«ESTABLISHMENT OF HIGH SEAS MARINE PROTECTED AREAS: TOWARDS AN IMPLEMENTING AGREEMENT? »

by

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A thesis submitted in conformity with the requirements for the degree of Master of Laws
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Abstract

Although international law requires States to protect the marine environment and conserve marine living resources, human activities are still threatening marine species and its survival. In view of limited scientific knowledge of marine ecosystems, fragility of ecosystems and insufficient mechanisms of protection, marine biodiversity in areas beyond national jurisdiction is at risk. Increasing attention has been given to the need to conserve this important and vulnerable biodiversity. The international community has begun to recognize the importance of marine protected areas (MPAs) as key tool to ensure sustainable use and preservation of biodiversity. However, the adequacy of the current legal framework related to the conservation of marine biodiversity through the establishing of high seas MPAs raises debates. Disagreements about the existence of inadequacies and need for an implementing agreement remain. My study seeks to determine whether the international legal framework is adequate for the establishment of MPAs or whether further measures are required.
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Introduction

Although the marine environment constitutes more than 90% of the surface of the global biosphere, less than 1% of the oceans and seas are effectively protected\(^1\). In 2001, the report *A Sea of Troubles* offered an evaluation of the oceans demonstrating the critical state and fragility of marine ecosystems\(^2\). A range of human activities including fishing, shipping, marine scientific research and mining were identified as major threats to vulnerable high seas ecosystems\(^3\). The high seas fisheries resources were no longer considered as inexhaustible\(^4\). Indeed, marine life is threatened by human activities, pollution of ecosystems, destruction of habitats and poor fisheries management. About 52% of the world marine fishery resources are fully exploited and at or near their sustainable limits and another 27% are overexploited or depleted\(^5\). More recently, there have been heightened concerns about the importance of healthy oceans and their vulnerability in view of their role in the regulation of climate and functioning of the planet, including providing oxygen and a significant source of livelihood and food for its inhabitants\(^6\).

The immensity of the high seas and their distance from land makes the enforcement of rules and monitoring of human activities occurring in this maritime zone difficult. The *United Nations Convention on the Law of the Sea* (UNCLOS) provides the general legal regime for ocean use and development of its resources\(^7\). Although high seas are open to all States and a

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\(^6\) IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, *ibid*. at ix.

number of freedoms can be exercised, use of the high seas and their resources are not unlimited. States must exercise these freedoms with respect to their obligations under UNCLOS in order to protect the marine environment and conserve marine living resources. As 64% of the marine life is situated in these areas beyond national jurisdiction, increasing attempts have been made to fix the lack of protection and enforcement in this zone containing fragile and unique ecosystems.

The international community recognizes the necessity to improve the regulation of activities threatening the marine life in areas beyond their national jurisdiction. The IUCN’s World Commission on Protected Areas, governments attending the WSSD, the United Nations and States parties to the CBD have all recognized the need to create Marine Protected Areas (MPAs) beyond national jurisdictions. The creation and implementation of such areas as tools to ensure the conservation and sustainable use of marine biodiversity and resources seem promising.

The World Conservation Union (IUCN) defines “protected area”, which includes MPAs, as “a clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.” Although MPAs may have multiple purposes, their primary focus is the protection of marine biodiversity. Determining elements for their establishment are the need to address the impacts of fishing activities on marine biodiversity and to improve biodiversity conservation and fisheries management by integrating modern conservation principles including ecosystem approach and precaution. Nowadays, there are only a small

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8 UNCLOS, art. 87.
11 Gjerde, *High Seas Marine Protected Areas and Deep-Sea Fishing*, *supra* note 9 at 141.
number of MPAs in the high seas as these zones are located away from the baselines\textsuperscript{14}, where it is difficult to designate and ensure compliance with conservation measures\textsuperscript{15}.

The creation of MPAs would be an effective way to ensure the protection of fragile marine ecosystems and its resources\textsuperscript{16}. However, debates have been raised during global meetings about the adequacy of the existing legal framework to facilitate the creation of MPAs beyond national jurisdiction and the need for a new implementing agreement to address possible gaps challenging the protection and sustainable use of marine biodiversity. The present thesis aims to address these issues. In analyzing these debates, requirements for effective implementation of MPAs and global legal instruments related to the conservation of marine biodiversity, this thesis shows the inadequacy of the international legal regime. Moreover, it confirms the need for a new implementing agreement to UNCLOS in order to address gaps and allows the creation of MPAs in areas beyond national jurisdiction.

1. Historical Perspective of the Law of the Sea and Marine Biodiversity

The freedom of the high seas doctrine was developed during the seventeenth century\textsuperscript{17}. This principle limited the jurisdiction of States over the seas to a small line clinging to their coastline. Beyond these areas, the rest of the sea was free to all people. This situation existed until the mid-twentieth century, until States started to contest this principle and required more control over nearby marine resources. Concerns about the pollution and wastes from marine transport were also increasing as threats to the local marine life. States desired to be more present in the governance of the seas and competed to augment their access to fish stocks\textsuperscript{18}. They challenged the 3 nautical miles limit of territorial seas and increased it up to 12. The discovery of new technologies also resulted in changes. The exploitation of living and non-living resources increased; consequently, this was the beginning of the depletion of fish stocks.

\textsuperscript{14} Erich, Hoyt, Marine protected areas for whales, dolphins, and porpoises: a world handbook for cetacean habitat conservation (London: Earthscan, 2005) at 33 [Hoyt, “Marine Protected Areas for whales, dolphins and porpoises”]; UNCLOS, art. 57.

\textsuperscript{15} Hoyt, “Marine Protected Areas for whales, dolphins and porpoises”, \textit{ibid.} at 33.

\textsuperscript{16} IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, \textit{supra} note 5 at 2.


\textsuperscript{18} \textit{Ibid.}
Change was required by States to encourage a peaceful use and management of the seas and its resources. The undertaking to modify the regime started in 1967, when the notion of common heritage of mankind was first being discussed at the General Assembly in regard of the preservation of sea-bed and ocean floor\(^1\). An Ad Hoc Committee to Study the Peaceful Uses of the Sea-Bed and the Ocean Floor beyond the Limits of National Jurisdiction and a standing committee were established by the General Assembly to work on the redefinition of concepts for the creation of a new international regime. In 1970, the General Assembly adopted principles declaring the sea-bed and oceans as the common heritage of mankind. These areas were determined to be not subject to national appropriation and must be only used for peaceful purposes\(^2\).

The progression of efforts to regulate the oceans led to the convening of the Third United Nations Conference on the Law of the Sea organized in New York in 1973. This Conference examined the procedural issues and declared that consensus would be the principal means to make decisions. It also maintained that negotiations would be more effective if the proceedings were not formal, considering the contentious issues at stake and number of participants. Working groups on the basis of interest was also suggested at the Conference, rather than plenary meetings, in order to facilitate negotiations and protect particular interests\(^3\).

Finally, during the Conference held on 30 April 1982, States decided to vote on the adoption of the draft convention and four resolutions of the law of the sea. The adoption of a new international regime for the law of the sea was largely supported by members\(^4\). The final meeting was held on 6 to 10 December 1982 in Montego Bay, Jamaica. UNCLOS was opened for signature on 10 December 1982 and entered into force on 16 November 1994\(^5\).

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\(^2\) Nordquist, *ibid*. at 19.

\(^3\) *Ibid*. at 20. For example of identifiable interests: States bordering straits required that the accordance of free passage not to harm the marine environment or threatens their national security.

\(^4\) The results of the vote declared that 130 were in favour, 4 were against and 17 were abstained from vote. Today, there are 158 parties to UNCLOS; United Nations, Office of Legal Affairs, Division for Oceans Affairs and Law of the Sea, *Table recapitulating the status of the Convention and of the related Agreements*, online: <http://www.un.org/Depts/los/reference_files/status2008.pdf>.

Convention, referred as “a Constitution for the Oceans”\textsuperscript{24}, is the main instrument regulating ocean’s uses. It is a key instrument for the establishment of MPAs beyond the limits of national jurisdiction and will be the subject of detailed discussions under this study. Today, 158 States are parties to UNCLOS. Yet, some States have not signed neither ratified the Convention including the United States and Peru, which are the top fishery producing countries along with China\textsuperscript{25}. Considering the number of States parties, the level of participation needs to be enlarged to obtain these important actors and ensure effective implementation of high seas MPAs.

2. International Cooperation for the Creation of MPAs

In recent years, it has been demonstrated that all life both on land and in the seas depends on healthy oceans, as they regulate climate and produce most of the Earth’s oxygen\textsuperscript{26}. Conservation of marine ecosystems on the high seas is a global issue that must be addressed in order to avoid irreversible harm and the depletion of marine life. States have increasingly become aware of the need to ameliorate and develop tools for the management of marine biodiversity.

The international community dealt with the protection of vulnerable marine ecosystems for the first time during the \textit{United Nations Convention on Environment and Development}, also known as the “Earth Summit”, held in Rio de Janeiro in 1992\textsuperscript{27}. The participating states of the “Earth summit” adopted the Agenda 21, which requires states to undertake measures for the conservation of marine living resources, the protection and restoration of endangered marine species and habitats or other sensitive areas on the high seas\textsuperscript{28}. Throughout the World Summit on


\textsuperscript{27} Oral, “Protection of vulnerable marine ecosystems in areas beyond national jurisdiction: Can international law meet the challenge?”, \textit{supra} note 3 at 101.

Sustainable Development (WSSD) held in Johannesburg in 2002, countries agreed that representative networks of MPAs should be established at the international level by 2012\(^9\). The Plan of Implementation adopted under the WSSD upheld the principles of Agenda 21 in order to promote measures at all levels for the conservation and management of oceans to maintain the productivity and biodiversity of important and vulnerable marine areas both within and beyond national jurisdiction\(^10\). In 2003, the V\(^{th}\) IUCN World Parks Congress in Durban, South Africa, reviewed the global status of protected areas and called on the international community to integrate a global representative network of MPAs beyond national jurisdiction in order to significantly increase their coverage by 2012, as stated by the WSSD Plan of Implementation and encourage sustainable resource management\(^11\).

Today, it is recognized through the work of the international community that the creation of MPAs that are consistent with international law and based on existing scientific information could help to conserve marine life. In particular, the need for high seas MPAs was discussed under two forums, which are anchored under the most relevant agreement, UNCLOS and CBD.

2.1. United Nations Work

The General Assembly established an Ad Hoc Open-ended Information Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction (Working Group)\(^\text{32}\). The Secretary-General made a report to assist the Working Group with the preparation of its agenda\(^\text{33}\). During its first meeting, the Working Group focused on the need to extend the conservation and sustainable use of marine biodiversity beyond areas of national jurisdiction through integrated ocean management\(^\text{34}\). Most delegations argued that UNCLOS provides the legal framework for the conservation and

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\(^10\) Hoyt, ibid. at 54; WSSD: Plan of Implementation, ibid. at para. 32.


sustainable use of marine biodiversity beyond national jurisdiction. Some delegations declared that it could be possible for coastal States under UNCLOS to adopt necessary measures to protect its sedentary species on the continental shelf. Restrictive measures imposed on fishing activities occurring on the high seas over the continental shelf and those that can have effects on sedentary species were suggested as examples of necessary measures.

Some delegations also expressed the opinion that existing global instruments contain principles that could facilitate international consensus for the conservation of marine biodiversity. These principles are included under UNCLOS, the Rio Declaration on Environment and Development and the Convention on Biological Diversity (CBD). Yet, CBD is not applicable to activities outside national jurisdiction. As its scope is limited, its general principles that can be used are those that regulate activities occurring under the control of national jurisdiction.

The roles of the International Maritime Organization (IMO) and the Food and Agriculture Organization (FAO) have been emphasized for the management and conservation of marine biodiversity. FAO is an important organization that could help with issues related to fisheries management. Some delegations argued that fisheries management organizations are insufficient since then existing mechanisms provided only sectoral governance structures. They were concerned about the efficacy of these mechanisms in terms of fostering global cooperation to address the issue of marine ecosystem conservation. They proposed an implementing agreement to UNCLOS in order to help to increase the scope of governance related to fisheries management.

Marine scientific research was also a controversial issue. Some delegations claimed that the conduct of marine scientific research should comply with the provisions of UNCLOS related

36 Ibid.
37 Ibid.
38 Ibid. at para. 23.
41 Ibid. at para. 23.
42 Ibid. at para. 24.
43 Ibid. at para. 25.
to the protection of marine environment to avoid harm on biodiversity. The opponents maintained the respect of high seas freedoms could not to restrain scientific research and suggested self-regulatory codes of conduct to be adopted by the scientific community as an alternative.

Indeed, several activities were denounced as causing serious damages to marine biodiversity. The principal activity identified as a threat was illegal, unreported and unregulated fishing. Ocean noise and dumping were also recognized as causes of the depletion of marine life. As solution, the precautionary and ecosystem-based approaches were suggested. Delegations agreed that there was not scientific certainty for the issues relating to marine biological diversity. However, the precautionary approach is a fundamental principle acknowledged by the international community. The delegations applied the approach and maintained that the lack of certainty should not postpone the adoption of measures for the preservation of marine life.

One of the issues appearing under the report was a divergence related to the adequacy of existing marine conservation instruments. Few delegations alleged that the current framework is sufficient. Some delegations argued instead that the existing framework mechanisms fail to enhance cooperation to the levels necessary for the sufficient conservation of marine life. As a result of this dialogue, an implementing agreement to UNCLOS was suggested to promote conservation and facilitate the establishment of MPAs. Indeed, a new implementing agreement has the potential to create a new regulatory and governance regime that would facilitate the establishment and management of MPAs in the marine areas beyond national jurisdiction. A new implementing agreement would develop mechanisms to establish and enforce MPAs, ensure the proper application of ecosystem and precautionary approaches, and environmental impact

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44 Report of the Working Group A/61/65, supra note 34 at para. 27-28. Part XIII of UNCLOS was mentioned by the delegations to conduct marine scientific research, in particular art. 240-241.
46 Ibid. at para. 33.
47 Ibid.
48 Ibid. at para. 32-33. Concerning the ecosystem approach the delegations indicated that its implementation should use a global approach to management rather than one focused on specific sectors, such as fisheries. This kind of ecosystem approach could be based on multiple-use protected areas for vulnerable and unique habitats.
49 Ibid. at para. 33.
50 Ibid. at para. 51. Delegations referred to the significant undertaken at the regional level against the overexploitation of fish and illegal fishing practices.
51 Ibid. at para. 55.
52 Ibid. at para. 61.
assessments under the existing legal agreements, as well as enhance coordination and cooperation among all sectors and institutions\textsuperscript{53}.

The opponents alleged that there is no certainty that the adoption of such an instrument would stop the depletion of marine biodiversity. They claimed that the creation of a new instrument would be more complicated than the improvement of the existing regime\textsuperscript{54}. Therefore, they proposed the establishment of MPAs according to international law and based on scientific information, but there was no agreement on the adequacy of the current framework\textsuperscript{55}. While some delegations supported the creating of a new regime based on the principles of ecosystem management, precaution and environmental impact assessments, others argued the adequacy of the existing regime\textsuperscript{56}.

Thereafter, the General Assembly required the Working Group to schedule another meeting in 2008\textsuperscript{57}. The Secretary-General prepared a report to assist the Working Group in order to assess whether there exists a governance or regulatory gap in the current conservation and sustainable use of marine biodiversity framework\textsuperscript{58}. It discloses that UNCLOS provides the legal regime for the regulation of activities in the oceans and seas\textsuperscript{59}. Encouraging participation and universal accession to international instruments promoting conservation of marine biodiversity are declared as important goals\textsuperscript{60}. Although UNCLOS does not specifically apply to biodiversity, its principles are understood to be applicable to the conservation of marine biodiversity beyond national jurisdictions\textsuperscript{61}. Moreover, it incorporates some provisions to facilitate its development and adaptation to new requirements\textsuperscript{62}. UNCLOS is completed by its implementing agreements\textsuperscript{63},

\textsuperscript{53} Gjerde, High Seas Marine Protected Areas and Deep-Sea Fishing, supra note 9 at 154.
\textsuperscript{55} Ibid. at para. 59.
\textsuperscript{56} Ibid. at para 61.
\textsuperscript{57} Oceans and the Law of the Sea, GA Res. 222, UN GAOR, 61\textsuperscript{st} Sess., UN Doc. A/61/222 at para. 91.
\textsuperscript{58} Report of the Secretary General, GA Res. 66, UN GAOR, 62th Sess., UN Doc. A/62/66/Add.2 at para. 249-325.
\textsuperscript{59} UN Doc. A/62/66/Add.2, ibid. at para. 257-261.
\textsuperscript{60} Ibid. at para. 278.
\textsuperscript{61} Ibid. at para. 258.
\textsuperscript{62} Ibid. at para. 259. For examples of reference to generally accepted international standards see art. 94 (5), 119 (1), 201, 207 (1), 211 (2), (5) (6), 226 and 271. For example of adoption of compatible regional and global agreements see art. 197, 207 (4), 208 (5), 210 (4), 211 (1), 212 (3), 243.
\textsuperscript{63} Agreement for the Implementation of the Provisions of UNCLOS relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 4 August 1995, 2167 U.N.T.S. 3 [UNFSA] and Agreement relating to the implementation of Part XI of the UNCLOS, 28 July 1994, 33 I.L.M. 1309.
the work of international organizations promoting the conservation and sustainable use of marine biodiversity and specialized instruments\textsuperscript{64}. Divergences about the adequacy of the current legal regime were again raised\textsuperscript{65}. Among the proponents arguing that the regime was inadequate, some claimed that improvement in the implementation of existing agreements should be executed with an enhanced cooperation and coordination between existing mechanisms, global organizations and competent sectors in areas beyond national jurisdiction\textsuperscript{66}. Other delegations argued that integrated management approaches were required to untie existing sectoral regimes and measures. They proposed an implementing agreement under UNCLOS to promote cooperation and coordination for the conservation of marine biodiversity, notably with the creation of MPAs\textsuperscript{67}. This new agreement aimed to overcome the sectoral nature of the existing framework and to carry out cumulative impact assessments on many sectors\textsuperscript{68}. Other delegations disagreed with the assertion of a need for a new instrument\textsuperscript{69}.

Following this report, the General Assembly encouraged States to develop measures for the conservation of vulnerable marine ecosystems, such as the establishment of MPAs\textsuperscript{70}. During the second meeting of the Working Group, the implementation gaps in the international legal framework were ultimately recognized by the delegations\textsuperscript{71}. They underlined that existing legal instruments have to be effectively implemented and current institutions reinforced\textsuperscript{72}. A number of issues were suggested such as reinforcement of technology transfer, scientific cooperation, efficient development of management tools, consistent application of international principles, improved flag State control and mechanisms to ensure cooperation and coordination within

\textsuperscript{64} UN Doc. A/62/66/Add.2, supra note 58 at para. 259. For examples of international organizations: United Nations Environment Programme (UNEP), Convention on Biological Diversity (CBD), Food and Agriculture Organization of the United Nations (FAO), International Maritime Organization (IMO), Intergovernmental Oceanographic Commission of UNESCO (UNESCO/IOC) and International Seabed Authority.

\textsuperscript{65} Ibid. at para. 264.

\textsuperscript{66} Ibid. at para. 265.

\textsuperscript{67} Ibid. at para. 266.

\textsuperscript{68} The report refers to the report of the Working Group A/61/65, supra note 34 at para. 54-55.

\textsuperscript{69} UN Doc. A/62/66/Add.2, supra note 58 at para. 267.


\textsuperscript{72} Ibid. at para. 40.
sectors\textsuperscript{73}. Several delegations promoted an implementing agreement under UNCLOS to overcome gaps, address unregulated activities, improve international cooperation and provide coherent application of recent ocean principles in sectoral management regimes\textsuperscript{74}.

2.2. Protected Areas under the Convention on Biological Diversity

The Secretariat of the Convention on Biological Diversity is another relevant international organization that has carried out activities related to the conservation and sustainable use of marine biodiversity. The Conference of the Parties to the CBD recognized that threats to marine biodiversity in areas beyond national jurisdiction are growing and the need for international cooperation to improve conservation of biodiversity and sustainable use of resources in these areas is critical\textsuperscript{75}. It was also acknowledged that the coverage of marine and coastal protected areas on the high seas is insufficient and further MPAs should be established\textsuperscript{76}. The Conference of the Parties proposed the creation of a Working Group to examine a number of issues, such as alternatives to the cooperation necessary to establish MPAs in areas beyond national jurisdiction\textsuperscript{77}.

The first meeting of the Working Group on Protected Areas examined the question of marine biodiversity and formulated recommendations\textsuperscript{78}. The main outcome was an initiation of work to establish existing ecological and biogeographical criteria that would be used for the identification of sites for MPAs beyond national jurisdiction. The Conference of the Parties considered the Working Group’s recommendations at its 8\textsuperscript{th} meeting. These recommendations recognize that UNCLOS provides the legal framework within which all activities in oceans must be conducted\textsuperscript{79}. MPAs are identified as appropriate tools to reach the conservation and sustainable use of marine biodiversity beyond areas of national jurisdiction\textsuperscript{80}.

The Conference of the Parties stated that the UN General Assembly has a major role to address the issue of conservation of marine biodiversity in areas beyond national jurisdiction\textsuperscript{81}. Moreover, they declare that CBD could contribute to the work of the UN by providing scientific

\textsuperscript{73} Working Group, A/63/79, supra note 71 at para. 41-43.
\textsuperscript{74} Ibid. at para. 47-48. The views were still contradictory about this question.
\textsuperscript{75} CBD, Conference of the Parties, 7\textsuperscript{th} Sess., Marine and Coastal Biodiversity, COP 7 Decision VII/5 at para. 29-30.
\textsuperscript{76} Ibid. at para. 29-30.
\textsuperscript{77} CBD, Conference of the Parties, 7\textsuperscript{th} Sess., Protected areas, COP 7 Decision VII/28 at para. 25-29.
\textsuperscript{79} Report of the First Meeting of the Working Group, UNEP/CBD/COP/8/8, see recommendation 4(c), at 26.
\textsuperscript{80} Ibid. at Recommendation 4(d).
\textsuperscript{81} CBD, Conference of the Parties, 8\textsuperscript{th} Sess., Protected Areas, COP 8 Decision VIII/24 (2006).
and technical information relating to marine biological diversity and the application of both ecosystem and precautionary approaches 82.

3. How High Seas MPAs should be established?

Assessing the adequacy of the current international legal framework for the establishment of MPAs in marine areas beyond national jurisdiction requires the examination of their content and basic requirements to ensure an effective implementation of these conservation and management measures on a long term basis. This section provides some details about MPAs, the applicable modern conservation principles and tools and other basic requirements for establishing and planning high seas MPAs.

3.1. Objectives and Benefits

The establishment of MPAs as a key management strategy for environmental protection encompasses a range of significant goals. These goals incorporate the conservation of marine biodiversity and its natural habitats, protection of cultural heritage and fishery management 83. Yet, the key objective of an MPA is to implement effective protection of marine ecosystems, species and biodiversity 84. They also aim to increase scientific knowledge, instructive opportunities to educate the public about the marine environment and impacts of human activities on marine life, sustainable environment benefits yielded from harvestable products and to enhance recreational activities and tourism 85.

The establishment of MPAs offers numerous benefits including conservation of marine biodiversity and protection of vulnerable habitats 86. The indication of MPAs on the high seas could serve as baselines for further scientific research and the determination or assessment of other marine areas 87. Furthermore, well-established MPAs would be beneficial as they conserve biological diversity and ecosystems, protect critical habitats and help sites to recover from

82 CBD, COP 8 Decision VIII/24, supra note 81.
84 Hoyt, “Marine Protected Areas for whales, dolphins and porpoises”, supra note 14 at 25.
85 National Research Council, “MPAs: tools for sustaining ocean ecosystems”, supra note 83 at 21-29.
86 IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, supra note 5 at 3.
87 Ibid.
stresses caused by human activities\(^{88}\). By improving fishery management, they could ensure sustainable fisheries and improve livelihood of people and their quality of life. Indeed, new job opportunities would be created for the management of MPAs and in recreational and tourism sectors\(^{89}\). They help to maintain the productivity of ecosystems by improving fishery management and safeguard social and economic development\(^{90}\).

MPAs provide several benefits for the marine environment, biodiversity and social and economic development. If they are established in vulnerable areas, they could help to prevent extinctions of species and facilitate recovery of depleted fisheries\(^{91}\). MPAs could promote the management of marine ecosystems and its resources.

### 3.2 Basic Requirements

The designation of MPAs indicates where biodiversity enjoys a higher level of protection than its surroundings. There is a range of basic requirements that must be respected for the implementation of MPAs. As there are several marine ecosystems with different characteristics, the requirements will vary in order to provide a protection built accordingly with their specific needs\(^{92}\). The designation of clear goals and objectives based on a dialogue between all relevant stakeholders that will guide the management of decisions is needed as soon as possible during the establishment of MPAs\(^{93}\). These objectives can be classified under three basic categories: ecological, economic and social-cultural\(^{94}\).

Moreover, the designation of MPAs requires scientific background research about vulnerable habitat requirements of marine species and marine ecology on the high seas, multidisciplinary contribution and ecological and socioeconomic information in order to choose, plan and implement the protected areas are required\(^{95}\). The designers of MPAs must use all best available information and data related to scientific, socioeconomic and traditional or local knowledge about ecology in the applicable area\(^{96}\). Although knowledge about the marine

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\(^{88}\) IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, \textit{supra} note 5 at 3.

\(^{89}\) \textit{Ibid.} at 4.

\(^{90}\) \textit{Ibid.} at 3.

\(^{91}\) Callum Roberts, The role of marine protected areas in sustaining fisheries (United Kingdom, University of York) online: \url{<http://www.un.org/Depts/los/consultative_process/documents/6_roberts.pdf>}.

\(^{92}\) Hoyt, “Marine Protected Areas for whales, dolphins and porpoises”, \textit{supra} note 14 at 74.

\(^{93}\) IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, \textit{supra} note 5 at 30.

\(^{94}\) \textit{Ibid.} at 30.

\(^{95}\) Hoyt, “Marine Protected Areas for whales, dolphins and porpoises”, \textit{supra} note 14 at 75.

\(^{96}\) IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, \textit{supra} note 5 at 35.
environment and ecosystems beyond national jurisdiction and impacts from human activities are sometimes restricted, uncertainty and lack of information should not be used as a justification for postponing the establishment of MPAs.\(^{97}\)

The implementation of MPAs also needs legal authority and long-term political commitment.\(^{98}\) A solid legal authority supporting consistent development of MPAs and their resistance to the change in governmental regimes can facilitate the implementation of MPAs on a long term basis.\(^{99}\) Political commitment and support are both indispensable for the development and implementation of MPAs.\(^{100}\) Development of MPAs involves adequate relationships between the communities and participating stakeholders, involvement of all stakeholders as well as a legal recognition and public acceptance of MPAs.\(^{101}\) The involvement of all stakeholders enables them to share the information and collaborate to find common solutions that are the most appropriate for implementation and management of MPAs.\(^{102}\)

Integrated management frameworks are also needed during the development of MPAs. As human activities surrounding the designed area have impacts on MPAs, it is significant to consider the political and jurisdictional complexities of authority, proximity of populations and their impacts on marine areas, ecological value of the areas, terrestrial management and land-based uses that can affect the protected areas.\(^{103}\) The establishment of MPAs also necessitates an ecosystem based and socioeconomic management plan and an educational programme for the users of MPAs.\(^{104}\) Furthermore, adaptive management measures must be adopted to evaluate the effectiveness of management measures and adapt them accordingly with new scientific information.\(^{105}\) Indeed, scientific knowledge of marine species, habitats and biodiversity on the high seas evolves constantly and there is still much to discover. Therefore, it is important to have measures enabling the modification of MPAs in compliance with the best available scientific information.\(^{106}\)

\(^{97}\) IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, supra note 5 at 35.

\(^{98}\) Ibid. at 31.

\(^{99}\) Ibid. at 32.

\(^{100}\) Ibid. at 32.

\(^{101}\) Ibid. at 33; See Hoyt, “Marine Protected Areas for whales, dolphins and porpoises”, supra note 14 at 75.

\(^{102}\) IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, ibid. at 33.

\(^{103}\) Ibid. at 36.

\(^{104}\) Hoyt, “Marine Protected Areas for whales, dolphins and porpoises”, supra note 14 at 75.

\(^{105}\) IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, supra note 5 at 37.

\(^{106}\) Ibid. at 37.
In order to ensure effective development, parties must ensure compliance via adequate management of marine and land-based pollution and enforcement program and by ongoing reassessment and re-evaluation of MPAs\textsuperscript{107}. Moreover, surveillance programs and mechanisms that promote compliance and ensure enforcement with the rules of MPAs networks must be developed for there to be successful implementation\textsuperscript{108}. Taking into consideration socioeconomic conditions in the designation of MPAs could promote better compliance with the conservation and management measures and therefore improve protection of marine biodiversity\textsuperscript{109}. As establishment of MPAs can involve livelihood but also restrictions on commercial and recreational fishing\textsuperscript{110}, economic and social considerations are indispensable components in the designation of high seas MPAs to ensure public acceptance, support and recognition\textsuperscript{111}. There is no unique model of MPA since requirements for their creation would differ between marine ecosystems, species and location on the high seas to address specific needs and characteristic of the area\textsuperscript{112}.

### 3.3 Applicable Conservation Principles

A range of principles are important for the conservation of marine biodiversity on the high seas. The major conservation goals are notably the protection and preservation of marine environment, conservation and sustainable management of biodiversity and sustainable use of marine resources for the benefit of present and future generations (inter generational equity principle)\textsuperscript{113}. Other principles such as the polluter/user pays principle and use of best available scientific and other technical information are also important for the conservation of marine biodiversity\textsuperscript{114}. The ecosystem approach based on management approaches and precautionary approach are two determinant principles for the implementation of MPAs on the high seas\textsuperscript{115}.

\textsuperscript{107} Hoyt, “Marine Protected Areas for whales, dolphins and porpoises”, \textit{supra} note 14 at 75.

\textsuperscript{108} IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, \textit{supra} note 5 at 100-101.

\textsuperscript{109} \textit{Ibid.} at 21.

\textsuperscript{110} \textit{Ibid.} at 21.

\textsuperscript{111} \textit{Ibid.} at 20.

\textsuperscript{112} Hoyt, “Marine Protected Areas for whales, dolphins and porpoises”, \textit{supra} note 14 at 74.


\textsuperscript{114} \textit{Ibid.} at 19; Hart, “Elements of a Possible Implementation Agreement to UNCLOS”, \textit{supra} note 1 at 10-11.

\textsuperscript{115} Hart, \textit{ibid.} at 10-11; Hoyt, “Marine Protected Areas for whales, dolphins and porpoises”, \textit{supra} note 14 at 1, 4, 8.
3.3.1 Ecosystem Approach

Human well being requires healthy ecosystems as they have the potential to provide various goods and services and to maintain living marine resources\textsuperscript{116}. The health of marine ecosystems is indispensable for both the environment and social development\textsuperscript{117}. Over the past years, the need to manage human activities threatening the marine environment and its ecosystems in an integrated manner to support sustainable development of the marine environment has been globally recognized\textsuperscript{118}. Indeed, the ecosystem-based approach is acknowledged as a key element for the conservation and sustainable use of biodiversity\textsuperscript{119}. Since the WSSD in 2002, States have committed to maintain biodiversity beyond marine areas of national jurisdiction and to promote sustainable development of marine ecosystems\textsuperscript{120}. Moreover, they have promoted the adoption of an ecosystem-based approach by 2010\textsuperscript{121}.

The United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea declared at its seventh meeting that there is an urgent need to address the environmental degradation and put in place management regime in order to conserve the integrity of ecosystems\textsuperscript{122}. It was supported that ecosystem approaches should manage human activities in order to maintain and restore the ecosystem, conserve marine biodiversity and sustain goods and environmental services\textsuperscript{123}. Afterwards, the General Assembly declared that States should be guided in the application of ecosystem approach by current instruments, including UNCLOS and its implementing agreements\textsuperscript{124}.

An ecosystem-based management approach is significant for the management of marine conservation as it takes into account all impacts and cumulative effects from activities having repercussions on marine ecosystems\textsuperscript{125}. The ecosystem-based approach analyzes the whole

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\textsuperscript{117} Ibid.

\textsuperscript{118} Ibid.

\textsuperscript{119} Hart, “Elements of a Possible Implementation Agreement to UNCLOS”, supra note 1 at 12.

\textsuperscript{120} Hart, Ibid. at 12; UN Division for Oceans Affairs and Law of the Sea, Ecosystem Approaches, supra note 116.

\textsuperscript{121} Hart, “Elements of a Possible Implementation Agreement to UNCLOS”, supra note 1 at 12; World Summit on Sustainable Development (WSSD): Plan of Implementation, supra note 29 at para. 30(d).

\textsuperscript{122} UN Division for Oceans Affairs and Law of the Sea, Ecosystem Approaches, supra note 116; UNICPOLOS, 61\textsuperscript{st} Sess., 7\textsuperscript{th} Mtg., UN Doc. A/61/156 (2006).

\textsuperscript{123} Ibid.

\textsuperscript{124} UN Division for Oceans Affairs and Law of the Sea, Ecosystem Approaches, supra note 116; UN Doc. A/61/222, supra note 57 at para. 119.

\textsuperscript{125} Hart, “Elements of a Possible Implementation Agreement to UNCLOS”, supra note 1 at 12; IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, supra note 5 at 15.
marine ecosystem, which includes marine ecology and human interactions with ecosystems. This approach aims to include and manage all relevant links within the ecosystems, human activities, impacts on the ecosystems and stakeholders in order to maintain healthy and functioning marine ecosystems.

Under this approach, the core aspect for conservation is the ecosystem. By managing all ecosystems rather than single species or resources, the ecosystem approach enables marine management of the whole ecosystems and a better protection of marine habitats and biodiversity. This approach necessitates continuing scientific research, analysis and data collection to effectively monitor not only MPAs but also the whole ecosystem. However, lack of knowledge should not prevent the protection of marine ecosystems and marine life. The precautionary approach is relied on to ensure the protection of marine ecosystems. MPAs that are effectively implemented utilize the precautionary approach in order to ensure the protection of marine ecosystems and ongoing research.

3.3.2 Precautionary Approach

The establishment of MPAs on the high seas applies the precautionary approach to manage marine ecosystems, facilitate the realization of marine management goals and protects biodiversity, species and habitats. The precautionary approach makes the decision-making process easier when there is uncertainty or lack of knowledge. The Rio Declaration on Environment and Development states under principle 15 that “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”.

Moreover, the law of the sea seems to adopt a precautionary approach. This approach has received application for the conservation of marine resources on the high seas and the
prevention of marine pollution. The application of the precautionary approach in areas beyond national jurisdiction is necessary as scientific information about marine ecosystems and impacts caused by human activities is still limited. In view of the uncertainty and lack of information about biodiversity, ecosystems and threats present within areas beyond national jurisdictions, the precautionary approach enables the establishment of MPAs while scientific research continues to gather more information. While uncertainty can be considered an obstacle in the design of MPAs, postponing the creation of MPAs may make their implementation more difficult and expensive since a late start will involve more resources to achieve the management goals. Delays can also cause adverse effects to the marine environment and contributes to environmental degradation of ecosystems.

The implementation of MPAs with a precautionary approach has the potential to ensure the protection and conservation of the marine environment. Indeed, in order to avoid the degradation of marine biodiversity, the adoption of a precautionary and anticipatory rather than a reactive approach is required. The vulnerability and uncertainty about the biodiversity beyond national jurisdiction should support application of the precautionary approach for the creation of MPAs as it would be difficult to reserve adverse effects on marine environments.

3.4 Use of Standards for the designation of MPAs

As most marine species migrate and live in diverse habitats during their lives, appropriately designed and managed MPAs have the potential to protect marine biodiversity, recover fish stocks and ensure sustainable use of resources. Yet, implementation of MPAs on the high seas required the participation of all relevant stakeholders at multiple levels. The designation necessitates determining the conservation needs, objectives and biological features of the areas. Managers and planners must identify the most appropriate sites for the implementation of MPAs. Determining the location of the area can be a difficult task. A balance between social and ecological criteria is generally used to designate the location.

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138 Hart, “Elements of a Possible Implementation Agreement to UNCLOS”, *supra* note 1 at 10.
142 *Agenda 21, supra* note 28 at para. 17.21.
The designation of MPAs can take many years since a complete study of the biology of the area is required\textsuperscript{146}. Studies seek to identify the needs of critical habitats and examine the food chain of marine species\textsuperscript{147}. Many aspects must be examined in order to determine the most appropriate protection for specific marine species and their habitats. All human uses and activities linked to the proposed MPA must be analyzed in order to evaluate all potential socioeconomic consequences\textsuperscript{148}. There are five guidelines that could help to design networks of MPAs\textsuperscript{149}. Managers and planners should take into account the full range of biodiversity present in the biogeographic region to represent all ecosystems and habitats, ensure that ecologically significant areas such as unique or vulnerable habitats are incorporated and that the network provides a long-term protection\textsuperscript{150}. Moreover, ecological linkages among both individual and groups of MPAs and the contribution of individual links to the networks should also be considered\textsuperscript{151}.

In 2005, the twenty-sixth session of the FAO’s Committee on Fisheries (COFI) decided that FAO should help its members to meet the WSSD target of establishing networks of MPAs by 2012, consistent with international law and based on scientific information\textsuperscript{152}. COFI also recommended that FAO develop guidelines to assist States with the design and implementation of MPAs\textsuperscript{153}. Science-based criteria and transparent processes need to be developed in order to identify appropriate MPAs on the high seas\textsuperscript{154}. The development of clear criteria for the identification of representative networks of MPAs is undertaken under FAO\textsuperscript{155}. In 2006, the FAO Workshop on Marine Protected Areas and Fisheries Management reviewed an outline on the guidelines for the design and implementation of MPAs on the high seas\textsuperscript{156}. Nowadays, they are developing the guidelines in collaboration with international experts from a variety of

\begin{footnotesize}
\begin{enumerate}[\textsuperscript{144}]
\item Ibid. at 97.
\item Ibid. at 98.
\item Hoyt, “Marine Protected Areas for whales, dolphins and porpoises”, supra note 14 at 76.
\item Ibid. at 76.
\item Ibid. at 77.
\item Ibid. at 98.
\item IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, supra note 5 at 40.
\item Ibid. at 40-51.
\item Ibid. at 40, 52-62.
\item Gjerde, High Seas Marine Protected Areas and Deep-Sea Fishing, supra note 9 at 151.
\item Ibid. at 151; Food and Agriculture Organization of the United Nations, Report of the Twenty-Sixth Session of the Committee on Fisheries, FAO Fisheries Report No. 780 (Rome, 7-11 2005) at para. 103.
\item Gjerde, High Seas Marine Protected Areas and Deep-Sea Fishing, supra note 9 at 142.
\item Ibid. at 153.
\end{enumerate}
\end{footnotesize}
disciplines\textsuperscript{157}. The guidelines consider the ecosystem approach, integrated coastal management and marine spatial planning for the development of MPAs\textsuperscript{158}. A multi-sectoral approach is also considered to be necessary in order to incorporate all relevant stakeholders and users\textsuperscript{159}. The guidelines seek to cover every step of the establishment of MPAs including management objectives, research and data collective, implementation of MPAs and alternatives options\textsuperscript{160}. They describe all factors that need to be considered for the design of MPAs. These factors are the consideration of legal regimes and governance, management strategies, biological, ecological and economic aspects of MPA design and institutional issues and options\textsuperscript{161}.

In order to determine the viability of MPAs, a range of elements must be evaluated. Most notable are the availability of spatial and temporal information about marine ecosystems, resources, and human activities, community uses and other social considerations, goals of fisheries management and the capacity of MPAs to achieve these objectives\textsuperscript{162}. Other aspects such as the applicability of governance options, opinions of every relevant stakeholders, and feasibility of implementing and enforcing MPAs are also significant\textsuperscript{163}.

At the 9th Conference of the Parties to the CBD, the States parties adopted scientific criteria for identifying areas in need of protection in open ocean waters and deep sea habitats\textsuperscript{164}. They also adopted scientific guidance for designing representative networks of MPAs\textsuperscript{165}. These criteria include the consideration of ecological and biological significant areas, adequate representation of the global oceans and regional seas reflecting all range of ecosystems, possible connection between networks, replication of ecological features, and adequacy and viability of sites based on sufficient size and protection\textsuperscript{166}. These criteria and guidance are significant as they encourage the international community to cooperate in order to protect vulnerable and important

\textsuperscript{158} Ibid.
\textsuperscript{159} Ibid.
\textsuperscript{160} Ibid.
\textsuperscript{161} FAO, Report and Documentation of the Expert Workshop on Marine Protected Areas and Fisheries Management: Review of Issues and Considerations, supra note 156 at 3.
\textsuperscript{162} Ibid. at 6.
\textsuperscript{163} Ibid. at 6, para. 16.
\textsuperscript{165} COP 9 Decision IX/20, ibid. Annex II.
\textsuperscript{166} CBD, COP 9 Decision IX/20, supra note 164 at Annex II.
areas on the high seas\textsuperscript{167}. They have been developed with the assistance of international experts. They are based on more than 20 existing sets of criteria that have already received application at the national, regional and global levels or have been developed by IUCN\textsuperscript{168}.

During the meetings of the UN Working Group, some delegations supported the CBD scientific criteria to identify ecologically or biologically important areas in need of protection\textsuperscript{169}. Most delegations maintained that additional work about the application of these criteria and the use of biogeographical classification in areas beyond the limits of national jurisdiction will be required\textsuperscript{170}. A joint approach and guidance to apply the criteria for designation of significant marine areas in need of protection beyond national jurisdiction was also supported by most of the delegations\textsuperscript{171}. Some delegations supported the creation of pilot multi-purpose MPAs beyond national jurisdiction consistent with international law and based on global consensus\textsuperscript{172}. Yet, other delegations argued that regional differences must also be considered\textsuperscript{173}. They maintained that area-based management tools must be developed on a case-by-case basis and be based on scientific information to meet the needs of the marine area\textsuperscript{174}.

For the moment, there is no specific guideline to assist States in the designation of MPAs beyond national jurisdiction. A variety of criteria has been suggested that could help in the determination of sites. However, a global framework providing procedures and common standards would help States to ensure coherence in the designation and integration of MPAs in areas beyond national jurisdiction\textsuperscript{175}. Further discussions about the designation of measures and development of management goals should be done at the General Assembly, which has been designed as the most appropriate forum to discuss about these issues\textsuperscript{176}.

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  \item[\textsuperscript{167}] IUCN, New Story, “Marine miracles at Convention on Biological Diversity”, supra note 164.
  \item[\textsuperscript{168}] Ibid.
  \item[\textsuperscript{169}] Working Group, A/63/79, supra note 71 at para. 29.
  \item[\textsuperscript{170}] Ibid. at para. 29.
  \item[\textsuperscript{171}] Ibid.
  \item[\textsuperscript{172}] Ibid. at para. 30.
  \item[\textsuperscript{173}] Ibid. at para. 31.
  \item[\textsuperscript{174}] Ibid.
  \item[\textsuperscript{175}] Gjerde et al., “Options for Addressing Regulatory and Governance Gaps”, supra note 113 at 9.
  \item[\textsuperscript{176}] Working Group, A/63/79, supra note 71 at para. 29.
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\end{footnotesize}
4. International Instruments facilitating the Establishment of MPAs

The existing legal framework for the conservation of marine biodiversity in areas beyond national jurisdiction encompasses different instruments at the global and regional levels\textsuperscript{177}. At the moment, there is no international agreement that addresses all the threats caused by activities in areas where biodiversity requires higher level of protection\textsuperscript{178}. In order to determine the adequacy of the existing legal regime to establish high seas MPAs it is necessary to thoroughly examine the applicable international instruments related to the conservation of marine biodiversity. The international legal regime applicable to the high seas beyond national jurisdiction encompasses a variety of different treaties and other instruments that could be relevant for the creation of MPAs\textsuperscript{179}. The key instrument is UNCLOS, which governs all matters maritime and provides a unifying legal framework for all global and regional legal instruments that address particular uses of the oceans\textsuperscript{180}. This section briefly exposes the legal regime of UNCLOS and other relevant global legal instruments dealing with biodiversity, protection of species and marine areas.


UNCLOS provides a legal framework for the regulations of all ocean activities\textsuperscript{181}. According to its preamble, the Convention establishes a legal order for the oceans in order to promote international communication, peaceful uses of the oceans, conservation and protection of the marine environment\textsuperscript{182}. It regulates the limits of national jurisdiction over the seas and oceans, access and navigational rights, territorial sea limits, economic jurisdiction, legal status of resources on the seabed beyond national jurisdiction, protection of the marine environment, conservation and exploitation of living and non-living resources, scientific research and establishment of international bodies to facilitate the achievement of particular objectives\textsuperscript{183}. It

\begin{flushleft}
\textsuperscript{177} Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 3. \\
\textsuperscript{178} Ibid. at 1, para. 4. \\
\textsuperscript{179} Hoyt, “Marine Protected Areas for whales, dolphins and porpoises”, supra note 14 at 23, 40. \\
\textsuperscript{180} Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 3. \\
\textsuperscript{181} Nordquist, “United Nations Convention on the Law of the Sea: A Commentary”, supra note 19 at 23; See UN Doc. A/60/63/Add.1, supra note 33 at 44, para. 177. \\
\textsuperscript{182} UN Doc. A/60/63/Add.1, ibid. at 44, para. 177. \\
\end{flushleft}
promotes the concept of sovereign equality and that States must respect the enjoyment of rights of the others. The balance of rights and obligations is represented in the Convention as being that States shall fulfil their obligations in good faith and not abuse their rights.\textsuperscript{184}

UNCLOS separates the oceans and seas into different zones within and beyond national jurisdictions. It prescribes the guidelines that determine the limits for these marine areas. As determined in the General Assembly Declaration of Principles, the sea-bed and ocean floor are comprised in the common heritage of mankind and those limits are to be determined.\textsuperscript{185}

4.1.1. Activities within National Jurisdiction

The areas within national jurisdiction comprise the international waters, archipelagic waters, territorial seas, contiguous zone, exclusive economic zone and the continental shelf. The Convention specifies rights and responsibilities of States in these maritime zones.\textsuperscript{186} The first zone after the coast of a State is its territorial seas, which consists of the 12 nautical miles calculated from the baseline. UNCLOS recognizes the sovereignty of coastal States over their territorial sea and the right of innocent passage for foreign vessels.\textsuperscript{187} Concerning straits used as international navigation a new concept of transit passage has been created in order to combine the right of an innocent passage through territorial waters and freedom of navigation on the high seas. The transit passage is accorded in the territorial sea of States bordering transits since it is necessary for the others States to pass through straits.\textsuperscript{188}

The contiguous zone is adjacent to the territorial sea and allows the coastal State to exercise control necessary to prevent and punish infringement of its domestic law.\textsuperscript{189} This transition zone may not extend beyond 24 nautical miles from the baselines.\textsuperscript{190} The economic exclusive zone is an area beyond and adjacent to the territorial sea and does not extend beyond 200 nautical miles from the baselines.\textsuperscript{191} This zone provides an economic advantage to States, which have rights to fish and exploit non-living resources. Geographically disadvantaged and neighbouring land-locked States could have access to these resources if States do not exploit

\textsuperscript{185} Ibid. at 24; General Assembly Declaration of Principles (Resolution 2749 (XXV)).
\textsuperscript{186} Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 5.
\textsuperscript{187} UNCLOS, art. 2, 17
\textsuperscript{189} UNCLOS, art. 33.
\textsuperscript{190} Ibid.
\textsuperscript{191} UNCLOS, art. 56-57.
them. States must determine the total allowable catch for each fish species and its harvest capacity. They must establish their potential to catch and give access to other States for catching the surplus. High seas freedoms are applicable in this zone. UNCLOS exposes a peaceful framework to ensure that States respect the rights and legitimate uses of others States.

Regulation of activities beyond the economic exclusive zone is determined by the site of the activity involved. Activities that occur on the surface and in the column water are regulated by the regime of the high seas that follows customary international law. Although the concept of freedom of the high seas is applicable, there are regulations for marine pollution, safety, scientific research and the illicit traffic in drugs.

The Continental Shelf is another zone where States can have jurisdiction. It includes the seabed and its subsoil extended beyond the territorial seas during all the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the territorial seas’ baselines. States can claim jurisdiction up to 350 nautical miles from the baseline when the continental margin extends more than 200 nautical miles. The claim must be made to the Commission on the Limits of the Continental Shelf. As many States could be geographically disadvantaged and not to have access to significant non-living resources, there is a system of sharing the revenue from the exploitation of these resources situated beyond the limits of 200 nautical miles. The International Seabed Authority distributed equitably this revenue among States parties.

4.1.2. Activities beyond Areas of National Jurisdiction

The marine areas beyond the limits of national jurisdiction are the high seas and seabed that extends after the continental shelf. High seas are situated beyond the 200 nautical miles of the Economic Exclusive Zone. This zone is regulated under the part VII of UNCLOS. States

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194 Ibid.
196 Ibid.
198 Ibid.
199 Ibid.
200 UNCLOS, art. 76.
enjoy a range of freedoms on the high seas that must be exercised under specific conditions. Freedoms of the high seas comprise freedom of navigation, overflight, fishing, scientific research, laying of undersea cables and pipelines, constructing artificial islands or other installations permitted under international law. States must exercise these freedoms with due regard for the interest of other States, the rights under UNCLOS and other rules of international law. As States must exercise these freedoms in accordance with UNCLOS, they must comply with the obligations to protect and preserve the marine environment and to conserve marine living resources.

The legal framework applicable on the high seas is principally enforced by flag States that have exclusive jurisdiction over ships flying their flag. Flag States have the obligation to control ships flying their flag. They must ensure compliance with both their domestic laws and international standards relating to the preservation of the marine environment. UNCLOS also declares that an investigation and enforcement action can be undertaken by port States when a ship is voluntary within their port or at an offshore terminal of the State. Port States can carry out actions related to pollution discharge outside their national jurisdiction or the seaworthiness of vessels in order to avoid pollution in violation of international law.

The seabed beyond the limits of national jurisdiction is known as the Area. This zone is situated beyond the limit of the continental shelf. The Area is regulated by the part XI of UNCLOS and the Agreement relating to the implementation of Part XI of UNCLOS. Activities regulated include exploration and exploitation of resources, environmental impacts and marine scientific research. The conduct of States within the Area must comply with general standards of international law and other principles such as Area’s resources are the common heritage of mankind. States cannot exercise sovereignty over any part of the Area or its resources which

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202 Ibid. at 5; UNCLOS, art. 87.
203 Ibid.
204 Ibid.
205 Ibid.
206 Kimball, ibid.; UNCLOS, art. 90-92, 94, 216-217.
207 UNCLOS, art. 94.
208 UNCLOS, art. 216-217.
209 UNCLOS, art. 218-219.
210 Ibid.
211 Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 8.
212 Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 8; UNCLOS, art. 143, 145.
213 UNCLOS, art. 136.
are not alienable as they are vested by mankind\textsuperscript{214}. States must respect and not to cause harm to the marine environment when they exert activities in the Area\textsuperscript{215}.

The International Sea-Bed Authority (The Authority) is an organization that has been established to administer the common heritage of mankind in the Area. States parties to UNCLOS are members of this international organization\textsuperscript{216}. The Authority is the body that permits States to control and organize activities in the Area, administer the resources and share the benefits that result from activities in the Area\textsuperscript{217}. It adopts the regulations governing activities in the Area and controls their enforcement. In particular, it has the responsibility to implement measures protecting the marine environment to prevent pollution and conserve the resources of the Area\textsuperscript{218}. The Authority selects the applicants for the sea-bed mining, allows the specific amounts of removal of resources and the period in which they can be exploited\textsuperscript{219}.

Other institutions are created under UNCLOS for its implementation such as the International Tribunal for the Law of the Sea and the Commission on the Limits of the Continental Shelf. Moreover, the United Nations have the Division of Ocean Affairs and the Law of the Sea and the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea that promote the implementation of UNCLOS\textsuperscript{220}.

4.1.3. Protection of the Marine Environment

Part XII of UNCLOS establishes the framework for the protection and preservation of marine life beyond national jurisdiction\textsuperscript{221}. Protection and preservation of the marine environment is a general obligation imposed on States\textsuperscript{222}. They must undertake all required measures to prevent, reduce and control pollution of the marine environment from any source\textsuperscript{223}. The term any source is large and can encompasses various sources such as land-based sources, pollution from the atmosphere, vessels, dumping, use of technologies and installations used in

\begin{footnotesize}
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  \item[214] UNCLOS, art. 137.
  \item[215] UNCLOS, art. 136-149, 87.
  \item[216] UNCLOS, art. 156.
  \item[218] \textit{Ibid.} at 9; UNCLOS, art. 145.
  \item[221] A.C. De Fontaubert (2001) “Legal and Political Considerations”. In: (Eds. WWF/IUCN/WCPA). \textit{The Status of Natural Resources on the High Seas}. WWF/IUCN, Gland, Switzerland at 79 [De Fontaubert, “Legal and Political Considerations”].
  \item[222] UNCLOS, art. 192.
  \item[223] UNCLOS, art. 194.
\end{itemize}
\end{footnotesize}
exploitation or exploitation of the resources of the oceans. States shall use the best practicable measures at their disposal to protect the marine environment.

UNCLOS also requires States to protect and preserve rare or fragile ecosystems, threatened habitat and endangered species. The establishment of MPAs would be an appropriate tool to comply with this obligation. UNCLOS requires States to assess potential environmental impacts of planned activities under their jurisdiction and monitor risks of marine pollution. Moreover, States are responsible for the achievement of their international obligations related to the protection and preservation of the marine environment. They can be liable for damage caused by pollution of the marine environment. UNCLOS also declares that the specific obligations previously assumed or that will be concluded by States under other global and regional instruments are applicable.

4.1.4. Conservation and Management of High Seas Living Resources

The Convention requires States to undertake measures to conserve and manage the high seas living resources. They must establish conservation measures based on the best scientific evidence available to maintain and preserve fish stocks at levels which can produce the maximum sustainable yield. The right to engage in fishing on the high seas is limited. The concept of freedom to fish is applicable; however, they must respect the right of other States to fish and must cooperate for the conservation of living resources.

States must cooperate through international and regional organizations and elaborate measures for the conservation of living resources. Even though UNCLOS does not explicitly refer to MPAs, its provisions allow States to consider interdependence of stocks and associated species when they take measures for the conservation of stocks. States may also take into account the recommended international minimum standards in establishing conservation...
measures for marine living resources. Furthermore, its framework could be interpreted according to the evolving body of law.

4.2. The Convention on Biological Diversity

CBD complements UNCLOS with its objectives of conservation and sustainable use of marine biodiversity and its components. States parties are required to implement this Convention in relation to the marine environment and in compliance with the rights and obligations under UNCLOS. The regime of CBD is principally applicable within areas of national jurisdiction. Yet, its provisions apply to activities and processes beyond the limits of national jurisdiction when they are carried out under State’s jurisdiction or control and may have adverse effects on biodiversity. As the component of biodiversity is not equally applied beyond areas of national jurisdiction than within areas of national jurisdiction, CBD requires States to cooperate for the conservation and sustainable use of biodiversity beyond the limits of national jurisdiction. Therefore, States parties must apply the principles of CBD to their activities achieved under their controls in areas beyond national jurisdiction. They must also ensure that their activities do not cause harm to marine environment.

The decision VII/5 of the Conference of the Parties to the Convention recognized that international cooperation between States is imperative to increase conservation and sustainable use of marine biodiversity. States are encouraged to monitor their activities and make environmental impact assessments in order to identify activities under their control that are likely to have adverse impacts on marine ecosystems. States parties must introduce appropriate arrangements that require environmental impact assessments of their activities. They shall promote the conclusion of arrangements to ameliorate the exchange of information and consultations about their activities that could likely affect the biodiversity of other States or areas.

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237 UNCLOS, art. 119.
238 Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 8.
239 De Fontaubert, “Legal and Political Considerations”, supra note 221 at 80.
240 CBD, art. 22(2).
241 CBD, art. 4; Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 10.
242 CBD, art. 3-5.
244 COP 7 Decision VII/5, supra note 75 at para. 30.
245 COP 7 Decision VII/5, supra note 75 at para. 56; See Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 10.
246 CBD, art. 7(c), 14(1).
They must notify potentially affected States, in case of imminent danger or damage to other States or in areas beyond national jurisdiction and instigate action to prevent and reduce the danger. These obligations under CBD are significant for the conservation of marine biodiversity as they reinforce the provisions under UNCLOS in emphasizing effects on biodiversity and requiring environmental impact assessments.

4.3. International Fisheries Agreements

The 1995 United Nations Fish Stocks Agreement (UNFSA) is an implementing agreement to UNCLOS. UNFSA covers two types of fish stocks; straddling fish stocks and highly migratory fish stocks. This agreement is principally applicable in areas beyond national jurisdiction. It aims to promote international cooperation and ensure the long-term conservation and sustainable use of both straddling and highly migratory fish stocks. UNFSA obliges coastal States and States fishing on the high seas to assess impacts of fisheries activities, protect biodiversity and adopt conservation and management measures for species belonging to the same ecosystem or associated in order to maintain or restore their populations.

UNFSA emphasizes two requirements of UNCLOS, which require States to base their fisheries management on precautionary and ecosystem approaches and improve measures for monitoring, control and enforcement through international cooperation or with the assistance of flag States. It provides a number of innovative approaches related to the monitoring and enforcement of these conservation measures. Indeed, UNFSA requires States to cooperate in order to ensure compliance with conservation and management measures. States parties must help each other to identity ships involved in activities undermining the effectiveness of

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247 CBD, art. 14 (1) (c).
248 CBD, art. 14 (1) (d).
249 Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 11.
250 UNFSA, supra note 56.
251 UNFSA, art. 1(c), 3, 7.
252 UNFSA, art. 3. Articles 6 and 7 are applicable to areas within national jurisdiction.
253 UNFSA, Preamble, art. 2; Oral, “Protection of vulnerable marine ecosystems in areas beyond national jurisdiction: Can international law meet the challenge?”, supra note 3 at 92-93.
254 UNFSA, art. 5.
255 Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 11. The agreement does not refer explicitly to the ecosystem approach but article 5 requires States to consider the interdependence of stocks in conservation measures, assess impacts of activities on target stocks and species living in the same ecosystem, and minimize pollution and impacts on associated or dependent species, especially species in danger.
256 UNFSA, art. 17-23.
257 UNFSA, art. 20.
conservation and management measures. Moreover, States members of RFMOs or participants in arrangements may take action consistent with international law to dissuade vessels involved in activities undermining the effectiveness of the conservation and management measures. These actions are undertaken until the flag State takes an action against the ships. States that are members of RFMOs or participants can inspect and board fishing vessels flying the flag of another State party to UNFSA in order to ensure compliance with conservation and management measures applicable. Procedures for boarding and inspection must be established by States through RFMOs or arrangements. The inspecting State shall secure evidence of any ship engaged in activities violating conservation and management measures and notify the appropriate flag State. The flag State can decide to investigate and take appropriate enforcement action or authorize the inspecting State to undertake the investigation. In case where there are grounds supporting the conclusion that a ship has committed a serious violation and the flag State did not take action, the inspectors can secure evidence and require the captain to assist further investigation and bring the vessel to the most appropriate port. The inspecting State must notify the name of the port to the flag State.

UNFSA improves the enforcement regime on the high seas as it sets forth duties of flag States and promotes it through international and regional cooperation. Indeed, this Agreement provides the possibility for port States to inspect fishing vessels and take measures in accord with international law in order to promote the conservation and management measures applicable at subregional, regional or international levels. States can also adopt regulation to prohibit landings and transhipments when there is evidence that the catch was taken in violation to applicable conservation and management measures on the high seas.

UNFSA also comprises a series of measures submitted by UNCLOS and subsequently developed by regional fisheries management organizations (RFMOs) such as the duty to

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258 Ibid.
259 Ibid.
260 Ibid.
261 UNFSA, art. 21.
262 Ibid.
263 Ibid.
264 Ibid.
265 Ibid.
266 Ibid.
267 Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 11-12.
268 UNFSA, art. 23.
269 Ibid.
cooperate in the conservation and management of high seas living resources, employ the best scientific evidence available and exchange scientific information. UNFSA requires States to cooperate in the conservation and management measures of straddling fish stocks and highly migratory fish stocks through RFMOs. This Agreement provides that only States that are members of a subregional or regional fisheries management organizations or arrangements, or those which ensure compliance of their fisheries with the conservation and management measures under the relevant RFMOs measures have access to the fishery resources. All States, even those that are non-members of RFMOs or non-participants in arrangements, must cooperate in the conservation and management of the relevant straddling fish stocks and highly migratory fish stocks. Therefore, UNFSA restricts the participation in fisheries for straddling and highly migratory fish stocks on the high seas to States that accept to apply the conservation and management rules.

This agreement applies the precautionary approach, which necessitates States to assess impacts of fishing on non-target and dependent species and their environment. States shall apply the precautionary approach widely for the conservation, management and exploitation of straddling and highly migratory fish stocks in order to protect living marine resources and preserve marine environment. UNFSA requires States to be more cautious when information is uncertain and not use the absence of adequate information as an excuse to postpone or not to take conservation and management measures. Furthermore, States must collect the information and develop research programs to assess impacts on the marine environment. Based on the information, they shall adopt measures to protect biodiversity, reduce pollution and conserve fish species and their habitats.

The Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (FAO Compliance Agreement) is

270 Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 11.
272 Hart, “Elements of a Possible Implementation Agreement to UNCLOS”, supra note 1 at 4; UNFSA art. 8 (4).
273 UNFSA, art. 17.
274 Rosemary Gail, Rayfuse, Non-flag state enforcement in high seas fisheries, supra note 4 at 44.
275 Hart, “Elements of a Possible Implementation Agreement to UNCLOS”, supra note 1 at 10.
276 UNFSA, art. 6 (1).
277 UNFSA, art. 6(2).
278 Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 12; UNFSA, art. 6.3 and Annexe II for the guidelines for application of the precautionary approach.
another important agreement providing conditions for fishing in areas beyond national jurisdiction\textsuperscript{279}. The scope of this Agreement receives application over all fishing vessels that are used or intended for fishing on the high seas\textsuperscript{280}. However, this Agreement does not apply to vessels fishing in areas where there are no RFMOs or agreed global conservation and management measures\textsuperscript{281}. This Agreement imposes on flag States some responsibility to make sure that fishing vessels flying their flag in the high seas comply with conservation and management standards 282. Flag States must improve monitoring, control and enforcement of conservation and management measures by fishing vessels on the high seas\textsuperscript{283}. They must take measures to ensure that fishing vessels, which are flying their flag on the high seas, do not engage activities undermining the effectiveness of the conservation and management measures\textsuperscript{284}. States parties have to authorize vessels flying their flag to fish on the high seas only if they can effectively exercise their responsibilities under the FAO Compliance Agreement\textsuperscript{285}.

The FAO Compliance Agreement also authorizes a port State to investigate vessels that are voluntarily in its ports in order to verify whether a fishing vessel has been used for an activity undermining the conservation and management measures\textsuperscript{286}. The port State shall notify the flag State\textsuperscript{287}. Thereafter, they can make arrangements about the investigatory measures\textsuperscript{288}. States parties to this Agreement must also cooperate in the exchange of information that could help flag States to identify vessels that do not comply with the international conservation and management measures\textsuperscript{289}. Furthermore, flag States have the duty to maintain a record of vessels that have been authorized to fly their flag on the high seas\textsuperscript{290}. Records of fishing vessels must be made

\begin{footnotesize}
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\item \textsuperscript{279} Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, 24 November 1993, 33 I.L.M. 968 [FAO Compliance Agreement].
\item \textsuperscript{280} Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 12; FAO Compliance Agreement, art. II.
\item \textsuperscript{281} Gjerde, et al., “Regulatory and Governance Gaps in the International Regime”, supra note 10 at 56.
\item \textsuperscript{282} Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 13; FAO Compliance Agreement, art. III.
\item \textsuperscript{283} Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 12.
\item \textsuperscript{284} FAO Compliance Agreement, art. III.
\item \textsuperscript{285} Ibid.
\item \textsuperscript{286} Ibid. art. II, III, V; Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 13.
\item \textsuperscript{287} FAO Compliance Agreement, art. V.
\item \textsuperscript{288} Ibid.
\item \textsuperscript{289} Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 13; FAO Compliance Agreement, art. IV-VI.
\item \textsuperscript{290} Kimball, \textit{ibid}. at 13; FAO Compliance Agreement, art. IV, VI.
\end{itemize}
\end{footnotesize}
available to FAO, which periodically circulates the information to all States parties to the FAO Compliance Agreement.  

4.4. Regulation of Migratory and Protected Species

The *International Convention on the Regulation of Whaling* is a good example of international work for the conservation of marine species on the high seas since 1946. This Convention has been adopted to ensure proper and suitable conservation of whale stocks but has currently evolved to prohibit most whaling. The scope of this convention is applicable to factory ships, land stations, and whale catchers under the jurisdiction of States parties and to all waters where whaling is prosecuted by such stations. This Convention institutes the International Whaling Commission, which has the ability to organize scientific studies to collect information related to whales. Moreover, the Commission can determine the limits of open and closed waters, open and close seasons, protected and unprotected species of whale, sanctuary areas and prohibited methods of capture for certain species of whale. Two large-scale high seas sanctuary areas that prohibit commercial whaling have been established in the Ocean Indian and the Southern Ocean. However, the sanctuaries that can be established by the Commission are applicable only to States parties to the Convention.

The *Convention on the Conservation of Migratory Species of Wild Animals* (CMS) is relevant for the marine areas beyond national jurisdiction as it provides obligations to protect and conserved marine species and their habitats. States parties recognized the importance to conserve migratory species and undertake measures to conserve migratory species and their habitat. CMS provides two appendices. Species in danger of extinction are listed in appendix I and required States to take immediate action to protect them. Appendix II listed species in unfavourable conservation status for which States must conclude binding agreement to improve
the conservation and management of these migratory species with unfavourable status\textsuperscript{300}. Guidelines are provided for States to conclude agreements to restore the status of migratory species concerned\textsuperscript{301}. CMS also sets out the range States\textsuperscript{302}, which exercise jurisdiction over any part of the range of a migratory species or flag vessels that engage in taking species beyond the limits of national jurisdiction, shall oblige the vessels to prohibit the taking of species listed in the Appendix\textsuperscript{1}\textsuperscript{303}. The range States must control the effects caused by activities undertaken within their jurisdiction that may endangered migratory species. They must conserve and restore habitats and prevent factors that may put these species in danger\textsuperscript{304}.

The 1973 \textit{Convention on International Trade in Endangered Species of Wild Flora and Fauna} (CITES) is another important legal instrument elaborating obligations to protect threatened and endangered wildlife species. CITES ensures that international trade in specimens of wild animals and plants does not threaten their survival\textsuperscript{305}. It provides measures to restrain international trade where species are threatened and endangered. CITES is applicable to marine areas beyond national jurisdiction. The provisions on “introduction from the sea” cover transportation into a State of any specimens of any species taken in the marine environment outside national jurisdictions\textsuperscript{306}. These provisions also require States to respect certain conditions preceding grant of approval when the species introduced are listed in appendices I or II\textsuperscript{307}.

CITES establishes three different appendices. The first one includes all species threatened with extinction which are or may be affected by trade\textsuperscript{308}. Trade may be subject to regulations not to endanger survival of these species. The second appendix includes species that may become threatened with extinction unless trade of these species is restricted\textsuperscript{309}. The third appendix

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\textsuperscript{300} CMS, art. II (3) (c).
\textsuperscript{301} CMS, art. V.
\textsuperscript{302} CMS, art. I (1) (h).
\textsuperscript{303} CMS, art. III.
\textsuperscript{304} CMS, art. III (4)-(5), VI.
\textsuperscript{306} CITES, art. I (e), III (5), IV (6).
\textsuperscript{307} Kimball, “The International Legal Regime of the High Seas”, \textit{supra} note 7 at 15.
\textsuperscript{308} CITES, art. II (1), III.
\textsuperscript{309} CITES, art. II (2), IV.
\end{footnotesize}
protects species that a Party has identified as being subject to regulation within national jurisdiction in order to prevent or restrict their exploitation.\textsuperscript{310}

4.5. Instruments under the International Maritime Organization

The International Maritime Organization (IMO) has the mandate to ensure “safe, secure and efficient shipping on clean oceans”.\textsuperscript{311} Its main concern is the safety of shipping and prevention of marine pollution. IMO is a forum at the United Nations that discussed about shipping issues and adopts protective measures and international regulations.\textsuperscript{312} Some of the agreements adopted under IMO are relevant for the conservation of marine biodiversity.

4.5.1. Special Areas-MARPOL 73/78

The \textit{Convention for the Prevention of Pollution from Ships}, modified by the Protocol of 1978 (MARPOL 73/78)\textsuperscript{313}, regulates all discharges from ship on the oceans. This Convention regulates vessel design, equipment and operational discharges from ships within and beyond the limits of national jurisdiction. It offers the possibility to identify special areas that contains stricter discharge rules.\textsuperscript{314} In these special areas, the adoption of special mandatory methods for the prevention of sea pollution is required for technical reasons related to their oceanographical and ecological conditions and to sea traffic.\textsuperscript{315} The special areas have a higher level of protection than its surroundings. The proposals for these special areas are reinforced when States concerned take measures to restrict pollution from other sources than shipping and have active regime to manage the resources of these areas.\textsuperscript{316}

\textsuperscript{310} CITES, art. II(3), V.
\textsuperscript{311} Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 15; See the website of IMO for more information. Online: <http://www.imo.org/>.
\textsuperscript{312} De Fontaubert, “Legal and Political Considerations”, supra note 221 at 83.
\textsuperscript{315} Guidelines for the Designation of Special Areas under MARPOL 73/78, ibid. Annex I at para. 2.1. MARPOL defines certain sea areas as Special Areas in its Annexes I, II and V. Special Areas under MARPOL, online: <http://www.imo.org/Environment/mainframe.asp?topic_id=760>.
\textsuperscript{316} Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 16.
4.5.2. Particular Sensitive Sea Areas

The particularly sensitive sea areas (PSSAs) designated under the IMO regime are areas that “need special protection through action undertaken by IMO because of their significance for recognized ecological, socio-economic or scientific reasons and which may be vulnerable to damage by international shipping activities”\(^{317}\). The Guidelines for the designation of PSSA do not restrict where these areas can be identified. Therefore, it seems that they could be established on the high seas\(^{318}\). The Guidelines provide criteria to identify PSSA\(^{319}\). The area should meet at least one of the criteria enumerated such as ecological, socio-economic and scientific, be at risk from international shipping activities and need protective measures\(^{320}\). The associated protective measures may include any measure that is available under existing IMO instruments, ones that do not exist but could become available through amendment or adoption of a new IMO instrument, and any other measure proposed for adoption pursuant to Article 211(6) of UNCLOS\(^{321}\). These measures could consist of ships' routeing measures, discharge restrictions, operational criteria, and prohibited activities\(^{322}\). They should be adapted in order to prevent, diminish or eliminate the vulnerability that has been identified in the area from international shipping activities\(^{323}\).

PSSAs seem to have similar interests with the concept of MPAs beyond national jurisdiction. They are important mechanisms for the protection of marine areas as there is an international acknowledgement for these PSSAs, the protective measures are adopted for specific site based on IMO instruments and they comply with UNCLOS\(^{324}\).


\(^{319}\) Revised Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas (PSSAs), supra note 196 at para. 4.

\(^{320}\) Ibid. at para. 3-5. The Guidelines provides at its para. 6.2 that the potential for the area to be listed on the World Heritage List, declared as Biosphere Reserve, or included on a list of areas of international, regional, or national importance, or if the area is already subject of conservation action or agreements should be considered.

\(^{321}\) Ibid. at para. 7.5.2 (3).

\(^{322}\) Ibid. at para. 7.5.2 (4).

\(^{323}\) Ibid.

\(^{324}\) Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 17.
4.5.3. International Convention for the Control and Management of Ships' Ballast Water and Sediments (Ballast Water Convention)

The Ballast Water Convention was adopted in 2004 but is not yet in force. The purpose of this Convention is to prevent, minimize and eliminate the transfer of harmful aquatic organisms and pathogens[^325]. The concentration of ballast water discharges in the high seas may cause harmful effects to marine species and ecosystems. This Convention is significant as it requires vessels to change their ballast waters at a specified distance and allows States parties to adopt additional measures[^326].

4.5.4. Convention for the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention)

The London Convention aims to prevent marine pollution caused by disposal of waters or other matter in the oceans and seas[^327]. The 1996 Protocol to the London Convention, which entered into force in 2006, brought a major change to the Convention in the way the disposal of waste materials in the seas is regulated. It prohibits the disposal of wastes, but exempting materials that are enounced in annex 1. This Protocol promotes the precautionary approach for appropriate preventive measures taken when it is reasonable to believe that wastes or other matter can harm the marine environment even if there is no evidence to demonstrate the causality between inputs and their harmful effects[^328]. It encourages States to eliminate marine pollution caused by dumping or incineration of wastes and apply the polluter pays principle. States parties must protect the marine environment, carry out measures to prevent and eradicate pollution caused by dumping or incineration of wastes in the seas and harmonize their policies according to this Protocol[^329].

[^325]: International Convention for the Control and Management of Ships' Ballast Water and Sediments, 13 February 2004, art. 2(1).
[^326]: Ballast Water Convention, ibid. at annexes Regulation B-4, Annex Regulations for the Control and Management of Ships’ Ballast Water and Sediments and Regulation C-1.
[^329]: Ibid. art. 2.
4.6. Protection of the Underwater Cultural Heritage

The *UNESCO Convention on the Protection of the Underwater Cultural Heritage* promotes the protection of underwater cultural heritage within and beyond the limits of national jurisdiction\(^\text{330}\). This Convention considers the preservation of heritage on site as a priority\(^\text{331}\). States parties shall cooperate for the protection of underwater cultural heritage and preserve it for the benefit of humanity\(^\text{332}\). As MPAs may include historical and cultural features, this convention may be significant for their establishment\(^\text{333}\). Furthermore, UNCLOS provides that underwater cultural heritage shall be preserved for the benefit of mankind as a whole\(^\text{334}\).

5. Inadequacies of the International Legal Framework

The establishment of MPAs in marine areas beyond national jurisdiction requires the integration of different levels of protection and management of human activities in order to conserve the biological diversity and productivity\(^\text{335}\). In order to effectively implement MPAs on the high seas, it is important to evaluate whether the international legal framework is adequate and if not, what are its inadequacies that must be overcome. This section exposes the ineffective enforcement regime on the high seas and specific gaps identified under the international legal instruments that can challenge effective implementation of MPAs in marine areas beyond national jurisdiction.

5.1 Inadequacy of High Seas Enforcement

The principal enforcement regime on the high seas is the flag State vis-a-vis ships flying its flag\(^\text{336}\). Except for cases expressly provided for in international treaties or in UNCLOS, flag States must exercise their exclusive jurisdiction over ships flying their flag on the high seas\(^\text{337}\). Although the duties of flag States are expressly declared under UNCLOS, some flag States are not ensuring compliance by ships flying their flag with applicable international rules and


\(^{331}\) *Ibid*. art. 2; See the Annex Rules concerning activities directed at underwater cultural heritage, at rule 1.

\(^{332}\) *Ibid*. art. 2 (2), (3).

\(^{333}\) COP 7 Decision VII/5, *supra* note 75; See the definition of Marine and coastal protected area; “area within or adjacent to the marine environment, together with its overlying waters and associated flora, fauna and “historical and cultural features” [...]”; Kimball, “The International Legal Regime of the High Seas”, *supra* note 7 at 18.

\(^{334}\) Kimball, *ibid*. at 18; UNCLOS, art. 149, 303.


\(^{336}\) *Ibid*. at 6; UNCLOS, art. 94.

\(^{337}\) Kimball, *ibid*. at 6; UNCLOS, art. 92, 94.
standards or with their laws adopted for the prevention, reduction and control of marine pollution\textsuperscript{338}. States that do not exercise control over vessels flying their flag are qualified as “flag of convenience” or “flag of non-compliance”\textsuperscript{339}.

The persistent application of the principle of exclusive flag State jurisdiction was one of the major reasons explaining the difficulty of ensuring compliance with conservation and sustainable management measures on the high seas\textsuperscript{340}. In view of the flag of convenience problem, the principle of exclusive flag State jurisdiction on the high seas has been restricted by a number of legal instruments\textsuperscript{341}. UNCLOS tackles the question of non-flag State jurisdiction by allowing port States to investigate and undertake proceedings against vessels that are voluntarily within a port or standing at an off-shore terminal of the State and have discharged outside its internal waters, territorial seas or exclusive economic zone in violation of international law\textsuperscript{342}. Both regional and international arrangements seek to strengthen the role of port States to foster compliance of ships\textsuperscript{343}.

UNFSA and the FAO Compliance Agreement are the two principal agreements that allow States to verify compliance of ships with international law and to undertake enforcement measures against vessels\textsuperscript{344}. UNFSA provides the possibility for non-flag States to take measures promoting compliance with conservation and management measures; but, this Agreement applies only to highly migratory and straddling fish stocks\textsuperscript{345}. The capacity of a flag State is the enforcement of compliance by vessels flying its flag with subregional and regional conservation and management measures for straddling fish stocks and highly migratory fish stocks\textsuperscript{346}. It also provides that States can board and inspect fishing vessels flying the flag of another State party in order to ensure compliance with the applicable conservation and management measures\textsuperscript{347}. Non-flag States seem to have only the right to take enforcement measures against States parties and

\textsuperscript{338} Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 6; UNCLOS, art. 91-92, 94, 217-218.
\textsuperscript{339} Hart, “Elements of a Possible Implementation Agreement to UNCLOS”, supra note 1 at 6.
\textsuperscript{340} Rosemary Gail, Rayfuse, Non-flag state enforcement in high seas fisheries, supra note 4 at 6.
\textsuperscript{341} Ibid. at 6.
\textsuperscript{342} Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 6; UNCLOS, art. 218.
\textsuperscript{343} Ibid., ibid. at 6.
\textsuperscript{344} Ibid.; UNFSA, art. 17-23; FAO Compliance Agreement, art. III-VI.
\textsuperscript{345} Gjerde et al., “Regulatory and Governance Gaps in the International Regime”, supra note 10 at 9, 48.
\textsuperscript{346} UNFSA, art. 19.
\textsuperscript{347} UNFSA, art. 21-22.
for the conservation and management measures established under RFMOs or UNFSA\textsuperscript{348}. Furthermore, the FAO Compliance Agreement seeks to reinforce the duties of flag States to effectively control vessels flying their flag\textsuperscript{349}. Yet, the scope of this Agreement is narrow. It applies only to fishing vessels of parties that are used or intended for fishing on the high seas and not to vessels fishing in areas without established RFMOs or other agreed global conservation and management measures\textsuperscript{350}.

The international legal framework does not have efficient enforcement mechanisms to ensure compliance with conservation and management measures in areas beyond national jurisdiction\textsuperscript{351}. The problem of flag of convenience demonstrates that the current flag State regime is not inadequate and ineffective. In addition, some vessels are illegally flying flags without the registration of flag States\textsuperscript{352}. Indeed, the inadequacies of compliance and enforcement mechanisms are obvious in view of all illegal activities occurring in areas beyond national jurisdiction that can cause adverse effects to the marine environment such as illegal fishing, dumping and pollution discharges\textsuperscript{353}. Adequate enforcement regime is necessary to ensure effective implementation of MPAs\textsuperscript{354}. The principal obstacles to enforcement are lack of surveillance due to inaccessibility of sites, funding to monitor, public support and clear enforcement responsibilities\textsuperscript{355}. Involvement of all relevant stakeholders and communities is really important to promote compliance with the conservation measures\textsuperscript{356}. There are a range of alternatives that have been proposed to overcome the inadequacies of the enforcement regime in areas beyond national jurisdiction and ensure compliance with MPAs.

In particular, the rules of applicable to an MPA network must be consistent with the conservation objectives, achievable and clear enough to enable public understanding\textsuperscript{357}. Enforcement measures must be increased in vulnerable areas where there is less compliance and limited support from the community\textsuperscript{358}. Raising public awareness, general agreement that MPAs

\textsuperscript{348} Gjerde, High Seas Marine Protected Areas and Deep-Sea Fishing, supra note 9 at 170.
\textsuperscript{349} Gjerde et al., “Regulatory and Governance Gaps in the International Regime”, supra note 10 at 56.
\textsuperscript{350} FAO Compliance Agreement, art. II; Gjerde et al., ibid. at 56.
\textsuperscript{351} Gjerde et al., ibid. at 8.
\textsuperscript{352} Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 35.
\textsuperscript{353} Ibid.
\textsuperscript{354} IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, supra note 5 at 100.
\textsuperscript{355} Ibid.
\textsuperscript{356} Ibid.
\textsuperscript{357} Ibid.
\textsuperscript{358} Ibid.
Adequate enforcement mechanisms are necessary to incite the measures seeking to protect and conserve marine biodiversity. There is a gap under the current international framework as there is no effective compliance and enforcement mechanism at the global levels controlling and monitoring all human activities occurring in areas beyond national jurisdiction. Development of surveillance and monitoring programs are also required to promote compliance with MPAs. As a solution to improve enforcement in areas beyond national jurisdiction, new technical capabilities are recognized. New technologies include vessel monitoring systems that facilitate the location of vessels transmitted via satellite to appropriate enforcement authorities, satellite navigation systems, transmitters and electronic charting that make the identification of protected sites, applicable restrictions and location of vessels easier. Yet, satellite-assisted vessels monitoring systems do not disclose whether vessels are engaged in illegal activities in protected areas. In addition to these new technologies, since 2004, IMO imposes requirements on certain ships to carry automatic identification systems that can provide information about the ship to other ships and to coastal authorities. As surveillance on the high seas is expensive, the development of regional and international monitoring control and surveillance systems (MCS) could enable enforcement in areas beyond national jurisdiction. MCS facilitates exchange of information on vessels that are authorized to fish and those that are engaged in illegal and unregulated fishing activities. The International MCS Network has been developed to monitor and control fisheries within and beyond national jurisdiction. MCS networks are valuable to promote enforcement of MPAs as they have the potential to improve

359 IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, supra note 5 at 100.
361 IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, supra note 5 at 100; Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 44.
362 Kimball, ibid. at 44-45.
363 IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, supra note 5 at 100.
366 Ibid.
367 Ibid.
global coordination to prevent and eradicate activities that can have impacts on marine biodiversity and resources beyond national jurisdiction\textsuperscript{368}. Strengthening flag and port State regimes is also an alternative proposed to improve compliance and enforcement\textsuperscript{369}. Inefficiency of the enforcement regime can be caused by the disinterest of States for conservation and sustainable measures, limited capacities of developing countries or resources or lack of political will\textsuperscript{370}. The legal framework needs to be clarified in order to incite flag States to comply with the enforcement regime and exercise adequate control over flag vessels\textsuperscript{371}. Comprehensible criteria for assessing flag States performance and mechanisms to ensure responsibility for failure to implement flag State duties are also required to ameliorate control of flag vessels\textsuperscript{372}. The reinforcement of port State regime is also important to promote better compliance with conservation measures on the high seas\textsuperscript{373}. Under the current legal framework, there are no uniform legally binding minimum standards for the control exercised by port State or mechanisms to assess their performance\textsuperscript{374}. The FAO is presently working on the elaboration of a global Port State Measures Agreement to prevent and eliminate illegal, unreported and unregulated fishing\textsuperscript{375}. This agreement would elaborate measures about monitoring, control and requirements for global vessel monitoring systems\textsuperscript{376}. It could promote the coordination of enforcement measures, the cooperation to prevent non compliance with conservation objectives and also harmonize measures to assess compliance\textsuperscript{377}.

The non-flag enforcement regime needs to be improved to address the flag of convenience problem. Comprehensible criteria and adequate sanctions are required to clarify the legal regime for non-flag State enforcement and encourage compliance with conservation or

management measures. This is significant to determine under which conditions States can undertake measures to cease activities that do not respect the protection of marine biodiversity in areas beyond national jurisdiction. The adoption of a new implementing agreement could address these issues and establish enforcement measures to address non-fisheries activities such as dumping, shipping and transport of hazardous material and incite compliance with MPAs.

Lack of participation with the principal international agreements is a significant problem for enforcement. Improving the participation of all States with the legal instruments that would facilitate the creation of MPAs beyond national jurisdiction is important in order to ensure that these obligations are legally binding on all States. Furthermore, MPAs networks which take into account economic and social considerations can encourage a better compliance and improve community perceptions of MPAs. As public support is essential for effective implementation of MPAs, penalties imposed must be comprehensible and appropriate to the local socioeconomic conditions. The cost-effectiveness of the enforcement program must also be taken into consideration. Sharing of costs and resources and partnership at global, regional and local levels are also important to assist enforcement of MPAs in areas beyond national jurisdiction.

MPAs can facilitate the enforceability as it is less complicated to monitor a specific area rather than the whole high seas. Moreover, some States can decide to implement enforcement measures for a specific MPA for which they have particular interest. The location of MPAs in areas beyond national jurisdiction and their distance which generally is at least 200 nautical miles from land makes their enforcement more complicated. Therefore, to effectively implement MPAs, a strong enforcement regime is necessary. Unambiguous criteria must be established in order to assess the compliance of States with international law related to the

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379 Ibid.
380 Ibid.
381 Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 36.
382 Ibid.
384 Ibid. at 101.
385 Ibid.
386 Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 45.
387 Ibid.
388 Hart, “Elements of a Possible Implementation Agreement to UNCLOS”, supra note 1 at 6; Hoyt, “Marine Protected Areas for whales, dolphins and porpoises”, supra note 14 at 41.
389 Hart, ibid. at 14.
conservation and sustainable use of marine biodiversity beyond national jurisdiction. The implementation of mechanisms or institutions under the international legal framework to determine the compliance with MPAs and adequate sanctions for non-compliance must be part of the enforcement improvement. It is also acknowledged that diplomatic and economic pressures could foster compliance with MPAs.

5.2 Identified Gaps under the International Instruments

In view of what is required for the establishment of MPAs in marine areas beyond national jurisdiction, a number of gaps have been identified in analyzing the international legal instruments related to the conservation and sustainable use of marine biodiversity. The principal gaps and inadequacies are the limited incorporation of modern conservation principles, unregulated activities, lack of criteria for the designation of MPAs and mechanisms to ensure coordination between all sectors.

5.2.1 Limited Application of Modern Conservation Principles

One of the principal gaps is the absence of an instrument that could ensure the incorporation of the modern conservation principles including the ecosystem approach and precautionary approach in the legal framework applicable to areas beyond national jurisdiction. MPAs should be implemented through the application of the ecosystem approach, which manages human activities based on the best knowledge of ecological interactions and processes in order to preserve and restore marine ecosystem health and productivity. Moreover, as scientific knowledge of ecosystems and biodiversity in areas beyond national jurisdiction is limited, the application of precautionary approach is also necessary to achieve the MPAs goals of conservation and protection.

However, the ecosystem and precautionary approaches are not consistently applied to activities occurring beyond national jurisdiction. UNCLOS does not specifically address the

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391 Hoyt, “Marine Protected Areas for whales, dolphins and porpoises”, supra note 14 at 41.
393 UN Division for Oceans Affairs and Law of the Sea, Ecosystem Approaches, supra note 116; Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 29-30.
394 IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, supra note 5 at 35.
395 Gjerde, High Seas Marine Protected Areas and Deep-Sea Fishing, supra note 9 at 170.
application of these two modern conservation principles\textsuperscript{396}. Although UNFSA integrates the ecosystem approach and precautionary approach, these two principles receive application only to fishing activities\textsuperscript{397}. Other non-fishing activities such as the marine scientific research, laying of cables and pipelines, bio-prospecting and exploration and exploitation of seabed mineral resources are not governed by these two approaches\textsuperscript{398}. Furthermore, a major part of the high seas is not covered by RFMOs\textsuperscript{399}. Many RFMOs have adopted measures to incorporate the modern conservation principles such as ecosystem approach and precautionary approach\textsuperscript{400}. RFMOs that do not incorporate these conservation principles must be updated in order to ensure the conservation of marine ecosystems\textsuperscript{401}.

To ensure effective implementation of MPAs on the high seas, modern conservation principles should be consistently incorporated and applied in all relevant international instruments related to the conservation of marine biodiversity beyond national jurisdiction\textsuperscript{402}. Moreover, these principles should be applicable to the full range of activities that can have impacts on marine biodiversity.

\subsection*{5.2.2 Insufficient Regulation for Current and Emerging Activities}

The legal regime for the conservation of marine biodiversity includes agreements that regulate predominantly specific activities such as fishing, shipping and dumping\textsuperscript{403}. Therefore, a range of activities occurring beyond national jurisdiction that may have impacts on marine biodiversity are not effectively regulated under the international legal framework. Those principal activities include the marine scientific research, bio-prospecting, laying cables and pipelines and other constructing in areas beyond the limits of national jurisdiction\textsuperscript{404}. Although UNCLOS provides general obligations to protect and preserve the marine environment, there is

\begin{thebibliography}{9}
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\item Gjerde et al., “Regulatory and Governance Gaps in the International Regime”, \textit{supra} note 10 at 42.
\item \textit{Ibid.} at 9, 48.
\item \textit{Ibid.} at 48; Gjerde, \textit{High Seas Marine Protected Areas and Deep-Sea Fishing}, \textit{supra} note 9 at 170.
\item Kimball, “The International Legal Regime of the High Seas”, \textit{supra} note 7 at 36; Gjerde, et al., “Regulatory and Governance Gaps in the International Regime”, \textit{supra} note 10 at 9.
\item Gjerde et al., \textit{ibid.} at 9.
\item \textit{Ibid.} at 9.
\item \textit{Ibid.} at vii, 10, 12.
\item Kimball, “The International Legal Regime of the High Seas”, \textit{supra} note 7 at 33.
\item Gjerde et al., “Regulatory and Governance Gaps in the International Regime”, \textit{supra} note 10 at 4.
\end{thebibliography}
no specific regulation or protection established under the legal regime to protect the marine ecosystems from these activities.\textsuperscript{405}

There are also certain emerging activities including climate change mitigation techniques, constructions and emerging threats such as noise pollution that should be more heavily regulated\textsuperscript{406}. In order to confront these emerging activities and threats, the international legal framework should require more assessments to prevent irreversible damage and impacts on the marine environment. Specific obligations for environmental impact assessments (EIA) and strategic environmental assessments (SEA) should be provided under the international legal regime to address emerging activities\textsuperscript{407}. EIA is a modern conservation tool that is used before the approval of an activity to determine the conditions under which the activity must be conducted in order to prevent potential impacts\textsuperscript{408}. UNCLOS and CBD contain only general requirements to conduct assessment of proposed activities on the high seas\textsuperscript{409}. Under CBD, States parties must conduct EIA of their proposed activities under their jurisdiction if they are likely to have significant adverse effects on biological diversity\textsuperscript{410}. According to UNCLOS, States parties also have obligations to observe, analyse and monitor, as far as practicable, the effects of pollution on the marine environment and monitor the effects of their activities\textsuperscript{411}. They must also monitor and assess the potential effects of planned activities when they have reasonable grounds to believe that the activities might cause substantial pollution or harmful changes to the marine environment\textsuperscript{412}. Therefore, these two agreements do not contain clear obligations about the manner of conducting assessments and which activities should be assess.

To ensure that all activities occurring in areas beyond national jurisdiction have been adequately assessed so as to evaluate potential impacts on marine biodiversity, it may be important to develop an instrument that provides comprehensible standards and procedures for the conduct of EIA\textsuperscript{413}. Moreover, detailed international rules should be adopted in order to regulate all activities in areas beyond national jurisdiction and ensure that they are governed by

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\item Kimball, “The International Legal Regime of the High Seas”, \textit{supra} note 7 at 33.
\item Gjerde et al., “Regulatory and Governance Gaps in the International Regime”, \textit{supra} note 10 at 4.
\item Ibid.
\item Ibid., “Elements of a Possible Implementation Agreement to UNCLOS”, \textit{supra} note 1 at 13.
\item Ibid. at 13.
\item Ibid.; CBD, art. 14.
\item Hart, “Elements of a Possible Implementation Agreement to UNCLOS”, \textit{supra} note 1 at 13; UNCLOS, art. 204.
\item UNCLOS, art. 206.
\item Gjerde et al., “Options for Addressing Regulatory and Governance Gaps”, \textit{supra} note 113 at 7.
}
modern conservation principles\textsuperscript{414}. Competence to regulate current and emerging activities that have the potential to cause harm to vulnerable or important marine ecosystems is needed to achieve the conservation objectives of MPAs.

5.2.3 Absence of Clear Criteria for the Design of MPAs

The implementation of MPAs in areas beyond national jurisdiction requires clear criteria to design and locate the protected areas. The existing legal framework does not provide any indication about how the location of MPAs would be made. It is well known that the establishment of MPAs would be consistent with international law and based on scientific information. However, the adoption of scientific criteria to identify biologically and ecologically significant areas and guidance to design MPAs is needed in order to provide an important framework basis and ensure consistent standards for the development of MPAs. During the 9th Conference of the Parties to CBD, on May 2008\textsuperscript{415}, the States parties adopted scientific criteria for identifying ecologically or biologically significant marine areas in need of protection and also scientific guidance for selecting areas to establish a representative network of MPAs.

The CBD criteria and guidance could be used as model to develop identification criteria and institute the scientific basis required for the establishment of MPAs in areas beyond national jurisdiction\textsuperscript{416}. It would be beneficial for States to collaborate and adopt common criteria and guidance for the designation of MPAs beyond national jurisdiction, thus ensuring uniformity and coherence. Comprehensible criteria and guidance could also enable the identification of key areas in need of protection, ensure the representation of all ecosystems and habitats present in the area. The identification of clear and uniform criteria could assist managers and planners to create effective MPAs\textsuperscript{417}. Therefore, it is important to incorporate these criteria and guidance under the existing legal framework to promote a universal use.

5.2.4 Lack of Participation and Adequate Coordination

The international legal framework for the conservation and sustainable use of marine biodiversity includes a mosaic of different agreements. Yet, there is no sufficient mechanism to

\textsuperscript{414} Gjerde et al., “Options for Addressing Regulatory and Governance Gaps”, supra note 113 at 3.
\textsuperscript{415} CBD, Marine and Coastal Biodiversity, COP 9, supra note 302.
\textsuperscript{416} Hart, “Elements of a Possible Implementation Agreement to UNCLOS”, supra note 1 at 12.
\textsuperscript{417} IUCN, “Establishing Marine Protected Areas Networks-Making It Happen”, supra note 5 at 40.
support a coordinated implementation of these diverse regulations. Throughout the UN Working Group meeting, many delegations maintained that international cooperation and coordination was necessary to ensure the conservation and sustainable use of marine biodiversity beyond national jurisdiction. Some delegations argued that the lack of coordination among sectors was an obstacle to effective governance of activities. They stated that coordination and cooperation must be present at all levels in order to fully implement existing commitments. Coordination must be established between intergovernmental organizations with competencies in areas beyond national jurisdiction including through cooperation among RFMOs and non-fisheries organizations. One of the solutions expressed to facilitate coordination and cooperation was the adoption of a new mechanism in the medium term. Yet, there was no consensus among delegations about the need for a new mechanism. At the present, there is a lack of coordination among States and relevant organizations for the conservation and management of biodiversity beyond areas of national jurisdiction. The adoption of new measures should be required to enhance coordination among international organizations for the implementation of MPAs.

The participation of States must also be universal to ensure adequate implementation and compliance with MPAs. Up to this point, participation in the important legal instruments is still insufficient. The involvement of States in the observation of protected areas should be promoted. During the Working Group, delegations stressed the need for improving enforcement of existing instruments and the promotion of full participation in relevant international instruments. Delegations also highlighted the need to increase the capacity of developing countries to fulfil their obligations and fully participate in the protection of areas in need of protection. As developing countries often do not have required resources, delegations maintained the importance of transfer of technology, scientific cooperation and sharing of

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420 Ibid. at para. 21.
421 Ibid. at para. 22.
422 Ibid. at para. 24.
423 Ibid. at para. 25.
424 Ibid.
425 UNTC, Status of Treaties online: <http://treaties.un.org/Pages/ParticipationStatus.aspx>. UNCLOS has 158 parties, CBD 191 parties, UNFSA 75 parties and FAO Compliance Agreement, 75 parties.
426 Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 36.
428 Ibid.
experience on the governance of oceans. Improving participation of States in the conservation of marine biodiversity beyond national jurisdiction and their capacity to comply with their commitments would enable effective implementation of MPAs. If a new implementing agreement to UNCLOS is adopted to address gaps under the current international legal framework, such an agreement could be open to all States without there being a requirement for participants to be a party to the convention so that universal participation with MPAs is encouraged.

Conclusion

Marine biodiversity in areas beyond national jurisdiction is threatening by human activities. These activities are also resulting in the decline of fisheries resources. The importance of healthy ecosystems is now largely recognized and work is being undertaken to promote international cooperation for the conservation and sustainable use of marine biodiversity on the high seas. MPAs have been acknowledged as key tool for the protection of marine biodiversity, sustainability of resources and conservation of marine ecosystems. As the current legal regime needs to be improved, MPAs could be an important element of this improvement.

Although UNCLOS provides a comprehensive legal framework for regulating activities on the high seas and its resources, it does not have specific regulatory measures to regulate and manage the establishment of MPAs. UNCLOS provides obligations for the protection of the marine environment and conservation of marine living resources, but these obligations are too general and cannot address threats caused by human activities in designed protected areas. The existing global agreements lack of standards and regulation for a number of activities occurring on the high seas such as marine scientific research and laying of cables and pipelines. To effectively protect marine biodiversity, it is important to have a legal framework that governs all current and emerging activities that may impact vulnerable and important ecosystems. Moreover, modern conservation tools such as environmental impacts assessments in order to assess activities in areas beyond national jurisdiction and prevent negative effects on marine biodiversity are not available under the current framework.

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430 Hart, “Elements of a Possible Implementation Agreement to UNCLOS”, supra note 1 at 19.
431 Gjerde, High Seas Marine Protected Areas and Deep-Sea Fishing, supra note 9 at 154.
432 Kimball, “The International Legal Regime of the High Seas”, supra note 7 at 3.
In view of the significant inadequacies under the current international framework for the conservation and sustainable use of marine biodiversity, the adoption of an implementing agreement building on the framework of UNCLOS was suggested during the meeting of the Working Group in order to fill gaps. Yet, there was no agreement among the delegations about the need for a new legal instrument\textsuperscript{433}. As the current regime provides only sectoral governance structures and do not possess any specific mechanism encouraging cooperation and coordination across all different sectors, an implementing agreement was supported by some delegations for the purpose of addressing this fragmentation and providing a legal basis to establish MPAs in areas beyond national jurisdiction\textsuperscript{434}. Considering all governance and regulatory gaps under the existing regime, an implementing agreement to UNCLOS would be the most appropriate solution.

Indeed, an implementing agreement has the potential to provide the necessary legal framework for promoting cooperation for conservation of marine biodiversity beyond the limits of national jurisdiction though the establishment of MPAs\textsuperscript{435}. Such an agreement could ensure consistent incorporation of modern conservation principles such as ecosystem approach and precaution. It could make specific requirements for EIA and other modern conservation tools to the full range of human activities occurring in areas beyond national jurisdiction\textsuperscript{436}. Moreover, it could address inadequate compliance and enforcement by determining clear provisions about the control of flag vessels, mechanisms to foster flag State enforcement through performance assessment, port State or trade incentives, non-flag State enforcement mechanisms and joint monitoring\textsuperscript{437}. Clear and comprehensible criteria to determine the compliance of States with their international legal commitments for the conservation and sustainable use of marine biodiversity could also be identified as well as adequate sanctions to deter non-compliance\textsuperscript{438}.

A new agreement could address all unregulated activities, overcome the lack of cooperation, improve coordination between all sectors, and address inadequate implementation of the existing framework by providing comprehensive, integrated protection, and modern

\textsuperscript{433} Report of the Working Group A/61/65, supra note 34 at para. 25.
\textsuperscript{434} Ibid. at para. 55.
\textsuperscript{435} Ibid.
\textsuperscript{436} Ibid. at para. 61.
\textsuperscript{437} Gjerde et al., “Options for Addressing Regulatory and Governance Gaps”, supra note 113 at 16.
\textsuperscript{438} Ibid. at 16.
management mechanisms\textsuperscript{439}. It could also develop uniform criteria for the identification of representative networks of MPAs and guidelines for their design and management. Furthermore, an implementing agreement would be a good opportunity to insist that freedoms of the high seas must be exercised with respect to UNCLOS obligations of protection and preservation of the marine environment and conservation of marine living resources\textsuperscript{440}.

At the present, there is no legal regime to establish and ensure management of MPAs in areas beyond national jurisdiction. The protection of the high seas is an essential goal that can be only achieved with political will and through cooperation across global and regional levels\textsuperscript{441}. Although the international community recognizes the urgent need to protect, recover and maintain healthy ecosystems, habitats, marine resources and biological diversity, further efforts are required to develop a new instrument in order to overcome gaps under the existing framework. An implementing agreement would be an appropriate solution to ensure the conservation of marine biodiversity in areas beyond national jurisdiction and sustainable use of high seas resources through the establishment of MPAs.

\textsuperscript{439} Gjerde et al., “Options for Addressing Regulatory and Governance Gaps”, supra note 113 at 15.
\textsuperscript{440} Ibid.
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In this statement, he describes the principles of UNCLOS and suggests that this convention covers all living and mineral marine resources. He also makes a compilation of the statements made at the final conference of the UNCLOS process.


