

## MARINE ISSUES

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### Summary

Oceanic spaces are, by definition, multiple-use areas engendering multiple-use conflicts. These arise when more than one use of a resource or a marine area precludes or adversely impinges upon the use of others by other users. Intrinsicly linked to multiple-use conflicts are conflicting claims over oceanic areas, i.e., conflicts on competence and jurisdiction (*who* will regulate and *where* will this regulation be applicable). Historically, tensions between coastal states and flag states were the main driving force for the development of the law of the sea, which generally oscillated between a tendency to appropriate oceanic spaces and a tendency to maintain the maximum amount of freedom therein.

Concerning the marine environment, regulatory efforts covered two broad areas: pollution and management of marine resources, living and nonliving. A hierarchy is established among marine environmental regimes, with the LOS Convention occupying the pinnacle. A number of regional agreements operate within its context, while several sectoral conventions exist, organizing the protection of the environment or the management of marine resources. Thus, there are agreements regulating pollution

arising from maritime activities (vessel-source pollution, pollution from offshore installations, pollution from dumping) or different substances (oil, hazardous and noxious substances, radioactive waste), and agreements setting up civil responsibility regimes and compensation mechanisms for damage arising out of specific activities or substances (oil, HNS). Specific agreements also settle conflicts over conservation and exploitation of species (whales, straddling stocks, migratory species) or fishing gear and methods (long driftnets).

The United Nations Conference on Environment and Development, in 1992, argued for a holistic approach to ocean issues. Indeed, the most important contribution of Agenda 21 was the recognition that oceans form an “integrated whole,” a concept imposing new approaches to ocean management “that are integrated in content and are precautionary and anticipatory in ambit.” Consequently, new managerial concepts are put forth, and increased interaction with other existing environmental regimes is sought.

## 1. Introduction

Oceanic spaces are, by definition, multiple-use areas engendering multiple-use conflicts. These arise when use of a resource or area by one or more users precludes or impinges upon use by others. Generally speaking, the adverse effects of such conflicts are more easily traceable on regional, national, and local levels because of the possibility for closer monitoring and better data gathering. On the high seas, adverse impacts are more insidious: collapse of fisheries, for example, is a gradual process which would not be detectable unless specific and/or localized observation is conducted.

Intrinsically linked to multiple-use conflicts are conflicting claims over control of oceanic areas, in terms of competence and jurisdiction (*who* will regulate and *where* will this regulation be applicable). Historically, tensions between coastal states and flag states were the main driving force for the development of the law of the sea, which accordingly oscillated between pressures to appropriate oceanic spaces and pressures to maintain the maximum amount of unrestricted navigation and other uses. The adoption, in 1982, of the United Nations Convention on the Law of the Sea (LOS Convention) as a “constitution for the oceans” sought to contain related conflicts by providing a framework of regulations covering all aspects of ocean affairs. The new law of the sea, as it emerged after 1982, brought about a heavy fragmentation of oceanic spaces, maintaining some traditional divisions (such as the territorial sea, the continental shelf, and the high seas), while creating a number of new ones, most important of which was the Exclusive Economic Zone, a multifunctional area where coastal states are accorded sovereign rights over specified economic activities. As a result, broader regulatory authority was invested upon coastal states, while high seas areas were dramatically reduced.

Regulatory efforts concerning the marine environment covered two broad areas: pollution and management of living and nonliving marine resources. Both are subject to a large number of international conventions, the oldest dating from the early 20th century, establishing a complex pattern of obligations. Technological development and growth of international navigation combined with exponential increase in exploitation of fisheries, exposed the vulnerability of the marine environment and the need to protect

it from a growing number of threats: pollution, overexploitation of resources, physical alteration, invasive species, and more recently, climate change.

The end of the Second World War witnessed an increased institutionalization of international affairs. The creation of the United Nations in 1945 was certainly a turning point in this respect. A number of specific institutions followed, with explicit mandates on ocean affairs, such as the International Whaling Commission (IWC) and the International Maritime Organization (IMO). Their outlook, however, was limited, and rather than being designed under a unified perception as to the threats faced by marine ecosystems, they were ad hoc responses to specific issues. A number of serious accidents involving oil tankers in the 1960s, culminating with the pollution resulting from the wreck of the *Torrey Canyon* in 1967 off Land's End in the UK, brought to light the shortcomings and limitations of previous international texts. They also created a momentum towards renewed and more systematic efforts to set up a coherent framework regulating human activities liable to damage the marine environment and/or its living resources.

The Stockholm Conference on the Human Environment in 1972 (see *International Guidelines and Principles*) and its Action Plan for the Human Environment were the first texts to emphasize the need for a comprehensive approach to marine issues. The United Nations Environment Program (UNEP), itself a product of the Stockholm Conference, initiated its Regional Seas Program in 1975. With the Barcelona Action Plan in 1975, first in a series of regional action plans that were to follow, UNEP attempted to implement a comprehensive approach to marine issues management. (see Section 2.1.) The nine-year negotiation of the LOS Convention took into account parallel developments in International Environmental Law and incorporated a number of the emerging principles within its provisions on marine environment and living resources. However, it was only in the years immediately following the United Nations Conference on Environment and Development, in 1992, that a truly holistic approach to ocean issues became prevalent. Indeed, the most important contribution of Agenda 21 was the recognition that oceans form an "integrated whole," a concept imposing new approaches to ocean management "that are integrated in content and are precautionary and anticipatory in ambit." At present, systematic research is carried out to explore hitherto unattended issues such as the influence of climate change on oceanic processes and loss of marine biodiversity, and many collaborative partnerships have been established to this effect between competent international organizations, research institutions, the private sector, and NGOs.

## **2. International Legal Framework**

### **2.1. Normative Architecture**

An increasing number of international agreements regulate aspects of human interaction with the sea. These can be categorized under three criteria: (a) the geographical scope of the agreement, (i.e., whether the agreement is global, regional, or subregional, in ambition); (b) whether it is comprehensive in attempting to regulate all aspects of marine affairs or sectoral and more specific in focus; and (c) whether or not the agreement is a framework agreement requiring further development by participating

states before implementation becomes effective. Obviously, there is a great deal of overlap between categories, so an agreement that is global in its geographical scope may concern a specific issue and require further action from states parties. Inversely, an agreement can be regional, yet bear on all marine environmental problems in a comprehensive way.

Each agreement tends to form a regulatory regime that will be strengthened by overlap with another. Nevertheless, a certain hierarchy is apparent with the LOS Convention occupying the pinnacle and a number of regional agreements, and several sectoral conventions, operating within its context. Thus, there are agreements regulating pollution arising from specific maritime activities (vessel-source pollution, pollution from off-shore installations, pollution from dumping) or specific substances (oil, hazardous and noxious substances, radioactive waste), and agreements setting up civil responsibility regimes and compensation mechanisms for aspects of resultant damage. Specific agreements also settle conflicts over conservation and exploitation of species (whales, straddling stocks, migratory species) or resultant fishing methods such as long driftnets.

## **2.2. The United Nations Convention on the Law of the Sea**

In the current legal framework, the only truly global convention regulating all marine affairs is the LOS Convention. The Convention inaugurates a new regime for the oceans. It brings about a redistribution of competencies between coastal and flag states, introducing competencies to a third category of "port" states, with particular rights in matters of marine pollution. The LOS Convention strives to reconcile conflicting uses of the sea, mainly through fragmentation of ocean spaces and their subjection to varied degrees of jurisdiction. This new division of marine areas is particularly felt in matters concerning protection and preservation of the marine environment (Part XII of the Convention) and conservation and exploitation of marine living resources (Parts V and VII of the Convention). With regard to these issues, it functions as an "umbrella treaty," a framework agreement containing only general principles, to be applied to specific issues through adoption of further universal or regional agreements.

Under the LOS Convention, environmental pollution standards are distinguished by their reference to particular pollution sources and zones, rather than particular pollutants (compare with *Transboundary Air Pollution*) or/and targets (compare with the regime against *Ozone Layer Depletion*). Its provisions are structured around specific activities and jurisdictional zones and distinguish regulatory from enforcement competencies. As a matter of fact, whereas most provisions concerning different sources of pollution remain relatively vague or refer to international standards and competent international organizations, jurisdictional rules are particularly detailed and reflect the detailed negotiations that preceded adoption of the final text. Indeed, while it can be argued that the convention's articles relating to environmental protection merely codify customary law, this is not the case with articles on jurisdiction, which, as already noted, effected a new division of oceanic spaces. Such division, even when it corresponded to the previous practice of some states, as was the case for example with the EEZ, was still too recent and not yet sufficiently established. Consequently, jurisdictional aspects

constituted the object of difficult negotiations and detailed, and sometimes ambiguous, provisions had to be included in the text of the convention.

Nevertheless, the LOS Convention does adopt a global and comprehensive approach to problems of marine pollution and, consequently, lays down the basis on which a complex system of rights and duties concerning control of pollution, interstate cooperation, exchange of information, monitoring and reporting, marine scientific research, and channeling of development assistance is built.

With its specific provisions on conservation and utilization of living marine resources in the EEZ, the Convention puts an end to the long battle between coastal and flag states, recognizing the particular competence of the former to adopt measures relating to conservation and to the setting of the total allowable catch (TAC). The establishment of the EEZ itself is, in fact, a concession to pressures by coastal states dating from the early 1970s and known as “creeping jurisdiction” by which coastal states were trying to appropriate larger expanses of the sea for reasons of economic exploitation or environmental control. Such appropriation took place either by progressively extending coastal state jurisdiction to areas beyond their territorial sea and creating special fisheries zones, or by extraterritorial application of coastal state domestic legislation to areas lying beyond its jurisdiction.

The Convention adopts Maximum Sustainable Yield (MSY) as a key-concept in fisheries management, although it qualifies it by imposing an obligation to take into account relevant environmental and economic factors. A holistic approach is also promoted, as coastal states have to take into consideration effects on species associated with or dependent upon harvested species so that the overall equilibrium of the ecosystem does not become seriously threatened. The Convention, furthermore, also lays down rules regarding right of access to marine living resources of land-locked and geographically disadvantaged states.

The regime concerning high seas fisheries is very similar to the one applicable within the EEZ. It reinforces the privileged position of the coastal state, stipulating that its interests are to be considered by other states engaged in fishing on the high seas.

### **2.3. UNEP’s Regional Seas Program**

The LOS Convention acknowledges that specific regional features entail specific legal measures. The Convention also acknowledges the particular case of enclosed or semi-enclosed seas, as regions with specific needs and sensitivities. Thus, it contains provisions allowing, and even encouraging, marine regionalism while acknowledging that establishment of regional regimes entails an increased obligation for riparian states to cooperate.

In the same vein, UNEP has tried to foster regional cooperation in environmental marine affairs, through its Regional Seas Program, first launched in 1974. The approach is straightforward and effective: it consists of adopting an Action Plan for a particular marine region (i.e., a plan outlining the strategy and substance of a regional program, based on a region’s particular environmental challenges as well as its socioeconomic

and political situation). Every action plan comprises five components: assessment of the environmental situation, environmental management activities, environmental legislation (generally taking the form of a framework convention completed by additional protocols), institutional arrangements, and financial arrangements. The philosophy behind the program is that each region presents its own particularities and vulnerabilities, and so necessitates particular kinds of action. However, by ensuring that there is some commonality of structure, interactions between different Action Plans are made possible. Thus, comparison of problems, approaches, management tools used, and results obtained is facilitated, so that each region can benefit from another's experience and best practice gradually assimilated. Since it was first launched, 13 action plans have been established, with one in preparation since 1980. True, not all action plans have been equally successfully. Some, in particular the Mediterranean Action Plan, the first to be adopted in 1975, have been more active and more effective than others have. Nevertheless, they all provide useful frameworks for furthering collaboration with other environmental agreements, such as those on Climate Change and Biodiversity. They also serve a political function to facilitate communication between riparian states in the regions concerned and to enhance cooperation among them. The Mediterranean Action Plan is characteristic in this respect, as riparian states have come to consider the Mediterranean sea as a common resource, to be managed jointly, for the common interest of present and future generations.

UNEP's Regional Seas Program has also served as a vector for promoting integrative solutions to environmental management problems. From very early on, since the Stockholm Declaration and Action Plan for the Human Environment, and with renewed force after Rio and Chapter 17 of Agenda 21, UNEP has sought to promote a holistic approach with respect to marine environmental management, transcending the traditional division between environmental protection and management of marine living resources. Thus, marine and coastal ecosystems are considered as a whole, so that any measure taken with respect to the one will inevitably affect the other. In the regional seas action plans, UNEP has found good ground for promoting integrated coastal area management (ICAM) tools and concepts.

### **3. Marine Pollution**

Pollution of the marine environment had been identified early on as a major threat to the world's oceans. The creation of the IMO in 1948 (then called International Maritime Consultative Organization [IMCO]) was a major step in the direction of an organized response to what was a fast emerging problem of considerable proportions. The IMO's main target was to ensure safety of navigation, mainly through elaboration and adoption of international standards and through promotion of international cooperation. Due to a skepticism from parts of the maritime sector, it took more than ten years for the IMO to become fully operational and by that time marine pollution had already taken up a prominent position in the Organization's working agenda. The IMO is today the main forum in which meaningful initiatives for combating marine pollution are taken. These are complemented by independent negotiations among states at regional or subregional levels. Adoption of the LOS Convention served to enhance and confirm The IMO's status as the competent organization for standard setting in such areas as sea-worthiness of vessels and vessel-source pollution. The IMO has been the forum where numerous

important environmental conventions have been negotiated and adopted on subjects as broad and disparate as the safety of life at sea (1974), intervention on the high seas in cases of oil pollution (1969) or vessel-source pollution of the marine environment (1973/1974). The IMO's Marine Environment Protection Committee (MEPC) is established as a main forum for activities relating to environmental protection. It consists of all member States of IMO, and is empowered to consider any matter within the scope of IMO concerned with prevention and control of pollution from ships. In particular it is concerned with the adoption and amendment of conventions and other regulations and measures to ensure their enforcement. The MEPC was first established as a subsidiary body of the Assembly in 1973 and was raised to full constitutional status in 1985. NGOs, which are granted consultative status with IMO, and IGOs, which have concluded agreements of cooperation with IMO, are also represented at MEPC sessions.

Generally, international conventions bearing on the protection of the marine environment against pollution can be divided into two main categories, according to whether they regulate pollution from certain substances (see Section 3.1) or certain activities (see Section 3.2).

### **3.1. Pollution from Substances**

Until precaution began asserting its position as a guiding principle in the area of environmental protection, international treaties regulating pollution of the marine environment from various substances were mainly relying on scientific evidence relating to the estimated or projected assimilative capacity of the environment for certain substances. However, while assimilative capacity as a criterion would probably lead to pollution control standards based on critical loads, similar to those adopted in respect of trans-boundary air pollution (see *Transboundary Air Pollution*), most international agreements adopted a pollutant-specific approach, in order to introduce particular measures and build up normative regimes. While most pollutants are covered by different agreements in technical annexes and appendices, oil and hazardous and noxious substances are dealt with specifically.

Oil pollution was the first type of marine pollution to be regulated internationally, with the first agreement dating back to 1954. However, it is only after the Torrey Canyon accident in 1967 that systematic work begun towards creation of a general regulatory regime covering all types of pollutants. The Environmental Committee of the IMO undertook serious efforts towards this aim. In 1969, came the *International Convention Relating to Intervention on the High Seas in cases of Oil Pollution Casualties*. The Convention affirmed the right of a coastal state to take such measures on the high seas as it considered necessary to prevent, mitigate or eliminate danger to its coastline of related interests from the threat of oil pollution following a maritime casualty. In 1973, a protocol extended the scope of the Convention to cover substances other than oil, such as noxious substances, liquefied gases, and radioactive substances.

A major breakthrough in the sector of oil pollution was the adoption in 1990 of the *International Convention on Oil Pollution, Preparedness, Response, and Cooperation (OPRC)*. The Convention imposes on states parties the obligation to establish measures for dealing with pollution incidents, either nationally or in cooperation with other

countries. In its preamble, it emphasizes the importance of adopting precautionary measures in order to achieve prevention of pollution. It implements on a practical level the generic duty of cooperation that states have in respect of environmental protection. consequently, it is expected that states collaborate and provide assistance as requested by other states, in organizing a response to a pollution incident. such provisions correspond to a customary law obligation that was also applied and institutionalized with respect to nuclear accidents and radiological emergencies following the accident at Chernobyl. (see *Nuclear Issues*) A special annex lays down principles concerning reimbursement of the costs incurred by nations that assist in responding to spills. The IMO is entrusted with the task of developing an oil pollution emergency plan to be carried on board by ships. Operators of offshore units are also required to have such contingency plans or similar arrangements, which must then be coordinated with national systems for responding promptly and effectively to oil pollution incidents. An obligation to report any such incident to coastal authorities is also established.

A protocol to the OPRC dealing with *Preparedness, Response, and Cooperation to Pollution Incidents by Hazardous and Noxious Substances* (OPRC-HNS Protocol) was adopted in London in 2000, but is not yet in force. It regulates the specific case of pollution arising from incidents involving hazardous and noxious substances (HNS). Accordingly, ships will be required to carry an onboard pollution emergency plan to deal specifically with HNS. These are defined by reference to lists of substances included in various IMO Conventions and Codes. Among these are oils; other liquid substances defined as noxious or dangerous; liquefied gases; liquid substances with a flashpoint not exceeding 60 °C; dangerous, hazardous, and harmful materials and substances carried in packaged form; and solid bulk materials defined as possessing chemical hazards.

The protocol, when it comes into force, will ensure that ships carrying hazardous and noxious liquid substances are covered, or will be covered, by regimes similar to those already in existence for oil incidents. IMO shall act as clearing-house for information submitted to it by the parties and facilitate cooperation among the parties in technical and educational matters.

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Helsinki Commission (Baltic Marine Environment Protection Commission):

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### **Biographical Sketch**

**Catherine-Zoi Varfis** is a lawyer-linguist at the Court of Justice of the European Communities in Luxembourg. She is a member of the Thessaloniki Bar Association, a Research Associate of the Hellenic Institute of International and Foreign Law in Athens, and a Senior Research Fellow of the Center for International Sustainable Development Law, Montreal, Canada.

Dr. Varfis holds a Law degree and a PhD from the Aristotle University of Thessaloniki and a *Certificat* in International Studies from the Graduate Institute of International Studies in Geneva.

Her fields of expertise include international and European environmental law, law of the sea with emphasis on Mediterranean issues, and the international regulation of biotechnology. She has been a program assistant with the ILO, a research and teaching assistant with the Law Faculty of the University of Geneva, and a visiting scholar at the Lauterpacht Research Center for International Law at the University of Cambridge. While in Geneva, she collaborated regularly with the International Academy of the Environment, teaching in its annual training courses on Principles and Processes of Sustainable Development. She has taught International and European Economic Law and Public International Law for the Thessaloniki branch of the Universities of Sorbonne and Strasbourg, and has also given seminars on international environmental law and marine resources in Belgium, Greece, The Netherlands, Norway, Switzerland, and the United Kingdom. She is a member of the ILA (British Branch) and a founding member of the Greek Association for International Law.