

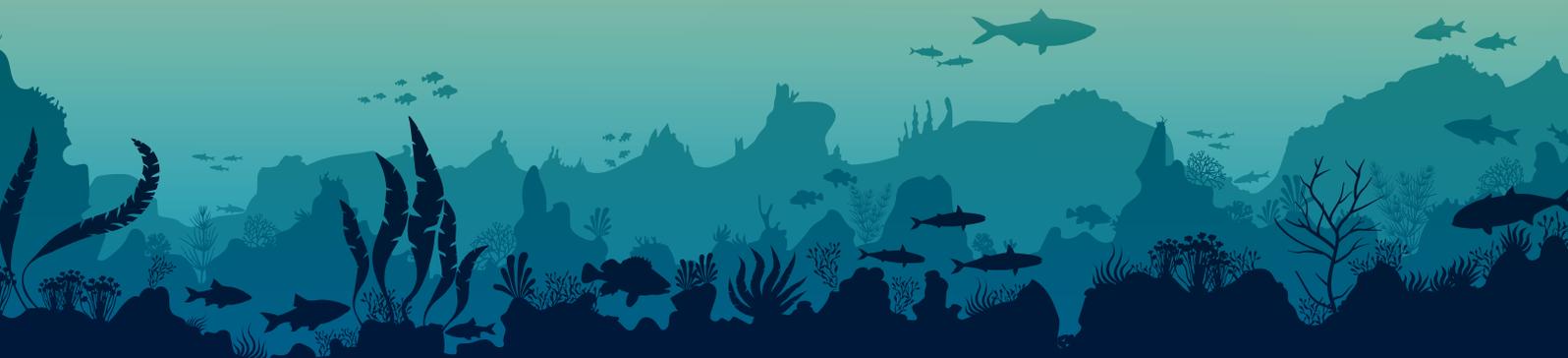


OCEANS-CLIMATE INTERFACE

IMPLICATIONS FOR
GLOBAL COMMONS
BASED CLIMATE ACTION

ACT4EARTH

COP 27 COMPASS POLICY BRIEF



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ABSTRACT

The High Seas or the Areas Beyond National Jurisdiction (ABNJ), are a global commons, which covers about two-thirds of the ocean surface and more than 90% of its volume and contains rich biodiversity of marine life. Oceans are the largest known carbon sink in the world. Despite this, oceans have largely remained absent from climate change negotiations under the Conference of Parties (COPs) that is convened under the United Nations Framework Convention on Climate Change (UNFCCC). Until COP21 held in 2015, the oceans were largely omitted from the climate change negotiations altogether. This is ironical as in the 1992 foundational text the UNFCCC clearly recognized the role of marine ecosystems. This policy brief focuses on the global commons of marine areas beyond national jurisdiction and climate action, examining the interface between climate and ocean governance. The objective of this brief is to bring forth issues pertaining to the gaps in the climate-ocean interface – especially when examining the same from the lens of global commons. The high seas are governed by an incomplete patchwork of international organizations and treaties. The United Nations Convention on the Law of the Sea (UNCLOS) offers minimal guidance on climate change. Existing agreements under the United Nations Framework Convention on Climate Change and other Rio Conventions lack a mandate for the high seas. This paper argues that a shift is needed in the climate-oceans interface to incorporate greater synergies, not just with the Rio Conventions but also with UNCLOS.

Keywords: Global commons, climate change, oceans, UNFCCC, climate negotiations



INTRODUCTION

Oceans are the largest known carbon sink in the world. Despite this, oceans have largely remained absent from climate change negotiations in the Conference of Parties (COPs) that is convened under the United Nations Framework Convention on Climate Change (UNFCCC). Until COP21 held in 2015, the ocean was largely omitted from the climate negotiations. This is ironic as the foundational text of the climate change regime, the UNFCCC 1992, in its Preamble clearly stated: “the role and importance in terrestrial and marine ecosystems of sinks and reservoirs of greenhouse gases” (UN, 1992). *Article 4.1d* also promotes sustainable management “of sinks and reservoirs...including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems” (UN, 1992). Earth’s largest known carbon sink has to compete for attention with a host of other key issues such as climate finance, equity, carbon markets, deforestation, and technology transfer.

In the post-Paris climate regime, with the publication of the *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate*, there has been a surge of interest in bringing oceans to the forefront of UNFCCC deliberations. The Intergovernmental Panel on Climate Change (IPCC) finds that it is “virtually certain that the global ocean has warmed unabated since 1970 and has taken up more than 90% of the excess heat in the climate system (high confidence) ...sea level rise has accelerated (extremely likely) due to the combined increased ice loss from the Greenland and Antarctic ice sheets (very high confidence). Mass loss from the Antarctic ice sheet over the period 2007-2016 tripled relative to 1997-2006” (IPCC, 2019). All marine habitats and creatures – from the shore to the abyssal depths and from the equator to the poles – are now influenced to some extent by one or more of these anthropogenic climate change stressors (IPCC, 2019). According to IPCC, sea level rise is accelerating and the ocean is acidifying which is detrimental for life.

Global Commons are resource domains that do not fall under the jurisdiction of any single country. They have two defining characteristics: the difficulty of barring others from using them (exclusion) and the degree to which one appropriator’s usage of the resource reduces the amount left for others (subtractability). Common pool goods have high subtractability and it is difficult to exclude others from using (Buck, 1998). International law has identified four global commons: the high seas, atmosphere, outer space and Antarctica (Zou, 2018). Currently, governance of global commons remains contentious, since there is no single state or region having complete responsibility for their governance.

The High Seas or the Areas Beyond National Jurisdiction (ABNJ) are a global commons, which covers about 40% of our planet’s surface, comprising 64% of the surface of the oceans and nearly 95% of its volume (GEF, 2022). The open oceans and deep seas, being the world’s largest and oldest environments, play a crucial role in keeping the planet healthy (DOSI, 2022). However, the massive exploitation of the ocean space because of the cumulative effect of climate change (ocean warming, acidification, deoxygenation), overfishing, shipping, seabed mining, waste dumping and ocean debris, has led to a catastrophic decline in marine biodiversity in areas beyond national jurisdiction. Spatially, in a non-uniform way, the world’s oceans have lost about 2% (over 150 billion tons) of its oxygen over the last 50 years (DOSI, 2019). Failure or delay in actions to address the threats to oceans and marine life in ABNJ could lead to a compromised capacity of the ocean’s resilience to climate change and in providing the necessary resources for human survival (IUCN, 2022a).

This policy brief focuses on the global commons of marine areas beyond national jurisdiction and climate action by examining the interface between climate and ocean governance. The objective of this brief is to bring forth issues pertaining to the gaps in the climate-ocean interface especially when examining the same from the lens of global commons.

OCEANS AND CLIMATE NEGOTIATIONS

The many years of neglect of oceans contrasts with the incredible role that they play in regulating the Earth's climate as well as the numerous manifestations of climate change in the marine environment (IPCC, 2019). The ocean plays a central role in climate change mitigation and adaptation. However, climate and ocean policies have been historically placed in separate silos. In the COPs following COP23 (spearheaded by Fiji in the year 2017), increases in indigenous representation and a concerted focus on the ocean-climate interface was noticed (Ferrer, et al., 2021). After decades of slow convergence, the Ocean and Climate Change Dialogue was decided at COP25 and launched online in December 2020. It was the first forum for Parties and non-Party stakeholders of the UNFCCC to give their perspectives on how the climate change regime should address ocean-related mitigation and adaptation (Dobush, et al., 2022). Finally, COP26 recognized the interface between oceans and climate change in a major way. The major outcome was governments permanently anchoring the inclusion of strengthened ocean-based action under the UNFCCC multilateral process in the Glasgow Climate Pact, 2021.

According to the UNFCCC (2021), Parties:

- » Noted the importance of ensuring the integrity of all ecosystems – including forests, the ocean and the cryosphere, and the protection of biodiversity (preamble);
- » Emphasized the importance of protecting, conserving and restoring nature and ecosystems, including forests and other terrestrial and marine ecosystems, to achieve the long-term global goal of the Convention by acting as sinks and reservoirs of greenhouse gases and protecting biodiversity, while ensuring social and environmental safeguards (para 2);
- » Recognized the importance of protecting, conserving and restoring ecosystems to deliver crucial services, including acting as sinks and reservoirs of greenhouse gases, reducing vulnerability to climate change impacts and supporting sustainable livelihoods, including for indigenous peoples and local communities (para 50);
- » Invited the relevant work programs and constituted bodies under the UNFCCC to consider how to integrate and strengthen ocean-based action in their existing mandates and work plans and to report on these activities within the existing reporting processes, as appropriate (para 60);
- » Invited the Subsidiary Body for Scientific and Technological Advice (SBSTA) Chair to hold an annual Ocean and climate change dialogue and prepare an informal summary report to be made available to the COP at each subsequent session (para 61).

As per the World Ocean Initiative, 2021, the key takeaways of COP26 for oceans and high seas were as follows:

- » Seychelles highlights the power of its watery carbon sinks and announces the integration of ocean climate action into its NDCs.
- » Nations sign the Clydebank Declaration to support decarbonisation of the shipping sector.
- » New and innovative blue finance models were announced that draw from both private and public sources to help conserve precious habitats while supporting a low-carbon blue economy.
- » Countries teamed up to create the world's first 'mega' marine protected area (MPA).
- » Western Indian Ocean states and partners launched the 'Great Blue Wall' initiative.

PATCHWORK REGIME DEALING WITH OCEANS AND CLIMATE ACTION

Currently, governance of global commons remains contentious, since there is no single state or region having complete responsibility of their governance. While the linkages between oceans and climate change from a scientific and ecological perspective is well established, governance and policy approaches remain fragmented.

The high seas are governed by an incomplete patchwork of international organizations and treaties. The United Nations Convention on the Law of the Sea (UNCLOS) offers minimal guidance on climate change. On the High Seas, only the state under whose flag a vessel operates is responsible for enforcing UNCLOS. Existing agreements under the UNFCCC and those regulating marine biodiversity in national waters, such as the Convention on Biological Diversity (CBD), lack mandates for the high seas. In turn, Intergovernmental Organizations that are mandated to regulate activities in ABNJ lack instruments covering all aspects of marine areas (Gjerde, et al., 2016).

The United Nations Convention on the Law of the Sea (UNCLOS), often referred to as the 'constitution of the oceans,' provides the framework for ocean governance at multiple scale ranges – from state territory to beyond state territory waters. UNCLOS, which came into effect on November 16, 1994, outlined the rights and responsibilities of states regarding the use of the ocean, its resources, and the preservation of the marine and coastal environment. UNCLOS differentiates the zones by distance from shore as territorial sea, contiguous zone, and exclusive economic zone, of which specified rights and authority of the water column and seabed are within the coastal states. It is the recognised authority for the governance of ABNJ and divides the water column of high seas and the seabed separately for purposes of governance. Even though UNCLOS does not specifically mention marine biodiversity or deal with implications of climate change, it is widely accepted to set the legal framework for all ocean-related activities.

Several regulatory tools and processes exist that supplement the legal framework established by UNCLOS. For example, the UN fish stocks agreement (1995) covers the conservation and management of highly migratory fish stock that moves between EEZs and high seas. The agreement proposed the establishment of sub-regional or regional fishery management organisations (RFMOs) or bodies that take a precautionary approach to the management and conservation of fish stock in the high seas.

Liu, et al. (2022) show that both stratospheric and tropospheric ozone changes have contributed to Southern Ocean interior warming. The ozone changes between 1955 and 2000 induced about 30% of the net simulated ocean heat content increase in the upper 2,000m of the Southern Ocean – with around 40% attributed to stratospheric depletion. During COP10 of CBD in Nagoya, governments noted the need for an increased collaboration between the FAO, UNEP and RFMOs, UNFCCC, ICRI and others, to assess the interacting challenges of climate change, ocean acidification and marine biodiversity loss (Galaz, Crona, Österblom, Olsson, & Folke, 2012). Despite these widely accepted linkages between biodiversity, land, ozone depletion and climate change, the Rio Conventions largely focus on country level actions. Even the SDGs adopted by the UN member states in 2015 are very statist and promotes country level actions when it comes to oceans; they do not factor in marine ABNJ.

Currently, an international legally binding instrument on marine biodiversity in areas beyond national jurisdiction (BBNJ) is under negotiation, to ensure conservation and sustainable use of marine biological diversity of ABNJ – which is more than two-thirds of the oceans (UNGA, 2017). A growing body of literature asserts that the current features of the ABNJ legal and institutional framework represent a fundamentally disjunctive and fragmentary system, and that the BBNJ Treaty should aim to reconcile the various threads of legal and institutional structures to come at a consensus (Warner, 2014). While there are many institutions and agreements currently mandated to regulate sectoral issues in ABNJ (including shipping, fishing and mining), none of them systematically integrate issues related to conservation and sustainable use of marine



biodiversity. On the other hand, existing global agreements on protecting biodiversity are based on country driven policies, as in the case of Convention on Biological Diversity (Rochette, et al., 2014).

Scott (2021) explores the role of the BBNJ Treaty in addressing the impacts of climate change; concluding that while the Agreement has provisions to mitigate and adapt to impacts of climate change – by linking it to the conservation of biodiversity and ecosystems beyond national jurisdiction – lack of ambition and resistance by some negotiating states is a major barrier. Scott also points to the complexities of developing a global framework for area-based protection within an already congested and competitive regime complex. The study recommends an approach which does not undermine the interests of either states or relevant global, regional, and sectoral bodies (Scott, 2019). A qualitative study by Banskchikova (2021) highlighted that several flaws exist in the overall design of the Treaty, i.e., lack of: necessary enforcement mechanisms, effective monitoring tools, clarity of the language and basic definitions, or a robust institutional framework.

Another dimension of interest in the literature is the principle of Common Concerns of Humankind (CCH). CCH framework provides a basis for protecting shared resources that are being threatened by a global problem, especially those with long-lasting adverse effects (Bowling, Pierson, & Ratté). Lothian (2021) seeks to bring forth the potential role of the CCH framework in the negotiations on the BBNJ Treaty. Despite its prominent role in the in the early stages of the negotiation process – on the conservation and sustainable use of BBNJ – the CCH framework has disappeared from the recent literature.

When it comes to the role of coastal states in the negotiation process for the BBNJ Treaty, the literature relies on the concept of adjacency. This aims to give coastal States additional rights or responsibility for the protection of biodiversity in ABNJ in tandem with their own national maritime policies. Since the principle of adjacency has not been recognized under UNCLOS, its mention in the BBNJ Treaty could upset the balance between the rights of coastal states and those of the international community (Mossop & Schofield, 2020; Su, 2020). Latest draft of the BBNJ Treaty regards the priorities and interests of coastal states by inviting proposals and stakeholder consultations (UNGA, 2022).

The discussions under BBNJ are case in point, showing the complexity of issues involved in oceans governance when it comes to governing the global commons. There are several arrangements already in place for major issues related to ocean governance, both within and beyond national jurisdictions, including: biodiversity, pollution, fisheries and shipping. To address the problems caused by a fragmented ocean governance and to map out various actors currently involved at a global level, adoption a framework rooted in science and focusing on earth-system based approaches – which takes into account the complexity of earth systems – is important.

OCEANS FROM THE LENS OF EQUITY

Equity is a key concern in global environmental issues and international debates in climate change. Generally, the assessment of environmental and conservation equity follows the multidimensional framework that identifies three dimensions: first is distributional equity (closely addresses the distribution of benefits and costs), the second is procedural equity (looks at inclusiveness in governance, rules and regulation, and decision-making), and the third is recognitional equity (takes into accounts all the stakeholders, their knowledge and values).

The problems of ocean equity are often not explicitly stated; rather much what is highlighted reduces inequity only in the instrumental sense, by improving sustainability through a well-defined action pathway for moving towards sustainable future. It is a hard fact that till date the distribution of benefits of oceans has been iniquitous and the ocean economy has primarily benefited wealthy nations and firms. For example, local or marginalised population (e.g., women, indigenous groups, and poor people) are frequently not or inadequately included in decision-making processes related to ocean development, such as site selection of ports, energy and oil development, aquaculture, that may directly impact their livelihoods (Kerr et al., 2015; Flannery et al., 2018).

These inequities become more complex as activities move away from coastal to high seas (ABNJ), where ocean resources are recognized simultaneously as unowned/open access and as common heritage. For example, in respect of fisheries, five high-income countries are responsible for 86% of total fish catch in the high seas/ ABNJ (McCauley et al., 2018, Tickler et al., 2018). In the coastal and EEZ areas, around 25 countries are responsible for roughly 82% of global catches from 2004-2014 (FAO, 2018), while 13 seafood companies control 11-16% of the global catch (Österblom et al., 2015). Recent analysis reveals that a high level of industry consolidation is prevalent in maritime transport, cruise industries, offshore wind, ports, shipbuilding and repair, as well as offshore oil and gas (Monacelli 2018, Österblom et al., 2020, Viridin et al., 2021, Carmine et al., 2020). For example, a single company holds around 47% of marine genetic resources patents (Blasiak et al., 2018). These instances highlight the inequity in the current ocean economy and that the access to and distribution of benefits arising from ocean system are unequally controlled (Wynberg and Hauck, 2014).

Prior to UNCLOS, and even now for the ABNJ, the doctrine of 'Freedom of the High Seas' (FOS), which grants rights both to coastal and landlocked states, can be considered as the major leverage for the uninterrupted exploitation of the resources and biodiversity in ABNJ. The Common Heritage of Humankind Principle (CHP), which is considered a solution to the tragedy of the commons, formally acknowledges that the environment belongs to all and provides a normative basis for mechanisms and institutions ensuring the sustainable use of natural resources and holding them in trust for future generations (Vadrot, Langlet, & Tessnow-von Wycsocki, 2022).

Since the commencement of BBNJ negotiations, the common heritage of humankind principle (CHP) has created a split between the governments of Global South (in favour of CHP, to contest the dominance of traditional sea powers) and representatives of Global North who are in favour of FOS. The Global North are generally trying to prevent the inclusion of CHP in the Treaty, in order to safeguard their controlled access to marine genetic resources (De Santo, Mendenhall, Nyman, & Tiller, 2020) (Vadrot, Langlet, & Tessnow-von

WAY FORWARD: STRENGTHENING THE CLIMATE-OCEANS INTERFACE

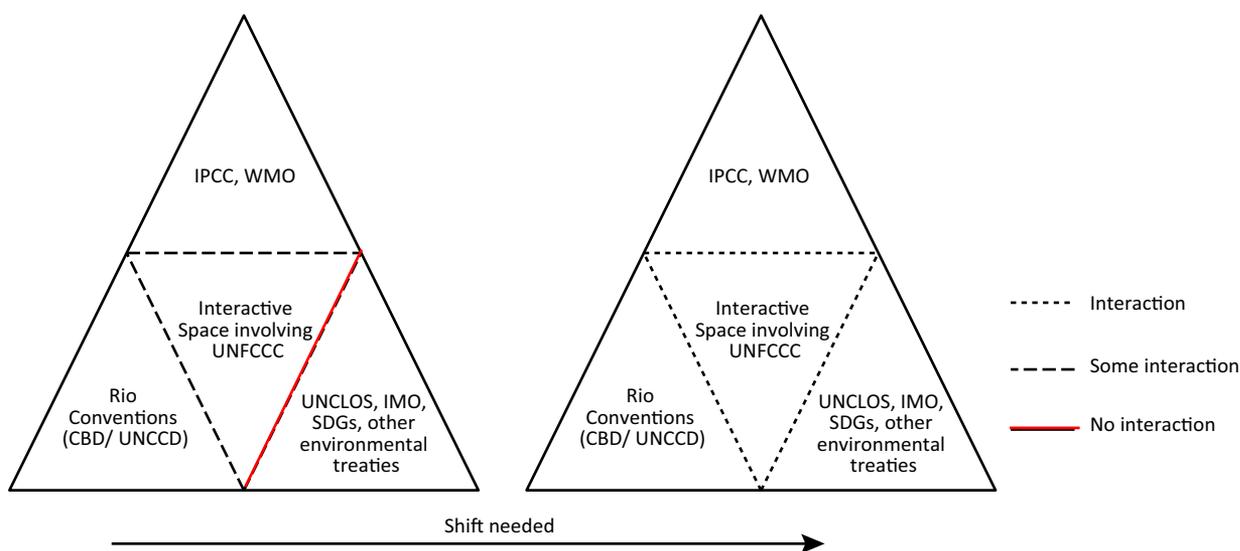
There is now a consensus that ‘Oceans’ plays a critical role in climate negotiations. It has helped in slowing the rate of climate change by acting as a carbon sink. However, in turn it has experienced impacts such as acidification, warming, changing circulation patterns and rising sea levels. A healthy and biodiverse ocean can not only support all life on earth, but also aid in mitigation and adaptation options for climate change. There is a need for definite goals and indicators, along with institutional and enforcement mechanisms to steer ocean-climate action. Reporting for countries should be easy and aligned. International cooperation and financial resources are critical for actionability of the outcomes of COP26.

Leveraging global processes to build synergies across ocean-climate action – including with the UNFCCC, United Nations Convention to Combat Desertification, CBD, UNCLOS, International Maritime Organization and the International Seabed Authority could be explored. Further, spelling-out of specific activities that would be undertaken will help reduce ambiguity and also help assess the progress in the next COPs. Figure 1 depicts the shift needed in the climate-oceans interface.

Based on the stakeholder dialogue under Act4Earth, the following are some areas that could be focused on:

- » Strengthening interface between climate regime and oceans regime: Presently, the interface largely involves the interactions between the Rio conventions. This needs to be expanded to include UNCLOS, SDGs and various environmental agreements – including those in the polar regions.
- » Better integration of oceans and high seas in existing tools and processes under the UNFCCC: At the country level, communications including nationally determined contributions, national adaptation plans, long-term strategies and the global stocktake could better factor in the oceans.
- » To deal with the increasing pressure of climate change and human use, BBNJ must be ambitious, climate-smart and well-resourced. In addition, it needs binding legal commitments, an empowered Conference of Parties, along with dedicated Committees to foster collaborative and precautionary action to conserve marine biodiversity, safeguard ecosystem integrity, deliver capacity and access to relevant technologies, and ensure that human uses are sustainable and equitable (IUCN, 2022b).

FIGURE 1: SHIFT NEEDED IN TERMS OF INTERACTIONS ON INVOLVING CLIMATE-OCEANS INTERFACE





- » The reporting on global indicator frameworks need to go beyond what is presently reported under Goal 14 of the SDGs, which does not sufficiently cover the high seas and ABNJ.
- » There is a need to create avenues for engagement with local communities and vulnerable countries and bring them and their voices to the platforms. To make the annual ocean and climate change dialogue more effective and inclusive, care should be taken to involve non-UN agencies as well. Concerted efforts will be required to devise a common platform, as well as convince all the developed and developing countries and bring them on board.
- » Improved ocean governance and management is needed to scale up marine protection and sustainable management of both the high seas and coastal waters; including creation of climate-smart, innovative and networked marine protected areas (MPAs) (Turley et al., 2021).
- » A critical aspect is addressing the knowledge gap in ocean governance, especially to benefit people, nature and the economy. There is a need to strengthen international coordination and integration of ocean observations. Sustained global ocean observations and projections of ocean sciences (physics, chemistry and biology) are essential to inform better short and long-term policy making.
- » There is a need to increase our scientific understanding of the oceans. Much more needs to be known about the Polar Regions as well; scientific research remains a priority for their governance. The Antarctica Treaty System still needs more dialogue and even more democracy in agenda setting and arrival at consensus.
- » The role of the private sector in ocean governance needs to be clearly defined. It is important to link positive actions from the private sector and businesses with creation of an enabling environment by governments. If we want to mainstream all actors, they should be mandated to assess and disclose their impacts and dependencies on nature and on the oceans.

- » Preserve, restore, and investigate ecosystems including 'blue carbon' (mangroves, salt marshes, sea grasses): Raising innovative ocean finance is required to achieve a sustainable ocean economy and protect the ocean's natural capital (Turley et al., 2021).

There is a failure to consider marine systems within the larger framework of earth systems – where marine spatial planning and environmental assessments play an important role in limiting the impact of economic activities on oceans. Any system of cooperation needs to ensure accountability, without which there is always an issue of free riders.



As a first step, it is commendable that ocean has been included in the climate negotiations. Much of the push towards 'carbon net zero' involves offsetting. However, we already know that up to 90% of carbon offsetting has little or no real impact, while many assessments avoid the issue of whole-lifetime carbon cost. Nature protection is sometimes 'sold' as an offset, even when no obvious threat is being mitigated and hence no additional climate mitigation is being provided. By contrast, potentially important, unprotected carbon sinks may stay low on protection agendas because protecting them does not create new (additional) carbon sequestration; therefore, this does not count towards a country's emissions reduction targets. With the current urgency of our state of affairs, we cannot accept a situation in which losing intact carbon sinks (including oceans) and attempting to restore others is better rewarded, than protection of intact habitat (which is more likely to achieve greater carbon burial). One of the positive outcomes of COP26 was that nature-based solutions (NbS) were taken seriously.

Harmonizing ocean-based measures requires securing robust poly-centric and multi-level local enabling conditions, as well as enhanced international support for climate action. This is critical because the majority of ocean inclusive NDCs are dependent on external financing and support. While countries can scale-up their ocean-based mitigation and adaptation strategies on their coasts and areas under their respective jurisdiction, high seas as a global commons still needs attention from the global community.

REFERENCES

- Banshchikova, I. (2021). International environmental treaty-making. The future of the UN BBNJ Treaty. Oregon State University.
- Blasiak, R., Jouffray, J. B., Wabnitz, C. C. C., Sundström, E., & Österblom, H. (2018). Corporate control and global governance of marine genetic resources. *Science Advances*, 4(6). <https://doi.org/10.1126/sciadv.aar5237>
- Bowling, C., Pierson, E., & Ratté, S. (n.d.). *The Common Concern of Humankind: A Potential Framework for a New International Legally Binding Instrument on the Conservation and Sustainable Use of Marine Biological Diversity in the High Seas*. Retrieved from https://www.un.org/depts/los/biodiversity/prepcom_files/BowlingPiersonandRatte_Common_Concern.pdf.
- Buck, S. J. (1998). *The Global Commons: An Introduction* (1st ed.). London: Routledge. Retrieved from <https://doi.org/10.4324/9781315086415>.
- Carmine, G., Mayorga, J., Miller, N. A., Park, J., Halpin, P. N., Crespo, G. O., Österblom, H., Sala, E., & Jacquet, J. (2020). Who is the high seas fishing industry? *One Earth*, 3(6), 730–738. <https://doi.org/10.1016/j.oneear.2020.11.017>
- De Santo, E. M., Mendenhall, E., Nyman, E., & Tiller, R. (2020). Stuck in the middle with you (and not much time left): the third intergovernmental conference on biodiversity beyond national jurisdiction. *Marine Policy*, 117.
- Dobush, B.-J., Gallo, N. D., Guerra, M., Guilloux, B., Holland, E., Seabrook, S., & Levin, L. A. (2022). A new way forward for ocean-climate policy as reflected in the UNFCCC Ocean and Climate Change Dialogue submissions. *Climate Policy*, 22(3), 254–271. doi:<https://doi.org/10.1080/14693062.2021.1990004>.
- DOSI. (2019). *Ocean Deoxygenation: A Hidden Threat to Biodiversity Beyond National Jurisdiction*. Deep Ocean Stewardship Initiative. Retrieved from <https://www.dosi-project.org/wp-content/uploads/053-DOSI-Deoxygenation-V9.pdf>.
- DOSI. (2022). *The Deep Ocean and BBNJ: Important Points for IGC-4*. Deep Ocean Stewardship Initiative. Retrieved from <https://www.dosi-project.org/wp-content/uploads/deepocean-bbnj-important-points-IGC4-brief.pdf>.
- FAO. (2018). *The State of World Fisheries and Aquaculture: Meeting the sustainable development goals*. Food and Agriculture Organization of the United Nations. <https://www.fao.org/3/i9540en/i9540en.pdf>
- Ferrer, E. M., Cavole, L. M., Clausnitzer, S., Dias, D. F., Osborne, T. C., Sugla, R., & Harrison, E. (2021). Entering Negotiations: Early-Career Perspectives on the UN Conference of Parties and the Unfolding Climate Crisis. *Frontiers in Marine Science*, 8-11. Retrieved from <https://www.frontiersin.org/articles/10.3389/fmars.2021.632874>.
- Flannery, W., Healy, N., & Luna, M. (2018). Exclusion and non-participation in Marine Spatial Planning. *Marine Policy*, 88, 32–40. <https://doi.org/10.1016/j.marpol.2017.11.001>
- Galaz, V., Crona, B., Österblom, H., Olsson, P., & Folke, C. (2012). Polycentric systems and interacting planetary boundaries – Emerging governance of climate change–ocean acidification–marine biodiversity. *Ecological Economics*, 81, 21–32. Retrieved from <https://www.sciencedirect.com/science/article/abs/pii/S0921800911004964>.
- GEF (Global Environment Facility) (2022), “Areas Beyond National Jurisdiction”, URL: <https://www.thegef.org/what-we-do/topics/areas-beyond-national-jurisdiction> (Last Accessed on 26th October 2022).
- Gjerde, K. M., Reeve, L. L., Harden-Davies, H., Ardron, J., Dolan, R., Durussel Earle S., Jimenez, A.J., Kalas, P., Laffoley, D., Oral, N., Page, R., Ribeiro, M.C., Rochette, J., Spadone, A., Thiele, T., Thomas, H.L., Wagner, D., Warner, R., Wilhelm, A., Wright, G. (2016). Protecting Earth’s last conservation frontier: scientific, management and legal priorities for MPAs beyond national boundaries. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 26(S2), 45–60. doi:<https://doi.org/10.1002/aqc.2646>.
- IPCC. (2019). Special Report on the Ocean and Cryosphere in a Changing Climate. In H. O. Portner, D. C. Roberts, & V. Masson-Delmotte. Geneva: Intergovernmental Panel on Climate Change.
- IUCN. (2022a). *Governing Areas Beyond National Jurisdiction*. International Union for Conservation of Nature. Retrieved from <https://www.iucn.org/resources/issues-brief/governing-areas-beyond-national-jurisdiction>.
- IUCN. (2022b). *Key Messages for BBNJ IGC5*. International Union for Conservation of Nature. Retrieved from <https://www.iucn.org/sites/default/files/2022-08/iucn-key-messages-for-bbnj-igc5.pdf>.
- Kerr, S., Colton, J., Johnson, K., & Wright, G. (2015). Rights and ownership in sea country: implications of marine renewable energy for indigenous and local communities. *Marine Policy*, 52, 108–115. <https://doi.org/10.1016/j.marpol.2014.11.002>
- Liu, W., Hegglin, M. I., Checa-Garcia, R., Li, S., Gillett, N. P., Lyu, K., Zhang, X., Swart, N. C. (2022). Stratospheric ozone depletion and tropospheric ozone increases drive Southern Ocean interior warming. *Nature Climate Change*, 12, 365–372.

- Lothian, S. (2021). Forget Me Not: Revisiting the Common Concern of Humankind Concept in the BBNJ Context. *Environmental and Planning Law Journal*, 38(3), 189-203.
- McCauley, D. J., Jablonicky, C., Allison, E. H., Golden, C. D., Joyce, F. H., Mayorga, J., & Kroodsma, D. (2018). Wealthy countries dominate industrial fishing. *Science Advances*, 4(8). <https://doi.org/10.1126/sciadv.aau2161>
- Monacelli, N. (2018). Improving Maritime Transportation Security in Response to Industry Consolidation. *Homeland Security Affairs*, 16(2). <https://www.hsaj.org/articles/14257>
- Mossop, J., & Schofield, C. (2020). Adjacency and due regard: The role of coastal States in the BBNJ treaty. *Marine Policy*, 122. <https://doi.org/10.1016/j.marpol.2020.103877>
- Österblom, H., Jouffray, J. B., Folke, C., Crona, B., Troell, M., Merrie, A., & Rockström, J. (2015). Transnational Corporations as 'Keystone Actors' in Marine Ecosystems. *PLOS ONE*, 10(5), e0127533. <https://doi.org/10.1371/journal.pone.0127533>
- Österblom, H., Wabnitz, C. C. C., Tladi, D., Allison, E. H., Arnaud-Haond, S., Bebbington, J., Bennett, N., Blasiak, R., Boonstra, W., Choudhury, A., Cisneros-Montemayor, A., Daw, T., Fabinyi, M., Franz, N., Harden-Davies, H., Kleiber, D., Lopes, P., McDougall, C., Resosudarmo, B. P., & Selim, S. A. (2020). *Towards Ocean Equity*. World Resources Institute. <https://www.oceanpanel.org/how-distribute-benefits-ocean-equitably>
- Rochette, J., Unger, S., Herr, D., Johnson, D., Nakamura, T., Packeiser, T., Proelss, A., Visbeck, M., Wright A., Cebrian, D. (2014). The regional approach to the conservation and sustainable. *Marine Policy*. Retrieved from <https://www.sciencedirect.com/science/article/abs/pii/S0308597X14000438?via%3Dihub>.
- Scott, K. N. (2019). Area-based Protection beyond National Jurisdiction: Opportunities and Obstacles. *Asia-Pacific Journal of Ocean Law and Policy*. Retrieved from https://brill.com/view/journals/apoc/4/2/article-p158_158.xml?language=en
- Scott, K. N. (2021). The BBNJ Agreement: Strengthening the Ocean-Climate Nexus. Retrieved from University of Canterbury Research Repository: <https://hdl.handle.net/10092/103671>
- Su, J. (2020). The Adjacency Doctrine in the Negotiation of BBNJ: Creeping Jurisdiction or Legitimate Claim? *Ocean Development & International Law*, 52(1), 41–63. <https://doi.org/10.1080/00908320.2020.1852841>
- Tickler, D., Meeuwig, J. J., Bryant, K., David, F., Forrest, J. A. H., Gordon, E., Larsen, J. J., Oh, B., Pauly, D., Sumaila, U. R., & Zeller, D. (2018). Modern slavery and the race to fish. *Nature Communications*, 9. <https://doi.org/10.1038/s41467-018-07118-9>
- Turley, C., Racault, M.-F., Roberts, J. M., Scott, B., Sharples, J., Thiele, T., Williams, R.G., Williamson, P. (2021). *Why the Ocean Matters in Climate Negotiations, COP26 Ocean Briefing Paper_v1.indd*. University of Aberdeen. Retrieved from https://www.researchgate.net/publication/357017227_Why_the_Ocean_Matters_in_Climate_Negotiations/citation/download.
- UN (United Nations) (1992). United Nations Framework Convention on Climate Change. New York: United Nations.
- UNGA (United Nations General Assembly). (2022). Intergovernmental conference on an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction. United Nations General Assembly. <https://documents-dds-ny.un.org/doc/UNDOC/LTD/N22/298/78/PDF/N2229878.pdf?OpenElement>
- UNFCCC (United Nations Framework Convention on Climate Change). (2021). Glasgow Climate Pact, Decision -/CP.26. Bonn: UNFCCC.
- UNGA (United Nations General Assembly). (2017). International legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction. United Nations General Assembly.
- Vadrot, A. B., Langlet, A., & Tessnow-von Wysocki, I. (2022). Who owns marine biodiversity? Contesting the world order through the 'common heritage of humankind' principle. *Environmental Politics*, 31(2), 226-250.
- Virdin, J., Vegh, T., Jouffray, J. B., Blasiak, R., Mason, S., Österblom, H., Vermeer, D., Wachtmeister, H., & Werner, N. (2021). The Ocean 100: Transnational corporations in the ocean economy. *Science Advances*, 7(3). <https://doi.org/10.1126/sciadv.abc8041>
- Warner, R. M. (2014). Conserving marine biodiversity in areas beyond national jurisdiction: co-evolution and interaction with the law of the sea. *Marine Affairs and Policy*. doi:10.3389/fmars.2014.00006.
- World Ocean Initiative. (2021). *COP26: Ocean action is climate action*. Retrieved from <https://ocean.economist.com/governance/articles/untitled-cop26-ocean-action-is-climate-action>.
- Wynberg, R., & Hauck, M. (2013). People, power, and the coast: a conceptual framework for understanding and implementing benefit sharing. *Ecology and Society*, 19(1): 27. <https://doi.org/10.5751/ES-06250-190127>

WORLD SUSTAINABLE DEVELOPMENT SUMMIT

The World Sustainable Development Summit (WSDS) is the annual flagship Track II initiative organized by The Energy and Resources Institute (TERI). Instituted in 2001, the Summit series has a legacy of over two decades for making 'sustainable development' a globally shared goal. The only independently convened international Summit on sustainable development and environment, based in the Global South, WSDS strives to provide long-term solutions for the benefit of global communities by assembling the world's most enlightened leaders and thinkers on a single platform. Over the years, the Summit series has witnessed the participation of 54 Heads of State and Government, 103 Ministers, 13 Nobel Laureates, 1888 Business Leaders, 2745 Speakers, and 38,280 Delegates.

ACT4EARTH

Act4Earth initiative was launched at the valedictory session of WSDS 2022. Building on the discussions of WSDS, this initiative seeks to continuously engage with stakeholders through research and dialogue. Act4Earth initiative has two components: **COP Compass** and **SDG Charter**. The COP Compass will seek to inspire and mobilize leadership at all levels, for inclusive transitions through ambitious and informed policies and measures which will enable paradigm shifts – towards meeting the UNFCCC and Paris goals through mitigation, adaptation and means of implementation. The SDG Charter will seek to identify gaps and suggest ways for strengthening and mainstreaming sustainable development in policy agendas for enhanced environmental, social, and economic outcomes.



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