Organization Development Journal
ISSN: 0889-6402
Vol. 20, No.2 (2024)

SAFEGUARDING THE HIGH SEAS: A LEGAL AND ENVIRONMENTAL PERSPECTIVE ON GLOBAL COMMONS AND THE 2023 BBNJ TREATY

-Prof. Sanjeev Kumar Chadha[1]
-Amit Kumar Singh[2]

Abstract

The oceans, covering over 70% of the Earth's surface, are essential for sustaining life, regulating climate, and supporting global biodiversity. However, increasing human activities, overfishing, pollution, and climate change have placed these vital ecosystems under unprecedented stress. This paper delves into the concept of global commons, focusing on the oceans as a shared resource, and examines the historical, legal, and environmental dimensions of their governance. Highlighting the challenges posed by weak regulatory frameworks and unsustainable practices, it emphasizes the urgency of addressing issues like biodiversity loss, marine pollution, and overexploitation. The 2023 Biodiversity Beyond National Jurisdiction (BBNJ) Treaty emerges as a pivotal step towards cooperative management of the high seas, offering a legal framework for marine conservation and sustainable use. The paper concludes by suggesting actionable pathways, including international collaboration, robust policy implementation, and the adoption of sustainable practices to ensure the oceans' health and resilience for generations to come. This study underscores the critical need to view ocean conservation as a collective global responsibility.

Keywords

Global Commons Governance, Sustainable Ocean Management, Biodiversity beyond National Jurisdiction, Common Heritage of Mankind, Ocean Acidification, Marine Protected Areas (MPAs), Climate Resilience in Commons

Introduction

"*When we see the Earth from space, we truly appreciate that we live on a blue planet. The ocean connects us all. Sadly, we have taken the ocean for granted, and today we face what I would call an "Ocean Emergency". We must turn the tide*."

- António Guterres[3]

The oceans, covering the majority of our planet, are indispensable to sustaining life. They regulate climate, provide critical resources, and support diverse ecosystems. However, they are increasingly vulnerable due to human activities and environmental pressures.[4] Issues like ocean

[1] Professor of Law Department, School of Legal Studies, Babasaheb Bhimrao Ambedkar University, Lucknow, Email: sk.chadha123@gmail.com
[2] Research Scholar of Law Department, School of Legal Studies, Babasaheb Bhimrao Ambedkar University, Lucknow, Email: amitsinghrmlnlu@gmail.com
[3] António Guterres, UN Secretary-General's opening remarks to United Nations Ocean Conference (27 June 2022), *avaliable at*: https://www.un.org/ (last visited on November 25, 2024)
[4] Klaudija Cremers and Julien Rochette, "Digging Deep: Critical Questions Remain in the Rush to Regulate Seabed Mining" (Institute for Sustainable Development and International Relations, 2023) *available at* https://www.jstor.org/stable/resrep52347 (last visited on November 27, 2024)

warming, declining fish stocks, and widespread coral reef degradation threaten not just marine biodiversity but the overall functionality of these vast ecosystems. The high seas, which lie beyond national jurisdiction, are particularly at risk due to weak governance structures, overexploitation, and the impacts of climate change.

Against this backdrop, the international community has taken significant steps toward safeguarding marine biodiversity. The adoption of the Biodiversity Beyond National Jurisdiction (BBNJ) Treaty in 2023 marks a historic milestone in global ocean governance. This treaty, the third major agreement under the United Nations Convention on the Law of the Sea (UNCLOS), addresses critical challenges such as marine pollution, overfishing[5], and biodiversity loss. By establishing a framework for conservation and sustainable use of high-seas resources, it reflects a collective effort to protect marine ecosystems for current and future generations.

This chapter deals with the evolving understanding of oceans as global commons, highlighting the interconnected challenges they face and the legal frameworks guiding their protection. By exploring the historical context, current threats, and the transformative potential of the 2023 Treaty, it emphasizes the urgent need for cooperative management to ensure the resilience of the planet's most vital resource.

Understanding Global Commons: Concept and Attributes

Global commons refer to natural or shared resources that do not fall under the jurisdiction of any single nation and are accessible to all. Examples include the atmosphere, oceans, Antarctica, and outer space, which are vital for sustaining life. These resources, collectively owned by the global community, require cooperative stewardship to address challenges like climate change, ocean acidification, and biodiversity loss.[6] Successful management of global commons hinges on mutual understanding, self-restraint, and collective action.

Commons differ from international and local commons. International commons, such as the Mediterranean Sea, are shared by multiple nations, while local commons exist within national boundaries, managed collectively by communities. The concept of commons encompasses resources either owned by everyone (res communis) or unowned (res nullius). When resources are abundant, they are easily shared, but scarcity often leads to conflict, making regulated access crucial.

Commons governance systems rely on community-led practices to protect shared resources, often operating independently of state intervention. These arrangements, based on voluntary norms and self-enforcement, ensure sustainable use without private property rights or centralized control. In contrast, common-pool resources (CPRs) may involve state or private

[5] Didier Gascuel, "Overfishing and Sustainable Fishing: Challenges for Today and Tomorrow" *available at* https://ocean-climate.org/ (last visited on November 29, 2024)

[6] "Effects of Ocean and Coastal Acidification on Ecosystems" *available at* https://www.epa.gov/ (last visited on November 29, 2024)

management.[7] Global commons, akin to CPRs, require robust governance structures to overcome the absence of a central authority and prevent unsustainable exploitation.

Oceans as Global Commons: Laws and Regulations

Oceans, which cover over 70% of the Earth's surface, are critical to the planet's ecological balance and human existence.[8] Beyond their beauty, they serve as a vital source of food, employment, oxygen, and climate stabilization, while offering numerous ecosystem services that sustain life. Recognizing the oceans as global commons emphasizes their shared nature and the collective responsibility to conserve and sustainably manage these resources. This chapter explores the multifaceted concept of oceans as global commons, their historical governance, and their role in ensuring global sustainability.

Manifestation of the Global Commons in Oceans

The concept of the global commons refers to resources that transcend national boundaries, belonging to and shared by all humanity. Oceans epitomize this idea, uniting people regardless of distinctions like caste, color, or region. The high seas, areas beyond 200 nautical miles from the shores of coastal states, are considered global commons. Within this expanse, fishing, resource extraction, and navigation remain largely unrestricted, symbolizing the shared heritage of mankind. Covering approximately 64% of ocean areas[9], high seas constitute nearly half of the Earth's surface.[10] These waters play a pivotal role in facilitating international trade, regulating the climate, and enhancing national security. Economically, they support global commerce and contribute to the livelihoods of millions. The seabed's mineral resources, classified as the "common heritage of mankind," are intended to benefit all nations equitably, reinforcing the principle of shared ownership.[11]

Despite their immense value, ocean resources have been neglected historically. The lack of awareness and proper governance frameworks has led to unsustainable practices that jeopardize marine ecosystems. Oceans, as global commons, demand coordinated efforts to balance exploitation with conservation.

---

[7] Patrick Parenteau, "The Atmosphere as a Global Public Good" (2023) 16(1) University of St. *Thomas Journal of Law and Public Policy* 217.

[8] Sharad Chari, "The Oceanic Question" in Gramsci at Sea (University of Minnesota Press, 2023) *available at* https://www.jstor.org/stable/10.5749/jj.5806818.5 (last visited on November 29, 2024)

[9] Donna Ferguson, "Scramble for the Oceans: How Countries Are Racing to Name and Claim Remote Parts of the Seabed" (17 October 2024) *available at* https://www.theguardian.com/ (last visited on November 29, 2024)

[10] C. Raja Mohan, India, the United States and the Global Commons (Center for a New American Security, 2010) *available at* http://www.jstor.com/stable/resrep06282 (last visited on November 29, 2024)

[11] Nimibofa Paul Bemini, "Protection of the Global Commons: Challenges and Prospects" (2020) 1(1) *Carnelian Journal of Law and Politics* 21.

Historical Account of the Oceans

The governance of oceans has evolved significantly over centuries, shaped by varying principles and legal interpretations. Historically, the principle of mare liberum—freedom of the seas dominated maritime law. Rooted in Roman law, this idea posited that the seas and their resources were common property, accessible to all. The Digest of Justinian (5th century) reinforced this concept, declaring that the sea and its fish were for public use.[12] However, the medieval period witnessed nations asserting territorial control over adjacent waters, giving rise to disputes about the extent of their authority. The Treaty of Tordesillas in the 15th century, for instance, saw Portugal and Spain dividing ocean territories, leading to conflicts and controversies over sovereignty.

Two contrasting schools of thought emerged during this period:

Hugo Grotius (Mare Liberum): Grotius championed the freedom of the seas, arguing that oceans were too vast to be claimed by any single nation. He emphasized their shared nature and the need for open access.[13]

John Selden (Mare Clausum): Selden countered Grotius by advocating for the right of nations to control adjacent waters. He justified this based on historical customs and the necessity of securing national interests.[14]

Efforts to define territorial waters saw the adoption of various rules, such as the cannon-shot rule, which limited claims to the range of cannon shot from shore. This led to inconsistencies in maritime jurisdiction. By the 20th century, the three-mile territorial sea limit became widely accepted. However, growing economic and geopolitical interests prompted broader claims, culminating in the United Nations Convention on the Law of the Sea (UNCLOS) III in 1982. UNCLOS formalized the concept of exclusive economic zones (EEZs) extending up to 200 nautical miles from shore, while affirming the high seas as global commons.

Oceans as Commons for Global Sustainability

Oceans are indispensable for sustaining life on Earth, providing ecosystem services such as nutrient cycling, climate regulation, food resources, and cultural enrichment. Despite their importance, they remain largely unexplored and undervalued. The interconnected nature of oceans underscores the need for collaborative management, as human impacts like overfishing, pollution, and habitat destruction cross national boundaries through air and water currents.[15] The Brundtland Report of 1987 highlighted the critical role of oceans in achieving sustainable development. This vision was later incorporated into the United Nations' Agenda 2030 and it's Sustainable Development Goals (SDGs), particularly Goal 14, which emphasizes the conservation and

[12] Matthieu Burnay and Julien Chaisse, "Global Commons as an Emerging Arena of Contestation of Global Governance Structures and Norms" (2020) 22(5) International Community Law Review 533.
[13] Edward Gordon, "Grotious and the Freedom of the Seas in the Seventeenth Century," 16 Willamette J. Int'l L. & Dispute Resol. 252 (2008).
[14] Christopher Michael Crum, "Following Intellectual Genealogies: The Construction of Mare Liberum and Mare Clausum, 1603-1652," Bates College Honors Theses Capstone Projects (May 2017).
[15] Huiping Zhong, "Exploitation and Utilization of Marine Resources and Protection of Marine Ecology" (2019) IOP Conf. Series: Earth and Environmental Science 369 DOI: 10.1088/1755-1315/369/1/012009.

sustainable use of marine resources. Goal 14 serves as a blueprint for addressing pressing oceanic challenges, such as overfishing, plastic pollution, and climate change-induced impacts.[16]

Oceans also play a crucial role in regulating the global climate. They absorb more than 90% of the excess heat from climate change and approximately one-quarter of the carbon dioxide emissions from human activities.[17] However, this absorption has led to rising ocean temperatures, acidification, and deoxygenation, threatening marine biodiversity and the ecosystems that millions depend on for their livelihoods.[18] These changes underscore the urgency of implementing transformative measures for ocean sustainability.

The Anthropogenic Era and the Need for Cooperative Management

The anthropogenic era, defined by the profound influence of human activity on Earth's natural systems, has intensified concerns about the sustainability of ocean resources. Anthropogenic pressures, such as industrial fishing[19], chemical and plastic pollution, and deep-sea mining, are depleting marine ecosystems. Additionally, climate change has exacerbated these challenges, contributing to habitat loss, coral bleaching, and altered ocean currents.

Addressing these issues requires cooperative management frameworks that transcend national boundaries. Oceans, as shared resources, demand collective action from all nations to ensure their sustainable use. Integrating ocean concerns into existing international agreements, such as the United Nations Framework Convention on Climate Change (UNFCCC) and the Food and Agriculture Organization (FAO), could provide operational starting points for effective governance. The UN Agenda 2030 aim to strengthen the sustainability architecture for ocean governance. Despite progress, achieving Goal 14 requires enhanced commitments from states to reverse unsustainable trends and prevent tipping points.

High Seas and the Tragedy It Faces

The high seas, which lie beyond national jurisdictions, represent one of the most important yet fragile ecosystems on Earth. Despite their crucial role in sustaining life, they face numerous threats due to human activity. These threats, ranging from overfishing and biodiversity loss to ocean acidification and warming, underscore the urgency of addressing the "tragedy of the commons" in this vast global resource.[20]

---

[16] Baker Matovu, "Relevance of the High Seas Treaty towards Ocean Sustainability Targets in the Global South" (2024) *available at* https://www.kmij.org/ (last visited on November 29, 2024)

[17] Meher Nigar, "Environmental Liability and Global Commons: A Critical Study" (2018) 60(2) *International Journal of Law and Management* 435.

[18] "Effects of Ocean and Coastal Acidification on Ecosystems" *available at* https://www.epa.gov/ (last visited on November 29, 2024)

[19] Andrew Norton, "It Is Time to Control Fishing on the High Seas to Protect the Life of the Ocean and Coastal People Who Depend on It" *available at* https://www.iied.org/ (last visited on November 29, 2024)

[20] T.M. Najmudeen, "Overview of Marine Fisheries of India" (2023) International Workshop-cum-Training on Fisheries Management and Aquaculture.

The Tragedy of the High Seas

The high seas are a stark example of the tragedy of the commons, a scenario where shared resources are exploited unsustainably, leading to their depletion. This phenomenon is particularly evident in global seafood production.

Dependency on Seafood Imports

In 2021, the European Union's marine fisheries and aquaculture contributed approximately 3.5 million tons to global seafood production.[21] However, this output was insufficient to meet its annual seafood consumption of over 11 million tons. As a result, the EU depends on imports for more than 70% of its seafood demand, highlighting the pressure on marine resources worldwide.[22] This dependency exacerbates overfishing and places additional strain on the high seas, where regulation is weak, and enforcement is challenging.

Ocean Acidification and Climate Change

Oceans absorb nearly 25% of human-caused carbon dioxide emissions. While this mitigates atmospheric CO2 levels, it results in ocean acidification, a process that has lowered seawater pH by approximately 30% since the pre-industrial era. Data reveals that ocean pH dropped from 8.11 in 1985 to 8.05 in 2021. This increased acidity disrupts marine ecosystems, particularly species reliant on calcium carbonate for their shells and skeletons. Coral reefs, vital for biodiversity and coastal protection, are especially vulnerable, jeopardizing the livelihoods of millions and threatening global food security.

Threats to Marine Biodiversity

The warming of ocean temperatures, combined with acidification, threatens thousands of marine species, including those critical to food chains. Predatory species like sharks and commercially valuable fish such as tuna have experienced drastic population declines. The loss of biodiversity directly impacts the health of marine ecosystems and the broader environmental services they provide. Without permanent protection measures, the high seas, which cover approximately 64% of the world's oceans—remain susceptible to further degradation.

Consequences of Overfishing

Overfishing is one of the most pressing issues facing the high seas. Approximately 90% of marine fisheries are over-exploited, with nearly 85% of fish stocks caught faster than they can reproduce.[23] Unsustainable fishing practices not only deplete fish populations but also disrupt ecological balance, posing risks to global food security. Oceans produce about half of the planet's oxygen through aquatic algae, making their health integral to human survival. If overfishing continues unchecked, it could lead to the collapse of marine ecosystems and a significant reduction

[21] Ocean acidification (Published 29 May 2024), European Enviroment Agency, https://www.eea.europa.eu/

[22] ibid

[23] Marta Hermez, "Global Commons and the Law of the Sea: China's Lawfare Strategy in the South China Sea" (2020) 22(5) International Community Law Review 559.

in oceanic oxygen production. Overfishing exemplifies the unsustainable exploitation of the high seas, pushing marine ecosystems toward collapse. The consequences are far-reaching, affecting biodiversity, food security, and economic stability.

Marine Ecosystem Collapse

Overfishing results in the loss of keystone species, disrupting marine food webs and ecosystem balance. Annually, over 16 million pounds of fish are wasted due to inefficiencies and bycatch. This is alarming, considering that more than 1 billion people worldwide rely on fish as a primary food source. The decline in fish populations threatens the long-term viability of marine ecosystems and the livelihoods of millions.

Declining Fish Populations

Predatory fish species, such as tuna, have experienced severe population declines, with some reduced to just 10% of their original numbers.[24] Approximately 85% of the world's fisheries are over-exploited, with fish being caught at rates that far exceed their natural reproduction capacities. Such unsustainable practices place the global seafood supply at risk, with projections suggesting that the world could run out of seafood by 2050 if current trends persist.

Bycatch and Its Impact

Unsustainable fishing methods contribute to bycatch—the unintentional capture of non-target species, including dolphins, turtles, and juvenile fish. Bycatch not only leads to the unnecessary loss of marine life but also disrupts the reproductive cycles of many species, further threatening biodiversity.[25] The collateral damage from such practices undermines efforts to preserve marine ecosystems and protect endangered species.

Future Food Security Risks

The over-exploitation of marine resources jeopardizes future food security, especially for coastal communities that depend heavily on seafood. This unsustainable trajectory reflects the classic "tragedy of the commons" described by Garrett Hardin, where individual interests in exploiting shared resources outweigh the collective need for conservation.[26]

India's Marine Fisheries Sector

India's extensive Exclusive Economic Zone (EEZ) and vast coastline make it a significant player in global marine fisheries. The country's marine fishery potential is estimated at 5.31

[24] Hannah Ritchie and Max Roser, "Fish and Overfishing" *available at* https://ourworldindata.org/ (last visited on November 29, 2024)

[25] "Life below Water: Conserve and Sustainably Use the Oceans, Seas, and Marine Resources for Sustainable Development" *available at* https://datatopics.worldbank.org/ (last visited on November 29, 2024)

[26] Amy Sinden, "The Tragedy of the Commons and the Myth of a Private Property Solution," *University of Colorado Law Review,* Vol. 78, No. 2, Spring 2007, pp. 533-612.

million tonnes annually, supporting the livelihoods of approximately 3.8 million coastal inhabitants.[27] In 2022, India's total marine capture production was approximately 3.49 million tonnes, generating an estimated gross value of Rs. 582.47 million at first sale.[28] Despite these contributions, global marine capture production has declined, underscoring the need for sustainable practices. India's marine exports, valued at $8.1 billion, highlight the economic importance of fisheries, but also the potential risks of over-reliance on dwindling resources.

Promoting Sustainable Fishing

Addressing overfishing requires a shift toward sustainable fishing practices. Consumers can play a crucial role by supporting seafood sourced from sustainable fisheries. Additionally, governments and international organizations must implement stricter regulations, establish marine protected areas[29], and promote technologies that reduce bycatch. Collaborative efforts between nations are essential to ensure the long-term viability of marine resources.

The Legal Framework Governing Global Commons

The Framework to Protect the Global Commons under UNCLOS

The United Nations Convention on the Law of the Sea (UNCLOS) stands as a comprehensive framework for governing the world's oceans and safeguarding marine resources.[30] It addresses the sustainable use of the global commons while balancing state sovereignty with international responsibilities. This part explores the governance mechanisms established by UNCLOS, its provisions for environmental protection, its approach to mitigating pollution, and its strategies for conserving living resources.

Governance of the Maritime Domain

Maritime governance has a long history, beginning with early principles like mare liberum (freedom of the seas) in the 17th century. These principles underscored unrestricted navigation and resource use, enabling trade and exploration.[31] However, as human activity and resource exploitation intensified, a need for more structured regulations arose to protect the maritime

[27] T. M. Najmudeen, Overview Of Marine Fisheries Of India, International Workshop-cum-Training on Fisheries Management and Aquaculture, ICAR-Central Marine Fisheries Research Institute (published on 11-20 December 2023), https://eprints.cmfri.org.in/17860/1/AARDO_2023_T%20M%20Najmudeen.pdf
[28] ibid
[29] "High Seas Marine Protected Area Accelerator: Fast-Tracking Effective Ocean Protection" (24 October 2024) *available at* https://highseasalliance.org/ (last visited on November 29, 2024)
[30] Keyuan Zou, "Global Commons and the Law of the Sea: An Introduction" in Global Commons and the Law of the Sea (Koninklijke Brill NV, 2018) DOI: 10.1163/9789004373334_002.
[31] Klaudija Cremers and Julien Rochette, "Digging Deep: Critical Questions Remain in the Rush to Regulate Seabed Mining" (Institute for Sustainable Development and International Relations, 2023) *available at* https://www.jstor.org/stable/resrep52347 (last visited on November 29, 2024)

domain from overuse and conflicts. This led to the development of international frameworks, with UNCLOS serving as the cornerstone of modern maritime governance.[32]

UNCLOS provides a robust legal structure for managing maritime areas. It defines zones such as territorial seas[33], Exclusive Economic Zones (EEZs)[34], and the continental shelf, establishing clear rights and responsibilities for coastal states. Territorial seas extend up to 12 nautical miles, where states exercise full sovereignty, while EEZs extend up to 200 nautical miles, granting states rights to exploit resources within this zone while ensuring their sustainable use. Beyond these boundaries, the continental shelf can extend up to 350 nautical miles, allowing coastal states to explore and utilize seabed resources under specific conditions.

UNCLOS also recognizes the interconnected nature of marine ecosystems and the shared responsibility of states to govern these spaces. It emphasizes the importance of international cooperation through organizations like the International Maritime Organization (IMO) and the United Nations Environment Programme (UNEP), which facilitate regional conventions for protecting marine environments.[35] Additionally, the Antarctic Treaty System exemplifies cooperative governance, ensuring the ecological preservation of Antarctic waters.

To manage areas beyond national jurisdiction, UNCLOS established the International Seabed Authority (ISA).[36] This body regulates the exploration and exploitation of deep-sea resources like polymetallic nodules, ensuring that such activities benefit all humanity.[37] Furthermore, UNCLOS incorporates mechanisms for resolving disputes peacefully, including the International Tribunal[38] for the Law of the Sea and the UN Commission on the Limits of the Continental Shelf.[39]

UNCLOS has also inspired subsequent agreements to address emerging challenges. The 1995 UN Fish Stocks Agreement promotes sustainable management of migratory and straddling fish stocks, while the Port State Measures Agreement (PSMA) strengthens international cooperation to combat illegal, unreported, and unregulated (IUU) fishing. Together, these instruments form a comprehensive system for maritime governance, balancing economic interests with environmental sustainability.

UNCLOS and Environmental Protection

UNCLOS places significant emphasis on environmental protection, recognizing the critical role of oceans in sustaining life on Earth. Its provisions reflect an integrated approach to preserving biodiversity and ensuring sustainable use of marine resources. The preamble of UNCLOS underscores the importance of international cooperation and mutual understanding to achieve the

[32] ibid
[33] Article 15, United Nations Convention on the Law of the Sea of 10 December 1982
[34] PART V. Exclusive Economic Zone, United Nations Convention on the Law of the Sea of 10 December 1982
[35] Article 2, United Nations Convention on the Law of the Sea of 10 December 1982
[36] Article 156, United Nations Convention on the Law of the Sea of 10 December 1982
[37] Article 157, United Nations Convention on the Law of the Sea of 10 December 1982
[38] Article 186, United Nations Convention on the Law of the Sea of 10 December 1982
[39] PART VI, Continental Shelf, United Nations Convention on the Law of the Sea of 10 December 1982

goals of conservation and sustainable use.[40] It highlights the necessity of protecting the marine environment for present and future generations, establishing a moral and legal obligation for all states to act responsibly.

One of the most innovative aspects of UNCLOS is its adoption of the common heritage principle. This principle declares the seabed and ocean floor beyond national jurisdiction as shared resources, to be explored and exploited for the benefit of all mankind. This concept not only promotes equitable resource distribution but also underscores the importance of preserving these areas for collective well-being.[41]

UNCLOS is also the first global instrument to comprehensively address marine pollution. It covers all major pollution sources, including land-based pollution[42], atmospheric inputs[43], vessel discharges[44], dumping[45], and seabed activities[46]. By regulating these sources, UNCLOS provides a framework to mitigate the adverse impacts of human activities on marine ecosystems. Importantly, the convention promotes a shift from the historical notion of unrestricted use of the seas to a philosophy of controlled and sustainable use. It mandates cooperation, regulation, enforcement, and accountability, emphasizing that all states share responsibility for maintaining the health of the oceans.

The convention also incorporates key principles of international environmental law. Article 194 requires states to take measures to prevent transboundary harm, reflecting the principle of common but differentiated responsibilities. This acknowledges the varying capacities of states, emphasizing the duty of developed nations to assist developing countries in addressing environmental challenges. However, UNCLOS does not prescribe specific pollution control standards, instead encouraging states to establish appropriate regulations at both national and international levels.

Pollution of the Marine Environment

Marine pollution poses a significant threat to the health of oceans and their ability to sustain life. UNCLOS provides a clear definition of marine pollution[47], describing it as any introduction of substances or energy into the marine environment that causes harm to marine life, human health,

---

[40] Stimson Center, "Introduction: Trends and Concepts" in Future of International Cooperation Report 2023: Building Shared Futures: Innovating Governance for Global and Regional Problem-Solving (Stimson Center, 2023) *available at* https://www.jstor.org/stable/resrep53183.7 (last visited on November 29, 2024)

[41] Joachim Claudet, Diva J. Amon, and Robert Blasiak, "Transformational Opportunities for an Equitable Ocean Commons" (2021) 118(42) Proceedings of the National Academy of Sciences of the United States of America 1, *available at* https://www.jstor.org/stable/10.2307/27093435 (last visited on November 29, 2024)

[42] Articles 207 and 213 of UNCLOS.

[43] Articles 212 and 222 of UNCLOS.

[44] Articles 211 and 219 of UNCLOS.

[45] Articles 210 and 216 of UNCLOS

[46] Articles 208 and 214 of UNCLOS

[47] Part XII of UNCLOS, especially Articles 192, 194 and 195.

or the marine ecosystem.[48] This definition establishes a broad framework for addressing diverse pollution sources and their impacts.

UNCLOS emphasizes the need for comprehensive action to address marine pollution, incorporating principles of prevention, control, and cooperation.[49] It rejects the outdated notion of freedom to pollute, advocating instead for accountability and enforcement. This marks a significant shift in the philosophy of ocean governance, aligning it with modern environmental priorities.

One of the challenges in combating marine pollution is the lack of uniform standards for pollution control. While UNCLOS obligates states to cooperate in establishing such standards, the absence of binding global benchmarks creates inconsistencies in enforcement. Nevertheless, the convention serves as a platform for states to collaborate on developing effective pollution control measures, recognizing that the health of the oceans is a shared responsibility.

Protection of Living Resources Under UNCLOS

UNCLOS also addresses the sustainable management of living marine resources, acknowledging the critical role of biodiversity in maintaining healthy ocean ecosystems.[50] Within EEZs, coastal states have the authority to regulate fisheries and other resource uses. However, the convention does not mandate efficient regulation, leaving gaps in governance that can lead to overexploitation.

The management of migratory and straddling fish stocks is particularly challenging. These resources often extend beyond EEZ boundaries into the high seas, where governance is weaker. UNCLOS requires states to cooperate in conserving these resources, emphasizing the need for collective action to prevent overfishing and ensure sustainability.

Articles 63 and 64 of UNCLOS outline the rights and obligations of states regarding living marine resources. These provisions require states to adopt conservation measures based on scientific standards. Article 119, for example, mandates that allowable catch levels be determined scientifically to maintain sustainable fish populations. While this reflects a utilitarian approach to resource management, it also highlights the importance of evidence-based decision-making in achieving conservation goals.

UNCLOS has laid the foundation for global efforts to protect the high seas and marine biodiversity. However, its effectiveness depends on the commitment of states to implement its provisions and strengthen international cooperation. As challenges like pollution, overfishing, and climate change continue to threaten the oceans, UNCLOS remains a vital tool for safeguarding the global commons.

[48] ibid
[49] Article 211(4), United Nations Convention on the Law of the Sea of 10 December 1982
[50] Article 266, 269, 275, United Nations Convention on the Law of the Sea of 10 December 1982

Global Oceans Governance and Agenda 2030

The effective governance of the ocean's "global commons" depends significantly on international collaboration, especially in areas beyond national jurisdiction, such as the High Seas and the Area. These spaces are not just critical for preserving marine ecosystems and their resources but are also vital for nations whose economies and well-being depend on their rational management. To ensure the ecological sustainability of oceans under growing resource demands, it is imperative to establish enforceable and equitable international rules governing the rights and obligations of states regarding these shared resources.

UN Agenda 2030 and the United Nations Convention on the Law of the Sea

In 2015, the United Nations introduced Agenda 2030, a visionary framework for fostering sustainable and equitable global development. Agenda 2030 encompasses 17 Sustainable Development Goals (SDGs) and 169 targets addressing key global priorities. Among these, SDG 14 specifically focuses on conserving and sustainably using oceans, seas, and marine resources.[51] The agenda builds on earlier initiatives like the 2000 Millennium Development Goals and the 1992 Agenda 21, reflecting an evolving understanding of the need to protect global commons in an era of heightened human impact, known as the anthropogenic.

At its heart, Agenda 2030 acknowledges the importance of fostering international cooperation to strengthen ocean governance. SDG 14, particularly its target 14.C, emphasizes the implementation of the United Nations Convention on the Law of the Sea (UNCLOS), a foundational legal framework for maritime governance established in 1982. UNCLOS outlines geographic maritime boundaries and delineates the rights and responsibilities of coastal states over their Exclusive Economic Zones (EEZs) and beyond. It mandates these states to manage living resources within their jurisdictions sustainably and encourages regional cooperation in conservation strategies, scientific research exchange, and the sustainable use of migratory species.

International Convention for the Prevention of Pollution from Ships

In addition to UNCLOS, the International Convention for the Prevention of Pollution from Ships (MARPOL) serves as a critical instrument in mitigating marine pollution. Adopted by the International Maritime Organization (IMO) in 1973 and subsequently updated, MARPOL sets regulations to minimize pollution from ships, including oil spills, sewage[52], garbage, and emissions. These provisions directly support SDG 14, particularly target 14.1, which aims to prevent and reduce marine pollution in all its forms. However, MARPOL primarily addresses pollution from vessels and excludes land-based sources of marine pollution, such as agricultural runoff and debris. To fill this gap, various global efforts have emerged, including UN resolutions

[51] Alice B.M. Vadrot, "Protecting Life below Water: Competing Normative, Economic and Epistemic Orders (SDG 14)" in Lena Partzsch (ed.), The Environment in Global Sustainability Governance: Perceptions, Actors, Innovations (Bristol University Press, 2024) *available at* https://www.jstor.org/stable/jj.8595634.9 (last visited on November 29, 2024)

[52] Annex IV of MARPOL 73/78, Regulations for the Prevention of Pollution by Sewage from Ships, International Convention for the Prevention of Pollution from Ships, 1973

on marine litter and microplastics, the G20 Action Plan on Marine Litter, and the G7 Ocean Plastics Charter. The UN has also convened an Ad-hoc Expert Working Group on Marine Litter, which began exploring legal frameworks for tackling plastic pollution in 2018.

Convention on Biological Diversity

The Convention on Biological Diversity (CBD), in force since 1993, is pivotal in conserving marine biodiversity and aligns with SDG 14's emphasis on sustainable resource use. Target 14.5 of the SDGs directly relates to the CBD's Aichi Biodiversity Target 11, which calls for conserving at least 10% of coastal and marine areas.

The CBD established the Jakarta Mandate in 1995, focusing on marine biodiversity[53]. This initiative promotes integrated marine and coastal management, sustainable mariculture, measures against invasive species, and the establishment of marine protected areas. It also supports the development and effectiveness of biodiversity goals through its Conference of the Parties (COP) and two subsidiary bodies—the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) and the Subsidiary Body on Implementation (SBI).[54]

Additionally, the UN Regular Process for Global Reporting and Assessment of the State of the Marine Environment plays a significant role in strengthening scientific understanding of marine issues. Its World Ocean Assessment evaluates human impacts on the oceans, identifying threats to marine ecosystems and gaps in knowledge, thereby providing a robust foundation for policymaking.

UN Fish Stocks Agreement

The 1995 UN Fish Stocks Agreement addresses the conservation and sustainable management of straddling and highly migratory fish stocks, reinforcing SDG 14 targets to eliminate overfishing and destructive fishing practices. This agreement emphasizes applying precautionary approaches to fisheries management and safeguarding marine biodiversity.

Regional Fisheries Management Organizations (RFMOs), established under the agreement, are tasked with conserving fish stocks on the high seas and enforcing sustainable practices. SDG target 14.4 further aligns with this by promoting effective regulation of fisheries, ending illegal, unreported, and unregulated (IUU) fishing, and enhancing biodiversity protection.

Periodic reviews of the Fish Stocks Agreement, such as those held in 2006, 2010, and 2016, provide recommendations to refine conservation efforts. Informal consultations among states and parties have also been organized since 2002, focusing on specific implementation challenges and sharing best practices. These collaborative mechanisms underline the ongoing commitment to sustainable ocean governance under the framework of international law.

[53] Conservation and sustainable use of marine and coastal biological diversity, including a programme of work, COP 4 Decision IV/5, Programme Of Work Arising From Decision Ii/10 (Jakarta Mandate On Marine And Coastal Biological Diversity), available at: https://www.cbd.int/(last visited on November 24, 2024)
[54] ibid

Through frameworks like UNCLOS, MARPOL, the CBD, and the Fish Stocks Agreement, alongside global initiatives such as Agenda 2030, the international community has laid a comprehensive foundation for governing the oceans and their resources. These efforts highlight the importance of cooperative governance to balance ecological integrity with the sustainable use of marine resources, ensuring the health of the global commons for generations to come.

A Landmark Treaty for Marine Biodiversity Protection 2023

Recognizing the pressing need to safeguard marine ecosystems beyond national boundaries, a groundbreaking treaty was adopted on June 19, 2023, by all 193 United Nations member states. Known as the High Seas Treaty, this legally binding agreement represents nearly two decades of negotiation under the Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction (BBNJ). It marks a significant step in the global commitment to preserving marine biodiversity for present and future generations while upholding the principles of the UN Convention on the Law of the Sea (UNCLOS).[55]

Key Objectives and Provisions

The treaty aims to protect and responsibly utilize marine ecosystems in the high seas, encompassing two-thirds of the world's oceans. It focuses on maintaining ecological balance and conserving marine biodiversity. The agreement is structured around four main pillars:

1. **Area-Based Management Tools (ABMT), Including Marine Protected Areas (MPAs):**

The treaty sets the framework for creating ABMTs and MPAs to achieve the global "30 by 30" goal, which seeks to protect 30% of the ocean by 2030.[56] Proposals for MPAs involve a robust consultation process[57], scientific review, and final approval by the treaty's decision-making body. Once established, these protected areas are monitored and periodically reviewed[58] to ensure their effectiveness, with provisions for emergency measures in response to environmental crises.

2. **Environmental Impact Assessments (EIA):**

Activities likely to impact high seas ecosystems must undergo rigorous environmental evaluations.[59] Reports from these assessments are shared through a centralized platform, ensuring

[55] Joanna Mossop and Clive Schofield, "Biodiversity beyond National Jurisdiction and the Limits of the Commons: Spatial and Functional Complexities" in Myron H. Nordquist and Ronánn Long (eds.), Marine Biodiversity of Areas beyond National Jurisdiction (Brill, 2021) *available at* https://www.jstor.org/stable/10.1163/j.ctv1sr6jp5.22 (last visited on November 29, 2024)

[56] PART III, Measures Such As Area-Based Management Tools, Including Marine Protected Areas, United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction 2023

[57] Article 19, United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction 2023

[58] Article 21, United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction 2023

[59] PART IV, Environmental Impact Assessments, United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction 2023

transparency and accountability. Additionally, the treaty allows for strategic environmental assessments to anticipate and address regional ecological challenges comprehensively.

3. Marine Genetic Resources (MGR) and Benefit Sharing[60]:

The treaty governs access to and equitable sharing of benefits derived from marine genetic resources. It emphasizes the inclusion of developing countries and Indigenous communities, ensuring their free, prior, and informed consent when accessing traditional knowledge. While detailed mechanisms for benefit-sharing are yet to be finalized, developed nations are required to contribute financially to support implementation efforts in developing countries.

4. Capacity-Building and Technology Transfer (CBTMT):

A dedicated chapter outlines strategies to enhance scientific, technical, and technological capacities, particularly in developing nations. The treaty encourages knowledge sharing, research collaborations, and the development of marine conservation technologies.[61] A dedicated committee oversees these efforts to ensure effective and equitable implementation.

Cross-Cutting Elements

The treaty also integrates broader principles and governance mechanisms. It establishes bodies such as the decision-making committee (COP) and a scientific advisory panel to operationalize its provisions. Core principles, including the "polluter pays" and ecosystem-based management approaches, guide its implementation. Moreover, the treaty outlines financial frameworks, dispute resolution mechanisms, and coordination with other international bodies managing ocean-related activities, such as fishing and mining.

Charting a Sustainable Path

This treaty reflects the collective will to protect marine biodiversity through international collaboration. Its provisions, ranging from environmental safeguards to equitable benefit-sharing, aim to ensure that the high seas remain a thriving ecosystem for future generations. By fostering inclusivity, innovation, and ecological integrity, the High Seas Treaty heralds a new era in global ocean governance.

Treaty and Its Limitations

The High Seas Treaty represents a significant advancement in global marine conservation, establishing a legal framework for creating Marine Protected Areas (MPAs) and regulating human activities in international waters. MPAs are vital for achieving the goal of conserving at least 30% of the ocean by 2030, as outlined in the Global Biodiversity Framework. The treaty enables signatory countries to propose MPAs and implement measures such as fishing or shipping

[60] PART II, Marine Genetic Resources, Including The Fair And Equitable Sharing Of Benefits, United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction 2023

[61] PART V, Capacity-Building And Transfer Of Marine Technology, United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction 2023

restrictions. Upon agreement by the requisite number of states and the absence of objections, these protected areas are formalized, obligating all signatories to enforce their rules.

While the treaty's framework for environmental impact assessments (EIAs) marks progress in regulating activities such as deep-sea carbon capture, some significant gaps remain. Key sectors, including deep-sea mining and fisheries, are excluded from the treaty's standards. For instance, the International Seabed Authority continues to oversee deep-sea mining, often criticized for prioritizing commercial interests over environmental sustainability. Similarly, fisheries governance is relegated to regional organizations, which have been criticized for focusing narrowly on commercially exploited species, ignoring broader ecosystem impacts, and failing to curb destructive practices.

A notable limitation lies in the absence of provisions addressing industrial fishing, the largest contributor to marine biodiversity loss. Without radical reform in large-scale fishing practices, the treaty's ability to enhance oceanic health and biodiversity conservation remains constrained. The exclusion of fishing from MPA regulations and the broader treaty provisions diminishes its effectiveness in addressing the challenges of marine resource conservation and sustainable use.

Another concern is the treaty's approach to marine genetic resources (MGRs). While it requires equitable benefit-sharing from MGRs, including monetary contributions to a special fund for developing nations, it lacks robust enforcement mechanisms. High-income countries are not mandated to disclose their accessed resources or generated profits, potentially disadvantaging less developed nations. Moreover, the treaty does little to harmonize existing legal frameworks such as the Convention on Biological Diversity and Trade-Related Intellectual Property Rights, raising questions about its coherence with established regimes.

Capacity-building and technology transfer, while highlighted as critical for enabling equitable participation, also face challenges. The treaty emphasizes collaboration and knowledge sharing but lacks enforceable mechanisms to ensure developed nations fulfill their commitments. This absence risks leaving less capable states without the resources or technology needed to engage effectively in marine research and conservation initiatives.

Despite its strengths, the treaty's reliance on voluntary commitments and existing fragmented governance systems underscores its limitations. As a collective responsibility, addressing the shared challenges of the high seas requires a more integrated and enforceable global framework.

Conclusion

The oceans, as the planet’s lifeline, represent both immense potential and profound responsibility. This paper has explored the significance of oceans as global commons, the historical and legal frameworks governing them, and the pressing challenges they face. From climate change to overfishing and biodiversity loss, the high seas remain at the mercy of unsustainable human activity and inadequate governance. The 2023 Biodiversity Beyond National Jurisdiction (BBNJ) Treaty is a landmark effort to address these challenges, offering a beacon of hope for collaborative ocean conservation.

However, the journey ahead demands more than agreements on paper. Effective implementation, robust enforcement mechanisms, and inclusive participation from all nations especially those most reliant on marine resources are critical. The way forward lies in fostering international cooperation, strengthening scientific research, and adopting innovative technologies to monitor and protect marine biodiversity. Sustainable practices in fishing, pollution control, and resource extraction must be integrated into national and global policies. Equally vital is the role of education and community engagement. Empowering local and global stakeholders with knowledge about the importance of oceans can drive collective action. By aligning with global sustainability goals and embracing equitable resource sharing, we can ensure that the oceans continue to thrive as a shared heritage for all of humanity.