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The ocean and human rights

Report of the Special Rapporteur on the human right to a clean, healthy and sustainable environment, Astrid Puentes Riaño

Summary

In the present report the Special Rapporteur on the human right to a clean, healthy and sustainable environment, Astrid Puentes Riaño, considers the relationship between the ocean and human rights and why ocean issues are human rights issues. The report will constitute a contribution to understanding the ocean as a single biome and its significance within the framework of human rights, particularly in relation to marginalized people, communities and groups. Also addressed is the importance of a holistic, comprehensive, integrated, gender-responsive and human rights- and ecosystem-based approach to the ocean, with the human right to a clean, healthy and sustainable environment at the centre. The report is aimed at advancing adaptive, inclusive and evidence-based management measures to reduce the vulnerability of the ocean to harms from the triple planetary crisis and their cumulative impact on human rights. The Special Rapporteur also identifies challenges to and opportunities for achieving a healthy ocean and sets out priority recommendations for States, United Nations entities and businesses.

* Reissued for technical reasons on 13 February 2025.

I. Introduction

1. Life on Earth evolved from the ocean about 3.5 billion years ago. The ocean is the largest biome on the planet, covering 70 per cent of its surface. While human understanding of the ocean has advanced significantly, much has yet to be learned. One thing is certain, however: the balance of life on Earth depends on the ocean, which provides food, regulates temperatures and currents, absorbs heat and carbon from the atmosphere, produces oxygen, even in the deep sea, and provides habitat for millions of species.

2. The ocean also connects land, air and coastal and freshwater ecosystems, evidencing that planetary ecosystems are interconnected and interdependent. While there are diverse ocean basins, the ocean is a single global biome. In the report, therefore, it is referred to as "the ocean".

3. For millenniums, human civilizations have thrived on the ocean. Known in various Indigenous languages as *kai* and *moana* (Māori), *wardan* (Nyungar) and *maritorio* (Indigenous Peoples of Chile), the ocean has long been fundamental to many cultures' identities and core values. Billions of people's lives depend directly on the ocean and coastal areas, including for food, housing, work, culture, spirituality, medicine, transport, education and physical and mental health.[1]

4. Despite the importance of the ocean, the current magnitude of its degradation and the threat to it is unprecedented. The triple planetary crisis of climate change, biodiversity loss and pollution has resulted in the crossing of six out of nine planetary boundaries and a seventh, ocean acidification, will be crossed if trends are not reversed.[2] The evidence is everywhere, including the increasing occurrence of dead zones, extreme weather events, marine heat waves, deoxygenation, alarming levels of biodiversity loss and millions of people dying, losing their livelihoods or being forcibly displaced.

5. The ocean's degradation is affecting the enjoyment of human rights, including the rights to a clean, healthy and sustainable environment, life, health, culture and education. The socioeconomic losses due to ocean mismanagement are also significant, estimated at nearly $1 trillion annually.[3]

6. The drivers of that degradation are human related and have increased exponentially over the past half century with the expansion of industrialization and extractive industries, while disproportionally affecting women, communities, Indigenous Peoples, people of African descendant and States marginalized by colonialism, slavery and unjust economic and trade policies.[4]

7. It is urgent to protect and restore the ocean.[5] While important initiatives are under way internationally, regionally and nationally, they do not necessarily reflect the interconnectedness of the ocean and human rights. An ecosystem-based approach offers a path for implementing them in a holistic, coordinated and collaborative way that takes account of that relationship.

8. States, United Nations institutions, Indigenous Peoples, the scientific community and other stakeholders agree that the main challenge is the complexity and difficulty of coordinating and implementing current ocean management regulations and initiatives. The current efforts embody different perspectives, including various geographic, scientific,

[1] See https://press.un.org/en/2021/sgsm20754.doc.htm; https://www.cbd.int/article/food-2018-11-21-09-29-49; https://www.un-ilibrary.org/content/journals/15643913/54/2; and submission from Cynthia C. Umezulike. All submissions referred to in the present document are available at https://www.ohchr.org/en/calls-for-input/2024/call-inputs-oceans-and-human-rights.

[2] See https://www.planetaryhealthcheck.org/storyblok-cdn/f/301438/x/a4efc3f6d5/planetaryhealthcheck2024_report.pdf.

[3] See https://www.undp.org/sites/g/files/zskgke326/files/2022-07/UNDP-Ocean-Promise_0.pdf.

[4] See A/HRC/55/37.

[5] See https://www.un.org/sg/en/content/sg/statement/2022-02-11/secretary-generals-video-message-the-one-ocean-summit; https://thecommonwealth.org/news/cop29/sids-leaders-say-apia-commonwealth-ocean-declaration-key-accelerating-climate-action; and submission from Council of Europe.

economic and geopolitical frameworks, resulting in siloed views and the lack of an integrated and ecosystem-based approach. While international human rights processes have increasingly incorporated a human rights-based approach to ocean governance,[6] as reflected in some international agreements and initiatives,[7] the approach is not yet systematic. At the same time, there is little understanding of what a human rights-based approach entails and how to incorporate it into ocean-related efforts.

9. To address that challenge and contribute towards more effective ocean management and protection while respecting human rights, the Special Rapporteur urges the mainstreaming of the human right to a clean, healthy and sustainable environment into ocean management efforts. That approach would equip States, the United Nations system, Indigenous Peoples, civil society, businesses and others with the tools to adopt an ecosystem-based and integrated perspective. It would also build on existing standards and processes to guarantee an effective human rights-based approach.

10. The human right to a clean, healthy and sustainable environment has been recognized by the Human Rights Council and the General Assembly, as well as regionally.[8] It has also been recognized by 85 per cent of States Members of the United Nations (164 out of 193) in constitutions, legislation and regional treaties.[9]

11. A healthy ocean is a fundamental part of healthy biodiversity and ecosystems, one of the substantive elements of the right to a healthy environment. The ocean also is vital to all other substantive elements of that right, including a safe climate, healthy and sustainable food and water, a non-toxic environment and clean air.[10]

12. Protecting the human right to a healthy environment also requires guaranteeing the procedural elements of effective access to information, public participation and access to justice and remedy, for everyone, everywhere. Those procedural elements must be prioritized to improve ocean protection and governance. By enhancing the human rights principles of universality, indivisibility, interdependence, transparency, inclusivity and accountability, legal frameworks can strengthen efforts to protect the ocean, while addressing inequalities through the principles of equity and non-discrimination. Safeguarding the ocean, therefore, supports broader human rights, including the rights to life, food, housing, work and culture, within an intersectional governance framework.

13. A holistic approach centred in human rights would enable comprehensive, participatory and intersectional governance, while incorporating decades of progress in human rights law. Through such a framework, States, the United Nations, businesses and other stakeholders could address gaps in ocean governance, catalyse systemic change and ensure the ocean's ability to sustain life, human rights and communities globally.

14. A human rights approach, including the right to a healthy environment, can also facilitate the implementation of such relevant treaties as the United Nations Convention on the Law of the Sea, which recognizes the ocean as a common heritage of humankind and the obligation of States to protect it. Because of the links between a healthy ocean and human rights, the obligation of ocean protection should be interpreted in relation to human rights.[11]

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[6] See https://www.nature.com/articles/s44183-024-00057-7.

[7] Kunming-Montreal Global Biodiversity Framework; Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication; and 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.

[8] See A/79/270.

[9] See A/HRC/43/53, annex II. Since the report was published, in 2019, Antigua and Barbuda, Belize, Canada, Dominica, Grenada, Micronesia (Federated States of), Oman and Saint Lucia have recognized the right, as have the Australian Capital Territory and some states in the United States of America. See also https://www5.austlii.edu.au/au/legis/act/bill_es/; https://dos.ny.gov/system/files/documents/2024/09/constitution-january-1-2024.pdf; https://meic.org/our-work/protecting-air-water/; and https://www.paconstitution.org/historical-research/legislative-histories/article-i-section-27-added-by-amendment-of-may-18-1971.

[10] See A/79/270.

[11] See A/HRC/56/46; and https://www.ohchr.org/en/press-releases/2024/05/law-sea-tribunals-judgment-marine-environment-and-climate-change-underscores.

15. That approach can also contribute to: achieving the Sustainable Development Goals, including Goal 14, to conserve and sustainably use the oceans, seas and marine resources for sustainable development; advancing the immediate need to stop or reduce plastic pollution, including the ongoing negotiation of a binding multilateral treaty;[12] and complying with the Convention on Biological Diversity commitments, including to protect 30 per cent of land and ocean by 2030, and the scientific criteria under the Convention for identifying ecologically or biologically significant marine areas in need of protection in open-ocean waters and deep-sea habitats[13] and related agreements, including on protecting and respecting the rights of Indigenous Peoples and people of African descent. The ocean and climate change dialogue to consider how to strengthen adaptation and mitigation action of the Conference of the Parties to the United Nations Framework Convention on Climate Change will also benefit from the inclusion and strengthening of a human rights-based approach, including the right to a healthy environment. The dialogue's findings should be included systematically in workstreams relating to the Convention.

16. In September 2024, the Special Rapporteur issued a call for inputs to inform the present report. She thanks the Governments of Brazil, Chile, Colombia, Germany, Ireland, Italy, Lebanon, Malaysia, Mexico, Poland, Qatar, Serbia, Slovenia, South Africa and Uzbekistan and the Council of Europe, United Nations entities and over 60 Indigenous Peoples' and civil society organizations, academics and individuals for their thoughtful contributions.

17. The Special Rapporteur is also deeply grateful for the engaged participation of over 100 persons in consultations in Cali, Colombia, online consultations and a hybrid informal consultation in Geneva. Their diverse knowledge and backgrounds contributed significantly to the report.[14]

II. Interlinkages between the ocean, the right to a healthy environment and human rights for present and future generations

18. One third of the human population, nearly 2.4 billion people, live within 100 km of an oceanic coast.[15] Fisher peoples, whether Indigenous or living near the coast, depend on fisheries for community practices and economic survival. Fishing is not merely their occupation; it is fundamental to their belief system, culture and identity and to realizing their human rights.[16]

19. Addressing the ocean's health is not only a matter of managing natural resources. It also requires understanding the interdependence and interconnectedness of humans and the ocean and that any impact on the ocean affects human rights, even for those living inland. Mainstreaming a human rights-based approach to ocean governance enables the incorporation of ancestral knowledge[17] and the rights of present and future generations, integrating a long-term vision, which is currently missing and which is crucial to solving the current planetary crises.

[12] United Nations Environment Assembly of the United Nations Environment Programme (UNEP) resolution 5/14.

[13] See https://www.cbd.int/decision/cop?id=11663, annex I.

[14] For additional information on initiatives and best practices, see annexes at https://www.ohchr.org/en/special-procedures/sr-environment/annual-thematic-reports.

[15] See https://www.unep.org/news-and-stories/story/5-reasons-why-healthy-ocean-linked-human-rights.

[16] See submissions from World Forum of Fisher Peoples, Natural Justice South Africa, Bismarck Ramu Group and Currie Country Social Change.

[17] See submission from Earth Law Center.

A. Sustainable food systems

1. Fisheries and the right to food

20. Fisheries contribute to food security by providing an important source of high-quality dietary protein and micronutrients for millions of people, improving food availability, especially for those living in poverty, and generating income for fisherfolk communities.

21. The seasonal availability of fish in rural communities is often different from that of crops, meaning that fish can help to reduce seasonal vulnerability to hunger.[18]

2. Small-scale fisherfolk

22. Globally, around 492 million people depend at least partially on small-scale fishing.[19] For those populations, the interdependence between human rights and ocean health is a lived reality. The right to a clean, healthy and sustainable environment is essential for fisherfolk, as it protects their historical connection with coastal landscapes and seas, which are foundational to their identity and existence, including their livelihood, culture, education and even transportation.[20] Members of coastal communities and coastal Indigenous Peoples, especially in the Arctic and small island developing States, require particular protection, being among the first to experience the impacts of climate change, biodiversity loss and pollution.[21]

23. Women account for almost half of the global fishing workforce.[22] Their traditional knowledge and rights are often overlooked. Women's agency should be valued for the important roles that women play in living with the ocean sustainably and as marine guardians.

B. Healthy ecosystems

24. The ocean encompasses multiple ecosystems, providing interconnected habitats for marine life, some of which are described below. A healthy ocean also provides vital services to human and animal communities. Scientists estimate that 50–80 per cent of oxygen produced on Earth comes from the ocean,[23] the majority deriving from plankton and algae. One species, *Prochlorococcus*, produces up to 20 per cent of the oxygen in the biosphere, a higher percentage than all of the tropical rainforests on land combined.[24]

25. The ocean is also home to marine microbes, which make up 98 per cent of the ocean's biomass and are essential to the food chain, the production of nutrients for land and sea and the health of all animals and humans.[25]

26. Coral reef ecosystems are essential to the fulfilment of several human rights, including to a healthy environment and food. At least 500 million people rely on coral reefs for food and livelihoods. In developing countries, coral reefs contribute approximately 25 per cent of the total fish catch.

27. Coral reef ecosystems contain the highest biodiversity of any ecosystem globally, occupying less than 1 per cent of the ocean floor and harbouring 25 per cent of marine life. Healthy coral reefs are the first line of protection for millions living in coastal areas, acting as barriers against erosion and flooding from storms. They are an increasingly important source of medicines, which are vital for the right to health.[26] Healthy coral reefs support

[18] See A/67/268.
[19] See https://openknowledge.fao.org/items/bbc2093d-69d9-4f1b-ae51-cfaa2969b52f.
[20] See submissions from World Forum of Fisher Peoples and Opportunity Green.
[21] See https://openknowledge.fao.org/server/api/core/bitstreams/9aeb8ade-a623-4954-8adf-204daae3b5de/content.
[22] See https://www.unep.org/resources/report/global-gender-and-environment-outlook-ggeo, p. 132.
[23] See https://earthsky.org/earth/how-much-oxygen-comes-from-ocean.
[24] See https://oceanservice.noaa.gov/facts/ocean-oxygen.html.
[25] See https://oceanexplorer.noaa.gov/facts/marinemicrobes.html.
[26] See https://issues.org/p_bruckner-coral-reefs-importance.

fisheries and related economic activities through tourism and recreational activities; restoring corals could unlock tens of billions of dollars in economic value.[27]

28. Indigenous Peoples are highly effective stewards of 80 per cent of the planet's remaining biodiversity, including its coral reefs,[28] yet their traditional knowledge systems for the sustainable use and management of coral reef ecosystems are underrepresented in global literature.[29]

29. Mangrove forests, found along coasts in 123 countries, are ecosystems that thrive in the interface between land and sea. Although mangroves account for less than 1 per cent of global tropical forest cover, they provide critical ecosystem benefits to the estimated 2.4 billion people living within 100 km of the coast.[30] Mangroves provide livelihood opportunities for local communities and serve as storm-surge protection for extreme weather events.[31]

30. Seagrass meadows are among the most common coastal habitats on Earth, covering more than 300,000 km^2 in at least 159 countries.[32] They nurture fish populations, weaken storm surges and provide food and livelihoods for people living in coastal areas. Seagrasses play a significant role in the health of the world's ecosystems and the rights of coastal communities. They can improve water quality by filtering and storing nutrients and reduce coral diseases and contamination in seafood, protecting human health. Seagrass ecosystems also play a huge role in mitigating climate change. Highly efficient carbon sinks, they cover only 1 per cent of the ocean floor but store up to 18 per cent of the world's oceanic carbon.[33]

31. Deep-sea habitats host most of the approximately 1 million ocean species.[34] Their abundant biodiversity underpins the carbon cycle and provides provisioning, supporting, regulating and cultural ecosystem services.[35] The deep sea is also the planet's largest carbon sink. Parts of the dark seabed of the Pacific Ocean are covered with polymetallic nodules, containing such metals as manganese and cobalt, that are potential sources of critical minerals. Researchers have recently discovered that such nodules produce oxygen without sunlight, known as dark oxygen.[36]

C. A safe climate

32. The ocean regulates the Earth's climate, filters air and water, recycles nutrients and mitigates the impact of natural disasters. It is the largest active carbon reservoir on the planet, storing about 38,000 billion tons of carbon – over 28 times more than carbon stored by land vegetation and the atmosphere combined. The ocean has stored more than 90 per cent of the heat from human-caused climate change and one third of the world's carbon emissions.[37] Protected and restored ocean ecosystems, such as mangroves and seagrasses, could help to store more than 1.4 billion tons of carbon emissions per year by 2050.[38]

[27] See https://www.unep.org/resources/report/coral-reef-economy.
[28] See submission from Azul.
[29] See submission from UNEP.
[30] See https://www.unep.org/topics/ocean-seas-and-coasts/blue-ecosystems/mangrove-forests.
[31] See https://www.worldwildlife.org/stories/mangroves-as-a-solution-to-the-climate-crisis; and submission from Centro de Litigo Estratégico Nacional e Internacional.
[32] See https://www.unep.org/resources/report/out-blue-value-seagrasses-environment-and-people.
[33] See https://www.unep.org/news-and-stories/press-release/protection-seagrasses-key-building-resilience-climate-change.
[34] See submission from The Pew Charitable Trusts.
[35] See https://www.frontiersin.org/journals/marine-science/articles/10.3389/fmars.2021.667048/full.
[36] See https://www.nature.com/articles/s41561-024-01480-8.
[37] See https://www.lse.ac.uk/granthaminstitute/explainers/what-role-do-the-oceans-play-in-regulating-the-climate-and-supporting-life-on-earth.
[38] See https://www.wri.org/insights/turning-tide-ocean-based-solutions-could-close-emission-gap-21.

D. Ocean defenders

33. Human rights violations against ocean defenders are increasing with the expansion of harmful activities in marine and coastal environments, with inadequate protective measures from States and businesses. Indigenous Peoples and coastal communities, particularly women and girls, children and young people, are at the forefront of advocacy efforts to safeguard their livelihoods and cultures against the extractive industrialization of the ocean.[39] Ocean defenders are also human rights defenders and their work is critical to protecting the rights to food, water, health, culture, livelihoods and a healthy environment. Ocean defenders suffer from harassment, intimidation, marginalization, criminalization, attacks and assassination. Instead, they should be recognized, rewarded and supported.[40] Protecting them is a prerequisite for effectively and equitably protecting the ocean and the rights of current and future generations.

III. Main challenges for the ocean and human rights

34. The ocean is fast approaching the brink of collapse in its ability to regulate ocean balance and sustain marine biodiversity. The interconnected crises of climate change, biodiversity loss and pollution are intensifying pressure on a distressed ocean, further jeopardizing the rights of Indigenous Peoples, fisher communities, peasants, women, children, people with pre-existing health conditions, older persons, persons with disabilities and those facing marginalization.

35. Valuing the ocean as a common heritage rather than its natural resources only as commodities is critical for protecting all human rights, including the right to a clean, healthy and sustainable environment. Competing economic, trade and industrial interests and the exclusion of ocean-dependent front-line communities from meaningful participation in ocean governance reinforce colonial, patriarchal and unsustainable development. Such development processes do not prioritize the protection of the ocean and human rights and are at the core of the threat of irreversible damage to the ocean.[41]

36. Most of the global South is vulnerable to the exploitation of their ocean resources without benefiting equitably. Financial constraints limit developing States from implementing and enforcing protections and adapting to the challenges of ocean degradation. Adequate, long-term funding for ocean conservation efforts should be prioritized.

A. Weak governance

37. Over 600 legal and institutional frameworks address the complex interdependence of human rights, economic activities and marine ecosystems. Their fragmentation, marked by multiple levels of intervention and an absence of coordination, has prevented enforcement and resulted in ineffective ocean governance, which is exacerbated by weak political ambition, corruption and a lack of transparency and extraterritorial enforcement.[42] Obtaining information and reliable data can be extremely difficult because they are usually owned by private companies or because of the prolonged legal procedures for access to information from States.[43] The lack of information compromises the accountability of States and businesses and jeopardizes the realization of human rights as they relate to marine protection.

38. Siloed mandates in ocean-related organizations are also challenging. For example, the International Seabed Authority lacks clear measures for stakeholder engagement and the formal public participation of Indigenous Peoples, coastal communities and other

[39] See https://www.nature.com/articles/s44183-022-00002-6; and submission from Gender and Climate Justice Circle.

[40] See submission from Belize Barrier Reef Watch.

[41] See submission from Pacific Network on Globalization.

[42] See submissions from Lebanon, World Benchmarking Alliance and Oceana Mexico.

[43] See submission from Earthjustice.

marginalized groups. Its processes for including independent scientific advice also require transparency.[44]

B. Industrial fisheries

39. Industrial fishing prioritizes profits over sustainability, operating largely with unsustainable, destructive fishing practices.[45] Most seafood is consumed in the developed world, which relies mainly on industrial fishing to meet its demand for cheap products such as canned tuna, incentivizing overfishing and exploitation, exacerbating environmental degradation and reducing local fish stocks.[46]

40. Overfishing has a severe impact on marine ecosystems, coastal communities and the climate globally, depleting fish stocks and undermining food security and livelihoods for billions, particularly in low-income countries dependent on small-scale fisheries. Annual economic losses from overfishing reach $83 billion.[47] Small-scale fishers are forced to rely on overexploited areas, leading to poverty, malnutrition and cultural erosion.[48]

41. The global fishing sector, including through overfishing, is a major source of emissions that contribute to climate change, accounting for 1.2 per cent of world oil consumption. Overfishing also reduces the ocean's ability to act as a carbon sink. By the century's end, 45 per cent of fish stocks are expected to have shifted habitat due to climate change, with tropical and coastal areas losing access to traditionally fished species.[49]

42. Illegal, unregulated and uncontrolled fishing, responsible for around 20 per cent of global catches, is prevalent in areas with inadequate regulations.[50] It employs such destructive methods as bottom trawling and is linked to human rights abuses, including forced labour and trafficking, especially affecting migrant workers.[51] At least 128,000 fishers are trapped in forced labour aboard fishing vessels, while over 100,000 people die in fishing-related accidents annually. These are the consequences of a business model that prioritizes minimizing labour and fishing costs to meet consumer demand for low-cost seafood, resulting in unsustainable practices and human rights violations.[52]

43. The production of fish oil, fishmeal and farmed fish target vast amounts of fish critical to the food security and livelihoods of coastal communities, particularly in the global South. Fishmeal to feed industrial aquaculture and fish oil used in the food supplement and cosmetics industries are largely consumed in industrialized countries, threatening the food security of people in developing countries.[53]

44. Responding to the expansion of salmon farming, coastal communities in Chilean Patagonia have sought to protect their rights through the law on the marine coastal space of Indigenous Peoples (*Espacios Costero Marino de Los Pueblos Originarios*), also known as the Lafkenche Law. The legislation acknowledges the ancestral presence and traditional practices of Indigenous coastal communities, particularly the Mapuche Lafkenche people. It grants those communities rights to manage and use coastal marine areas for such activities as

[44] See submission from The Pew Charitable Trusts and World Wildlife Fund.
[45] See A/HRC/55/49.
[46] See https://doi.org/10.1057/s41301-024-00412-8.
[47] See submission from Earthjustice.
[48] Ibid.
[49] See submission from Earthjustice.
[50] Ibid.
[51] See submissions from United States Illegal, Unreported and Unregulated Fishing and Labor Rights Coalition, World Wildlife Fund and Greenpeace International.
[52] See https://researchrepository.ilo.org/esploro/outputs/report/Caught-at-sea-forced-labour-and/995372390102676; and submission from United States Illegal, Unreported and Unregulated Fishing and Labor Rights Coalition.
[53] See https://www.greenpeace.org/international/publication/22489/waste-of-fish-report-west-africa.

fishing, religious ceremonies and recreation, thereby recognizing and protecting their cultural and economic connections to the sea.[54]

C. Lack of support for small-scale fishers

45. Asia, Africa and Latin America employ 98 per cent of the world's fishers and produce over half of the global marine fish supply. Rising ocean temperatures, acidification and the loss of coral reefs are contributing to declines in fisheries, compromising livelihoods for small-scale fishers.

46. Women, who make up 47 per cent of the global workforce (around 56 million jobs), engage primarily in such post-harvest activities as fish processing and trading. Women face systemic inequities, including undervalued and underpaid work and a lack of access to decent working conditions, fishing rights and secure land. Their traditional knowledge and rights are often overlooked. The exclusion of women is exacerbated by the absence of sex-disaggregated data, rendering their contributions invisible in official statistics and decision-making. Indigenous women and women in vulnerable situations are particularly marginalized, limiting equitable and sustainable fisheries management and undermining both gender equity and effective resource management.[55]

47. Small-scale fishers often face competition with industrial fisheries and large-scale operators, who may receive preferential treatment for fishing rights licences or subsidies or the approval of development programmes. Conflicts and resource-grabbing linked to large-scale development projects, including aquaculture, mining, fishing and tourism, often lead to a loss of access to traditional fishing grounds and the displacement of small-scale fishing communities without adequate compensation or consultation. Many small-scale fishers, in particular women, face poverty and a lack of social protections and access to healthcare and education. They often lack secure tenure rights over coastal and marine resources and exclusion from decision-making, resulting in unequal market systems, including exploitative pricing and trade barriers.[56]

48. The Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication, developed in 2014 by the Food and Agriculture Organization of the United Nations, are crucial for promoting the human rights of small-scale fishers.[57] The guidelines can also help States to fulfil their human rights obligations and obligations under the Convention on Biological Biodiversity.

D. Disordered coastal urbanization

49. Urbanization and inadequate planning for infrastructure and tourism are affecting coastlines, including mangrove forests, coral reefs and seagrass beds. Coastal development often lacks adequate planning and an integrated approach that takes account of the complex interdependency between economic development activities and marine ecosystems, driving unsustainable resource extraction, such as sand mining, rather than investments in ecological preservation and sustainable waste management.[58]

E. Marine pollution

50. Plastic pollution in the ocean poses significant threats to marine ecosystems, economies and human health and exacerbates climate change. Approximately 14 million tons of plastic enter the ocean annually, constituting 80 per cent of all marine debris, an amount

[54] See submissions from Asociación Interamericana para la Defensa del Ambiente and Observatorio Ciudadana, Red de Mujeres Originarias por la Defensa del Mar and Fiscalía de Medio Ambiente.

[55] See submission from Uta Schuchmann.

[56] Ibid.

[57] See https://doi.org/10.4060/cc3251en.

[58] See submissions from Brazil, Lebanon, Qatar, Fundación Ojos de Mar, Azul, University of Toronto, Vedant Pathak, Seas at Risk and Jubilee Australia.

projected to triple by 2040. Marine species often ingest or become entangled in plastic debris, leading to severe injuries and fatalities.[59]

51. Plastic pollution disproportionately affects coastal fishing communities, remote and island communities and marginalized urban populations, worsening poverty and threatening livelihoods. Informal waste pickers, including women and children, play an important yet often overlooked role in managing plastic waste. They are on the front lines of waste collection and recycling but are vulnerable due to unsafe working conditions, exploitation and negative health impacts.[60]

52. The presence of microplastic pollution undermines the environmental conditions necessary for sustainable living and hinders progress towards the achievement of the Sustainable Development Goals, particularly Goal 14 (life below water) and Goal 6 (clean water and sanitation). Developing nations with inadequate waste management infrastructure are disproportionately burdened.[61]

53. The ocean dumping of chemical waste, including a recent unprecedented discharge of radioactive contaminated water into the Pacific Ocean, is contributing to highly toxic marine pollution affecting ecosystems, marine life and human health.[62] Abandoned offshore infrastructure, such as decommissioned oil rigs and pipelines, also contributes.[63]

F. Land pollution

54. Land-based pollution harms ocean environments, with approximately 80 per cent of marine pollution originating from terrestrial sources. Sewage, heavy metals and plastics enter marine ecosystems through rivers and direct discharge, leading to habitat degradation, biodiversity loss and human health risks.[64] The contamination by heavy metals of soil, water and marine ecosystems should be prevented as should the agricultural runoff of agrochemicals, such as fertilizers and herbicides, which causes algal blooms, eutrophication and dead zones.[65] Such contamination pollutes drinking water and seafood and compromises food safety, with a disproportionate impact on low-income and Indigenous Peoples, threatening their access to clean water, food security and traditional ways of life.

G. Climate change

55. Climate change is driving irreversible impacts on the ocean, including warming, acidification, sea level rise and intensifying marine heat waves.[66] Arctic temperatures are warming two to four times faster than the global average, triggering permafrost thaw that is releasing emissions far exceeding projections. The rising temperatures are nearing tipping points for such critical systems as the polar ice sheets, land glaciers and the Atlantic Meridional Overturning Circulation, with potentially catastrophic global consequences.[67] Coral bleaching events, projected to become annual by 2034, threaten marine biodiversity and impede ecosystem recovery, devastating fisheries and coastal livelihoods.[68] Coastal

[59] See https://iucn.org/sites/default/files/2024-04/marine-plastic-pollution-issues-brief_nov21-april-2024-small-update_0.pdf?utm_source=chatgpt.com.

[60] See submission from UNEP.

[61] See https://www.unep.org/resources/report/neglected-environmental-justice-impacts-marine-litter-and-plastic-pollution.

[62] See submission from Pacific Network on Globalization and Center for International Environmental Law.

[63] See submission from Center for International Environmental Law.

[64] See submission from Vedant Pathak.

[65] See https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf.

[66] See submissions from Brazil, Lebanon, Malaysia, Poland, Qatar, Oceans North and World Forum of Fisher Peoples.

[67] See https://iccinet.org/statecryo24.

[68] See https://www.unep.org/resources/report/projections-future-coral-bleaching-conditions-using-ipcc-cmip6-models.

communities are increasingly being displaced due to saltwater intrusion, storm surges, erosion, flooding, sea level rise and the loss of fishing grounds.[69]

56. The continued reliance on fossil fuels, including offshore oil and gas, exacerbates these crises. Offshore oil and gas operations contribute significant emissions, with processing plants, shipping terminals and liquefied natural gas infrastructure polluting fragile marine ecosystems.[70] Global shipping, which supports 80 per cent of merchandise trade, accounts for nearly 3 per cent of global greenhouse gas emissions, while harming marine environments through toxic scrubber discharges and underwater noise pollution.[71]

57. Despite the urgency to phase out fossil fuels, the offshore oil and gas industry is projected to grow by 60 per cent by 2030, adding infrastructure and expanding shipping routes.[72] Leaking and abandoned offshore wells worsen the crisis. In the Gulf of Mexico alone, over 32,000 abandoned wells are releasing toxins and greenhouse gases. Gas, often falsely marketed as a clean energy transition fuel, is expected to drive a 55 per cent increase in global offshore production by 2050, particularly in Africa and Latin America.[73]

58. The environmental harm of such activities is immense and the increase is incompatible with global climate obligations, threatening marine biodiversity, ecosystems and the livelihoods of millions.[74] Immediate action is essential to phase out fossil fuel reliance, protect vulnerable habitats and align ocean activities with sustainable climate and biodiversity targets.

H. Deep-sea mining-related risks

59. The proposed extraction of deep-sea critical minerals poses serious environmental, climate and human rights concerns.[75] Scientific research increasingly suggests that deep-sea mining could have harmful and unknown consequences for fragile deep-sea marine biodiversity and ocean ecosystems.[76] Deep-sea ecosystems, which are poorly understood, are especially vulnerable to mining activities, which destroy the seafloor, potentially releasing stored carbon and disrupting the ocean's carbon sequestration processes. The energy-intensive nature of mining operations contributes to significant greenhouse gas emissions.[77]

60. Considering the potential for severe and irreversible damage, 32 countries have agreed to a moratorium on deep-seabed mining.[78]

61. Indigenous Peoples, subsistence fishers and small island developing States are heavily reliant on marine resources for food and livelihoods. They are thus particularly vulnerable to the impacts of deep-sea mining, which threatens fisheries, a vital revenue source for island nations, contributing up to 84 per cent of government revenue in the Pacific.

[69] See https://www.ipcc.ch/srocc.
[70] See submission from Center for International Environmental Law.
[71] A/78/169.
[72] See https://www.woodmac.com/news/opinion/global-deepwater-production-to-increase-60.
[73] See https://www.gecf.org/_resources/files/pages/global-gas-outlook-2050/gecf-global-gas-outlook-20231.pdf.
[74] See submission from Franciscans International, Anglican Communion and Center for Energy, Ecology and Development.
[75] See https://www.isa.org.jm/wp-content/uploads/2024/05/Letter-SPB-ISA.pdf; and https://www.ohchr.org/sites/default/files/documents/issues/climatechange/information-materials/ohchr-seabed-mining-10-july.pdf.
[76] See submissions from The Pew Charitable Trusts, Pacific Network on Globalization and Deep Sea Conservation Coalition.
[77] See submission from Deep Sea Conservation Coalition.
[78] See submission from The Pew Charitable Trusts. See also https://deep-sea-conservation.org/solutions/no-deep-sea-mining/momentum-for-a-moratorium.

I. Marine geoengineering

62. Carbon dioxide removal technologies using marine geoengineering, such as solar geoengineering, seaweed farming and ocean fertilization, pose significant risks to marine ecosystems, including precipitation changes, extreme temperatures, oxygen depletion, nutrient disruption and marine food system instability, affecting communities dependent on those ecosystems.[79] The large-scale infrastructure required for geoengineering intensifies pollution, damage from mining and the effects of the climate crisis.

63. The disproportionate impacts of geoengineering projects on Indigenous Peoples' rights include the risk of land-grabbing, increased violence and violations of human rights.[80] Seaweed farming and ice-based geoengineering target vast Indigenous territories, exacerbating displacement and endangering the rights to life and security.[81]

64. Because of such risks and in accordance with the precautionary principle, the Conference of the Parties to the Convention on Biological Diversity reaffirmed the moratorium on geoengineering at its sixteenth meeting, highlighting the urgency of global caution with regard to risky technology with serious potential to harm future generations and biodiversity.[82]

J. Blue economy

65. The blue economy involves balancing economic growth, improved livelihoods and marine ecosystem conservation through such industries as fishing, aquaculture, tourism and renewable energy. Case studies reveal, however, that it often prioritizes corporate profits over environmental protection and human rights.[83]

66. Fisher communities face dispossession and the erosion of customary rights under State-backed economic policies that favour private entities. Such policies lead to so-called ocean-grabbing, often resulting in communities' loss of traditional territories, with fisherfolk reduced to mere workers in fisheries, energy or port infrastructure and petrochemical, tourism or other industry. This marks a significant shift in their identity, intensifying their exploitation and marginalization.[84]

67. Blue finance includes loans and bonds that fund such marine-focused initiatives as ecosystem restoration, carbon credits, sustainable shipping and renewable energy. Such arrangements raise human rights concerns, however, including increasing debt burdens, where developing nations face repayment risks, often exacerbated by conditionalities, for example, expanding protected marine areas.[85] High interest rates and a lack of concessional terms conflict with State obligations for common but differentiated responsibility, equity and international cooperation. Debt obligations can hinder resource allocation for environmental and social rights.

IV. State obligations to respect, protect and fulfil human rights related to the ocean

68. The Special Rapporteur notes that States have certain overarching obligations regarding respecting, protecting and fulfilling the human right to a clean, healthy and sustainable environment and other human rights in the face of environmental harm, including as they relate to the ocean. Those obligations include the following: (a) to prevent, control and reduce harm to the marine environment; (b) to ensure access to information, public

[79] See submission from Seas at Risk.
[80] See A/HRC/54/47 and A/HRC/56/46.
[81] See www.etcgroup.org/content/seaweed-delusion.
[82] Conference of the Parties to the Convention on Biological Diversity, decision 16/22 (2024).
[83] See submission from Masifundise Development Trust.
[84] See submission from World Forum of Fisher Peoples.
[85] See submission from World Forum of Fisher Peoples, Koalisi Rakyat untuk Keadilan Perikanan, Ekologi Maritim Indonesia and FIAN Indonesia.

participation and access to justice in ocean governance; (c) to restore the marine environment; and (d) to cooperate meaningfully with other States.

69. To protect the ocean, States must implement their international obligations with an ecosystem- and human rights-based approach grounded in the best available science, including Indigenous and ancestral knowledge, and focused on the levels of biological organization and the essential structures, processes and functions of and interactions among organisms and their environments. An ecosystem-based approach recognizes that humans, with their cultural diversity, are an integral component of many ecosystems.[86] Hence, the Special Rapporteur underscores the recently adopted 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, which incorporates an ecosystem-based approach and provisions relevant for ensuring Indigenous Peoples' rights in the context of ocean and marine governance.

A. Obligation to prevent, control and reduce harm to the marine environment

70. Customary international law dictates that States must ensure that activities under their jurisdiction or control do not cause harm, including to the environment of other States[87] and the marine environment. Human rights obligations are complementary and parallel to broader inter-State duties to prevent transboundary environmental harm, and their interpretation and articulation in the context of marine protection must therefore be informed by principles flowing from both sets of legal obligations.[88] Under the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights and the Convention on the Rights of the Child, States must take positive measures to ensure environmental protection to prevent the negative impacts of environmental harm on human rights. That linkage has been reaffirmed by United Nations treaty bodies and regional human rights mechanisms and requires States urgently to take all appropriate measures to address foreseeable threats to human rights due to environmental pollution,[89] which include, but are not limited to, the adoption of reasonable measures to protect people from foreseeable threats to their right to life and adequately controlling polluting activities.[90]

71. In an inter-State context, States must act with due diligence to prevent significant transboundary environmental harm.[91] That standard of due diligence varies depending on the severity of the risk of harm involved,[92] a State's contribution to it[93] and its capacities to properly address it.[94] With regard to the ocean, due diligence is more stringent when preventing ocean pollution[95] and human rights breaches from environmental harm caused by greenhouse gas emissions. The Special Rapporteur underscores that human rights violations

[86] See https://www.cbd.int/doc/publications/ea-text-en.pdf.

[87] *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, I.C.J. Reports 1996*, p. 226, para. 29.

[88] Vienna Convention on the Law of Treaties, art. 31.

[89] Human Rights Committee, general comment No. 36 (2018), para. 26; and *Portillo Cáceres et al. v. Paraguay* (CCPR/C/126/D/2751/2016), para. 7.5.

[90] *Portillo Cáceres et al. v. Paraguay*, paras. 7.5 and 7.8.

[91] *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica), Judgment, I.C.J. Reports 2015*, p. 665, para. 118.

[92] International Tribunal for the Law of the Sea, advisory opinion of 21 May 2024 on Climate Change and International Law, paras. 239, 256, 257 and 441 (3) (d).

[93] *Official Records of the General Assembly, Fifty-sixth Session, Supplement No. 10* and corrigendum (A/56/10 and A/56/10/Corr.1), para. 98, art. 10, commentary 9. Further supported by the principle of common but differentiated responsibilities and respective capabilities in the climate treaty regime and the Rio Declaration on Environment and Development, principle 16. See also Organisation for Economic Co-operation and Development (OECD), Recommendation of the Council on Principles concerning Transfrontier Pollution, document C(74)224.

[94] International Tribunal for the Law of the Sea, advisory opinion of 21 May 2024, paras. 207, 219 ff., 225 ff. and 243.

[95] Ibid., paras. 241, 242 and 441 (3) (c).

resulting from breaching that duty give rise to the application of human rights obligations beyond a State's territory when the source of harm is under its control.[96]

72. Protecting the marine environment under the United Nations Convention on the Law of the Sea requires States to especially preserve rare or fragile ecosystems and the habitats of depleted, threatened or endangered species and other forms of marine life.[97] Considered in the context of the Convention on Biological Diversity and the Kunming-Montreal Global Biodiversity Framework, that duty also entails conserving and managing at least 30 per cent of the ocean as protected areas by 2030.[98]

73. States must also maintain the ocean's integrity for present and future generations,[99] ensuring non-regression in environmental standards and protections. Conservation and management measures must take account of technical requirements imposed by international standards, the best available science, including the ancestral knowledge of Indigenous Peoples, and relevant environmental and economic factors.[100]

74. The obligation of States to prevent environmental harm and the resulting human rights violations includes regulating, controlling and monitoring pollution, undertaking environmental impact assessments and upholding the precautionary principle.

1. Regulating, controlling and monitoring polluting activities

75. States must regulate activities that contribute to ocean pollution from both land-based and atmospheric sources, including dumping, shipping and activities involving the seabed.[101] Regulations must be based on the best available science, including the ancestral knowledge of Indigenous Peoples, and reflect at least generally accepted international rules and standards.[102] States must also ensure that regulations protect human rights from harm to the marine environment[103] by addressing hazardous marine activities on the basis of their potential risk to human rights, including through permitting provisions, operational standards, safety measures and oversight.[104] States must mandate practical measures to protect individuals exposed to inherent risks, establish adequate procedures to identify deficiencies and errors and mitigate threats to human rights, ensuring that activities with the potential for significant environmental harm are appropriately controlled.[105]

76. States must enforce such regulations,[106] ensuring compliance by public authorities and overseeing their effective implementation in the private sector.[107] States must put in place well resourced, independent monitoring and oversight mechanisms[108] able to investigate,

[96] See *Sacchi et al. v. Argentina* (CRC/C/88/D/104/2019); and Inter-American Court of Human Rights, advisory opinion OC-23/17, 15 November 2017.

[97] United Nations Convention on the Law of the Sea, art. 194 (5). See also International Tribunal for the Law of the Sea, advisory opinion of 21 May 2024.

[98] Kunming-Montreal Global Biodiversity Framework, target 3. See also Convention on Biological Diversity, art. 8.

[99] See 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, preamble; and Maastricht Principles on the Human Rights of Future Generations.

[100] International Tribunal for the Law of the Sea, advisory opinion of 21 May 2024, para. 414.

[101] United Nations Convention on the Law of the Sea, arts. 207–212.

[102] International Tribunal for the Law of the Sea, advisory opinion of 21 May 2024, para. 279.

[103] Inter-American Court of Human Rights, advisory opinion OC-23/17, para. 141.

[104] European Court of Human Rights, *Öneryıldiz v. Turkey*, Application No. 48939/99, Judgment, 30 November 2004, paras. 89 and 90; and *Budayeva and Others v. Russia*, Applications No. 15339/02, No. 21166/02, No. 20058/02, No. 11673/02 and No. 15343/02, Judgment, 20 March 2008, para. 132.

[105] European Court of Human Rights, *Öneryildiz v. Turkey*, paras. 89 and 90; and *Budayeva and Others v. Russia*, para. 132.

[106] United Nations Convention on the Law of the Sea, arts. 213–219.

[107] Inter-American Court of Human Rights, *Rama and Kriol Peoples, the Black Creole Indigenous Community of Bluefields et al. v. Nicaragua*, Judgment, 1 April 2024, para. 420.

[108] African Commission on Human and Peoples' Rights, *Social and Economic Rights Action Center and Center for Economic and Social Rights v. Nigeria*, communication No. 155/96 (2001), para. 53; and Inter-American Court of Human Rights, advisory opinion OC-23/17, para. 141.

punish and redress possible abuse through effective policies, regulations and adjudication.[109] Enforcement may comprise inter-institutional collaboration, monitoring and inspection, administrative guidance, investigation and prosecution and judicial or quasi-judicial proceedings.[110]

77. Considering the urgent threats to human rights from ocean pollution, States must adopt and enforce regulations that ensure a rapid, deep phase-out of greenhouse gas emissions,[111] ban or implement existing bans on destructive fishing practices, including bottom trawling,[112] prevent the increase in large-scale offshore drilling and other harmful forms of offshore exploration and resource exploitation and adequately regulate and control those activities, end the dumping of nuclear and chemical waste and single-use plastics and urgently adopt a moratorium on deep-seabed mining.[113]

2. Undertaking environmental impact assessments

78. To prevent pollution to the marine environment[114] and protect and fulfil human rights,[115] States must undertake environmental impact assessments for any planned activity, public or private, that may cause substantial pollution or significant and harmful changes to the marine environment through the specific or cumulative effects of the activity.[116] Assessing the potential environmental impact of activities is therefore not a politically discretionary measure and cannot be disregarded for projects of national importance. That duty extends to the strategic planning of public policy.[117]

79. Comprehensive environmental impact assessments must: (a) be undertaken as early as possible, prior to a decision to authorize or commence a proposed activity likely to cause significant adverse impacts; (b) provide effective participation in all decision-making processes; (c) follow the best available science;[118] (d) incorporate detailed documentation, with explicit methods and assumptions, ensuring transparency and reliability in evaluating environmental impacts;[119] and (e) consider the potential socioeconomic, spiritual, cultural and environmental impacts, including the transboundary and cumulative effects of existing or related projects.[120] For activities with potential transboundary effects, States must notify and consult affected States, assess potential harm and cooperate to minimize impacts on shared resources. In line with the Convention on Biological Diversity, environmental impact assessments should explicitly address biodiversity considerations at all stages, ensuring their

[109] Inter-American Court of Human Rights, advisory opinion OC-23/17, paras. 142 and 154.

[110] International Tribunal for the Law of the Sea, advisory opinion of 21 May 2024, para. 284.

[111] Ibid.; and European Court of Human Rights, *Verein KlimaSeniorinnen Schweiz and Others v. Switzerland*, Application No. 53600/20, Judgment, 9 April 2024.

[112] General Assembly resolution 59/25, para. 66.

[113] See https://www.ohchr.org/sites/default/files/documents/issues/climatechange/information-materials/ohchr-seabed-mining-10-july.pdf.

[114] United Nations Convention on the Law of the Sea, arts. 204–206; and International Tribunal for the Law of the Sea, advisory opinion of 21 May 2024, para. 441 (3) (l). See, inter alia, *Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, I.C.J. Reports 2010*, p. 14; and *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica), Judgment, I.C.J. Reports 2015*, p. 665.

[115] See, for example, Human Rights Committee, general comment No. 36 (2018), para. 62; Inter-American Court of Human Rights, advisory opinion OC-23/17, para. 127; and *Rama and Kriol Peoples, the Black Creole Indigenous Community of Bluefields et al. v. Nicaragua*.

[116] International Tribunal for the Law of the Sea, advisory opinion of 21 May 2024, paras. 352 ff.; Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention), art. 2 (2) and (3); Convention on Biological Diversity, art. 14; and United Nations Convention on the Law of the Sea, arts. 204–206.

[117] See https://environment.ec.europa.eu/law-and-governance/environmental-assessments/strategic-environmental-assessment_en.

[118] Kunming-Montreal Global biodiversity framework, targets 14 and 21.

[119] See Espoo Convention, appendix II.

[120] Inter-American Court of Human Rights, advisory opinion OC-23/17, para. 165. Specifically with regard to projects affecting Indigenous communities, see *Rama and Kriol Peoples, the Black Creole Indigenous Community of Bluefields et al. v. Nicaragua*.

integration into decision-making processes and compliance with ecosystem-based approaches to conservation and sustainable use.[121] Human rights and environmental impact assessments must also consider the impact from and to climate change that the activity would cause.

3. Precautionary principle

80. The precautionary principle is an established rule of international environmental law, and is enshrined in multiple treaties,[122] including the United Nations Convention on the Law of the Sea,[123] the United Nations Framework Convention on Climate Change,[124] the Convention on Biological Diversity[125] and, most recently, the 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.[126] In accordance with the precautionary principle, States must adopt adequate measures to prevent severe or irreversible harm, even in the absence of definitive scientific evidence about the occurrence or the risk of harm.[127]

B. Obligation to ensure access to information, participation and justice in ocean governance

81. States must ensure that all relevant stakeholders, prioritizing women, Indigenous Peoples, coastal and island communities, ocean defenders and small-scale fishers, children and young people, can fully and meaningfully participate in marine environmental governance at all levels, which requires equitable access to information, participation and justice.[128] States must also mandate the appropriate inclusion of Indigenous Peoples' traditional knowledge in marine resource management, ensuring free, prior and informed consent for decisions affecting their ancestral seas.[129] States must also ensure protections for individuals and organizations advocating for marine conservation, ensuring that they can operate without fear of persecution or harm. States must take appropriate measures to promote and protect the rights and traditional knowledge, innovation and practices of small-scale fishers, which are relevant to the conservation and sustainable use of biological diversity.[130]

C. Obligation to restore the marine environment

82. States must implement measures to restore marine habitats and ecosystems.[131] That duty stems from the protection of the right to a clean, healthy and sustainable environment,

[121] See UNEP, document UNEP/CBD/COP/8/27/Add.2.

[122] See, for example, Convention on the Conservation of Antarctic Marine Living Resources; United Nations Framework Convention on Climate Change; Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish, art. 6; 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972, art. 3 (1); Protocol of 1997 to Amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, preamble; and Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean.

[123] International Tribunal for the Law of the Sea, advisory opinion of 1 February 2011, paras. 131–135.

[124] Art. 3.

[125] Preamble.

[126] Arts. 19 (3) and 26 (5).

[127] Rio Declaration, principle 15.

[128] A/79/270, para. 39.

[129] United Nations Declaration on the Rights of Indigenous Peoples, art. 32 (2); Convention on Biological Diversity, art. 8 (j); and Indigenous and Tribal Peoples Convention, 1989 (No. 169), art. 6.

[130] United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas, art. 20 (2).

[131] Convention on Biological Diversity, art. 8; and International Tribunal for the Law of the Sea, advisory opinion of 21 May 2024, para. 441 (4) (b).

and also arises as a legal consequence of State responsibility for the breaching of that right and the obligation to prevent transboundary environmental harm.[132] Accordingly, States must consider suitable means to restore, as far as possible, the situation existing prior to the occurrence of harm[133] and thus return the environment to its prior condition.[134] This may include identifying, analysing and addressing causes of ecosystem degradation, with the full and effective participation of Indigenous Peoples and other rights holders and the use of relevant traditional knowledge, to prevent or reduce activities that cause further degradation.[135] In the context of marine pollution, reversing degraded ecosystems is necessary.[136]

83. In cases of transboundary environmental harm, compensation may be an appropriate form of reparation for damage if restitution is impossible.[137] Compensation may be awarded for the impairment or loss of ecosystem services and may include payment for the restoration of the damaged environment.[138] The Special Rapporteur underscores that States must also ensure that recourse is available, in accordance with their legal systems, for prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by anyone under their jurisdiction.[139]

84. Victims of human rights violations originating from harm to the marine environment must receive adequate, full and comprehensive reparation, which includes compensation, restitution, satisfaction, rehabilitation and guarantees of non-repetition. Regarding the latter, States should adopt the necessary policy and structural reforms to ensure that the rights of people and communities disproportionately affected by pollution of the marine environment are at the core of ocean governance.

D. Obligation to cooperate

85. States must cooperate to prevent, reduce and control marine pollution, protect, preserve and restore the marine environment and ensure a human rights-based approach to ocean conservation.[140] State cooperation is particularly relevant to: (a) formulating and developing rules, standards, recommended practices and procedures, based on the best available scientific knowledge, to counter marine pollution;[141] (b) promoting studies, conducting scientific research and fostering the exchange of information and data on marine pollution, including its pathways, risks and remedies;[142] and (c) establishing appropriate scientific criteria upon which rules, standards, recommended practices and procedures to counter marine pollution will be formulated and developed,[143] integrating the traditional knowledge of Indigenous Peoples, small-scale fishers and local communities.[144]

[132] Draft articles on responsibility of States for internationally wrongful acts (A/56/10 and A/56/10/Corr.1), para. 76; and *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua), Compensation, Judgment, I.C.J. Reports 2018*, p. 15, para. 29.

[133] A/56/10 and A/56/10/Corr.1.

[134] *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua)*, para. 43.

[135] Conference of the Parties to the Convention on Biological Diversity, decision XI/16 (2012).

[136] International Tribunal for the Law of the Sea, advisory opinion of 21 May 2024, para. 386; and International Union for the Conservation of Nature, World Declaration on the Environmental Rule of Law (2016), principle 4.

[137] *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua)*, para. 31.

[138] Ibid., paras. 42 and 53.

[139] International Tribunal for the Law of the Sea, advisory opinion of 21 May 2024, para. 284; and United Nations Convention on the Law of the Sea, art. 235 (2).

[140] See A/HRC/37/59; Convention on Biological Diversity, art. 5; and 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, arts. 8 and 17.

[141] United Nations Convention on the Law of the Sea, art. 197.

[142] Ibid., arts. 200 and 201.

[143] Ibid., art. 201; and Convention on Biological Diversity, art. 8 (j).

[144] Indigenous and Tribal Peoples Convention, 1989 (No. 169); United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas; and Inter-American Court of Human Rights, *Case of the Rama and Kriol Peoples, the Black Creole Indigenous Community of Bluefields et al. v. Nicaragua*.

Furthermore, States must assist developing countries, particularly large ocean States, in their efforts to address marine pollution, providing scientific, technical, educational and other assistance to developing States that are particularly vulnerable to pollution of the marine environment.[145]

V. Business responsibilities relating to a clean, healthy and sustainable ocean

86. A coherent, robust and comprehensive operationalization of human rights and environmental due diligence in business activities demands greater accountability to protect the human right to a clean, healthy and sustainable ocean environment. Often, transnational corporations operating on the ocean are not properly regulated or monitored and, therefore, can be responsible for large-scale environmental harm and human rights abuses from shipping, overfishing, pollution and offshore oil and gas extraction.

87. The Guiding Principles on Business and Human Rights require businesses to fully respect human rights irrespective of States' regulation of businesses, including the right to a healthy environment.[146] The Special Rapporteur highlights the need for stronger human rights obligations for businesses under international law to prevent and mitigate environmental harms and remediate related human rights violations. These include investing in community development, supporting access to education and healthcare and promoting decent work conditions to counter, for example, structural poverty in small-scale fisher communities that cannot fairly compete against corporate operations.[147]

88. Businesses must implement human rights and environmental due diligence, including assessing the actual and potential environmental and human rights impacts of their activities or those directly linked to their operations, products or services and disclosing that information publicly.[148] Businesses must also provide adequate redress when their actions affect human rights and cause environmental harm.[149]

89. National courts have concluded that companies can be held accountable for actions that negatively impact human rights and the environment, specifically the marine environments and coastal communities. In *Sustaining the Wild Coast NPC and Others v. Minister of Mineral Resources and Energy and Others*,[150] the High Court of South Africa underscored critical human rights obligations for businesses, noting that Shell did not adequately assess the environmental impacts of its proposed activities, which could have had significant consequences for marine life and the livelihoods of coastal communities. The judgment highlighted the importance of respecting the cultural and heritage rights of Indigenous Peoples and coastal communities. The proposed seismic surveys threatened areas of cultural significance to the affected communities and the lack of proper consultation had violated those rights. The legal challenges and subsequent court rulings against Shell demonstrate that businesses may face significant legal and reputational risks if they fail to uphold their human rights obligations.

90. Businesses have a responsibility to address and disclose their climate impacts transparently while ensuring compliance with human rights standards. They are also required to evaluate and report emissions (Scope 1, Scope 2 and Scope 3) across their operations and assess the sustainability of their land and marine activities.[151] This is particularly necessary for negative carbon removal marine technology, deep-sea mining and blue economy projects

[145] United Nations Convention on the Law of the Sea, arts. 202 and 203; and International Tribunal for the Law of the Sea, advisory opinion of 21 May 2024, paras. 327 and 339.

[146] A/79/270, para. 123 (b); A/HRC/55/43; and OECD Guidelines for Multinational Enterprises on Responsible Business Conduct (2023).

[147] See https://www.ohchr.org/sites/default/files/documents/hrbodies/hrcouncil/igwg-transcorp/session9/igwg-9th-updated-draft-lbi-clean.pdf, art. 4.

[148] See A/HRC/55/41.

[149] Guiding Principles on Business and Human Rights, principles 17 and 21.

[150] See https://www.saflii.org/za/cases/ZAECMKHC/2022/55.html.

[151] See A/79/176.

to avoid greenwashing and foster accountability to the front-line communities that suffer the greatest impact.

91. *Milieudefensie et al. v. Royal Dutch Shell plc* in the Kingdom of the Netherlands has been pivotal in defining corporate responsibility regarding human rights and climate change.[152] The court recognized that Shell's contributions to climate change posed risks to fundamental human rights, such as the rights to life and family life. The judgment emphasized that corporations had a responsibility to respect human rights, aligning with such international standards as the Guiding Principles on Business and Human Rights. Shell had an obligation to limit its emissions to mitigate climate change. The judgment underscored the principle that businesses have a duty of care to prevent activities that could harm the environment and, by extension, human rights.

92. Extractive industries must incorporate human rights considerations into their energy transition programmes and all other initiatives, ensuring respect for ecosystems and communities' rights. Current laws fail to address human rights issues in energy transitions. Human rights must be considered for a just transition, with a focus on creating decent work opportunities, addressing energy poverty and ensuring fair economic transitions for Indigenous and small-scale fisher communities.[153]

93. In cases of business-related human rights abuses, States have an obligation to ensure access to justice and effective remedies to victims through independent grievance mechanisms, including, for example, legislation to counter undue corporate influence and install mechanisms to protect ocean defenders so that they can enjoy a safe environment and keep performing their role.[154]

VI. Conclusions and recommendations

94. **The ocean, which is critical for balancing life on Earth, faces dire threats due to unsustainable human activities, including fossil fuel extraction, industrial fishing and agribusiness, risky marine technologies and inadequately planned urbanization. Marginalized communities, particularly in large ocean States, bear the brunt of those impacts, which are exacerbated by colonial legacies and unequal economic systems, rendering them highly vulnerable to the impacts of climate change, biodiversity loss and pollution. In parallel, many viable community-based solutions are under way that could inspire significant protection and the reversal of trends needed for ocean protection.**

95. **Over 600 ocean-related agreements exist, but weak rule of law and fragmented governance have resulted in a failure to prevent ocean damage, safeguard the environment and human rights and enforce restoration and accountability. Coordinated efforts using an ecosystem- and human rights-based approach that recognizes traditional science and knowledge systems are needed urgently across such ocean-related sectors as fishing, tourism, coastal planning, marine protect**ed **areas and shipping to immediately halt further ocean degradation and its impact on the right to a healthy environment.**

96. **Priority must be given to securing the customary and traditional ocean-related rights of Indigenous Peoples and small-scale fishers, ensuring gender equity through the active participation of women in decision-making and access to resources, protecting intergenerational equity for present generations, including children and young people, as well as future generations and protecting ocean defenders and their invaluable role. Strengthening transparency, participation and accountability within existing legal frameworks can improve ocean governance and align it with the human rights principles of universality, interdependence and indivisibility. States and**

[152] See https://www.milieurecht.nl/nieuws/milieudefensie-et-al-v-royal-dutch-shell-plc.
[153] See A/78/155.
[154] See Guiding Principles on Business and Human Rights.

businesses must provide capacity-building, financial support and infrastructure to help communities to mitigate and adapt to the triple planetary crisis.

97. **Immediate, ambitious and coherent action is necessary for the achievement of Sustainable Development Goal 14 and other multilateral goals to mitigate irreparable loss and damage, advance restoration and protect humanity and marine species. The implementation of the human right to a clean, healthy and sustainable environment can inspire better ocean governance, reduce poverty and promote sustainable development within planetary boundaries.**

98. **The Special Rapporteur urges States, businesses, the United Nations system and the whole of society to recognize that ocean issues are also human rights issues, affecting the rights of present and future generations.**

99. **Every effort relating to the ocean, therefore, must be implemented in a gender-responsive, holistic and integrated way, using a rights-based ecosystem approach, with recognition and protection of the knowledge, values, rights and sovereignty of Indigenous Peoples, small-scale fishers and local communities, and mainstreaming the human right to a clean, healthy and sustainable environment.**

100. **States must promote sustainable ocean practices to prevent further severe and irreversible damage, including by:**

(a) **Protecting marine areas effectively and prioritizing fragile and rare ecosystems, while respecting, protecting and fulfilling the human rights of people and communities, including Indigenous Peoples, coastal communities, young people, children, women and other marginalized people, through participatory, transparent and accountable processes, respecting their free, prior and informed consent, promoting co-management and ensuring equitable benefit-sharing. The effective protection of marine-protected areas requires abstaining from authorizing and implementing such activities as mining and unsustainable industrial fisheries that seriously threaten protected areas, their biodiversity and ecosystems and having sufficient financial and personnel resources;**

(b) **Undertaking comprehensive environmental and human rights impact assessments prior to authorizing and implementing activities that might harm the ocean or coastal areas or the right holders connected to them, including all offshore projects, industrial fishing and aquaculture, urban and tourism developments and energy projects. The assessments must evaluate the potential socioeconomic and cultural impacts using an intersectional approach, incorporating an ecosystem-based perspective and recognizing ocean interconnectedness;**

(c) **Implementing the precautionary principle to effectively protect the ocean and coastal ecosystems, especially the most fragile and vulnerable areas, such as the deep seabed. States, with the support of the United Nations system, including entities concerned with the law of the sea, should apply the precautionary principle to extractive activities in the deep seabed, including mining, trawling and geoengineering, to prevent serious and irreversible harm to it. Such activities should be authorized only if and when scientific certainty indicates that there is no risk of severe and irreversible damage to the ocean and once comprehensive regulations and safeguards are in place;**

(d) **Significantly reducing pollution from greenhouse gas emissions from fossil fuels, especially industrialized and high-emitting States, prioritizing:**

(i) **The control and monitoring of such high-emitting sectors as shipping and compliance with international commitments to reduce emissions;**

(ii) **The halting of new offshore oil and gas projects unless there is comprehensive prior environmental and human rights impact assessment, consideration of energy alternatives and the advancement of an effective, just transition towards a net-zero emissions economy consistent with international commitments, while respecting human rights;**

(iii) **The effective control of ocean plastic pollution through adequate regulations, control and monitoring of the entire life cycle of plastics;**

(iv) **Cooperation with other States in multilateral negotiations to agree to a strong and ambitious binding treaty to globally phase out, control and remediate plastic pollution.**

(e) **Protecting the human rights of coastal communities, women, Indigenous Peoples, people of African descent, small-scale fishers, peasants, young people, children, older people and marginalized groups in all ocean-related activities by recognizing customary rights, securing preferential access and the co-management of coastal areas and resources, respecting free, prior and informed consent and local and traditional governance systems and guaranteeing their participation in bodies and processes relating to the ocean-climate-biodiversity nexus at all levels;**

(f) **Providing a safe space for environmental human rights defenders who protect the ocean, recognizing their critical role and addressing their vulnerabilities through an intersectional lens;**

(g) **Controlling and monitoring effectively industrialized fisheries, using the best available science and updated information, prioritizing biodiversity conservation and small-fisher communities' rights, preventing harms in other jurisdictions and areas beyond national jurisdictions and effectively ending harmful subsidies through the ratification of and compliance with the Agreement on Fisheries Subsidies of the World Trade Organization;**

(h) **Ensuring adequate control of land-based pollution, including through access to equitable sanitation services and the treatment of wastewater for coastal communities in urban areas, control of agrobusiness and other industries in or that have an impact on coastal areas and effective planning of urban and other developments;**

(i) **Ensuring that blue economy initiatives are implemented with a human rights-based approach, considering planetary boundaries, promoting the implementation of the sustainable use of natural resources and preventing false solutions;**

(j) **Protecting the ocean common heritage, including areas beyond national jurisdiction, through the ratification and implementation of the 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, respecting Indigenous Peoples' and small-scale fishers' rights and incorporating ancestral knowledge, access to ocean resources and equitable benefit-sharing for marginalized groups;**

(k) **Prioritizing the restoration of ocean and coastal ecosystems and biodiversity, focusing on the most fragile, such as coral reefs and mangrove forests, ensuring the effective participation and inclusion of Indigenous Peoples, coastal communities, women, children and young people, recognizing and valuing ancestral knowledge in reparation and restoration efforts, including in blue economies, and adhering to the polluter pays principle;**

(l) **Guaranteeing adequate access to information, public participation and access to justice on ocean-related matters, including by proactively publishing accessible information relating to the state of the ocean, projects, efforts and initiatives, and enabling effective public participation in decision-making processes, including regulatory processes, and the planning, implementation and evaluation of projects and activities;**

(m) **Ensuring that all multilateral, regional and bilateral negotiations and conferences relating to the ocean include a human rights- and ecosystem-based approach, while incorporating the human right to a clean, healthy and sustainable environment, starting with the United Nations Ocean Conference to be held in Nice, France, in 2025, the Conference of the Parties to the United Nations Framework Convention on Climate Change, the Conference of the Parties to the Convention on Biological Diversity and the work of the intergovernmental negotiating committee to**

develop an internationally legally binding instrument on plastic pollution, including in the marine environment;

(n) **Cooperating effectively with other States to advance the protection, conservation and remediation of the ocean and coastal areas, including through the implementation of international law and the incorporation of international human rights law obligations, standards and guidelines for ocean management. Priority actions include:**

(i) **Providing adequate and equitable funding, considering common and differentiated responsibilities, enabling participation, transparency and accountability and promoting grant-based funding;**

(ii) **Expanding and increasing participatory and inclusive research on the ocean, considering ancestral knowledge and promoting technical exchanges.**

101. **Businesses should recognize and comply with their obligation to respect human rights in relation to all ocean efforts, in line with the Guiding Principles on Business and Human Rights and regional and national regulations, and should:**

(a) **Collaborate with States, the United Nations system, regional efforts and other initiatives to contribute to the advancement of measures to protect and conserve the ocean, implementing a human rights- and ecosystem-based approach and abstaining from undue influence resulting in human rights violations, exacerbating ocean degradation and the triple planetary crisis and delaying the necessary urgent solutions;**

(b) **Act with due diligence to respect human rights in activities that might increase ocean and coastal degradation, including by adopting robust, time-bound targets that address ecosystem degradation, and systematically assess the impact of their activities, considering the totality of their value chains;**

(c) **Ensure the fulfilment of their decommissioning liabilities and cover the full cost of the closure and clean-up of industrial complexes in marine areas, including the proper decommissioning of offshore oil and gas infrastructure, to avoid contributing to the toxic legacy of such complexes.**

102. **The United Nations system, including agencies and specialized institutions on ocean-related issues, should promote coordination among States, international and regional entities and private and public stakeholders and promote integration and coherence among all multilateral processes for global reporting and assessment of the state of climate change, pollution and ocean, marine and coastal biodiversity, while balancing environmental, socioeconomic, cultural and human rights considerations.**