

# The protection and preservation of the marine environment

*Under the patronage of I.C.E.F. - International Court for the Environment Foundation*



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# The protection and preservation of the marine environment

Marine areas covered around 71% of the planet's surface. Although much of the ocean's depths remain unexplored, it is the habitat of a significant part of the world's biodiversity and play a key role in global climate change. It is globally recognized that marine biodiversity constituted a fundamental component of life in the oceans and on Earth.

Marine areas beyond national jurisdiction (hereinafter ABNJ) cover approximately half of the planet's surface, 64% of the surface of the ocean, and providing nearly 95% of its volume. The even lacking scientific information and knowledge underlined the richness and vulnerability of such biodiversity, particularly in seamounts, hydrothermal vents and cold-water coral reefs.

## Main issues

ABNJ constitute the slightest known and slightest protected areas on earth. In recent years, the exponential use of ABNJ ecosystem services and their resources and growing human pressures have subjected them to a multiplicity of threats: overexploitation of fish stocks, illegal, unreported and unregulated (IUU) fishing, alteration of deep-water habitats due to destructive fishing practices, oil pollution, introduction of invasive alien species, noise pollution, climate change and acidification of the oceans and emerging threats linked to deep-sea mining and potentially bioprospecting. (A.G. Oude Elferink, 2011).

Changes in ABNJ systems will impact related Regions and States directly or indirectly.

States obligations under international law, including UNCLOS, to protect the marine environment and to conserve living marine resources in areas beyond national jurisdiction calls for new tools and integrated approaches, based on science and precaution, which cover measures for the preservation and conservation of marine biodiversity, including area-based management approaches and marine protected areas and networks, prior environmental impact assessments, improved regulation of sectoral activities, and broader ecosystem-based marine spatial planning; as well as the management of marine genetic resources on the seabed, including aspects relating to benefit sharing (ABS).

The coverage and representativity improvement of the global system of marine and coastal protected areas should be recognized, encouraged and implemented globally, in particular identifying ways to accelerate progress in establishing ecologically representative and effectively managed marine areas in ABNJ, including representative networks, in accordance with international law and based on the best scientific information available.

# ABNJ Framework for effective governance

International organizations and States have, at different levels, responsibilities for biodiversity in ABNJ developing the use of diverse approaches and tools for conserving and managing vulnerable marine ecosystems. While particular sectoral governance structures can exist to address ABNJ, they are usually not covered by an integrated governance structure.

## The law of the sea, in particular the Convention on the law of the sea (UNCLOS) and related instruments

Without respect of political boundaries, the ocean's ecosystems are strictly interrelated. Nevertheless, the international law and the **United Nations Convention on the Law of the Sea (UNCLOS)**<sup>1</sup> identify different marine space between areas within national jurisdiction (the territorial sea, exclusive economic zone (EEZ), ecological protecting zone (EPZ)) and areas beyond (the high seas and seabed Area), providing sectoral approaches and focusing on shipping, fishing, waste dumping and minerals mining.

The United Nations Convention on the Law of the Sea provides the legal framework for all activities in the oceans and seas, including the conservation and sustainable use of marine biodiversity beyond areas of national jurisdiction. UNCLOS obliges States to protect and preserve the marine environment (including rare or fragile ecosystems), with particular requirements on cooperation between Parties on a global and regional basis for formulating and elaborating the necessary international rules (UNCLOS, Articles 192, 194 and 197).

In this respect, there are two main different views:

- (i) Genetic resources, in the Area are considered as *the common heritage of mankind*. According to customary international law, UN General Assembly resolution 2749 (XXV) and Part XI of the Convention, the Area and its resources, including genetic resources and the fair and equitable sharing of benefits, are the common heritage of mankind, which means avoiding their exclusive exploitation by a few.

In this respect, it is recognized the importance of the International Seabed Authority (ISA) regarding marine scientific research and the protection of the marine environment.

- (ii) The “*first come, first served*” approach. As set out in Part VII of UNCLOS, the principle of the common heritage of mankind only applied to mineral resources of the Area, living resources in the Area being regulated under the high seas regime Convention.

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<sup>1</sup> Adopted on 10 December 1982; entry into force 16 November 1994; 1833 UNTS 396

Within the framework of UN, it is recognised the central role of the United Nations General Assembly (UNGA) and its new body, the UNICPOLOS in addressing issues relating to the conservation and sustainable use of biodiversity in marine areas beyond national jurisdiction.

In 1999, the General Assembly decided, consistent with the legal framework provided by the UNCLOS and the goals of chapter 17 of Agenda 21, to establish the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea (UNICPOLOS) in order to facilitate the annual review by the General Assembly, in an effective and constructive manner, of developments in ocean affairs and the law of the sea by considering the report of the Secretary-General on oceans and the law of the sea and by suggesting particular issues to be considered by it, with an emphasis on identifying areas where coordination and cooperation at the intergovernmental and inter-agency levels should be enhanced (Resolution 54/33 of 24 November 1999)<sup>2</sup>.

As specified in UNGA Resolution 64/71, the UNCLOS, in its universal and unified character, sets out the legal framework within which all activities in the oceans and seas must be carried out and its integrity needs to be maintained.

In the framework of UNCLOS, pursuant to paragraph 73 of Assembly resolution 59/24, the UNGA, with resolution 59/24, in 2004 called upon States and international organizations to take action urgently to address, in accordance with international law, destructive practices that have adverse impacts on marine biodiversity and ecosystems, and established an **Ad-Hoc Open-ended Informal Working Group**<sup>3</sup> to study issues relating to the conservation and sustainable use of marine biodiversity beyond areas of national jurisdiction (WG-ABNJ), relating to ensuring that:

*“the legal framework for the conservation and sustainable use of marine biodiversity in ABNJ effectively addresses those issues by identifying gaps and ways forward, including through the implementation of existing instruments and the possible development of multilateral agreement under the United Nations Convention on the Law of the Sea (UNCLOS)”.*

UNGA resolution A/RES/63/111 of February 2009<sup>4</sup> reaffirms the need for States to continue and intensify their efforts, directly and through competent international organizations, to develop and facilitate the use of diverse approaches and tools for conserving and managing vulnerable marine ecosystems, including the possible establishment of marine protected areas, developing a representative networks of any such marine protected areas by 2012, consistent with international law, as reflected in the UNCLOS, and based on the best scientific information available.

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<sup>2</sup> <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N00/237/93/PDF/N0023793.pdf>

<sup>3</sup> <http://www.iisd.ca/vol25/enb2570e.html>

<sup>4</sup> UNGA Resolution A/RES/63/111 Oceans and the law of the sea adopted on 5 December 2008 (A/RES/63/111 of 12 February 2009), Para 134

The Ad Hoc Open-ended Informal Working Group, having met for the fifth time from 31 May to 3 June 2011 in accordance with paragraph 163 of General Assembly resolution 65/37 A, recommends that<sup>5</sup>:

(a) A process be initiated, by the General Assembly, with a view to ensuring that the legal framework for the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction effectively addresses those issues by identifying gaps and ways forward, including through the implementation of existing instruments and the possible development of a multilateral agreement under the United Nations Convention on the Law of the Sea;

(b) This process would address the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction, in particular, together and as a whole, marine genetic resources, including questions on the sharing of benefits, measures such as area-based management tools, including marine protected areas, and environmental impact assessments, capacity-building and the transfer of marine technology;

(c) This process would take place:

(i) in the existing Working Group; and

(ii) in the format of intersessional workshops aimed at improving understanding of the issues and clarifying key questions as an input to the work of the Working Group;

(d) The mandate of the Working Group be reviewed and, as appropriate, amended, with a view to undertaking the tasks entrusted by the recommendations;

(e) The Secretary-General be requested to convene a meeting of the Working Group in 2012 to make progress on all issues under examination within the Working Group and to provide recommendations to the General Assembly at its sixty-seventh session.

## Other related legal instruments

UNCLOS is complemented by other related legal instruments, on the context of United Nations specialized agencies, organizations and programmes and of intergovernmental organizations, including the following.

The **International Seabed Authority (ISA)** is an autonomous international organization established under the UNCLOS and the 1994 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea, with the role regarding marine scientific research and the protection of the marine environment. The Authority is the organization through

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<sup>5</sup> A/66/119



which States Parties to the Convention shall, in accordance with the regime for the seabed and ocean floor and subsoil thereof beyond the limits of national jurisdiction (the Area) established in Part XI and the Agreement, organize and control activities in the Area, particularly with a view to administering the resources of the Area<sup>6</sup>.

ISA guidelines provide for **Areas of Particular Environmental Interest (APEIs)**, which, in particular, stipulate that prior to the issuance of test-mining and exploitation permits, preservation reference areas will be delineated “in which no mining will occur to ensure representative and stable biota of the seabed in order to assess any changes in the flora and fauna of the marine environment” (ISBA/4/C/4/Rev.1, annex 4, sect. 5.6). “The preservation reference zone[s] should be carefully located and large enough so as not to be affected by the natural variations of local environmental conditions. The zone[s] should have species composition comparable to that of the test mining area[s]. It should be located upstream of the test mining area[s] and should be outside of test mining area[s] and areas influenced by the plume” (International Seabed Authority 1999, p. 226).

Thus, International Seabed Authority guidelines stipulate that prior to test mining and mining, preservation reference areas must be erected in areas beyond any potential influences of mining. The preservation reference areas should be designed (as a whole) to sustainably preserve representative biota for all mining claim areas in terms of species composition and biodiversity. Hence, the full range of habitat and community types potentially found in mining claim areas must be represented in preservation reference areas, and the scale of preservation reference areas must be large enough that these community types are “stable”, i.e., sustainable. Furthermore, the interests of all stakeholders (including the ISA, signatories to the UNCLOS, nodule mining, claim holders, non-governmental organizations, and the science community) will be incorporated into the design process. In addition, preservation reference areas should be established as soon as possible so that sound, ecosystem-based management principles can be incorporated into mining strategies and into the positioning of future claim areas.

It has also to be mentioned the role of the UN Agency **IMO (International Maritime Organization)** which role is to adopt legislation in matters concerning maritime safety, efficiency of navigation and prevention and control of marine pollution from ships, including the designation of **Particularly Sensitive Sea Area (PSSA)**.

A PSSA is an area that needs special protection through action by IMO because of its significance for recognized ecological or socio-economic or scientific reasons and which may be vulnerable to damage by international maritime activities.

Resolution A.982(24) contains Revised guidelines for the identification and designation of Particularly Sensitive Sea Areas (PSSAs).

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<sup>6</sup> <http://www.isa.org.jm>

These guidelines include criteria to allow areas to be designated as PSSA if they fulfil a number of criteria, including: (i) ecological criteria, such as unique or rare ecosystem, diversity of the ecosystem or vulnerability to degradation by natural events or human activities; (ii) social, cultural and economic criteria, such as significance of the area for recreation or tourism; (iii) scientific and educational criteria, such as biological research or historical value. When an area is approved as a particularly sensitive sea area, specific measures can be used to control the maritime activities in that area, such as routing measures or an area to be avoided: an area within defined limits in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties and which should be avoided by all ships, or by certain classes of ships; strict application of MARPOL discharge and equipment requirements for ships, such as oil tankers; and installation of Vessel Traffic Services (VTS).

Inter alia, the Strait of Bonifacio, between France and Italy, has been designated as PSSA in 2011<sup>7</sup>.

Another organization worth to be mentioned is the United Nations Educational, Scientific and Cultural Organization (UNESCO) and, in its contest, the **World Heritage Sites**, sites of outstanding cultural or natural importance to the common heritage of humanity and the Intergovernmental Oceanographic Commission (IOC), in particular the Ocean Biogeographic Information System; the World Conservation Monitoring Centre of the United Nations Environment Programme (UNEP-WCMC) and the Global Ocean Biodiversity Initiative (GOBI), with the key role to establish a **repository for scientific and technical information and experience** related to the application of the scientific criteria on the identification of ecologically or biologically significant marine areas (EBSAs), and to develop an information-sharing mechanism with similar initiatives, such as FAO's work on vulnerable marine ecosystems (VMEs).

Besides the **UN Fish Stocks Agreement**, the **United Nations Food and Agriculture Organization** (FAO) in collaboration with relevant international and regional organizations, including Regional Fisheries Management Organizations (RFMOs), has the task to guarantee the sustainability of fisheries, by managing the impacts of fisheries on species and the wider throughout implementing the ecosystem approach, eliminating illegal, unreported and unregulated (IUU) fishing; minimizing the detrimental impacts of fishing practices; mitigating and managing by-catches sustainably and reducing discards, in order to attain a sustainable exploitation level of marine fishery resources and thereby contributing to a good environmental status in marine waters.

The creation of marine protected areas (MPAs) in the high seas in particular areas closed to certain fishing activities could constitute valuable means to reduce the impact of fishing on vulnerable marine habitats and species. Particular importance cover the International Guidelines on the Management of Deep-sea Fisheries in the High Seas (26- 28 May 2008, Cape Town, South Africa) adopted by FAO Members at a Technical Consultation in Rome.

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<sup>7</sup> <http://www.imo.org/OurWork/Environment/PollutionPrevention/PSSAs/Pages/Default.aspx>

The United Nations General Assembly Resolution 64/72, paragraphs 113 through 130 on responsible fisheries in the marine ecosystem, address the impacts of bottom fishing on vulnerable marine ecosystems and the long-term sustainability of deep-sea fish stocks, in areas beyond national jurisdiction, calling on States and/or regional fisheries management organizations (RFMOs), consistent with the FAO Guidelines for the Management of Deep-Sea Fisheries in the High Seas and consistent with the precautionary approach, to conduct impact assessments, conduct further marine scientific research and use the best scientific and technical information available to identify areas where vulnerable marine ecosystems are known or likely to occur, either adopt conservation and management measures to prevent significant adverse impacts on such ecosystems or close such areas to fishing, and adopt measures to ensure the long-term sustainability of deep-sea fish stocks (both target- and non-target stocks), and not to authorize bottom-fishing activities until such measures have been adopted and implemented (*see also* CBD COP 10, Decision X/29).

Examples of regional initiatives for the implementation of high sea MPAs with fisheries restrictions worth to be mentioned are, *inter alia*, the following:

(i) North West Atlantic Fisheries Organization (NAFO): there are two areas closed to shrimp fisheries on the Flemish Cap (Division 3M) during certain times of the year. Furthermore, in order to protect **vulnerable marine ecosystems (VMEs)** from adverse impacts of bottom fisheries, NAFO members agreed in 2006 to protect four seamount areas from high seas bottom trawling for a four-year period (2007-2010). Two additional seamount areas south of the Grand Banks were closed in 2008. In addition, a coral protection zone was established in NAFO Division 3O in 2007 and is closed to all fishing activity involving bottom contact gear<sup>8</sup>. More detailed information is available on the NAFO web site<sup>9</sup>.

(ii) General Fisheries Commission for the Mediterranean (GFCM): in 2005, the GFCM adopted recommendations requiring members to prohibit the use of towed dredges and trawl net fisheries at depths greater than 1000 metres. More recently, in 2006, three specific areas have been declared fisheries restricted areas to protect corals, cold hydrocarbon seeps and seamounts: Lophelia reef off Capo Santa Maria di Leuca, the Eratosthenes Seamount and the Nile Delta area cold hydrocarbon seeps<sup>10</sup>.

Under the UNEP umbrella, the 1992 **Convention on Biological Diversity (CBD)** has a fundamental role in contributing to international action on the protection of sensitive and representative ecosystems in ABNJ, including through the establishment of MPAs, and in supporting global cooperation. In particular, the CBD, as set in Decision X/29 on marine and coastal biodiversity, adopted by the tenth meeting of the Conference of the Parties to the Convention on Biological Diversity (Nagoya, Japan, 18-29 October 2010), has a key role in supporting the work of the UNGA with regard to marine protected areas beyond national jurisdiction, by focusing on provision of scientific and technical information and advice relating to

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<sup>8</sup> [http://www.fao.org/figis/common/format/popUpImage.jsp?xp\\_imageid=13818](http://www.fao.org/figis/common/format/popUpImage.jsp?xp_imageid=13818)

<sup>9</sup> <http://www.nafo.int/>

<sup>10</sup> [http://www.fao.org/figis/common/format/popUpImage.jsp?xp\\_imageid=5838](http://www.fao.org/figis/common/format/popUpImage.jsp?xp_imageid=5838)

marine biological diversity, the application of the ecosystem approach and the precautionary approach. It is confirmed the support and cooperation with the UNGA, in particular the 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, to expedite its work on approaches to promote international cooperation and coordination for the conservation and sustainable use of marine biological diversity in ABNJ and the Regular Process for global reporting and assessment of the state of the marine environment including socioeconomic aspects, to support Parties as well as competent international organizations on scientific and technical issues relating to the identification of Ecologically or Biologically Significant Marine Areas (**EBSAs**).

The seven CBD EBSA criteria adopted in 2008 (CBD Decision IX/20, Annex I) are the following:

- (i) Uniqueness or rarity (areas containing either unique, rare or endemic species, rare or distinct habitats, or unique or unusual features);
- (ii) Special importance for life history of species (areas that are required for a population to survive and thrive);
- (iii) Importance for threatened, endangered or declining species and/or habitats;
- (iv) Vulnerability, fragility, sensitivity, slow recovery;
- (v) Biological productivity (areas containing species, populations or communities with comparatively higher natural biological productivity);
- (vi) Biological diversity (an area contains comparatively higher diversity of ecosystems, habitats, communities or species, or has higher genetic diversity);
- (vii) Naturalness (comparatively higher degree of naturalness).

In 2010, the tenth meeting of the Conference of the Parties of the Convention on Biological Diversity adopted the “Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits arising from their utilization to the Convention on Biological Diversity” (the **ABS Nagoya Protocol**), worth it to manage marine genetic resources also in ABNJ, and the new “Strategic Plan for Biodiversity 2011-2020”.

The 1979 Convention on the **Conservation of Migratory Species of Wild Animals** (CMS or Bonn Convention)<sup>11</sup> aims to conserve migratory species, their habitats and migration routes on a global scale throughout their range, complementing and cooperating with a number of other international organizations, especially promoting concerted action among the Range States of many of these species.

A number of legally binding Agreements have been concluded to date under the auspices of CMS, in particular with the aim to conserve:

- Cetaceans of the Mediterranean Sea, Black Sea and Contiguous Atlantic Area;
- Small Cetaceans of the Baltic, North-East Atlantic, Irish and North Seas;
- Seals in the Wadden Sea;

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<sup>11</sup> See <http://www.cms.int/>

- African-Eurasian Migratory Waterbirds.

In addition, several **Memoranda of Understanding (MoU)** have been concluded to conserve, inter alia:

- Marine Turtles of the Atlantic Coast of Africa;
- Marine Turtles and their Habitats of the Indian Ocean and South-East Asia;
- Cetaceans and their Habitats of the Pacific Island Region;
- Dugongs and their Habitats;
- Eastern Atlantic Populations of the Mediterranean Monk Seal;
- Sharks.

Furthermore, at the 2002 Johannesburg World Summit on Sustainable Development (WSSD) was adopted the **Johannesburg Plan of Implementation**, where emerged the call for States to make existing global and regional instruments work more effectively to protect the marine environment and its biodiversity, rather than a call for the creation of new multilateral instruments or institutions. To ensure sustainable development of the oceans effective coordination and cooperation of relevant bodies at the global and regional level is identified as the key (R. F. Warner, 2009).

At Regional Sea Convention level, in the Mediterranean context it has to be mentioned the 1995 Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean of the Barcelona Convention (**SPA and Biodiversity Protocol**), which provides the establishment of specially protected areas in (a) the marine and coastal zones subject to the sovereignty or jurisdiction of the Parties and (b) zones partly or wholly on the high seas, for which the Contracting Parties shall adopt cooperative measures to ensure the protection and conservation of the site, and the drawn up of a "List of Specially Protected Areas of Mediterranean Importance" (**SPAMI List**) which may include sites which:

- (i) Are of importance for conserving the components of biological diversity in the Mediterranean;
- (ii) Contain ecosystems specific to the Mediterranean area or the habitats of endangered species;
- (iii) Are of special interest at the scientific, aesthetic, cultural or educational levels.

Besides, lately the **Paris Declaration** of the seventeenth Meeting of the Contracting Parties to the Barcelona Convention and its Protocols (Paris, 8-10 February 2012) has confirmed and underlined the link between the CBD and Regional Sea Conventions by stressing the need to implement the recommendations of CBD COP10 regarding marine habitats and species, and particularly on the use of marine protected areas as an instrument for protecting the marine environment and on the designation of EBSAs.

Nevertheless, many Contracting Parties of UNCLOS, including the European Union, have recognised the need to take action on a global level and agreed to take further measures to

implement the provisions of UNCLOS by the adoption of an **Implementation Agreement** on the conservation of biological diversity and the sustainable use of its components in areas beyond national jurisdiction to improve implementation of these obligations. This Implementation Agreement would be based on the legal framework of UNCLOS and general principles of conservation and management and would utilize the following tools to conserve biodiversity and use its components sustainably and equitably: Marine Protected Areas, Environmental Impact Assessments, Management of Marine Genetic Resources (MGRs) and a System for Access and Benefit Sharing (ABS), Assessment/Review of Implementation.

States not Party to UNCLOS may recognise it as customary international law and accordingly consider themselves to be bound by its terms. Recently the International Court of Justice recognised Environmental Impact Assessment (EIA) as customary law and the International Tribunal for the Law of the Sea (ITLOS) included precaution and best environmental practices as an integral part of the due diligence when States sponsor person and entities with respect to activities in the Area.

## Governance principles for ABNJ<sup>12</sup>

On the list of relevant international law principles to be applied to provide a sound basis for developing a coherent regime for the governance of areas beyond national jurisdiction are shown the following, generally accepted by the international community (present in global and regional instruments, or included in decisions of international courts and tribunals).

- **Respect for the law of the sea, in particular the Convention on the law of the sea and related instruments:** this principle is concerned with the nature of freedom of the high seas and the conditions under which it is to be exercised, which are detailed in Part VII of the Convention:
- **Protection and Preservation of the Marine Environment:** based on Articles 192 and 194(5) UNCLOS there is an unequivocal obligation to protect and preserve the marine environment and to protect and preserve rare or fragile species and ecosystems in all parts of the marine environment, as well as the habitat of depleted, threatened or endangered species and other forms of marine life
- **International Cooperation:** this principle is closely related to a principal purposes of the United Nations, the maintenance of peace. This principle together with the good

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<sup>12</sup> A.G. Oude Elferink, (2011), *Governance principles for areas beyond national jurisdiction*. Report for the symposium 'Biological Diversity and Governance of Areas beyond National Jurisdiction', organized by the Netherlands Institute for the Law of the Sea of Utrecht University and the Netherlands Ministry of Economic Affairs, Agriculture and Innovation (EL&I), Utrecht University, July 2011

neighbourliness is recognized and substantive to create a legal obligation, the violation of which would give rise to a legal remedy;

- **Science-Based Approach to Management:** to improve the understanding of the oceans and to develop a global mechanism for delivering science-based information to decision makers and the public, the “Assessment of Assessments” (AoA), established by a UNGA decision, is being undertaken as part of the start-up phase of the UN Regular Process, in order to serve as ground rules for the development of a regular process for the global reporting and assessment of the state of the marine environment, including socio-economic aspects.
- **Precautionary Approach:** where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation. Even if not included in UNCLOS, because developed later, has to be applied by States according to their capabilities;
- **Ecosystem Approach:** it requires the taking into consideration of the effects of actions on every element of an ecosystem, based on the recognition that all elements of an ecosystem are linked. The principle is not included in UNCLOS, even if it recognizes that the problems of ocean space are closely interrelated and need to be considered as a whole;
- **Sustainable and Equitable Use:** The European Union has taken measures to implement the UN resolution on sustainable fisheries in relation to fishing with bottom gears on vulnerable marine ecosystems on ABNJ, through Council Regulation No 734/2008 of 15 July 2008 on the protection of vulnerable marine ecosystems in the high seas from the adverse impacts of bottom fishing gears. Article 4 of this Regulation states that: "The competent authorities shall issue a special fishing permit after having carried out an assessment on the potential impacts of the vessel's intended fishing activities and concluded that such activities are not likely to have significant adverse impacts on vulnerable marine ecosystems". Other provisions provide more details on the assessment concept, carried out in ABNJ;
- **Public Availability of Information:** this principle, related to the access to information, public participation and access to justice in environmental matters is contained in several global and regional instruments, as a fundamental element of good governance at all levels and essential for sustainability. UNCLOS contains a number of provisions which are of direct relevance for the public availability of information;
- **Transparent and Open Decision Making Processes:** it refers principally to Principle 10 of the 1992 Rio Declaration, for which “States shall facilitate and encourage public awareness

and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.”

- **Responsibility and liability in respect of damage caused by pollution to the marine environment:** there is a strict linkage to the principle “*sic utere tuo ut alienum non laedas*”, that means that States have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of areas beyond the limits of national jurisdiction;
- **The polluter pays principle:** this principle requires that the costs of pollution prevention, control and reduction measures must be borne by the polluter;
- **Best environmental practices and best available techniques:** the concepts of best environmental practices (BEP) and best available techniques (BAT) are considered as a suitable tool to prevent and eliminate pollution of the environment;
- **Environmental impact assessment (EIA):** Some of the following provisions may be relevant to the overall concept of assessments for activities in areas beyond national jurisdiction.

The Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean provides under article 4.3 (c) and (d) the obligation to undertake an environmental impact assessments procedure for activities, under their jurisdiction or control, likely to cause a significant adverse impact on the marine environment including in other States or areas beyond the limits of national jurisdiction.

The 1991 Protocol on Environmental Protection to the Antarctic Treaty (Madrid Protocol), for which Parties to the Antarctic Treaty of 1959 are bound by its provisions concerning environmental protection, and assessments have to be carried out in accordance with the Madrid Protocol of 1991.

When conducting activities under the competence of the International Seabed Authority, Parties must comply with the requirements of the Authority concerning environmental impact assessments.

The Protocol Concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea (Valletta, 25 January 2002), in article 15 provides that in conformity with generally accepted international rules and standards and the global mandate of the International Maritime Organization, the Parties shall individually, bilaterally or multilaterally take the necessary steps to assess the environmental risks of the recognized routes used in maritime traffic and shall take the appropriate measures aimed at reducing the risks of accidents or the environmental consequences thereof.



The 1982 UN Convention on the Law of the Sea (UNCLOS) Part XII, articles 205 and 206, provides that where States have reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial pollution of or significant and harmful changes to the marine environment, they shall, as far as practicable, assess the potential effects of such activities on the marine environment, including a duty to notify. This duty encompasses planned activities under the jurisdiction or control of States which may cause significant and harmful changes to the marine environment beyond national jurisdiction.

The 1992 Convention on Biological Diversity contains a specific requirement under Article 14(1)(a) and (d), to conduct EIAs for activities under a Contracting Party's jurisdiction or control which are likely to have significant adverse effects on biodiversity - both terrestrial and marine - and for areas within and beyond national jurisdiction.

In the context of the CBD, the SBSTTA (Subsidiary Body on Scientific, Technical and Technological Advice of the Convention on Biological Diversity (CBD) ) has adopted a relevant Report of the Expert Workshop on Scientific and Technical Aspects relevant to EIAs in marine areas beyond national jurisdiction (March 8<sup>th</sup> 2010). The Manila Expert Workshop Conclusions on Environmental Impact Assessments in Marine Areas beyond National Jurisdiction (from 18 to 20 November 2009) considered that marine areas beyond national jurisdiction have a number of ecological, governance and practical differences which should be taken into account. In particular, ecological differences.

Italy has recently adopted legislation containing provisions on activities related to hydrocarbon deposits (Legislative decree No. 128 of 26/06/2010) which provides that, in order to ensure the protection of marine protected areas under international or national law, activities aimed at research, prospecting and exploitation of hydrocarbons found in these areas are forbidden. In other areas, the said activities can only be authorized after an environmental impact assessment procedure has been carried out.

## MEA compliance regimes

Multilateral Environmental Agreement compliance regimes are by and large settled to prior provide, in consultation with the Party concerned, advice and facilitate assistance to individual Parties regarding the implementation of the Convention or Protocol, in order to assist them in complying with their obligations and to generally facilitate, promote, monitor and secure such compliance. In particular, the Barcelona Convention's Compliance Committee is drawn to play an important role in contributing to the settlement of non-compliance issues by peaceful means as well as to provide advice and assistance to Contracting Parties to assist them comply with their obligations under the Barcelona Convention and its Protocols and to generally facilitate, promote, monitor and secure such compliance. A preventive dimension is therefore emphasized providing a vehicle for identifying non-compliance at an early stage.

The existing procedures and mechanisms on compliance are developed under Multilateral Environmental Agreement compliance regimes, in particular the Compliance Committee of:

- the Barcelona Convention for the protection of the marine environment and the coastal region of the Mediterranean (**Barcelona Convention**);
- the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (**Aarhus Convention**);
- the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (**Basel Convention**);
- the Cartagena Protocol on Biosafety to the Convention on Biological Diversity (**Cartagena Protocol**);
- the Convention on International Trade in Endangered Species of Wild Fauna and Flora (**CITES**);
- the Espoo Convention on Environmental Impact Assessment in a Transboundary Context (**Espoo Convention**);
- the **International Treaty on Plant Genetic Resources for Food and Agriculture** (ITPGRFA);
- the Kyoto Protocol to the United Nations Framework Convention on Climate Change (**Kyoto Protocol**);
- the Protocol to the London Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter (**London Protocol**);
- the UNECE Convention on Long-Range Transboundary Air Pollution (**LRTAP**);
- the Montreal Protocol on Substances that Deplete the Ozone Layer (**Montreal Protocol**);
- the Protocol on Water and Health to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (**the Water and Health Protocol**).

# Protection of the marine environment through the establishment of marine protected areas

Marine protected areas (MPAs) shall be seen as an important tool to protect marine biodiversity by providing a higher level of protection than in surrounding areas. The term “MPA” can cover a wide variety of situations. MPAs can be sectoral (e.g. fishing closure) or multi-sectoral, that aim to regulate or manage a range of uses in the area protected, with the protection of biodiversity as a primary objective, open or closed to extractive activities. Actually, establishing MPA in ABNJ remains a challenge. Scattered initiatives are being taken at the regional level, while under the auspices of the United Nations General Assembly (UNGA) the international community is exploring how to ensure that the legal framework for the conservation and sustainable use of marine biodiversity in ABNJ effectively allows to tackle the challenge (E. Druel, 2011).

As already specified above, the CBD has a fundamental role in supporting the work of the UNGA with regard to marine protected areas beyond national jurisdiction. It has established a set of scientific criteria for the identification of ecologically and biologically significant areas (EBSAs), which can be utilised by Parties and competent intergovernmental organizations to identify, through the implementation of ecosystem approaches, areas and features of the marine environment that are important for conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction.

CBD COP10, Decision X/29 “*Marine and Coastal Biodiversity*” has clarified that areas found to meet those scientific criteria, as well as other relevant compatible and complementary nationally and intergovernmentally agreed scientific criteria, based on best scientific information available, may require enhanced conservation and management measures, that can be achieved, inter alia, through marine protected areas including by establishing representative networks, and impact assessments. The identification of EBSAs and the related selection of conservation and management measures is under the responsibility of States and competent intergovernmental organizations, in accordance with international law.

As already settled above, the CBD and the UN Food and Agricultural Organization (FAO) have adopted similar criteria by which to identify ecologically significant and vulnerable areas. At the same time, the CBD, FAO and the UNGA are also putting a renewed emphasis on environmental impact assessments and the need to consider cumulative impacts.

On the absence of a global process for designation of such areas, cooperation, globally or regionally, to identify and manage ABNJ is essential for their effective conservation and sustainable use.

## MPAs in ABNJ within OSPAR and Barcelona Conventions

### The Antialtair Seamount MPA

The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention) has further recognized the need for the protection of the biodiversity and ecosystems in the maritime area beyond national jurisdiction of the Contracting Parties in the OSPAR Biodiversity and Ecosystems Strategy.

In the OSPAR Network of Marine Protected Areas are included those areas which have been, and remain, reported by Contracting Parties, together with any other area in the maritime area beyond national jurisdiction of the Contracting Parties which has been included as a component of the network by the OSPAR Commission.

In 2009, the OSPAR Commission has agreed that the area of the Antialtair Seamount is approved in principle as a potential Marine Protected Area (MPA) in Areas Beyond National Jurisdiction (ABNJ) as a component of the OSPAR Network of Marine Protected Areas.

The area is located to the north-east of the Azores close to the Mid-Atlantic Ridge whose seabed is encompassed by a submission from the Portuguese Republic to the Commission on the Limits of the Continental Shelf (CLCS), in accordance with Article 76 of, and Annex II to, the Convention of the Law of the Sea, and which includes the high seas superjacent to the seabed subject to that submission.

OSPAR Decision 2010/4 of September 2010 establishing the Antialtair Seamount High Seas Marine Protected Area, with the goal of protecting and conserving the biodiversity and ecosystems of the water superjacent to the Antialtair Seamount, in coordination with, and complementary to, protective measures taken by Portugal for the seabed, and in accordance with the joint conservation objectives set out in OSPAR Recommendation 2010/15 on the Management of the Antialtair Seamount High Seas Marine Protected Area, entered into force on 12 April 2011.

The Antialtair Seamount MPA, an area of approximately 2208 km<sup>2</sup> of the high seas, was identified on the basis of the Portuguese Republic selection of the seabed of the Antialtair Seamount as a component of the OSPAR network of Marine Protected Areas, where have been established the programmes, measures and agreements for the achievement of the conservation objectives regarding its seabed, the OSPAR Commission having taken corresponding conservation measures for the high seas superjacent to the seabed.

It was recognised that the establishment of such a MPAs encompassing the seabed and superjacent waters of the Antialtair Seamount by the Portuguese Republic and the OSPAR Commission respectively, is essential for maintaining the integrity of the ecosystems of the Antialtair Seamount by providing for coherence, compatibility and complementarity of the management measures to be taken beyond and within national jurisdiction.

## The Charlie-Gibbs South MPA

Similarly, the Charlie-Gibbs South Marine Protected Area was established by OSPAR Decision 2010/2 as a Marine Protected Area encompassing the seabed and the superjacent waters in an area of 145,420 km<sup>2</sup> in the southern part of the Charlie-Gibbs Fracture Zone to protect and conserve the ecosystems and the biological diversity of the Charlie-Gibbs South Marine Protected Area with a view to achieving the general and specific conservation objectives. In particular, the following general conservation objectives are pursued:

- a. To protect and conserve the range of habitats and ecosystems including the water column of the Charlie-Gibbs South MPA for resident, visiting and migratory species as well as the marine communities associated with key habitats.
- b. To prevent loss of biodiversity, and promote its recovery where practicable, so as to maintain the natural richness and resilience of the ecosystems and habitats.
- c. To prevent degradation of, and damage to, species, habitats and ecological processes, in order to maintain the structure and functions - including the productivity - of the ecosystems.
- d. To restore the naturalness and richness of key ecosystems and habitats, in particular those hosting high natural biodiversity.
- e. To provide a refuge for wildlife within which there is minimal human influence and impact.

Other areas beyond national jurisdiction have been selected in the North East Atlantic. The following areas are further OSPAR Marine Protected Areas in ABNJ and areas of the Convention on the Future Multilateral Cooperation in North-East Atlantic Fisheries (NEAFC) closed to fisheries:

- The Milne Seamount Complex Marine Protected Area in an area of approximately 21 000 km<sup>2</sup>;
- The Altair Seamount High Seas Marine Protected Area in an area of approximately 4 409 km<sup>2</sup> of the high seas;
- The Josephine Seamount High Seas Marine Protected Area in an area of approximately 19 370 km<sup>2</sup> of the high seas;
- The Mid-Atlantic Ridge North of the Azores High Seas Marine Protected Area in an area of approximately 93 568 km<sup>2</sup> of the high seas.

A range of human activities occurring, or potentially occurring, in these areas are regulated in the respective frameworks of other competent authorities. These include, in particular, maritime activities (UNCLOS, the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto-MARPOL 73/78), fishing (North-East Atlantic Fisheries Commission-NEAFC, International Commission for the Conservation of Atlantic Tunas-

ICCAT, North Atlantic Salmon Conservation Organization-NASCO, North Atlantic Marine Mammal Commission-NAMMCO, International Whaling Commission-IWC, FAO Code of Conduct for responsible fisheries), shipping (International Maritime Organization-IMO), and extraction of mineral resources (International Seabed Authority-ISA, Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area-Mining Code).

## The Pelagos Sanctuary



Search <http://www.tethys.org/sanctuary.htm>

The Marine Mammals Sanctuary or Pelagos Sanctuary is an international marine protected area established by a 1999 agreement, entered into force on February 2002, between France, Italy, and Monaco to protect endangered and endemic marine mammals (primarily whales and dolphins, but also other species that share the same ecosystem) in an area of approximately 90 000 km<sup>2</sup> of internal, territorial, and adjacent high seas waters, between Toulon (France), Cape Falcone (north-western Sardinia), Cape Ferro (north-eastern Sardinia) and Fosso Chiarone (Tuscany). It is cited as the first example of a legally-designated transnational/high seas MPA (B. Lausche, 2011).

In 2001, the Pelagos Sanctuary was included in the List of Specially Protected Areas of Mediterranean Importance (SPAMI), provided by the 1995 Protocol Concerning Mediterranean Specially Protected Areas and Biological Diversity in the Mediterranean under the Barcelona Convention, calling upon Contracting Parties to the Protocol to respect the protective status of the transnational/high seas MPA.

In 2005 the Extraordinary Meeting of the Contracting Parties agreed on the opportunity to include the Pelagos Sanctuary in the UNESCO World Heritage List and of its designation as a Particularly Sensitive Sea Area under the IMO Convention.

The Pelagos Sanctuary still have financial, monitoring and management challenges, in particular with respect to the management plan adopted before 2007 but only partially operational. Management is handled mainly by trilaterally based national implementation of the content of each decision taken during the Meetings of the Contracting Parties. The 2009 fourth Meeting of the Contracting Parties adopted several Resolutions aimed at monitor, prevent and control, in particular, the anthropic impact on marine mammals, shipping, the marine pollution and its effects on marine mammals.

At any rate, according to experts, it is emerging as a demonstration model for large scale, ecosystem-based management, high seas MPAs, the utility of regional seas agreements, the use of species as “umbrellas” to protect whole ecological communities, and the role of individuals in carrying forward a conservation vision” (Notarbartolo-Di-Sciara et al., 2007).

## Recent researches

A legal scenario analysis for marine protected areas in ABNJ has been given by an international seminar held in Boulogne-sur-Mer from 19 to 21 September 2011, where four legal scenarios on the establishment and management of MPAs in ABNJ were presented.

1. “**The regional scenario**” based on the assumption that by 2030, in the absence of an overarching global agreement on marine biodiversity in ABNJ, the legal framework for the creation and management of MPAs in ABNJ is found in the existing instruments. It implies four steps:

- The application of existing instruments and mandates and their evolution;
- A process supported by a regional agreement or an alliance or a coalition of States and other stakeholders;
- The adoption of management measures by regional agreements or by sectoral organisations through States Parties to regional initiatives or coalitions;
- The implementation at the regional level.

2. “**The UNCLOS implementing agreement scenario**” based on the assumption that by 2030 an implementing agreement to UNCLOS on the conservation of marine biodiversity in ABNJ has been adopted. It implies four steps:

- The adoption of an implementing agreement to UNCLOS (UNCLOS Part XII);
- MPAs are identified and designated at the regional level, than included in an international list managed by the governing body in charge of the implementation of the agreement ;

- The adoption of management measures at the regional level. The management plan is sent to the implementing agreement governing body ;
- The implementation by competent authorities at the regional level and the related supervision of the implementation by the governing body.

3. **“The CBD additional Protocol scenario”** based on the assumption that by 2030 States have adopted an additional Protocol to the CBD on the establishment and management of MPAs in ABNJ. It implies four steps:

- The adoption of an additional Protocol to the CBD (CBD, Article 5);
- MPAs are identified and designated at the regional level and included in an international list managed by the governing body in charge of the implementation of the Protocol;
- The adoption of management measures at the regional level and of the related management plans sent to the CBD Protocol’s Conference of the Parties;
- The implementation by relevant competent authorities at the regional level and the coordination of the implementation by the COP.

4. **“The precautionary scenario”** based on the assumption that, before 2030, threats to marine biodiversity became so important that they required a paradigm shift and justified the adoption of a strong multilateral agreement on the protection of biodiversity in ABNJ. This agreement forbids all human activities in ABNJ unless they are expressly authorised via a decision taken by the relevant organisations. Parts of the oceans where activities are authorised are named “economic activity zones”. The precautionary principle and the “zero biodiversity loss principle” are strictly applied. (E. Druel, R. Billé, S. Treyer, 2011).



## Conclusions

Even if trends of environmental law is currently facing a strong push for the internalization of principles in national law, unfortunately a weakening in the development of international law agreements is registered (IUCN, 2012).

In conclusion an resuming, for the conservation of biodiversity in ABNJ, recognising multiple competences in areas beyond national jurisdiction, the international framework is constituted by the existing mechanism, in particular the ones referring to United Nations specialized agencies, organizations and programmes and intergovernmental organizations:

- the international legal framework for regulating activities in ABNJ provided by the United Nations Convention on the Law of the Sea (UNCLOS); it is also important to mention the so called Regular process, for global reporting and assessment of the state of the marine environment, including socio-economic aspects;
- the international Seabed Authority (ISA) and the related areas of particular environmental interest (APEIS);
- the specialised UN agencies as: IMO and its Particularly Sensitive Sea Areas (PSSA); UNESCO and the world heritage sites; FAO-RFMOs (Regional Fisheries Management Organizations) and the Vulnerable marine ecosystems (VME);

under the UNEP umbrella:

- the CBD Secretariat and the Ecologically or biologically significant areas (EBSA);
- the Secretariat of the Convention on Migratory Species (CMS);
- the Regional Seas Secretariat, e.g. the MAP and the Special Protected Areas of Mediterranean Importance (SPAMI) of the SPA/BD Protocol of the Barcelona Convention.

The competent authorities decide within the framework of their respective mandate and competence, to cooperate in the development and implementation of appropriate measures for the conservation and management of these areas.

Last but not the list, the Multilateral Environmental Agreement compliance regimes, settled to prior provide, in consultation with the Party concerned, advice and facilitate assistance to individual Parties regarding the implementation of the Convention or Protocol, and then to make recommendations to the Meeting of the Parties with a goal of addressing compliance.

The attainment of an integrated environmental protection system for marine areas beyond national jurisdiction is frustrated by the global commons status of the high seas, the ad hoc and non comprehensive nature of marine environmental instruments applicable to the high seas and the

primary reliance on devolved flag State responsibility for implementation of those environmental protection measures (R. F. Warner, 2009).

In this context, place can be settled to the proposal for an international environmental court, so that global environmental legislation becomes more binding and enforceable, or at least for an international authority (European Parliament resolution of 29 September 2011 on developing a common EU position ahead of the United Nations Conference on Sustainable Development (Rio+20)<sup>13</sup>.

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<sup>13</sup> <http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P7-TA-2011-0430&language=EN>

## Glossary

ABNJ	Areas Beyond National Jurisdiction
ABS	Access and Benefit-Sharing
APEIs	Areas of Particular Environmental Interest (ISA)
BBNJ	Marine biodiversity in areas beyond national jurisdiction
BBNJ Working Group	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
CBD	Convention on Biological Diversity
CMS	Convention on Migratory Species
COP	Conference of the Parties
DOALOS	UN Division for Ocean Affairs and the Law of the Sea
EBSA	Ecologically and Biologically Significant Area
EIA	Environmental Impact Assessment
EU	European Union
FAO	United Nations Food and Agriculture Organisation
IMO	International Maritime Organisation
IOC/UNESCO	Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organisation
ISA	International Seabed Authority
ITLOS	International Tribunal for the Law of the Sea
ITPGR	International Treaty on Plant Genetic Resources for Food and Agriculture
IUCN	International Union for Conservation of Nature
IUU	Illegal, Unreported and Unregulated fishing
MARPOL 73/78	International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978
MGRs	Marine genetic resources
MPAs	Marine Protected Areas
MSR	Marine scientific research
NEAFC	Convention on the Future Multilateral Cooperation in North-East Atlantic Fisheries
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
PSSA	Particularly Sensitive Sea Area
RFMOs	Regional Fisheries Management Organizations
Rio+20	United Nations Conference on Sustainable Development
SEA	Strategic Environmental Assessment
UNCLOS	United Nations Convention on the Law of the Sea
UNEP	United Nations Environment Programme
UNGA	United Nations General Assembly
UNICPOLOS	United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea
VME	Vulnerable Marine Ecosystem

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