

States' international obligations at the ocean-climate nexus

By Elisa Morgera and Mitchell Lennan

In March 2023, the United Nations General Assembly requested the International Court of Justice (ICJ) to clarify the international obligations of States to ensure the protection of the climate system and other parts of the environment from anthropogenic emissions of greenhouse gases for States and for present and future generations ([A/RES/77/276](#)). The One Ocean Hub submitted to the Court a [note](#) to highlight: 1) the need to take into account marine biodiversity science as a basis to clarify State obligations; 2) the need to rely also on international biodiversity law, the law of the sea and international human rights law to clarify these obligations; and 3) a synthesis of State obligations that arise from considering the science and law identified by the Hub under 1 and 2. In this policy brief, we summarise the science and the concept of mutual supportiveness that we shared with the Court, and the key conclusions of our note in terms of State obligations at the ocean-climate nexus.

Mutual supportiveness

It is essential to consider the full interconnected range of marine ecosystem services (including deep-sea ecosystem services) that are negatively impacted by climate change (food and water supply, renewable energy, benefits for health and well-being, cultural values, tourism, trade, and transport). There is sufficient scientific knowledge to identify and avoid “foreseeable negative impacts on human rights” ([A/HRC/34/49](#), para. 34; [A/HRC/37/59](#)) that can arise from decisions that may negatively affect marine biodiversity, as marine ecosystem services affected by climate change are essential for various dimensions of human well-being, which are protected as international human rights.

As a result, international legal rules must be interpreted and applied in the context of “the entire legal system prevailing at the time of the interpretation” ([ICJ Namibia Opinion](#), 1971, para. 53). States need to take into account, “any relevant rules of international law applicable in the relationships between

THE ROLE OF THE OCEAN AND ITS BIODIVERSITY IN REGULATING THE CLIMATE

On a physical and biodiversity science basis, the interdependence and interconnectivity between the climate system and the global ocean, including its biodiversity, must be included in any consideration of effective climate change (mitigation and adaptation) action. Especially considering that according to the Intergovernmental Panel on Climate Change in their 2019 Special Report on the Ocean:

- The ocean has warmed unabated since 1970 and absorbed over 90% of the excess heat in the climate system. The rate of ocean warming has more than doubled since 1993;
- The top few metres of the ocean store as much heat as the Earth's entire atmosphere;
- If the lower 10 kilometres of the atmosphere had taken up the same amount of heat as the ocean from 1971 – 2010, the planet would have warmed by 36°C;
- The ocean is a sink for approximately a quarter of anthropogenic CO₂ with dissolved organic carbon equating to approximately 200 times that of marine biomass, ([Worden et al., 2015](#)) and phytoplankton being responsible for approximately 50% of global primary production of organic matter ([Hilmi et al., 2021](#));
- Fish and other marine organisms are key players in the global carbon cycle, because they sequester organic carbon as they live, die, sink, and decompose at depth. ([Mariani et al., 2020](#))
- Carbon stored in bottom waters or sediments of the deep sea is removed from the atmosphere for millions of years, however activities that disturb the deep seabed could release significant amounts of carbon.
- Coastal marine environments are of crucial importance in this context and are understood as “blue carbon” ecosystems which absorb and store CO₂ at greater quantities and for longer periods than forests can ([UN, 2021](#)).

the parties”¹ also to exercise good faith and contribute to the effectiveness of these rules (A/CN.4/L.682, para. 414). According to the principle of mutual supportiveness, which is based on these general features of international law, states should interpret international rules as supporting each other. In addition, mutually supportive interpretation is envisaged under the UN Convention on the Law of the Sea, which contains numerous rules expressly calling for the incorporation of standards from other external instruments into the law of the sea and coordination with other instruments, particularly with regard to other environmental agreements (e.g., Art. 237).

State obligations at the ocean-climate nexus

Against our findings, as part of their obligations “to ensure the protection of the climate system and other parts of the environment”, **States must:**

1. Apply the ecosystem approach, precautionary principle and human rights to the design, implementation, financing, monitoring and review of climate, biodiversity and ocean policies, plans, and actions, including climate change adaptation and mitigation measures and “just transition” or “blue economy” policies, plans and actions. In particular, they must:
 - a. prioritise: drastically **reducing greenhouse gas emissions**; phasing out fossil fuels production and consumption;² and implementing **nature-based, including ocean-based, solutions** (including removal of greenhouse gases by sinks, and renewable energy, as long as they do not negatively impact on biodiversity);
 - b. refrain from funding and authorising large-scale **carbon dioxide removal** actions that do not ensure avoidance of foreseeable harm to biodiversity and human rights;⁴
 - c. regulate and control **contained, small-scale experiments** of carbon dioxide removal technologies so that they are subject to environmental and human rights impact assessments, rigorous justification in terms of the need to gather specific scientific data, and public participation standards (access to information, public participation in decision-making, free prior informed consent if negative impacts are foreseeable on Indigenous peoples and small-scale fishing and other communities, and access to justice and effective remedies);⁵

- d. refrain from undertaking marine geo-engineering activities⁶ and deep-seabed mining (A/77/226, para 25; A/78/155, para 44; OHCHR 2023) until there is adequate scientific basis to ensure avoiding foreseeable harm to biodiversity and human rights; and
 - e. ensure the meaningful participation of human rights holders (including children⁷) in relevant decision-making, including free, prior informed consent of Indigenous peoples where activities or foreseeable harm may involve sacred or traditionally used territories and waters;⁸ and
2. minimise and carefully regulate and monitor activities that increase the vulnerability and reduce the resilience of biodiversity and ecosystems⁹, and/or negative impacts on human health or other human rights, such as large-scale fisheries;
 3. In creating and managing area-based measures:
 - a. undertake joint planning of protected area networks (for example, transboundary fisheries management areas and MPAs according to the ecosystem approach), and integrate them into wider landscapes, seascapes and sectors, through the use of connectivity and biodiversity restoration measures;¹⁰

6 CBD Dec. X/33 (2010), para. 8(w), which was reiterated in XIII/14 (2016); HRC Advisory Committee (n 3), para. 32.

7 1989 UN Convention on the Rights of the Child, Art. 12; Committee on the Rights of the Child, ‘General comment No. 26 (2023) on children’s rights and the environment, with a special focus on climate change’ (2023).

8 Framework Principles on Human Rights and the Environment (2018) UN Doc. A/HRC/37/59, Principle 2, para. 4; and Principle 15.

9 Paris Agreement, Art. 8; CBD Dec XIII/4 (2016), para. 8(a-b) and XV/4, Kunming-Montreal Global Biodiversity Framework (2022), Target 11.

10 CBD Dec. X/31 (2010), paras. 14(b-d) and (f) and 19(c).

1 1969 Vienna Convention on the Law of Treaties Article 31(3)(c).

2 Going further than specified in 2015 Paris Agreement Decision 4/CMA.5 (2023), para. 28, which calls on Parties inter alia to ‘transition away from’ and ‘phase out’ fossil fuels in energy systems and inefficient fossil fuel subsidies, respectively. HRCtee General Comment 36, para. 62; Inter-American Court of Human Rights, Advisory Opinion OC-23/17 (15 November 2017), para. 180.

3 Human Rights Council (HRC) Advisory Committee, ‘Impact of new technologies intended for climate protection on the enjoyment of human rights’, UN Doc A/HRC/54/47 (2023), para. 71.

4 HRC Advisory Committee *ibid.*, 75, para. 18; R Loomis et al., ‘A Code of Conduct is Imperative for Ocean Carbon Dioxide Removal Research’ (2022) 9 *Frontiers in Marine Science* 872800.

5 Drawing, by analogy, from 1992 Convention on Biological Diversity (CBD) Dec. X/33, para. 8(w); and HRC Advisory Committee (n 3), para. 49 and 75.

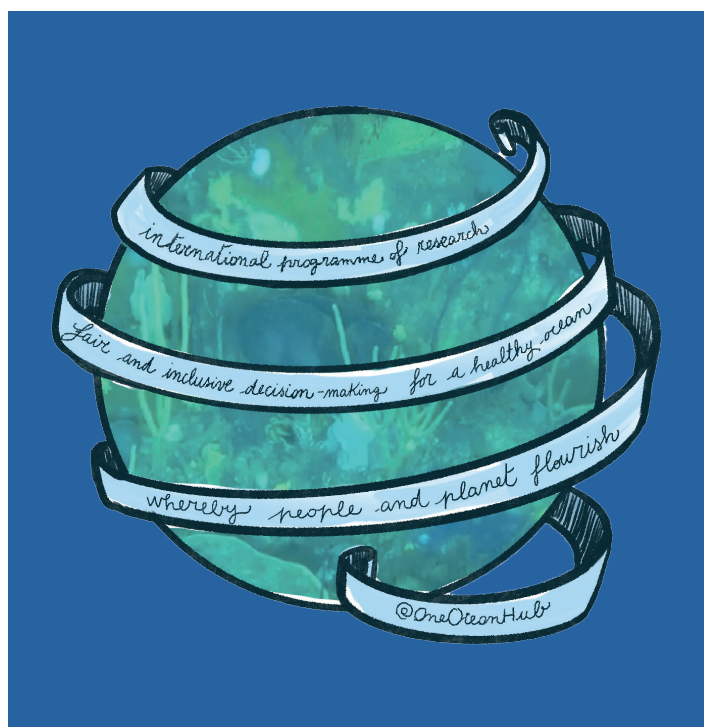


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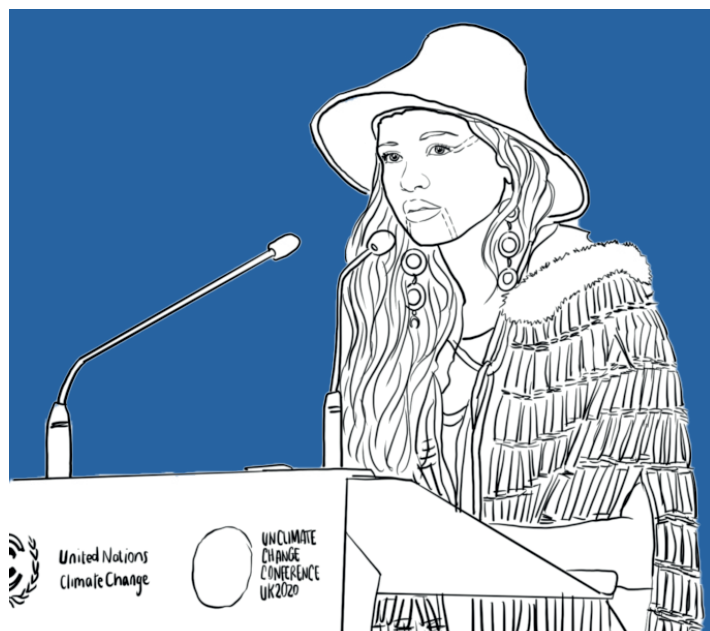


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- b. integrate ecological and social resilience factors of coral reefs and closely associated ecosystems into the design and management of Marine Protected Areas networks, strengthening international, national and regional efforts to manage coral reefs as socio-ecological systems by reducing the impact of global and local stressors;¹¹ and
 - c. ensure the genuine participation of all relevant human rights holders, including children, and seeking the free prior informed consent of Indigenous peoples and local communities – in their design, implementation, financing, monitoring and review;¹²
 4. With regard to Environmental Impact Assessments and SEAs, and planning processes:
 - a. assess risks of foreseeable harm to biodiversity and related socio-cultural and economic human rights associated with adaptation, mitigation and disaster risk reduction;¹³
 - b. take into account the status of biodiversity and its vulnerability to current and future climate change adverse impacts, including on the basis of the latest ecosystem services science, when planning and implementing adaptation, mitigation and disaster risk reduction strategies;
 - c. require SEAs and EIAs for commercial large-scale fisheries policies, plans and projects;
 - d. conduct EIAs with respect to the impact of activities in marine areas beyond national jurisdiction, duly considering consequences of climate change, ocean acidification and related impacts;¹⁴
 - e. support the conduct of regional SEAs with respect to the impact of activities in marine areas beyond national jurisdiction, duly considering the consequences of climate change, ocean acidification and related impacts, and the need for marine scientific research at the genetic level;¹⁵ and
 - f. integrate relevant human rights holders, including children, as well as Indigenous peoples and local knowledge holders seeking their free prior informed consent, when sacred or traditionally used territories and waters are at stake, and ensuring fair and equitable benefit-sharing from the use of their knowledge and the use of their territories.¹⁶
 5. Genuinely involve Indigenous peoples and local communities in the decision-making, financing, management, monitoring and review processes related to climate change responses, as knowledge- and human rights-holders subject to their free prior informed consent. In particular, States must:
 - a. promote community-based measures in reef-dependent coastal communities, with a view to maintaining sustainable livelihoods and ensuring food security in these communities;
 - b. apply measures to maintain their sustainable livelihoods and ensure their food security, including by providing resources and capacity-building programmes;¹⁷ and
 - c. enhance collaboration with Indigenous peoples and local communities in the conservation and management of biodiversity in cold-water areas;¹⁸
 6. Carefully balance the interests of present and future generations¹⁹ (A/HRC/37/58, para. 68) when adopting climate change response measures, including by:
 - a. taking appropriate preventive measures to protect children against reasonably foreseeable environmental harm and violations of their rights;²⁰ and
 - b. ensuring their meaningful representation and participation in climate- and ocean-related decision-making processes at all levels;²¹

15 Ibid., Art. 39.

16 Framework Principle 15; CBD Art. 8(i) and Art. 14(a); CBD Dec. IX/16 (2008), para. 4(a).

17 CBD Dec. XII/23 (2014), para. 14.

18 CBD Dec. XI/18 (2012), XIV/5 (2018) para. 10(f), and XIII/11 (2016), Annex II, para. 5.5(e)

19 S Liebenberg et al., “Maastricht Principles on the Human Rights of Future Generations” (2023), para. 22(a); Kunming-Montreal Global Biodiversity Framework, Target 22.

20 Committee on the Rights of the Child, Decision adopted by the Committee on the Rights of the Child under the Optional Protocol to the Convention on the Rights of the Child on a communications procedure in respect of Communication No. 104/2019, paras. 10.11 and 10.14

21 Liebenberg et al., (n 19), paras. 17 and 22.

11 CBD Dec. XII/23, para. 14 and Annex, para. 8.3(c).

12 Framework Principles on Human Rights and the Environment (n 8), Principle 2, para. 4; CBD (n 10), paras. 14(b) and (c).

13 CBD Dec. XI/23 (2012), Annex I, para. 31(f).

14 2023 Agreement 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 (BBNJ Agreement), Art. 1(6) and 28.

7. With regard to SIDS, developed States must:

- a. prioritise climate change mitigation approaches that avoid threats to SIDS' right to self-determination;²²
- b. assess potential transboundary environmental impacts and extraterritorial human rights impacts on SIDS of proposed climate change mitigation and adaptation measures;²³ and
- c. prioritise international scientific and other forms of cooperation (notably country-driven funding, capacity building and technology co-development) towards nature-based solutions to climate change for integrated land-sea systems, with the genuine participation of Indigenous, Afro-descendant, and local communities, women and children, at the bilateral, regional and global level.²⁴

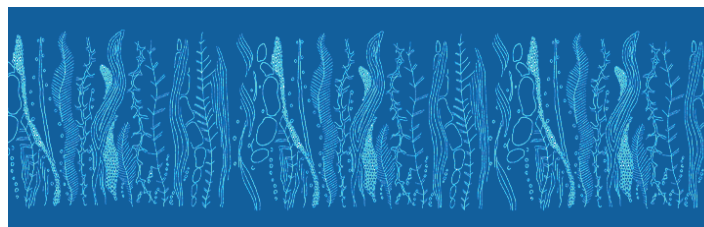


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STATES' CLIMATE CHANGE OBLIGATIONS APPLY ALSO TO MARINE AREAS BEYOND NATIONAL JURISDICTION

Marine biodiversity of areas beyond national jurisdiction also contributes to climate change mitigation. It is, therefore, important to establish the extent to which the provisions of both the UNFCCC and the Paris Agreement apply to marine areas beyond national jurisdiction (ABNJ), such as the high seas and the Area.

- There is no limitation under the UNFCCC where measures to mitigate climate change can occur²⁵, as this general formulation does not restrict this requirement to actions exclusively under national jurisdiction in any way.
- Parties are required to cooperate in the conservation and enhancement of the ocean and other coastal ecosystems²⁶.
- Nationally Determined Contributions are not territorially limited, so States can in fact claim credit under the climate change regime for mitigation and adaptation actions in marine areas beyond national jurisdiction.²⁷

- The Paris Agreement does not prohibit extra-territorial mitigation, adaptation, or finance measures,²⁸ considering the connectivity of the ocean and marine ecosystems,²⁹ and the global nature of the goals of the Paris Agreement.
- The Paris Agreement must be read in the context of States' obligations under other international treaties applicable to areas beyond national jurisdiction, and the 2023 BBNJ Agreement creates new obligations and institutions relevant to climate change.
- The CBD is applicable to Parties' "process and activities" in areas beyond national jurisdiction, and includes an obligation to "cooperate, directly or, where appropriate, through competent international organizations, in respect of areas beyond national jurisdiction", "consistently with the rights and obligations of States under the law of the sea".³⁰ "Process and activities" can be interpreted to include climate change response measures, as well as any other activity "under the jurisdiction of control" of a CBD Party that may interfere with the objectives of the CBD or "cause a serious damage or threat to biological diversity."³¹

22 IACtHR (n 2), paras. 102-104.

23 Ibid., paras. 141-142, and para. 152; Committee on the Rights of the Child (n 20), paras. 10.11 and 10.14.

24 BBNJ Agreement, Art. 42(3).

25 1992 United Nations Framework Convention on Climate Change, Art. 2.

26 Ibid., Art. 4.1(e).

27 D Bodansky, 'The Ocean and Climate Change Law Exploring the Relationships' in R Barnes and R Long (eds.), *Frontiers in International Environmental Law: Oceans and Climate Challenges* (Brill Nijhoff, 2021) 316, at 335.

28 Although Parties wishing to implement extra-territorial mitigation measures under Article 6 Paris Agreement must get authorisation from that State, see Article 6(3) Paris Agreement.

29 E Popova et al., "So Far, Yet So Close: Ecological Connectivity between ABNJ and Territorial Waters" (2019) International Institute for Environment and Development.

30 CBD, Art. 4(b), 5 and 22(2).

31 Ibid., Art. 4(b) and 22(1).

