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at the University of Hamburg

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Jürgen Basedow
Ulrich Magnus
Rüdiger Wolfrum
Editors

The Hamburg Lectures on Maritime Affairs 2011–2013

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The Hamburg Lectures on Maritime Affairs 2011-2013

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Preface

In April 2002, the International Max Planck Research School for Maritime Affairs (IMPRS) at the University of Hamburg was established as a joint venture of the University of Hamburg and three Max Planck Institutes, more specifically the Max Planck Institute for Comparative and International Private Law (Hamburg), the Max Planck Institute for Comparative Public Law and International Law (Heidelberg) and the Max Planck Institute for Meteorology (Hamburg). The Research School has set up a unique interdisciplinary PhD programme. The researchers and their respective topics cover the legal, economic, ecological and geophysical aspects of the use, protection and organization of the oceans.

From the very beginning, the School has been in close contact with the International Tribunal for the Law of the Sea (ITLOS). In cooperation with ITLOS, the IMPRS for Maritime Affairs has organized the Hamburg Lectures on Maritime Affairs since 2007. These lectures are meant to contribute to the top level education of the IMPRS scholars and of the trainees of ITLOS that take part in an internship offered by ITLOS and funded by the Nippon Foundation. In the book series of the Hamburg Studies on Maritime Affairs, two volumes collecting the papers presented in the Hamburg Lectures have already been published. In 2010, the first has collected the lectures presented in 2007 and 2008 (vol. 16 of the Hamburg Studies), and the second in 2012, collecting the Hamburg Lectures of the years 2009 and 2010 (vol. 23).

The present volume publishes 11 papers which were presented as Hamburg Lectures from 2011 to 2013; the book also contains the contribution to a panel discussion organized by ITLOS on the delimitation of the outer continental shelf. All papers deal with topical issues of the current development of maritime law and the law of the sea presented by outstanding specialists from across the globe.

The editors of this volume gratefully acknowledge the editorial assistance of PD Dr. Anatol Dutta and of Janina Jentz in preparing this volume and the language editing of the papers by Michael Friedman.

Hamburg, Germany
December 2013

Jürgen Basedow
Ulrich Magnus
Rüdiger Wolfrum

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Part I
The Hamburg Lectures 2011

Preservation of the Marine Environment

Rüdiger Wolfrum

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This text reflects the lecture of the author on "Preservation of the Marine Environment" held on 28 September 2011 on the premises of ITLOS and the Institute.

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I. Introduction

The seas are subject to a wide variety of uses. Direct use of ocean resources has a long history, especially in the areas of navigation, fisheries, military activities, and waste disposal. More recently the oceans and the seabed are used for the generation of energy, to explore and exploit minerals as well as hydrocarbons and to conduct marine scientific research. The objective of all attempts to preserve the marine environment is to ensure the compatibility of all such or future uses and to ensure that they are, in their totality, sustainable. Oceans are a decisive factor for the world's climate and this adds an additional feature to the regime on the preservation of the marine environment. Finally, attempts are made to protect the intrinsic value of the marine environment.

1. The Development of Marine Environmental Law

International efforts at protecting the marine environment date back to the 1960s. The London Dumping Convention of 1973 was an early multilateral effort in this regard. In the wake of the Torrey Canyon accident of 1967, growing concern over ship-based and land-based marine pollution in the North Sea and Baltic Sea regions led to several multilateral conventions between the coastal States concerned – from the 1969 Bonn Agreement for Cooperation in Dealing with Pollution of the North Sea by Oil and the 1972 Oslo Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft to the 1974 Paris Convention on the Prevention of Marine Pollution from Land-Based Sources, the 1974 Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea Area, and others. However, a truly universal and comprehensive approach required by the physical nature of the world's hydrosphere only became possible with the successful completion of the Third United Nations Conference on the Law of the Sea (UNCLOS III) in 1982. While the driving forces behind UNCLOS III and the resulting United Nations Convention on the Law of the Sea (hereinafter the Convention) were primarily economic in nature, e.g. regarding the allocation of resource exploitation rights, the concern for environmental protection first expressed at the Stockholm Conference 1972 left its mark on the Convention, particularly on its Part XII. The growing awareness that the oceans constitute an exhaustible resource and that their protection is a common concern of the international community of States led to the formulation of the program of action set forth in chapter 17 of Agenda 21 adopted at the Rio Conference.

2. The United Nations Convention on the Law of the Sea as the Basic Legal Framework for Marine Protection

The Convention on the Law of the Sea is the legal basis for the protection of the marine environment. This instrument has proven capable of accommodating the surge in marine environmental law-making both prior and subsequent to the United Nations Conference on Environment and Development (Rio Conference). Articles 192 and 193 of the Convention are the key provisions obliging States to protect the marine environment and to cooperate with the view to meet this objective.

It would be a misconception to assume that the Convention is only concerned with the protection and preservation of the marine environment. In fact it attempts to strike a balance between protection and preservation of the marine environment and the economic use of the oceans. Therefore the Convention is one of the early examples of a regime striving for a sustainable use of the oceans although it does not focus on this principle which became more dominant in governing international environmental law after the adoption of the Convention. However, the Convention has to be read in conjunction with the results achieved at the Rio Conference, and therefore besides the principle of sustainable development, the principles of intergenerational equity, common but differentiated responsibilities, common concern, the precautionary principle, and the cost-internalization (the polluter/user-pays) principle are applicable.

Note must be taken of the fact that the Convention does not provide for a definite regime on the protection of the marine environment. It rather establishes some general standards and – most importantly – provides for a functional allocation of jurisdiction both to prescribe and to enforce marine environmental law. In that respect the Convention does not pursue a uniform approach but differentiates between the various uses of the sea.

II. Conservation, Management and Utilization of Living Resources

One of the primary mechanisms for the preservation of the marine environment is the protection of its living resources. The Convention predominantly allocates jurisdictional authority to the various States concerning the management and control of marine living resources and less to international organizations. This approach, however, was not totally successful in itself. Fish stocks are interrelated, which calls for a more comprehensive approach then the Convention originally envisaged.

1. Introduction

Across the world, fisheries, once imagined to be inexhaustible, are showing signs of being overfished or even depleted beyond the means of recovery. Three key causes have been identified as being responsible for the dramatic situation of marine living resources (1) by-catch and destructive fishing practices; (2) illegal, unreported and unregulated (IUU) fishing; and (3) subsidies.

2. The Convention's Fisheries Regime

The fisheries regime of the Convention functionally contains two separate sets of rules. The first set is concerned with the distribution of resources for exploitation, the second with the management of these resources.

a) Territorial Sea

The sovereignty that coastal States enjoy over their territorial waters includes the power to enact and to enforce regulations concerning fisheries and the conservation of living resources in this area. In the *La Bretagne* arbitration, however, the majority of the Arbitral Tribunal stated, *obiter dictum*, that even in the territorial sea, the costal State enjoyed only functional jurisdictional powers as enumerated in the Convention.

b) Exclusive Economic Zones

In the Exclusive Economic Zone, the coastal State enjoys sovereign rights for the purpose of exploring and exploiting, conserving and managing the living resources. According to Articles 61 to 68 of the Convention, the coastal State shall promote their optimum utilization". Yet it shall do so "without prejudice to Article 61", which sets out management and conservation measures. According to Article 61(1), a coastal State "shall" determine the total allowable catch. Management measures have to protect marine living resources against overexploitation (paragraph 2), and to maintain and "restore populations of harvested species at levels which can produce the maximum sustainable yield (paragraph 3). Maximum sustainable yield is to be understood as "qualified by relevant environmental and economic factors" and to be determined "after taking into account the interdependence of stocks". "Any generally recommended international minimum standards, whether sub-regional, regional or global" are also to be taken into account. This provides the legal basis for standards for sustainable fisheries, which have been developed and adopted in the relevant international fora, particularly the Food and Agriculture

Organization (FAO), to influence decision-making even when not expressed in a legally binding document. Such standards are the conduit for new and emerging principles of natural resource management such as the ecosystem and the precautionary approaches. However, setting precise standards and threshold levels for such critical variables as “allowable catch”, “over-exploitation”, “effects of management measures”, “optimum utilization”, “capacity to harvest”, and “surplus” remains scientifically imprecise and therefore problematic.

c) High Seas

Conservation and management of the living resources of the high seas is the subject of Articles 116 to 120 of the Convention. Article 116 recognizes that all States have the right for their nationals to engage in fishing on the high seas, subject to existing treaty obligations as well as the rights, duties, and interests of coastal States. Article 117 obligates all States, individually and jointly, to take for their respective nationals the measures necessary for the conservation of the living resources of the high seas. Article 118 imposes a correlative duty on States to cooperate in the conservation as well as in the management of high seas living resources. Article 119 provides technical guidance for States in determining the allowable catch and establishing other conservation measures for the living resources in the high seas. The interpretation of the central term “maximum sustainable yield, as qualified by relevant environmental and economic factors” has been subject to debate. The term is to be interpreted in the same way as it is under Article 61 given that the provisions encompass the same ecological topoi. Remarkably, regional fisheries organizations are not assigned specific functions or competencies in this respect.

Enforcement of fishing regulations applicable on the high seas lies primarily with the flag State, which, however, is obligated to cooperate with other States in the interest of enforcing international standards. In spite of the efforts undertaken by FAO, the state of affairs remains unsatisfactory. Many flag States have proven either incapable or unwilling to actively promote and enforce sustainable fisheries. As a result thereof, standard-setting is moving to international organizations and enforcement to port States. A further stage of internationalization was reached through the elaboration of regimes on certain fish stocks.

3. Common Management of Natural Resources

a) The Straddling Stocks Agreement

The so-called Straddling Stocks Agreement focuses on fish populations that ‘straddle’ the boundaries of countries’ EEZs and the high seas, such as cod off Canada’s Atlantic coast and pollock in the Bearing Sea. It also deals with highly migratory species such as tuna and swordfish.

Consistent with the tendency to nationalize resources, which forms the basis for the fisheries regime of the Convention on the Law of the Sea in the exclusive economic zone, the more recent development on the Law of the Sea is the recognition that the several uses of the sea have to be seen holistically and internationally. This has for consequence – at least theoretically – in that the competing individualized preference maximization should be replaced to a longer-term, social preference maximization. The paradigmatic shift has come about in stages. The main impetus can be seen in chapter 17 of Agenda 21, and as to fisheries in particular, in the FAO Kyoto Declaration.

The United Nations Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks states as its primary objective "to ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks". The Agreement promotes effective management and conservation of high seas resources by establishing, *inter alia*, detailed minimum international standards for the conservation and management of straddling fish stocks and highly migratory fish stocks. This means to ensure that measures taken for the conservation and management of those stocks in areas under national jurisdiction and in the adjacent high seas are compatible and coherent. The Agreement promotes regionalization of fish stocks conservation and management and relies on regional and subregional organizations and arrangements for making and enforcing such standards. To provide States with an incentive to join relevant organizations and arrangements and thus to enforce Article 8(3), Article 8(4) access to the fishery resources under the regulation of regional organizations is restricted to those States which are members of such an organization or which apply its conservation measures. From the point of view of general international law this approach is somewhat problematic. According to Article 8(5) relevant coastal States and States fishing on the high seas for straddling and highly migratory fish stocks must, where no regional organization exists, establish such an organization and participate in its work. Regional organizations and regional arrangements already in place are provided with a blueprint on substantive as well as procedural principles to further the global conservation interest and to render such organizations and arrangement more effective. Article 5 sets forth a number of guiding principles for the management of the covered fish stocks, most notably the precautionary principle, for the application of which Article 6 contains an elaborate blueprint. The general principles flowing from an ecosystem approach are set out in Annex I, which contains detailed provisions on standard requirements for the collection and sharing of data on resources, and the precautionary approach, which requires States to assess the impact of fishing on non-target and associated or dependent species and their environments.

The Agreement incorporates the dispute settlement mechanism of UNCLOS. It builds on the important work undertaken by FAO in the field of fisheries, particularly the FAO Code of Conduct for Responsible Fisheries. The Code is voluntary.

Under customary international law and the Convention, the "flag State principle" subjects a fishing vessel on the high seas to the exclusive jurisdiction of the State under whose flag it is registered. Article 21 of the Straddling Fish Stocks

Agreement represents a far-reaching exception to the flag State principle by allowing enforcement to be carried out within the regulatory area of regional organizations and arrangements by other states. The inspecting State does not need to receive the consent of the flag State. However, it may board and inspect the vessel only for the purpose of pursuing compliance with regional conservation and management measures. The inspecting State may eventually bring the vessel to the nearest port only if there are "clear grounds for believing that a vessel has committed a serious violation". In the event that violations of conservation measures are detected, Article 21 requires that evidence be secured and the flag State be notified promptly. The flag State has to indicate whether it will take enforcement actions itself or whether it will authorize the inspecting State to do so.

It is generally agreed that classic fish management alone will not be the appropriate answer to the growing global fish crisis. Rather, the manifold overcapitalization – ranging from the unemployment benefits of fishermen to the loans for upgrading fishing gear and boats and on to enlarged harbor installations – contributes to such crisis and needs to be addressed. The negotiations in Doha on that issue make very slow progress.

b) Regional Fisheries Organizations

The Northwest Atlantic Fisheries Organization may serve as an illustration for regional organization in the field of fisheries. It was established through a multilateral convention applying to all fishery resources of the Convention Area except anadromous species, such as salmon or whales. It is for this organization to set the standards and procedures for an effective management of fisheries.

Responsibility for implementing agreements on international fisheries usually devolves wholly to the States Parties that must govern fishing by their own nationals. Some fisheries agreements specifically provide for the application of criminal penalties or punitive measures in the event of violations. Others expressly require Parties to secure compliance, e.g. by applying sanctions or punishment against other States for breaches or violations of national implementing legislation.

Regarding the particularly acute problem of vessels flying the flag of States not members of the regional or species-oriented organization in question, action has been taken, for example, by the Northwest Atlantic Fisheries Organization (NAFO). According to the scheme, a non-Contracting Party vessel which has been sighted carrying out fishing activities in the NAFO regulatory area, or is engaged in any transshipment activities with another non-Contracting Party inside or outside the regulatory area, is presumed to be undermining NAFO conservation and enforcement measures. Information regarding such sightings would be transmitted by the NAFO secretariat to all Contracting Parties and to the flag State of the sighted vessel. If the sighted vessel consents to be boarded by NAFO inspectors, the findings of the inspectors are transmitted to all Contracting Parties and to the flag State of the vessel. Furthermore, any previously sighted non-Contracting Party vessel entering a port of any NAFO Contracting Party shall not be allowed to

land or transship any fish until an inspection of its documents, log books, fishing gear, catch on board and any other matter relating to its activities in the regulatory area has been carried out by the authorized officials of the port State. Landings and transshipments of some species listed by NAFO are prohibited in all Contracting Party ports unless the vessel has established that they have been caught outside the regulatory area; landings and transshipments of other species are prohibited unless they have been harvested in accordance with NAFO conservation and enforcement measures.

4. Marine Mammals

The Convention deals with marine mammals in Articles 65 and 120. The first sentence of each provision essentially takes a negative attitude stating that States Parties remain free to provide for higher protection and shall cooperate to that end. According to the second sentence of both Article 65 and Article 210 of the Convention, States are under an obligation to cooperate in the conservation and management of marine mammals with the appropriate international organizations. This obligation extends to both exclusive economic zones and the high seas.

The International Convention for the Regulation of Whaling, whose adoption was originally motivated by economic reasons, presents a number of interesting features, including the fact that membership is not restricted to whaling States but is open to non-whaling States as well. Membership thus represents both use and conservation interests in the resource.

The International Whaling Commission is entrusted with the management of whales. However, States can opt out of new management measures within 90 days. The amendments must be based on 'scientific data'. In 1982 the Commission adopted a moratorium on whaling. When the International Whaling Commission proposed to establish a whale sanctuary in the Southern Ocean, i.e. on the high seas, member States disputed the Commission's competence to take such action. The affirmative vote taken by the Commission is legally anchored in a dynamic interpretation of the constituent treaty in the light of subsequent practice by States in various fora and by the Commission. Since the sanctuary is situated on the high seas, whaling States are bound to respect it only by virtue of the decision taken by the Commission.

In addition, there are regional development efforts to protect whales.

5. Protection of Biodiversity

The protection of marine living resources is not only mandated by chapter 17 of Agenda 21, but also by the preservation of biological diversity, enshrined in the Convention on Biological Diversity. This is one of the most discussed areas and

may bring about significant modifications for the legal regime on the protection and preservation of the marine environment. This is a broad issue and very much under consideration. It deserves a lecture of its own.

III. Protection Against Pollution

Pollution of the ocean takes a heavy toll on marine resources. The Convention on the Law of the Sea devotes most of Part XII to this issue. The Convention introduces a remarkable flexibility in this regard, permitting the progressive development of the law without the formal amendment of the Convention itself.

The basic obligation is contained in Article 192 Convention: 'States have the obligation to protect and preserve the marine environment.' That obligation is unqualified. It applies equally in the territorial waters, in the EEZ, and on the high seas. It even applies to the internal activities of States that impact upon the marine environment. States must cooperate in the implementation of that obligation.

The types of potential pollution can be divided into several categories. Pollution from land-based sources is probably the most severe problem. It is regulated by Article 207, with enforcement provisions provided in Article 213. Atmospheric pollution, which is largely land-based in its origin, is covered by Articles 212 (for the establishment of standards) and 222 (for enforcement). Pollution emanating from ships, whether from dumping or from maritime activities and accidents, is covered by Articles 210 and 211 (for the establishment of rules) and 216 through 221 (for enforcement). Pollution originating in seabed activities is governed by Articles 208 (for activities within national jurisdiction) and 209 (for activities within 'the area', which is under international jurisdiction), with enforcement measures primarily under Articles 214–215.

With the exception of the provisions relating to deep seabed, which is already subject to international jurisdiction, these provisions share several common characteristics. First, while they recognize legislative competence of individual States, that allocation of legislative jurisdiction is not unlimited. Rather, national law must be no less effective than international standards. Second, the Convention does not itself seek to define those standards, but leaves them to the evolutionary processes of international organizations and diplomatic conferences. Third, the Convention places an affirmative duty on States to seek to establish global or regional rules. The progressive development of these standards can provide improved protection for marine resources.

The Convention also recognized changes in enforcement patterns. Enforcement can be directed not only by the flag State of a vessel, but also by the coastal State or a port State.

1. Land-Based Pollution and Coastal Areas

In the Convention on the Law of the Sea, the subject of pollution from land-based sources is dealt with in Articles 194, 207, and 213. Article 207 requires States to enact legislation 'to prevent, reduce and control pollution', taking into account internationally agreed rules, standards, and practices, and to participate in international organizations and diplomatic conferences to establish such rules. Article 213 calls on States to enforce applicable international as well as national environmental laws.

Among the global treaties dealing, directly or indirectly, with pollution from land-based sources or with coastal management are the Convention on Wetlands of International Importance especially as Waterfowl Habitat, Ramsar 1971, the Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal, 1989, and the Convention on Biological Diversity, 1992. The Global Program of Action for the Protection of the Marine Environment from Land-Based Activities, adopted on 3 November 1995, is an example of an initiative developed on the international level. Most initiatives to limit land-based pollution have been developed on the regional level.

2. Pollution From Ships

The bulk of vessel-source pollution results from routine operational discharges, such as washing cargo tanks or disposing of sewage and garbage. In contrast, despite the public prominence of incidents such as the Exxon Valdez oil spill, marine casualties are responsible for less than a quarter of all vessel-source pollution. States are required by the Convention, in particular by Articles 211 and 217, to establish international rules and standards to prevent, reduce, and control pollution of the marine environment from vessels at the global level through the competent international organization or a diplomatic conference. Once they are "generally (but not necessarily by all) accepted", States are obliged to implement and enforce them at the national level. Flag States' national laws and regulations must at least have the same effect as that of generally accepted international rules and standards, Article 211(2). The conventional norms define the minimum, not the maximum level of protection. Regarding the exclusive economic zone, coastal States are bound more specifically to the international standards, as their nationals norms must correspond to the international standards, Article 211(5). Regarding the territorial sea, norms that the coastal State applies to the design, construction, manning, or equipment of vessels have to correspond to international standards, Articles 211(4), 21(2). This was meant to ensure that innocent passage is not jeopardized by varying national standards on design equipment and manning. Particular rules may apply to isc-covered areas.

The Convention thus vests the "generally accepted" standards with an effect *erga omnes*. These standards determine the exercise of a costal State's regulatory and enforcement competence as well as the enforcement competence port States enjoy under the Convention. For that to be the case, it is not necessary that the coastal, the port, or the flag State have consented to be being bound by the particular standard. Rather, it is sufficient – but also necessary – that the standard be elaborated in the right forum, the IMO, and be generally accepted, i.e. has entered into force. Such *erga omnes* effect accrues at least among States Parties to the Convention. The Convention incorporates by reference international standards for the protection of the marine environment, established by the 'competent international organization' or a diplomatic conference. Flag States have to implement such standards, whether they are members of the institutions or not. This follows from the obligation under Article 211 of the Convention on the Law of the Sea to prescribe legislation at least as effective as the generally accepted standards. International law, developed mainly through the IMO, has established numerous standards relating to vessel-source pollution. Discharge standards, construction, design and manning standards, and restrictions and regulations related to navigation can be distinguished.

Primarily, the international rules and standards to prevent, reduce and control pollution of the marine environment from vessels are contained in the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). This fundamental agreement has been continuously adapted to changing circumstances. It covers all the technical aspects of pollution from ships, except the disposal of waste into the sea by dumping, and applies to ships of all types. The Convention has two Protocols dealing, respectively, with Reports on Incidents involving Harmful Substances and Arbitration; and several Annexes which contain regulations for the prevention of various forms of pollution: (a) pollution by oil; (b) pollution by noxious liquid substances carried in bulk; (c) pollution by harmful substances carried in packages, portable tanks, freight containers, or road or rail tank wagons, etc.; (d) pollution by sewage from ships; and (e) pollution by garbage from ships. Global rules to limit air pollution from ships are now included in a new Annex VI.

A new and important feature of MARPOL is the concept of "special areas" which are considered to be so vulnerable to pollution by oil that oil discharges within them have been completely prohibited and navigation is restricted. These restrictions are defined by the bordering States in cooperation with IMO depending on whether these are areas under the jurisdiction of the coastal States concerned and on the nature of the restrictions. The number of specially protected areas is increasing.

The purpose of the International Convention on Oil Pollution Preparedness, Response and Cooperation, 1990, is to provide a global framework for international cooperation in combating major incidents or threats of marine pollution. Parties to the Convention have to take measures for dealing with pollution incidents, either nationally or in cooperation with other countries. Ships are required to carry a shipboard oil pollution emergency plan, the contents of which are to be developed

by IMO. Parties to the Convention are required to provide assistance to others in the event of a pollution emergency, and provision is made for the reimbursement of any assistance provided. The Convention provides for IMO playing an important coordinating role. The universal regime set up by IMO is implemented regionally or even nationally.

The primary responsibility for the enforcement of international rules and standards lies with the flag State. Articles 94 and 217 of the Convention require every State to ensure compliance with applicable international rules and standards by vessels flying their flag, irrespective of where the violation occurs. IMO improved flag State jurisdiction in accord with the International Safety Management Code.

Coastal States may take preventive as well as repressive enforcement action. Articles 25(2) and 219 of the Convention provide that coastal States have the right, in the case of ships proceeding to internal waters or a call at a port facility outside internal waters, to take the necessary measures to prevent any breach of the conditions to which admission of those ships to internal waters or such a call is subject. In the case of a ship which is passing to the territorial sea without calling at a port, the coastal State's enforcement action is limited to the enforcement of those national laws and regulations which give effect to generally accepted international rules or standards on the design, construction, manning, or equipment of ships, Article 21(2).

Measures States can take include the inspection of vessels visiting ports to ensure that they meet IMO requirements regarding safety and marine pollution prevention standards, as well as the detention of vessels. Another measure which some governments have resorted to is to bar entry into their ports to ships which do not comply with the Code. Article 220 of the Convention empowers the coastal State to take enforcement measures against vessels for violation of applicable standards which cause an effect in the exclusive economic zone. The coastal State enforces the international standards as well its national implementation norms if such have been enacted. Such measures may be taken in the port, in the territorial sea, or in the exclusive economic zone. If a violation has led to a substantial discharge causing or threatening significant pollution to the marine environment, a physical inspection of the vessel may be executed, Article 220 (5) in conjunction with Article 226. Under MARPOL, any violation of MARPOL within the jurisdiction of any State Party to the Convention is punishable under the law of that Party. In this respect, the term "jurisdiction" in the Convention is to be construed in the light of international law in force at the time the Convention is applied or interpreted.

Under the terms of the 1969 IMO Convention Relating to Intervention on the High Seas, States Parties are empowered to act against ships of other countries which have been involved in an accident or have been damaged on the high seas if there is a grave risk of oil pollution occurring as a result. 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 upon 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.

According to Article 218(1)-(2) of the Law of the Sea Convention, the port State may repressively institute proceedings in respect of any discharge from a vessel outside the internal waters, territorial sea, or exclusive economic zone of that State in violation of applicable international rules and standards. It may do so upon request of the flag State or in case of effects to waters under its jurisdiction. Under the same conditions, port States may also act regarding violations that have occurred in waters under the jurisdiction of another State, Article 218(3).

Port State enforcement is preferable to coastal State enforcement since it interferes much less with freedom of navigation and can generally be performed more safely.

The International Maritime Organization relies on ship owners' liability to enforce the standards adopted. There are two major instruments designed to compensate the victims of certain oil spills. Such liability will not only allow repairing environmental damage but also create an incentive on the part of shipowners to comply with the standards and take the required measures in order to avoid liability. The aim of the International Convention on Civil Liability for Oil Pollution Damage, 1969 (CLC) is to ensure that adequate compensation is available to persons who suffer oil pollution damage resulting from maritime casualties involving oil-carrying ships. The Convention places the liability for such damage on the owner of the ship from which the polluting oil escaped or was discharged. Subject to a number of specific exceptions, this liability is strict; however, it may be limited. The 1992 Protocol also widened the scope of the Convention to cover pollution damage caused in the exclusive economic zone of a State Party.

Under the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971, the Fund is to pay compensation to States and persons who suffer pollution damage, if such persons are unable to obtain compensation from the owner of the ship from which the oil escaped or if the compensation due from such owner is not sufficient to cover the damage suffered. Under the Fund Convention, victims of oil pollution damage may be compensated beyond the level of the shipowner's liability. The Fund's obligation to pay compensation is confined to pollution damage suffered in the territories including the territorial sea of States Parties. The Fund is also obliged to pay compensation in respect of measures taken by a Contracting State outside its territory. In connection with its second main function, the Fund is obliged to indemnify the shipowner or his insurer for a portion of the shipowner's liability under the Liability Convention. The Convention contains provisions on the procedure for claims, rights and obligations, and jurisdiction.

3. Dumping

Article 210 of the Convention deals with pollution from dumping and provides that national laws, regulations, and measures shall be no less effective than the global rules and standards. According to Article 211, however, such rules shall 'at least have the same effect as that of generally accepted rules and standards, established through the competent international organizations or general diplomatic conferences'. In practice, initiative on the global level lies exclusively with the International Maritime Organization (IMO). The regime of the London Dumping Convention has been considerably strengthened by the Protocol to the Convention, adopted in 1996. The Protocol, which amounts to the adoption of a new convention, pursues its sole objective of protecting and preserving the medium marine environment from all sources of pollution due to dumping or incineration at sea (Article 2) by prohibiting the dumping of wastes with the exception of such wastes explicitly listed in Annex I. The dumping of listed wastes requires a permit. According to this provision, States Parties shall pursue the precautionary approach to environmental protection from dumping of wastes, take into account the polluter-pays-principle, and regulate so as to not simply cause a transfer of dumping damage to the environment. States Parties may adopt more stringent measures than those required under the Protocol. Furthermore, in order to guide States Parties in meeting the Protocol's objective, elaborate annexes set out detailed regulatory model schemes on the issuance of permits as well as on the assessment of wastes or other matter that may be considered for dumping. Amendments to the annexes are adopted by a tacit acceptance procedure under which they will enter into force not later than 100 days after being adopted. The amendments will bind all States Parties except those which have explicitly expressed their non-acceptance. Regional approaches supplement the universal one.

4. Seabed Mining

The coastal State is not obligated by the Convention to manage mining of its continental shelf in a specific way whereas for deep seabed mining an elaborate system exists as constituted by Part XI of the Convention, Resolution II, the 1992 Implementation Agreement, the Mining Code and the Mining Contract to be concluded between the investor and the International Seabed Authority (Authority).

The so-called Mining Code, consisting of regulations concerning various resources, issued by the International Seabed Authority, contains a well-developed set of rules designed to protect the fragile and largely unknown deep sea and deep seabed environment. Regarding enforcement, the obligation of contractors to keep records and to submit annual reports is spelled out, as is a requirement to submit information once the contract expires. Contractors would be obliged to accept inspection by the Authority, and accept responsibility and liability for damage.

The Authority would have the right to suspend or terminate the contract and to impose penalties under certain circumstances. Here again we have the phenomenon that the rules are set on the international level, but their implementation and enforcement depends very much on the cooperation between the International Seabed Authority and the sponsoring States. The latter have a quite significant responsibility to that end. These specific enforcement procedures are exclusive, see Article 215 of the Convention.

Recently the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea has issued an Advisory Opinion which not only shed some light on the regulations so far issued by the International Seabed Authority but also elaborated on some general principles and concepts which constitute the backbone of the deep seabed mining regime.

5. Pollution From the Atmosphere

Since atmospheric emissions entering the sea viarecipitation over the open ocean are normally diluted and diffused, the immediate effects of atmospheric pollutants such as smog, toxic air pollutants, and acidic depositions entering the sea viato precipitation have not yet been identified by the international community as requiring urgent remedial action. However, in regard to persistent organic pollutants (POPs), which have been identified as representing a serious threat to human health and the environment and requiring an urgent international response, the adoption of the Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Persistent Organic Pollutants deserves special mention. The Protocol recognizes that the atmosphere is the dominant medium of POP transport and that measures to control POP emissions would contribute to the protection of areas outside ECE region, including the Arctic and international waters. It contains obligations aimed at controlling, reducing, and eliminating discharges and emissions.

IV. Marine Protected Areas

1. Introduction

Marine protected areas are established on the basis of a wide variety of objectives. These include the protection of ecologically or biologically important areas; specific marine organisms; important geological or geomorphological processes; beautiful seascapes; cultural or historic sites; and recreation. Within the context of national and regional efforts to promote integrated marine and coastal area management, networks of marine and coastal protected areas as well as other conservation areas, and biosphere reserves provide useful and important management

tools for different levels of conservation, management, and sustainable use of marine and coastal biological diversity and resources. Several global and regional conventions encourage the designation of marine protected areas by national governments, e.g. the 1972 Convention concerning the Protection of the World Cultural and Natural Heritage; the 1971 Convention on Wetlands of International Importance especially as Waterfowl Habitat; the 1979 Convention on the Conservation of Migratory Species of Wild Animals; the 1992 Convention on Biological Diversity; and also chapter 17 of Agenda 21 of the United Nations Conference on Environment and Development. The management of each protected area varies depending upon the nature of the resources, their utilization, and the human activities occurring within it. In some areas, protection may be given from all activities which could give rise to environmental damage; in other areas protection is given only against a limited number of such activities, for example certain fishery or shipping activities. The Indian Ocean and Southern Ocean Whale Sanctuaries, which have been established by the International Whaling Commission, protect marine mammals.

2. UNEP's Regional Seas Programs

In addition to the instruments, there are also protocols on specially protected areas which have been adopted under a number of UNEP regional conventions. The starting point of UNEP's law-making in the field was the 1976 Barcelona Convention for the Protection of the Mediterranean against pollution. The initiative came from FAO, which has a tradition of promoting regional agreements for fisheries and conservation of marine living resources. The conceptual approach of UNEP's regional seas program has been to first draw up a framework convention and to regulate individual questions in subsequent details. The program for the Mediterranean has been the most successful and the most innovative.

V. Conclusions

The protection of the global ecosystem of the oceans constitutes a common interest. This is a consequence of the Rio-Developments and its internationalizing tendencies. The consensus that 'international concern' exists for marine resources, thus, does not in and of itself change jurisdictional or allocative norms under the Convention on the Law of the Sea but demonstrates a willingness to enter into negotiations that will have that resource at their center and a willingness to respect the outcome of such negotiations by using States' powers to implement that outcome. It is the character of UNCLOS as a constitution that provides the basis. The preamble recognizes 'the desirability of establishing through this Convention, with due regard for the sovereignty of all States, a legal order for the seas which will

facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment'. No other agreement raises such a claim as being *the* legal order through which the said goals, which dovetail with the United Nations Charter principles, can be accomplished. Thus, any agreement between Parties to the Convention as well as any international *prise de position* relating to the law of the sea concluded after the Convention on the Law of the Sea must remain within the framework set by the Convention, adhere to its objectives, and keep within the substantive scope of application of the Convention, *which already has operative provisions on the subject matters covered*. International marine protection law is characterized by a strong regionalization and by a flanking international approach to certain pollution sources that cannot be regulated in a regional management scheme. The substantive trend to regional protection is most clearly visible in the Fish Stocks Agreement.

Policy towards preserving the marine environment of the oceans as part of the world's hydrosphere needs to be formulated in a global institution. In December 1994, following the entry into force of the Convention, the General Assembly first explicitly confirmed its role as the global forum competent to review overall developments relating to the law of the sea. Also, in important matters such as the question of high seas fisheries, the UN General Assembly has initiated international law-making and assumed the role of the forum for taking concrete action. The annual reports of the Secretary General have provided the General Assembly since 1984 with a comprehensive overview of developments relating to the law of the sea. The Secretary General reports regularly to the UN General Assembly on "Oceans and law of the sea", including on the preservation of the marine environment. Under Article 319(2)(e) of the Convention, the Secretary General holds the power to "convene necessary meetings of States' Parties in accordance with the Convention". Agenda 21, chapter 17, calls on the General Assembly to provide for regular consideration of "general marine and coastal issues, including environment and development matters", paragraph 17.117, *chapeau*. In this vein, mention should be made of Decision 4/15 of the Commission on Sustainable Development, calling, *inter alia*, for a periodic intergovernmental review by the Commission of all aspects of the marine environment and its related issues, as described in chapter 17 of Agenda 21. The General Assembly has devoted a special session to reviewing progress in the implementation of Agenda 21, the so-called Earth Summit+5. Corresponding to a recommendation of the Commission on Sustainable Development, the General Assembly included the marine environment in the work program of the Commission. As can be seen, the legal regime on the preservation of the marine environment is still in the stage of development.

An Evaluation of the Rotterdam Rules

Thomas J. Schoenbaum

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I. Introduction

On 11 December 2008 the General Assembly of the United Nations formally adopted a new regime for the transportation of most goods in international trade, a new Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea, known as the Rotterdam Rules.[1] Not yet in force, the Rotterdam Rules are now under consideration by governments around the world as the new, global, twenty-first century regime for international transport law. The Rotterdam Rules are long and complex. Is this the long-awaited document that will unify the disparate rules that now govern this important area of international law?

[1] United Nations General Assembly Sixty-third session, UN A/RES/63/122, distributed 2 February 2009. For commentary, see *Thomas* (ed.), A New Convention for the Carriage of Goods by Sea – The Rotterdam Rules (2009).

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