p-ISSN : 2708-2458 | e-ISSN : 2708-2466
DOI(Journal): 10.31703/glsr
DOI(Volume): 10.31703/glsr/.2024(IX)
DOI(Issue): 10.31703/glsr.2024(IX.I)

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Global Legal Studies Review
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GLOBAL LEGAL STUDIES REVIEW

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VOL. IX, ISSUE I, WINTER (MARCH-2024)

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Doi:https://dx.doi.org/10.31703

Article Title

Assessing the Legal Framework for Marine Protected Areas in High Seas: Challenges and Prospects under the UN BBNJ Agreement

Global Legal Studies Review

p-ISSN: 2708-2458 **e-ISSN:** 2708-2466
DOI(journal): 10.31703/glsr
Volume: IX (2024)
DOI (volume): 10.31703/glsr.2024(IX)
Issue: I (Winter-March 2024)
DOI(Issue): 10.31703/glsr.2024(IX-I)

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Abstract

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Keywords: Marine Protected Areas; Areas Beyond National Jurisdiction; the BBNJ Agreement; High Seas Conservation; Marine Biodiversity

Authors:

Aamir Sohail: *(Corresponding Author)*
PhD Scholar, Research Institute of Environmental Law, School of Law, Wuhan University, China.
(Email: sohialaamir@whu.edu.cn)

Pages: 1-14
DOI:10.31703/gssr.2024(IX-I).01
DOI link: https://dx.doi.org/10.31703/glsr.2024(IX-I).01
Article link: http://www.glsrjournal.com/article/A-b-c
Full-text Link: https://glsrjournal.com/fulltext/
Pdf link: https://www.glsrjournal.com/jadmin/Auther/31rvIolA2.pdf

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Doi:https://dx.doi.org/10.31703

Citing Article

01		Assessing the Legal Framework for Marine Protected Areas in High Seas: Challenges and Prospects under the UN BBNJ Agreement						
		Author	Aamir Sohail		DOI	10.31703/glsr.2024(IX-I).01		
Pages		1-14	Year	2024	Volume	IX	Issue	I
Referencing & Citing Styles	APA	Sohail, A. (2024). Assessing the Legal Framework for Marine Protected Areas in High Seas: Challenges and Prospects under the UN BBNJ Agreement. *Global Legal Studies Review*, *IX*(I), 1-14. https://doi.org/10.31703/glsr.2024(IX-I).01						
	CHICAGO	Sohail, Aamir. 2024. "Assessing the Legal Framework for Marine Protected Areas in High Seas: Challenges and Prospects under the UN BBNJ Agreement." *Global Legal Studies Review* IX (I):1-14. doi: 10.31703/glsr.2024(IX-I).01.						
	HARVARD	SOHAIL, A. 2024. Assessing the Legal Framework for Marine Protected Areas in High Seas: Challenges and Prospects under the UN BBNJ Agreement. *Global Legal Studies Review,* IX**,** 1-14.						
	MHRA	Sohail, Aamir. 2024. 'Assessing the Legal Framework for Marine Protected Areas in High Seas: Challenges and Prospects under the UN BBNJ Agreement', *Global Legal Studies Review*, IX: 1-14.						
	MLA	Sohail, Aamir. "Assessing the Legal Framework for Marine Protected Areas in High Seas: Challenges and Prospects under the Un Bbnj Agreement." *Global Legal Studies Review* IX.I (2024): 1-14. Print.						
	OXFORD	Sohail, Aamir (2024), 'Assessing the Legal Framework for Marine Protected Areas in High Seas: Challenges and Prospects under the UN BBNJ Agreement', *Global Legal Studies Review,* IX (I), 1-14.						
	TURABIAN	Sohail, Aamir. "Assessing the Legal Framework for Marine Protected Areas in High Seas: Challenges and Prospects under the Un Bbnj Agreement." *Global Legal Studies Review* IX, no. I (2024): 1-14. https://dx.doi.org/10.31703/glsr.2024(IX-I).01.						

e-ISSN: 2708-2458 **Volume:** IX (2024) **Issue:** I-Winter (March-2024) **p-ISSN:** 2709-2466

Global Legal Studes Review
www.glsrjournal.com
DOI: http://dx.doi.org/10.31703/glsr

Pages: 1-10 **URL:** https://doi.org/10.31703/glsr.2024(IX-I).01 **Doi:** 10.31703/glsr.2024(IX-I).01

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Authors:

Aamir Sohail: *(Corresponding Author)*
PhD Scholar, Research Institute of Environmental Law, School of Law, Wuhan University, China.
(Email: sohialaamir@whu.edu.cn)

Contents

Abstract

Oceans, integral to a healthy global ecosystem, are protected partly through marine protected areas (MPAs). Despite numerous MPAs within national jurisdictions, the Areas Beyond National Jurisdiction (ABNJ) remain significantly neglected. Currently, most MPAs in ABNJ are governed by the OSPAR or CAMLR frameworks, which exhibit substantial deficiencies due to the fragmented state of international laws. United Nations Convention on the Law of the Sea (UNCLOS), for instance, offers limited provisions for ABNJ. To address these legislative gaps, negotiations for the Biodiversity Beyond National Jurisdiction (BBNJ) were initiated, leading to the successful adoption of the BBNJ Agreement in March 2023. This paper critically examines the existing regional treaties overseeing high-seas MPAs and explores the innovative approaches introduced by the BBNJ Agreement for the conservation and sustainable use of marine biological diversity in ABNJ. The analysis concludes that the BBNJ Agreement provides a more comprehensive and sustainable management framework for high-seas MPAs, thus effectively overcoming the limitations inherent in regional treaties.

Keywords: Marine Protected Areas, Areas Beyond National Jurisdiction, The BBNJ Agreement, High Seas Conservation, Marine Biodiversity

Introduction

The ocean is Earth's principal life-support system (Laffoley et al., 2020) and harbours a vast array of biodiversity. ABNJ constitute 70% of Earth's habitable (Blue Marine Foundation, 2019) and 90% of its biomass (Matz-Lück & Fuchs, 2014)., playing a crucial role in the ocean's biological productivity and sequestering over 1.5 billion tonnes of CO2 annually (Rogers et al., 2014). However, human activities have significantly altered 66% of the

marine environment (IPBES, 2019), even affecting the most remote areas. The primary direct threat to these ecosystems is fishing (O'Leary et al., 2020), with 34.2% of fish stocks exploited beyond sustainable levels (FAO, 2020). Moreover, the combined effects of climate change and ocean acidification (Laffoley et al., 2020) pose overarching threats, which have significantly intensified in recent years (O'Leary et al., 2020).

Recent analyses have shown that area-based management tools (ABMTs), including MPAs, are the most consistently effective mitigation strategies for impacts in ABNJ (Laffoley et al., 2020). Despite this, the rate of MPA designation does not meet the severity of these threats: only 7.44% of the ocean is currently under protection, and a mere 1.18% of that is in the high seas (UNEP, 2020). Despite their critical importance, there is no coherent governance framework for ABNJ, nor is there a mechanism to establish legally binding, multi-sectoral MPAs in these regions.

The global ocean governance framework is anchored by the widely ratified UNCLOS, which delineates States' sovereign rights over territorial seas up to 12 nm and exclusive economic zones (EEZ) up to 200 nm, thus defining ABNJ as a global commons. ABNJ includes 'The Area' ("the seabed, ocean floor, and subsoil thereof, beyond the limits of national jurisdiction") and 'The High Seas' ("parts of the sea not included in the EEZ, territorial sea, internal waters of a state, or archipelagic waters of an archipelagic state"). While UNCLOS grants 'freedoms' of the high seas, such as fishing, these freedoms are conditional and must be exercised with consideration of other states' rights (Freestone, 2019). Beneath UNCLOS, however, lies a highly fragmented governance structure consisting of activity-specific agreements and regional or sectoral bodies, where conservation is often a secondary concern (Gjerde et al., 2019)

To bridge these and other gaps, the United Nations General Assembly decided to negotiate a new implementing agreement for marine biodiversity in ABNJ. This negotiation concluded in 2023 with the establishment of the BBNJ Agreement, also known as the High Seas Treaty. The treaty addresses the components identified in the 2011 package as a cohesive whole (UN, 2011). The four primary components are (1) marine genetic resources, including questions on the sharing of benefits; (2) measures such as area-based management tools, including marine protected areas; (3) environmental impact assessments; and (4) capacity-building and the transfer of marine technology.

This paper focuses exclusively on the MPAs under the BBNJ Agreement, exploring the challenges and opportunities presented by this emerging treaty, which, upon ratification, allows countries to establish MPAs in ABNJ.

Defining MPAs

Currently, there is no universally accepted definition for MPAs within international law. During the negotiations for the BBNJ agreement, the need for a unified definition was highlighted. Presently, three primary definitions are employed to describe MPAs. Most of these definitions are adapted from general protected area guidelines to suit the marine context. The draft UN BBNJ agreement predominantly draws from the definitions provided by the International Union for Conservation of Nature (IUCN) and the Convention on Biological Diversity (CBD). Additionally, the European Union (EU) has developed its own definition.

The absence of a standardized definition has historically led to confusion. Several fisheries advisory bodies have designated areas as MPAs even though these areas continued to allow exploitative fishing activities. In response, the IUCN issued guidelines in 2012, claiming that about 50% of designated MPAs were incorrectly classified (IUCN, 2012). The 2020 IUCN guidelines further clarified that MPAs are a type of protected area, defining them 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" (IUCN, 2019).

The CBD defines a protected area more broadly as "a geographically defined area, which is designated or regulated and managed to achieve specific conservation objectives." The EU characterizes MPAs as "geographically distinct zones for which protection objectives are set," noting that MPAs contribute to a globally connected system that safeguards biodiversity and maintains the health of the marine ecosystem and the supply of ecosystem services (European Union, 2018). This EU definition aligns somewhat with the IUCN's but allows more room for interpretation, focusing

primarily on the protection objectives of the designated zone.

In contrast, the BBNJ agreement defines an MPA as "a geographically defined marine area that is designated and managed to achieve specific long-term biological diversity conservation objectives and may allow, where appropriate, sustainable use provided it is consistent with the conservation objectives." This definition attempts to balance conservation goals with the possibility of sustainable use.

The Significance of MPAs in ABNJ

Traditionally, nations have prioritized the utilization of resources located in their territorial seas. However, due to the decline in marine resources in these regions, there has been a growing trend towards exploiting resources in ABNJ. Well-managed and enforced MPAs promote the flourishing of marine life by enhancing both its diversity and richness. The fish that reproduce within these protected zones positively impact neighbouring regions, benefiting nearby human settlements (Gell & Roberts, 2003). Additionally, ecosystems such as mangrove forests and coral reefs function as natural defences against disasters by absorbing excessive wave energy and diminishing wave force, respectively. They also play a crucial role in carbon absorption, coastal erosion prevention, and pollutant filtration, providing significant protection to the 3.5 billion individuals residing along coastlines (The Nature Conservancy).

Technological progress has also influenced deep-sea mining, allowing for the exploitation of energy and mineral resources that were previously inaccessible (Smith & Jabour, 2018). Besides its marine riches, the conservation of the ABNJ is of utmost importance due to the ocean's capacity to absorb and store a substantial quantity of excess carbon dioxide (CO2), akin to trees. Furthermore, phytoplankton in the ABNJ is responsible for producing 50% of the Earth's oxygen. The ABNJ is believed to contain over 95% of the world's marine biodiversity, with an estimated 2 million species yet to be discovered due to the challenges associated with investigating these areas.

Although the importance of MPAs in the ABNJ cannot be denied, currently, only about 1% of the high seas are protected by MPAs. The lack of sufficient protections allows commercial fishing fleets to operate without supervision, resulting in the depletion of 90% of the world's fish populations. It is optimal for the establishment of Marine Protected Areas in ABNJ to aim for safeguarding at least 30% of these regions (Patrick, 2019). Establishing MPAs in ABNJ is crucial as it allows for the creation of larger protected areas.

Key Challenges Facing MPAs in ABNJ

The establishment of MPAs within ABNJ faces significant challenges, not only due to the absence of legislative frameworks but also due to limited scientific understanding. There is scant knowledge about the ecological processes and environmental conditions of the ABNJ (Scott, 2015). Despite this gap in knowledge, it remains crucial to carefully determine which areas are suitable for MPAs and what activities may be permitted within them (PEW, 2019).

In addition to challenges in designating MPAs in ABNJ, there are also practical and financial difficulties once an MPA is set up. Enforcing rules, monitoring activities, and conducting surveillance in these marine areas are particularly challenging. Unlike terrestrial protected areas, it is not feasible to completely restrict entry or activities in an MPA; there are no boundaries to "fence off," and multiple access points make patrolling these areas difficult (IUCN, 2019). Visibility is another issue; it is often not clear which areas are protected, and damage within these protected zones may go unnoticed without adequate and often costly monitoring systems.

Moreover, the aim for MPAs in the ABNJ is to be larger, thereby increasing their effectiveness. However, the larger the area, the more challenging and expensive it becomes to monitor and enforce regulations. Compared to smaller MPAs, the cost of maintaining these vast regions can be significantly higher, requiring more advanced and expensive technologies (Wilhelm et al., 2014). Overcoming these practical and financial hurdles is essential for the success of MPAs in the ABNJ.

Current Regulatory Frameworks for MPAs

There are now more than 1,000 distinct legal instruments that exist to regulate international

environmental law, of which approximately 300 agreements relate to the international law of the sea. Consequently, the scope of legislation concerning MPAs under the law of the sea is extensive. At the national, regional, and global levels, there are distinct sets of binding and non-binding measures, each designed to achieve certain protective objectives.

The United Nations Convention on the Law of the Sea (UNCLOS) and the CBD are the primary sources that provide a legal basis for the establishment of MPAs. Additional regional governing bodies, such as those established under the Regional Seas Conventions, which were created as part of the Regional Seas Program, complement the UNCLOS and the CBD (Guerreiro et al., 2011). These frameworks establish a legal basis for MPAs within a regional context and also address other concepts related to MPAs under international law.

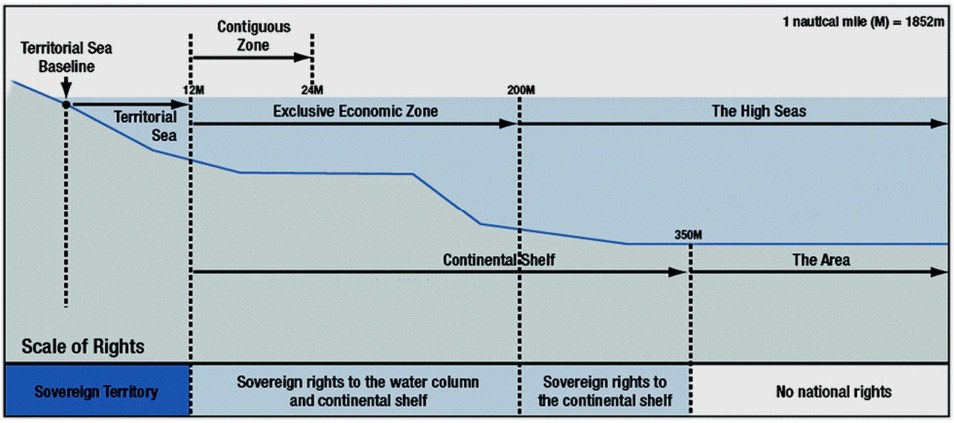
UNCLOS

Maritime Zones under UNCLOS

The oceans are divided into various zones as defined by UNCLOS, primarily based on geopolitical divisions rather than ecological boundaries (as shown in Figure 1). The main categorization is based on the distinction between regions governed by various states, those under national administrative authority, and the ABNJ. The ABNJ, viewed as a "global commons," is governed collectively through a complex network of international treaty frameworks. These regimes encompass a wide range of industries and interests, including shipping, fishing, seabed mining, and conservation.

Figure 1

Maritime Zones in the UNCLOS



Areas under National Jurisdiction

Internal Waters: Waters landward of the baseline, such as bays and ports, where the coastal state has complete control.

Contiguous Zone: Extends up to 24 nautical miles from the baseline, allowing the coastal state to enforce laws on customs, immigration, and pollution.

Exclusive Economic Zone (EEZ): Extends up to 200 nautical miles from the baseline, where the coastal state has rights to natural resources and responsibilities for environmental conservation.

Continental Shelf: Includes the seabed and subsoil beyond the territorial sea, up to 200 nautical miles.

Areas beyond National Jurisdiction (ABNJ)

High Seas: Water column beyond the EEZ, considered a global commons with freedom of access.

The Area: Seabed and ocean floor beyond national jurisdiction, managed as the common heritage of mankind under the International Seabed Authority (ISA).

Each zone presents unique challenges in management and conservation, with the need for a

balance between state rights and other uses of the sea. The ABNJ, in particular, requires international cooperation for sustainable management and conservation, guided by principles like the common heritage of humanity.

CBD

The CBD, established in 1992, is a crucial international treaty aimed at preserving biological diversity. It provides a versatile framework for global cooperation and local implementation in the conservation of biodiversity (Morgera & Tsioumani, 2010). The CBD, which includes the European Union and all parties to UNCLOS, highlights the vital importance of protected areas in preserving biodiversity and promoting sustainable development.

Protected areas are comprehensively defined in Article 2 of the convention. State parties are legally required to create these areas under Article 8(a), which states that "Each Contracting Party shall, as far as possible and as appropriate: Establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity." Furthermore, Article 8(b) requires States to create criteria for the designation, creation, and administration of protected areas as required. According to Article 8(c) of the Convention, States are required to "regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use." Article 8(e) mandates that States must "promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering the protection of these areas." The Convention recognizes that activities taking place outside of designated protected areas significantly influence the preservation of natural resources. The CBD unequivocally encompasses marine biodiversity within a country's legal authority. Article 4(b) of the CBD explicitly states that its jurisdiction is limited to activities and processes that are both administered and controlled by the parties involved. Regarding ABNJ, Article 5 promotes the cooperation of parties, both among themselves and with competent international organizations, to ensure the conservation and sustainable development of biodiversity in ABNJ.

The CBD has made a notable contribution by identifying Ecologically or Biologically Significant Areas (EBSAs) in ABNJ. An EBSA, as defined by the CBD, refers to "Geographically or oceanographically discrete areas that provide important services to one or more species/populations of an ecosystem or to the ecosystem as a whole, in comparison to other surrounding areas or areas of similar ecological characteristics." The criteria for EBSAs include distinctiveness, significance for various life stages of species, significance for endangered species, susceptibility to harm, biological productivity, diversity, and naturalness. Since 2010, the CBD Secretariat has arranged regional meetings to classify areas that fulfil the EBSA criteria, leading to the global recognition of 279 places as EBSAs.

Regulations for MPAs: Species, Sectors, Activities, and Regional Specifics

Below are the international regulations, laws, and frameworks that directly or indirectly address the establishment of MPAs.

Species Specific Regulations

MPAs are established according to species-specific laws, each with varied conservation aims targeting different elements of marine biodiversity. The 1946 Convention for the Regulation of Whaling (IWC) is an early international agreement that introduced the concept of MPAs (Tanaka, 2016; Wright et al., 2018). It grants the International Whaling Commission the authority to designate sanctuaries for the conservation of whales. Notable sanctuaries have been established in the Southern Ocean, Antarctica, and the Indian Ocean (Von Rebay, 2023). The Convention on the Conservation of Migratory Species of Wild Animals (CMS) provides an international framework for countries to cooperate in safeguarding migratory species and their habitats. However, it does not apply to ABNJ (Barritt & Viñuales, 2016). The Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) focuses on protecting endangered species by regulating global trade to prevent threats to their survival, including regulations for marine species in ABNJ. Collectively, these legal instruments aim to preserve marine

biodiversity by creating and managing MPAs, each with its own distinct focus and scope.

Sectorial Regulations

Regulations specific to certain sectors, especially those related to activities such as shipping and pollution, are of utmost importance in the preservation of marine ecosystems. The International Maritime Organization (IMO), a crucial entity within the United Nations, is responsible for setting global standards to ensure "safe, secure, and efficient shipping on clean oceans." Its primary objective is to prevent pollution in marine environments and maintain the safety of shipping operations (De Fontaubert, 2001).

A key regulation under the IMO is the International Convention for the Prevention of Pollution from Ships (MARPOL), first implemented in 1973 and subsequently revised. MARPOL regulates the discharge of harmful substances from ships, including oil waste, harmful liquid substances, and sewage, garbage, and air pollutants. It imposes specific restrictions on various types of ship emissions through six annexes. The term "Special Areas" refers to certain regions with stringent regulations to protect against operational and cargo-related discharges, whereas "Emission Control Areas" are designated zones aimed at reducing air pollution from ships. However, these regions largely focus on preventing sea pollution rather than adopting an ecosystem-based approach to conserve all marine species.

The International Maritime Organization (IMO) has also developed the concept of the Particularly Sensitive Sea Area (PSSA), which holds significant importance. A PSSA is defined as "an area that needs special protection through action by IMO because of its significance for recognized ecological, socio-economic, or scientific attributes where such attributes may be vulnerable to damage by international shipping activities". To be designated as a PSSA, certain protective measures must be adopted, such as implementing discharge regulations or routing guidelines, to regulate marine operations in the designated region. The PSSA designation process considers the characteristics of the proposed location, its vulnerability to maritime activities, and the presence of preventive measures. Although PSSAs may share similarities with MPAs and support the designation of MPAs, they are not officially classified as MPAs. States typically cannot enforce limitations on international shipping routes without the support of the IMO. The criteria for identifying Special Areas and PSSAs are not mutually exclusive, meaning that a PSSA can be recognized within a Special Area, and vice versa (Diz et al ., 2018).

Activity-based Regulations

Activity-based restrictions are implemented to specifically target major sources of pollution affecting the open ocean, with a primary focus on controlling and reducing this pollution. According to the United Nations Convention on the Law of the Sea (UNCLOS), these restrictions include both international and domestic legislation aimed at preventing, reducing, and managing marine pollution from various sources. The primary contributors to marine pollution are terrestrial sources, accounting for 70-80% of the pollution (Andrady, 2011). Plastic production alone exceeds 348 million metric tons annually (Plastics the Facts, 2018). The situation is further aggravated by the increasing use of plastics, which is projected to triple the volume of poorly managed plastic waste by mid-century (Lebreton & Andrady, 2019). A substantial portion of this debris, amounting to millions of metric tons each year, eventually makes its way into the ocean,(Jambeck et al., 2015) further exacerbating the formation of areas such as the Great Pacific Garbage Patch.

The 1985 Montreal Guidelines and the 1972 London Convention are key regulations aimed at minimizing pollution from land-based sources and from dumping. The London Convention specifically targets the prevention of marine pollution by prohibiting the disposal of waste into the oceans and seas. However, the effectiveness of these regulations is limited by the extent to which member states have adopted and enforced them.

The Regional Approach for the Conservation of High Seas

Within the framework of the United Nations Environment Programme (UNEP) Regional Seas Programme (RSP), numerous significant regional legislations require States to protect and preserve the marine environment. These regulations entail potential responsibilities for the establishment of MPAs. The UNEP's Regional Seas Programme has facilitated several pivotal regional agreements. These agreements mandate that States safeguard

and maintain the marine environment, which may include enacting legislation to establish MPAs. The programme has led to the creation of non-legally binding action plans and legally binding treaties focused on conserving the marine environment. Notably, the UNEP has adopted several treaties, including the 1980 Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR), the 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR), and the 1995 Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention).

Supplementary MPA Related Regulations in International Law

Other international conventions, such as the Ramsar Convention and the UNESCO World Heritage Convention (WHC), hold the responsibility of designating locations that are globally recognized for their significance (Tanaka, 2019). The following section will briefly elaborate on additional MPA-related instruments.

The Convention on Wetlands

The Ramsar Convention, formally known as the Convention on Wetlands, is a global treaty created to protect wetland regions and their associated resources. According to the Convention's mission statement, its primary goal is "the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world". Article 1(1) provides a comprehensive definition of wetlands: "For the purpose of this Convention, wetlands are areas of marsh, fen, peat land, or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish, or salt, including areas of marine water the depth of which at low tide does not exceed six meters." It is crucial to note that Ramsar regions are limited to marine waters with a maximum depth of six meters. Article 2(1) requires the creation of a list of wetland sites. Parties to the Convention are responsible for identifying prospective sites, and each state must designate at least one wetland upon joining the Convention. Although certain Ramsar Sites may receive additional protection categories, the IUCN notes that Ramsar sites are not legally required to be protected areas under national legislation (Dudley, 2008).

The WHC and the Concept of Outstanding Universal Value

The WHC encompasses a concept similar to that of MPAs (Jakobsen, 2016). This Convention is a composite instrument that protects aspects of both the natural environment and cultural heritage (Dupuy & Viñuales, 2018). According to UNESCO, the most significant feature of the Convention is its integration of cultural property protection and natural conservation into a single coherent framework. It acknowledges the connection between humans and the natural environment and the crucial necessity to preserve their balance.

The World Heritage Committee encourages the preservation of cultural and natural assets by including elements of exceptional global significance. The state responsible for a site must make a formal request for its inclusion on the World Heritage List, which the WHC then reviews. An important criterion in assessing a site is its "Outstanding Universal Value," defined as "cultural and/or natural significance which is as exceptional as to transcend national boundaries and to be of common importance for present and future generations of humanity".

Existing High Seas MPAs under CCAMLR and OSPAR Conventions

Currently, there are a total of 12 MPAs located in ABNJ. Of these, two MPAs are situated in the Southern Ocean, while the other 10 are found in the North-East Atlantic. These MPAs were established in accordance with the 1980 Convention on the CCAMLR and the 1992 OSPAR Convention. The commissions created under these conventions are formally known as the CCAMLR Commission and the OSPAR Commission, respectively. These two regulatory frameworks were selected based on their significant progress in establishing a network of MPAs in ABNJ.

The CCAMLR Convention

Established in 1982, the CCAMLR is composed of 26 Member States and the European Union, with an additional 10 acceding States that, although not participating in decision-making, are associated

with the Commission. The primary aim of this convention is to conserve and manage marine life resources in the Antarctic region, taking into account the complex interactions within the Antarctic marine ecosystem.

The Southern Ocean, which comprises 9.6 percent of the Earth's total ocean area, is crucial for maintaining the overall health and functionality of the world's seas. It facilitates the transfer of heat and carbon dioxide to the deep ocean and supports primary production, including the export of nutrients (Xavier et al., 2016). The region is recognized as a distinct realm within the Earth's oceans due to its unique species and habitats (Douglass et al., 2014). Historically, the Southern Ocean has been subject to overexploitation, notably in the late 19th and early 20th centuries, with seals and whales being heavily targeted (Ainley & Pauly, 2014). It continues to support commercial fisheries for various species, such as krill and toothfish and also serves as a habitat for some of the remaining untapped fish populations (Brooks et al., 2020). The Ross Sea region, often referred to as the "last wilderness," is considered the least impacted open ocean marine area on Earth (Ainley, 2010).

The World's First High Seas MPAs under CCAMLR

In 2009, the United Kingdom proposed the establishment of an MPA on the southern shelf of the South Orkney Islands. This proposal to designate a "no-take" zone was unanimously accepted by the CCAMLR members. The South Orkney Islands Southern Shelf MPA was established in the same year, marking a significant milestone as the first MPA designated by the CCAMLR and the first MPA declared in High Seas. Covering 94,000 km, this MPA aims to protect crucial feeding grounds for predators, provide a scientific benchmark, and preserve exceptional benthic and pelagic bioregions.

World's largest High Seas MPA

The Ross Sea Region MPA is the largest High Seas Marine Protected Area in the world. After five years of negotiations, the establishment of the MPA for the Ross Sea region has become a pivotal issue in the creation of MPAs in ABNJ, influencing both current and future efforts (Scott, 2018). The initiative for this MPA was originally proposed by the United States and New Zealand. However, a significant diplomatic oversight occurred in 2012 when they failed to submit a unified, comprehensive proposal to the CCAMLR. Instead, due to disagreements over the inclusion of a financially viable toothfish fishery, the two countries presented separate proposals. A compromise was reached toward the end of the 2012 summit, but it was too late to regain lost momentum effectively. The Ross Sea MPA plan initially included a sunset provision, setting a time limit on its duration unless extended. This provision was revised during a special CCAMLR meeting in Bremerhaven in 2013, leading to a substantial reduction in the MPA's size by nearly 40%, resulting in a total area of 1.34 million km². In 2016, under pressure from Russia and Japan, the US and New Zealand agreed to reduce the proposed 50-year lifetime of the MPA to 35 years. The 2012 proposal for the Ross Sea MPA originally encompassed an area of over 2.1 million square kilometres. However, the current MPA spans 1.55 million square kilometres, a reduction of more than 40%. This calculation does not include the area below the Ross Ice Shelf; if it did, the MPA would cover more than 2 million square kilometres. The Ross Sea Marine Protected Area is divided into three zones, each with a distinct purpose:

- Three General Protection Zones where no fishing or extraction activities are allowed.
- The Special Research Zone (SRZ)
- The Krill Research Zone (KRZ)

72% of the waters are off-limits to commercial fishing, although scientific fishing is permitted in the specified no-take zone with the consent of all CCAMLR Member States (Jabour, & Smith, 2018). The MPA includes two research fishing zones: the KRZ, located on the western side of the Ross Sea area, and the SRZ, covering the central Ross Sea shelf and slope. These zones allow limited commercial fishing. Both zones may be used for preliminary commercial fishing of Antarctic krill, but only the Special Research Zone—excluding the Krill Research Zone—permits limited commercial fishing of Antarctic toothfish. Aside from toothfish fishing, the Ross Sea area's only other economic activity is sporadic tourism.

The OSPAR Convention

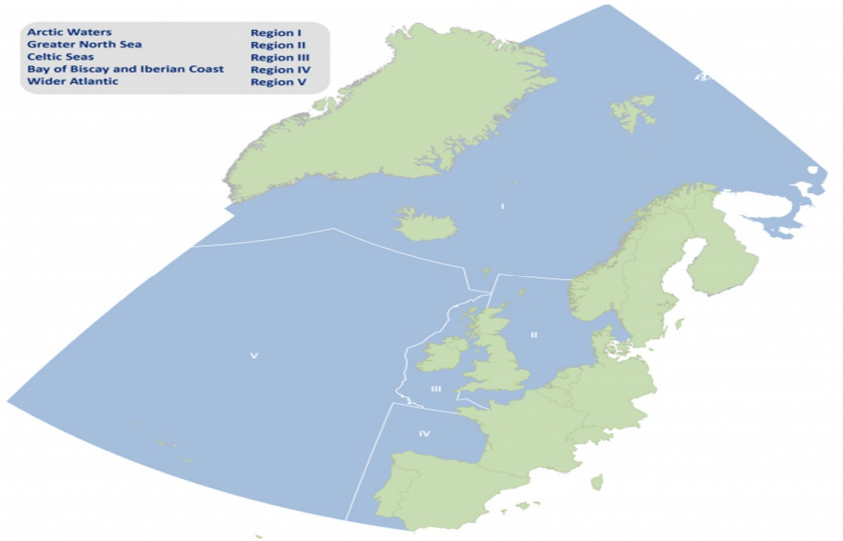
The exact physical boundaries of the North East Atlantic (NEA) vary under several European and international legal frameworks (Rothwell et al., 2015). The OSPAR Convention, which aims to

protect the marine environment of the NEA and its neighbouring seas, encompasses an extensive area of approximately 13.5 million km². This area stretches from the Mid-Atlantic Ridge in the west to the North Sea in the east, and from the North Pole to the Azores in the south. The OSPAR maritime area is delineated by the maritime zones of its Contracting Parties (CPs) and includes a distinct region of international waters and seabed in the Atlantic and Arctic Oceans, outside the authority of any nation. Notably, ABNJ comprises almost 40% of this marine region, a significant proportion compared to most other Regional Seas Conventions (RSCs) (Molenaar & Elferink, 2009).

The maritime area is divided into five regions (Figure 02) for environmental assessment and monitoring. It features a high level of biological diversity, encompassing a wide range of environmental conditions and diverse ecosystems that host significant habitats and globally significant populations of numerous marine species.

Figure 02

OSPAR Maritime Area



In 2007, OSPAR began evaluating applications for several Marine Protected Area (MPA) sites in ABNJ. This evaluation led to the establishment of a network of MPAs in the high seas of the OSPAR maritime domain in 2010, a move considered exceptional and groundbreaking. Initially, six MPAs were created in ABNJ, covering a collective area of 286,200 square kilometres (O'Leary et al., 2015). These MPAs, named the Milne Seamount Complex MPA, the Charlie-Gibbs South MPA, the Altair Seamount High Seas MPA, the Antialtair Seamount High Seas MPA, the Josephine Seamount High Seas MPA, and the Mid-Atlantic Ridge North of the Azores High Seas MPA, were primarily designated to protect benthic features such as fracture zones and seamounts. In 2012, another high sea MPA, the Charlie Gibbs North MPA, was established, focusing primarily on the protection of pelagic species.

MPAs under the BBNJ Agreement

Rena Lee, who has been leading the Intergovernmental Conference on the Conservation and Sustainable Use of Marine BBNJ since 2018, announced on the evening of March 4, 2023, that the negotiations had successfully concluded, declaring, "The ship has reached the shore." This event marked the culmination of twenty years of deliberations and led to the creation of the BBNJ Agreement within the framework of the United Nations Convention on the Law of the Sea (Mendenhall et al., 2023). This agreement, focusing on the Conservation and Sustainable Use of Marine Biological Diversity in areas beyond national jurisdiction, was adopted during the conference's 5th session in June 2023 and was made available for signing on 20 September 2023. As of the current

date, 86 countries, including the European Union, have signed the treaty, and it has been ratified by 1 country. The treaty will become legally effective 120 days after the 60th party ratifies it. This upcoming milestone is eagerly anticipated, as it will herald a new era in the conservation and responsible use of marine biodiversity in areas beyond the control of any specific country.

The primary aim of the agreement is to ensure the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction" and thus it only applies to areas beyond national jurisdiction. In turn, as defined by article 1.2 of the Agreement, the term "areas beyond national jurisdiction" includes here both the High Seas and the so-called "Area".

The treaty addresses four critical issues related to ABNJ: Marine Genetic Resources, focusing on the fair and equitable sharing of benefits; Area-Based Management Tools (ABMTs), including MPAs; Environmental Impact Assessments (EIAs); and Capacity Building and the Transfer of Marine Technology. This article specifically discusses Part III of the BBNJ Agreement, which deals with ABMTs, with a particular focus on MPAs rather than ABMTs as a whole. Part III includes ten articles, ranging from Article 17 to Article 26.

The BBNJ Agreement comprehensively defines "Marine protected area" as a geographically defined marine area designated and managed to achieve specific long-term biodiversity conservation objectives, and may allow, where appropriate, sustainable use provided it is consistent with the conservation objectives.

Firstly, the agreement emphasizes the geographical aspect by highlighting the uniqueness of delimited maritime zones. Furthermore, it incorporates a managerial dimension, covering the identification and deliberate administration of these regions. The emphasis on conservation is prominent, focusing on the goal of securing the long-term preservation of biological diversity. Additionally, the sustainable use component allows for responsible human activities within the MPA, provided they are considered appropriate. The consistency requirement is crucial, dictating that any sustainable use must align with the predetermined conservation goals of the Marine Protected Area.

The BBNJ Agreement aligns with the Kunming-Montreal Global Biodiversity Framework, particularly the 30 by 30 objective, which seeks to conserve and manage at least 30% of coastal and marine areas by 2030 through the creation of protected areas and other conservation measures. This objective applies to ABNJ, urging governments to use mechanisms within the BBNJ framework to establish MPAs in these regions (Mendenhall et al., 2023).

Legal Implications of the BBNJ Agreement

The BBNJ Agreement is designed to enhance the UNCLOS framework without compromising the rights, jurisdictions, and obligations established by States under UNCLOS. It aims to refine the governance system for the BBNJ, ensuring compatibility between the two legal frameworks. In the event of a dispute, UNCLOS is given priority, as it allows for the creation of new agreements that impose responsibilities for safeguarding and conserving the marine environment, provided they align with the Convention's fundamental principles and objectives. Article 5(1) of the BBNJ Agreement underscores the authority of coastal states over their EEZs and continental shelves, in accordance with UNCLOS Articles 56 and 77. This addition upholds the principle of not adversely affecting the rights, jurisdiction, and obligations of states under the Convention, without introducing significant changes. However, the term "not undermining" lacks a precise and clear definition (Scanlon, 2018), leading to debates and divergences in its interpretation (Mendenhall et al., 2019). This ambiguity complicates the BBNJ Agreement's interaction with various legal frameworks, instruments, and regional, global, subregional, and sectoral entities. Consequently, discussions have arisen regarding two approaches: a comprehensive approach that aims to prevent duplication or overlapping of jurisdictions, and a limited approach that allows the BBNJ Agreement to implement measures that support or enhance the effectiveness of other regimes, even if some overlap exists (Duan, 2024). In this context, 'not undermining' as referred to in the UN Fish Stocks Agreement (UNFSA) involves preserving the effectiveness of established institutions and frameworks (Gjerde et al., 2019).

Challenges and Prospects in Implementing MPAs under the BBNJ Agreement

The BBNJ Agreement introduces several legal challenges and considerations that directly impact the establishment and management of MPAs. One of the primary challenges is the geographic oversight in proposals for MPAs, where factors such as the seabed might be neglected. This oversight can result in the creation of MPAs that do not effectively reflect ecological representation and connectivity, thereby undermining their ecological integrity. Additionally, the decision-making process plays a crucial role; whether decisions are made by consensus or a qualified majority significantly affects the adoption of ABMTs including MPAs. Although the BBNJ Agreement favours qualified-majority decision-making, garnering the required majority poses a practical challenge, potentially stalling crucial conservation efforts. Furthermore, the BBNJ Agreement's commitment to ensuring that new regulations do not undermine existing organizations adds a layer of ambiguity in crucial areas of collaboration and coordination. This can complicate the implementation phase, making it difficult to achieve a unified approach to marine conservation. The monitoring and review process of MPAs, as outlined in Article 26 of the Agreement, also presents challenges due to its broad scope and the need for detailed examination, which may prolong the evaluation periods.

On the other side of the spectrum, the Agreement presents legal frameworks that support the enhancement of MPA effectiveness. The BBNJ Agreement supports the ambitious "30 by 30" objective from the Kunming-Montreal Global Biodiversity Framework, which seeks to protect at least 30% of coastal and marine areas by 2030. This goal offers a substantial chance to create an extensive network of MPAs that collectively bolsters the conservation and sustainable utilization of marine biodiversity.

Conclusion

The BBNJ Agreement marks a major step forward in improving the management of the high seas and tackling the issues that plague MPAs in ABNJ. This agreement lays down a hopeful blueprint for safeguarding marine biodiversity; its success, however, hinges on the collective commitment and cooperation from countries around the world. By setting up a clear legislative structure and fostering a unified strategy for ocean conservation, the BBNJ Agreement has the capacity to revolutionize how MPAs in ABNJ are managed. Its goal is to ensure the ongoing health and viability of our planet's extensive marine ecosystems, which are crucial for global well-being. While the implementation of this agreement is a significant step in the right direction, realizing its full potential to boost marine conservation globally will require persistent dedication and joint efforts.

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