SUSTAINABLE DEVELOPMENT

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# PROTECTING THE OCEANS BEYOND NATIONAL JURISDICTION

Strengthening the International Law Framework

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ROBIN WARNER

MARTINUS NIJHOFF PUBLISHERS

# Protecting the Oceans Beyond National Jurisdiction

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Robin Warner

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## SERIES EDITOR'S PREFACE

This is the third volume in the Martinus Nijhoff monograph series on *Legal Aspects of Sustainable Development* published under my general editorship. The aim of this series is to publish works at the cutting edge of legal scholarship that address both the practical and the theoretical aspects of this important concept.

The governance of areas beyond national jurisdiction is probably the most pressing marine issue facing the world community. It is paradoxical that on the one hand science is helping us to appreciate more fully the rich biodiversity of marine areas beyond national zones and the important role this plays in the global system, including helping to regulate its climate, while on the other hand, these high seas areas face increasing adverse impacts – both from the intensification of existing human activities and from major new risks. Illegal, unregulated and unreported (IUU) fishing for deep ocean species, uncontrolled bottom trawling over seamounts, exploration of hydrothermal vents as well as proposals for geo-engineering activities such as iron fertilization, are just some of the activities which reveal the lack of an holistic system of governance for these areas, based on established and agreed basic principles. In 2006 on the recommendation of the UN Open-ended Informal Consultative Process on Oceans and the Law of the Sea (UNICPOLOS), the UN General Assembly established an Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction. Two meetings of this Group have helped to focus informed opinion on the major issues facing the high seas; however the debates on improved governance have been overshadowed by controversy over the future regime for exploitation of marine genetic resources beyond national jurisdiction.

Dr Robin Warner's monograph is therefore both pertinent and opportune. She sets out in detail the existing legal and regulatory regimes for the protection of marine areas beyond national jurisdiction: from the overarching framework of the 1982 Law of the Sea Convention, through to the 1992 Convention on Biological Diversity, the regimes for regulation of fisheries and maritime transport and the regional seas regimes. She then contrasts the gold standard set by the International Seabed Authority for environmental protection during sea bed mineral exploitation activities with the existing ad hoc and patchwork regulation of high seas living resources, and uses this analysis to present the key issues and the range of options for improved governance of marine areas beyond national jurisdiction that are open to the international community. I trust that her timely work will further stimulate informed discussion and forward progress on this important agenda.

**David Freestone**  
Washington DC

## PREFACE

It is only in recent decades that marine scientific research has begun to reveal the rich biodiversity and abundant resources of the open ocean and deep seabed beyond national jurisdiction. These vast marine areas, covering approximately 50% of the globe, contain some of the most unique species and habitats as well as being the transitory home for a wide array of migratory species such as fish, birds, turtles and cetaceans.

With advances in technology and maritime transport, the spectrum and intensity of human activities in these remote parts of the ocean and the deep seabed are steadily increasing. A combination of factors such as the depletion of fisheries within national jurisdiction, the expansion in global maritime trade and scientific interest in the deep sea have led to greater human usage of the vast marine areas beyond the territorial seas and exclusive economic zones of coastal States. Human uses of marine areas beyond national jurisdiction now extend beyond the traditional activities of navigation and fishing to bio-prospecting for marine genetic resources, exploration for deep sea minerals, marine scientific research probes of the deep sea and seismic testing. Emerging uses of marine areas beyond national jurisdiction include geo-engineering experiments to mitigate the effects of climate change such as sub-seabed sequestration of carbon dioxide and open ocean fertilisation using iron and other nutrients.

This rise in human activities outside the limits of coastal State jurisdiction poses actual and potential threats to the marine environment. Over fishing of straddling, highly migratory and discrete high seas fish stocks can weaken the genetic diversity and resilience of the target species and adversely affect associated and dependent species within the same ecosystem. Destructive fisheries practices such as bottom trawling and pelagic long line fishing have catastrophic consequences for non target species and habitats destroyed and damaged in the wake of heavy rollers and multiple hooks deployed across the ocean. Vessel source pollution, although highly regulated through the mechanism of flag State jurisdiction, is not subject to any independent monitoring and compliance system in marine areas beyond national jurisdiction. Oil and other substances accidentally or intentionally discharged from vessels and marine debris such as plastics continue to cause significant harm to marine life.

Until the latter decades of the twentieth century, the deep sea with its unique habitats and rare creatures was largely unexplored by humans. Arbitrary human intrusions into the deep sea have the potential to damage the intricate

links between complex marine ecosystems and to destroy components of marine biodiversity. The consequent threats to the deep sea beyond national jurisdiction include the introduction of light, noise and alien substances into pristine deep sea environments and the long term effects of sinking and sub sequestered carbon dioxide on the species, habitats and ecosystems of the lower levels of the water column and the deep seabed.

The current legal and institutional framework to protect the marine environment has concentrated principally on areas within national jurisdiction where coastal States have authority to deploy a full suite of biodiversity conservation measures including environmental impact assessment, bioregional planning and marine protected areas to regulate the impact of human activities on the marine environment. By contrast, environmental protection arrangements for marine areas beyond national jurisdiction are largely underdeveloped and sectorally based. The common property status of the high seas water column and the inability to bind third States not party to arrangements such as the UN Fish Stocks Agreement is rapidly leading to a tragedy of the commons for the marine environment beyond national jurisdiction.

In recent times the international community has been focussing its attention on the threats to the marine environment beyond national jurisdiction and questions have been raised about the ability of the current legal and institutional framework to adequately protect this rich repository of marine biodiversity. Discussions in the United Nations Informal Consultative Process on the Oceans and the Law of the Sea led to a recommendation, approved by the UN General Assembly in 2004, to form the Ad Hoc Open-ended Informal Working Group on Marine Biodiversity in Areas Beyond National Jurisdiction (BBNJ Working Group) which met for the first time in 2006 and has met again in 2008. This group is examining some core issues related to the marine environment beyond national jurisdiction including the environmental impact of human activities on marine biodiversity beyond areas of national jurisdiction, enhancing coordination and cooperation among States as well as relevant intergovernmental organizations and bodies, the role of area based management tools, marine genetic resources beyond national jurisdiction, whether there are governance or regulatory gaps and how they should be addressed.

The objective of this book is to analyse the current global, sectoral and regional arrangements for protecting the marine environment beyond national jurisdiction and to examine some options for strengthening the legal and institutional framework for protecting this part of the marine environment. It is intended to provide a timely contribution to efforts within the United Nations system to develop more integrated legal and institutional frameworks to protect the marine environment beyond national jurisdiction and its inherent biodiversity.

## **LIST OF ABBREVIATIONS**

ASMA	Antarctic Specially Managed Area
ASPA	Antarctic Specially Protected Area
ATCM	Antarctic Treaty Consultative Meeting
CAP	Caribbean Action Plan
CBD	Convention on Biological Diversity
CCAMLR	Convention for the Conservation of Antarctic Marine Living Resources
CCAS	Convention for the Conservation of Antarctic Seals
CEP	Committee for Environmental Protection
COP	Conference of the Parties
CPPS	South East Pacific Action Plan
CSD	Commission for Sustainable Development
DOALOS	UN Division for Ocean Affairs and the Law of the Sea
EAP	Eastern African Action Plan
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
FAO	Food and Agricultural Organization
GESAMP	United Nations Joint Group of Experts on the Scientific Aspects of Marine Pollution
GFCM	General Fisheries Commission for the Mediterranean
GPA	Global Programme of Action for the Protection of the Marine Environment from Land-based Sources
IACS	International Association of Classification Societies
IAEA	International Atomic Energy Agency
ICES	International Council for the Exploration of the Sea
ICJ	International Court of Justice
ILC	International Law Commission
IUU	Illegal, Unreported and Unregulated Fishing
IMCO	Intergovernmental Maritime Consultative Organization (former title of IMO)
IMO	International Maritime Organization

IOTC	Indian Ocean Tuna Commission
ISA	International Seabed Authority
ITLOS	International Tribunal for the Law of the Sea
ITOPF	International Tanker Owners Oil Pollution Federation
IUCN	International Union for Conservation of Nature and Natural Resources (World Conservation Union)
IWC	International Whaling Commission
LOSC	1982 United Nations Law of the Sea Convention
MAP	Mediterranean Action Plan
MEPC	Marine Environment Protection Committee (IMO)
MOU	Memorandum of Understanding
MPA	Marine Protected Area
NAFO	Northwest Atlantic Fisheries Organization
NEAFC	North East Atlantic Fisheries Commission
NGO	Non Governmental Organisation
RFMO	Regional Fisheries Management Organisation
RMP	Revised Management Procedure (IWC)
RMS	Revised Management Scheme (IWC)
RSP	Regional Seas Program
PSSA	Particularly Sensitive Sea Area
SAP	Strategic Action Plan (UNEP Regional Seas Program)
SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice (CBD)
SEAFO	South East Atlantic Fisheries Organization
SPAMI	Specially Protected Area of Mediterranean Interest
SPREP	South Pacific Regional Environment Program
UNCED	United Nations Conference on the Environment and Development
UNCLOS I	First United Nations Conference on the Law of the Sea
UNCLOS II	Second United Nations Conference on the Law of the Sea
UNEP	United Nations Environment Program
UNFSA	United Nations Fish Stocks Agreement

UNGA	United Nations General Assembly
UNICPOLOS	United Nations Informal Consultative Process on Oceans and the Law of the Sea
VMS	Vessel Monitoring System
WCPA	World Commission for Protected Areas
WCPFC	Western and Central Pacific Ocean Fisheries Commission
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization
WWF	Worldwide Fund for Nature

## TABLE OF TREATIES INSTRUMENTS AND DECLARATIONS

1946 *International Convention for the Regulation of Whaling*, Washington D.C., 2 December 1946 (entered into force 10 November 1948) 161 UNTS 72

1949 *Agreement for the Establishment of a General Fisheries Council for the Mediterranean*, Rome, 24 September 1949 (entered into force 20 February 1952) 126 UNTS 239

1949 *Convention between the United States of America and the Republic of Costa Rica for the Establishment of an Inter-American Tropical Tuna Commission*, Washington D.C., 31 May 1949 (entered into force 3 March 1950) 80 UNTS 3

1954 *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

1958 *Convention on the Continental Shelf*, Geneva, 29 April 1958 (entered into force 10 June 1964) 499 UNTS 311

1958 *Convention on Fishing and Conservation of the Living Resources of the High Seas*, Geneva, 29 April 1958 (entered into force 20 March 1966) 559 UNTS 285

1958 *Convention on the High Seas*, Geneva, 29 April 1958 (entered into force 30 September 1962) 450 UNTS 11

1959 *Antarctic Treaty*, Washington D.C., 1 December 1959 (entered into force 23 June 1961) 402 UNTS 71

1966 *International Convention for the Conservation of Atlantic Tunas*, Rio de Janeiro, 14 May 1966 (entered into force 21 March 1969) 673 UNTS 63

1969 *Convention on the Law of Treaties*, Vienna, 23 May 1969 (entered into force 27 January 1980) 1155 UNTS 331

1969 *International Convention relating to Intervention on the High seas in cases of Oil Pollution Casualties*, Brussels, 29 November 1969 (entered into force 6 May 1975) 970 UNTS 211

1972 *Convention on the Conservation of Antarctic Seals*, London, 1 June 1972 (entered into force 11 March 1978) (1972) 11 ILM 251

1972 *Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft*, Oslo, 15 February 1972 (entered into force 7 April 1974) (1972) 11 ILM 262

1972 *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter*, London, 29 December 1972 (entered into force 30 August 1975) (1972) 11 ILM 1294

1972 *Declaration of the United Nations Conference on the Human Environment*, Stockholm, 16 June 1972, (1972) 11 ILM 1416

1973 *International Convention for the Prevention of Pollution from Ships*, London, 2 November 1973 (this convention was not intended to enter into force) (1973) 12 ILM 1319

1973 *Protocol relating to Intervention on the High Seas in Cases of Marine Pollution by Substances Other than Oil*, London, 2 November 1973 (entered into force 30 March 1983) 34 UST 3407

1974 *Convention on the Protection of the Marine Environment of the Baltic Sea Area*, Helsinki, 22 March 1974 (entered into force 3 May 1980) (1974) 13 ILM 546

1976 *Convention for the Protection of the Mediterranean Sea against Pollution*, Barcelona, 16 February 1976 (entered into force 12 February 1978) (1976) 15 ILM 290

1978 *Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries*, Ottawa, 24 October 1978 (entered into force 1 January 1979) 1135 UNTS 369

1978 *Protocol to the International Convention for the Prevention of Pollution from Ships*, London, 1 June 1978 (Annex I entered into force 2 October 1983; Annex II entered into force 6 April 1987; Annex III entered into force 1 July 1992; Annex IV entered into force 27 September 2003; Annex V entered into force 31 December 1988; Annex VI entered into force 19 May 2005) (1978) 17 ILM 546

1980 *Convention on the Conservation of Antarctic Marine Living Resources*, Canberra, 20 May 1980 (entered into force 7 April 1981) (1980) 19 ILM 837

1980 *Convention on Future Multilateral Co-operation in North East Atlantic Fisheries*, London, 18 November 1980 (entered into force 18 November 1980) 1285 UNTS 129

1981 *Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific*, Lima, 12 November 1981 (entered into force 19 May 1986) 33 International Digest of Health Legislation (1982) 96

1982 *United Nations Convention on the Law of the Sea*, Montego Bay, 10 December 1982 (entered into force 16 November 1994) 1833 UNTS 3

1982 *Protocol concerning Mediterranean Specially Protected Areas*, Geneva, 3 April 1982 (entered into force 3 March 1986) Official Journal of the European Community (OJ) 1982, C 278/5

1982 *Memorandum of Understanding on Port State Control*, Paris, 26 January 1982 (in effect 1 July 1982) text at <[www.parismou.org](http://www.parismou.org)>

1983 *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) (1983) 22 ILM 221

1985 *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) Official Journal of the European Community 1986, C253/10

1985 *Protocol concerning Protected Areas and Wild Flora and Fauna in the Eastern African Region*, Nairobi, 21 June 1985 (entered into force 29 May 1996) Official Journal of the European Community 1986, C253/10

1986 *Convention for the Protection of the Natural Resources and Environment of the South Pacific Region*, Noumea, 24 November 1986 (entered into force 22 August 1990) (1987) 26 ILM 41

1989 *Protocol for the Conservation and Management of Protected Marine and Coastal Areas of the South-East Pacific*, Paipa, 21 September 1989 (entered into force 17 October 1994) text at Internet Guide to International Fisheries Law, <[www.intfishnet/treaties/sepac1989.htm](http://www.intfishnet/treaties/sepac1989.htm)>

1990 *Protocol concerning Specially Protected Areas and Wildlife in the Wider Caribbean*, Kingston, 18 January 1990 (entered into force 18 June 2000) text at <[www.cep.unep.org/pubs/legislation/spaw.htm](http://www.cep.unep.org/pubs/legislation/spaw.htm)>

1991 *Protocol on Environmental Protection to the Antarctic Treaty*, Madrid, 4 October 1991 (entered into force 14 January 1998) (1991) 30 ILM 1455

1992 *Agenda 21*, Annex II to the Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3 to 14 June 1992, UN Doc A/CONF.151/26

1992 *Convention on Biological Diversity*, Nairobi, 22 May 1992 (entered into force 29 December 1993) (1992) 31 ILM 822

1992 *Convention for the Protection of the Marine Environment of the North-East Atlantic*, Paris, 22 September 1992 (entered into force 25 March 1998) (1993) 32 ILM 1069

1992 *Rio de Janeiro Declaration on Environment and Development*, Rio de Janeiro, 3 to 14 June 1992, UN Doc A/CONF.151/5/REV.1; (1992) 31 ILM 876

1993 *Agreement for the Establishment of the Indian Ocean Tuna Commission*, Rome, 25 November 1993 (entered into force 27 March 1996) ATS [1996] No. 20

1993 *Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas*, Rome, 24 November 1993 (entered into force 24 April 2003) (1994) 33 ILM 968

1993 *Asia Pacific Memorandum of Understanding on Port State Control in the Asia-Pacific Region*, Tokyo, 1 December 1993 (in effect 1 April 1994) text at <[www.jp/tokyomou](http://www.jp/tokyomou)>

*Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982*, New York, 28 July 1994 (entered into force 28 July 1996) (1994) 33 ILM 1309

*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*, New York, 4 August 1995 (entered into force 11 December 2001) 2167 UNTS 3

1995 *Code of Conduct for Responsible Fisheries*, Rome, 31 October 1995, text at 11 International Organizations and the Law of the Sea Documentary Yearbook (1995) 700

1995 *Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean*, Barcelona, 10 June 1995 (entered into force 9 July 2004) text at <[www.unep.ch/regional/seas/regions/med/t\\_barcel.htm](http://www.unep.ch/regional/seas/regions/med/t_barcel.htm)>

1995 *Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean*, Barcelona, 10 June 1995 (entered into force 12 December 1999) UN Doc UNEP(OCA)MED IG.6/7, text at >[www.unepmap.org/Archivio/All\\_Languages/WebDocs/BC\\_&Protocols/SPA95\\_eng.pdf](http://www.unepmap.org/Archivio/All_Languages/WebDocs/BC_&Protocols/SPA95_eng.pdf)>

1996 *Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter*, London, 7 November 1996 (entered into force 24 March 2006) (1997) 36 ILM 1

2000 *Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean*, Honolulu, 5 September 2000 (entered into force 19 June 2004) (2001) 40 ILM 277

2001 *Convention on the Conservation and Management of the Fishery Resources in the South East Atlantic Ocean*, Windhoek, 20 April 2001 (entered into force 13 April 2003) (2002) 41 ILM 257

2004 *International Convention on the Control and Management of Ships Ballast Water Sediments*, London, 13 February 2004 (not in force), IMO Doc BWMCNF/36, text at <[www.imo.org/home.asp?topic\\_id161](http://www.imo.org/home.asp?topic_id161)>

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