

Deep-sea mining: international commitments

The 1982 United Nations Convention on the Law of the Sea (UNCLOS) establishes the legal framework for deep-sea mining in the international area of the ocean. It gives the International Seabed Authority (ISA) responsibility for taking measures to ensure the effective protection of the marine environment from the harmful effects of deep-sea mining (in Article 145).

To this end, it says that the International Seabed Authority (ISA) should adopt appropriate rules, regulations and procedures for:

- the prevention, reduction and control of pollution and other hazards to the marine environment;
- the prevention of interference with the ecological balance of the marine environment;
- the prevention of damage to the flora and fauna of the marine environment.

Since the adoption of UNCLOS in 1982, there have been many developments in international policy relevant to protecting the marine environment and biodiversity from the impacts of activities such as deep-sea mining and deep-sea fishing:

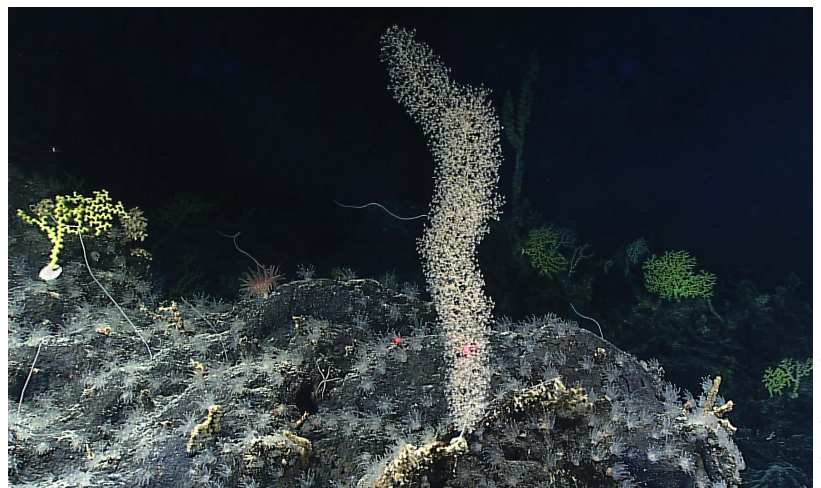
Political commitments

- The 1992 United Nations Conference on Environment and Development, often called the Earth Summit, formulated the precautionary principle. This states that: “In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.” (Principle 15 of the Rio Declaration)
- Also in 1992, the Convention on Biological Diversity (CBD) established the conservation of biological diversity and the sustainable use of its components as objectives of the Convention. (Article 1)
- The 1995 United Nations Fish Stocks Agreement established obligations for the management of fisheries, including deep-sea fisheries, in international waters. These include obligations to protect biodiversity, apply the precautionary approach and protect habitats of special concern. (Articles 5 & 6)
- The 2002 World Summit on Sustainable Development’s Johannesburg Plan of

Implementation called on States to “Maintain the productivity and biodiversity of important and vulnerable marine and coastal areas, including in areas within and beyond national jurisdiction”. (Paragraph 32)

- In 2006, United Nations General Assembly Resolution 61/105 called on States to protect vulnerable marine ecosystems, including seamounts, hydrothermal vents and cold water corals, from destructive fishing practices, recognizing the immense importance and value of deep sea ecosystems and the biodiversity they contain. (Paragraph 80)
- In 2011, the Seabed Disputes Chamber of the International Tribunal for Law of the Sea, in its Advisory Opinion on seabed mining, described the precautionary approach as “an integral part of the general obligation of due diligence of sponsoring States, which is applicable even outside the scope of the Regulations”. (Paragraph 131)
- In 2012, at the United Nations Conference on Sustainable Development (Rio+20), Heads of State and Government and high-level representatives committed to protect and restore the health, productivity and resilience of ocean and marine ecosystems, to maintain their biodiversity and enable their conservation and sustainable use for present and future generations. They further called for “urgent actions that effectively reduce the rate of, halt and reverse the loss of biodiversity”. (The Future We Want, Paragraphs 158 & 198)

Right: deep-sea coral garden, Swains Island, South Pacific.



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- In 2015, the United Nations adopted the 2030 Agenda for Sustainable Development which lays out 17 Sustainable Development Goals (SDGs). SDG 14 commits States “to conserve and sustainably use the oceans, seas and marine resources for sustainable development”, with target 14.2 committing States to “by 2020 sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience and take action for their restoration, to achieve healthy and productive oceans”. At the same time, SDG 12 reflects a commitment “to ensure sustainable consumption and production patterns” and, SDG 8 commits States to “endeavour to decouple economic growth from environmental degradation”.
- In 2018, the 14th Conference of Parties to the Convention on Biological Diversity (COP14) adopted the Ministerial Declaration on Investing in Biodiversity for People and Planet which called for mainstreaming biodiversity considerations in the energy and mining sectors. It urged parties “to increase their efforts with regard to addressing the potential impacts of deep-seabed mining on marine biodiversity. (Decision 14/10, paragraph 1, COP14)
- In May 2019, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) released a groundbreaking report² warning that a million species already face extinction, many within decades, unless action is taken to reduce the intensity of drivers of biodiversity loss”.
- In September 2019, the Intergovernmental Panel on Climate Change released a Special Report on the Ocean and Cryosphere in a Changing Climate³ which noted numerous climatic hazards for the deep sea, including loss of biodiversity and impacts on the water column and seafloor key for ecosystem services like carbon sequestration.

Recent reports on the state of the world’s ocean and biodiversity

- In 2015, the United Nation’s First World Ocean Assessment¹ stated that “the richness and diversity of organisms in the deep sea exceeds all other known biomes and supports the diverse ecosystem processes and functions necessary for the Earth’s natural systems to function”. The report concluded that the deep ocean is increasingly facing multiple environmental stressors from pollutants, plastics and climate change impacts such as acidification, warming, and deoxygenation.


About the DSCC

The Deep Sea Conservation Coalition (DSCC) was founded in 2004 to address the need to prevent damage to deep-sea ecosystems and the depletion of deep-sea species on the high seas from bottom trawling and other forms of deep-sea fishing. The DSCC is made up of over 80 non-governmental organizations (NGOs), fishers organizations and law and policy institutes, all committed to protecting the deep sea.

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Recommendation

Scientists have warned that biodiversity loss would be unavoidable if deep-sea mining as currently envisioned is permitted to occur. They have warned that most mining-induced loss of biodiversity in the deep sea is likely to be permanent and that the notion that “offsets” can compensate for biodiversity loss is scientifically meaningless.⁴

ISA member States have repeatedly committed, through the 2030 SDGs and other instruments, to apply the precautionary approach, halt and reverse the loss of marine biodiversity, take action to restore degraded ecosystems and build the resilience of marine ecosystems.

In light of these commitments, States should agree that a moratorium on deep-sea mining needs to be in place unless and until it can be demonstrated that the marine environment can be effectively protected from mining activities and that mining would not lead to the loss of biodiversity, cause the degradation of deep-sea ecosystems, or compromise the ecological integrity and resilience of deep-sea and open ocean ecosystems.

Endnotes

- 1 Inniss, L., Simcock, A., Ajawin, A.Y., Alcalá, A.C., Bernal, P., Calumpang, H.P., Araghi, P.E., Green, S.O., Harris, P., Kamara, O.K. and Kohata, K., 2015. The first global integrated marine assessment. United Nations. Available at: <https://www.un.org/regularprocess/content/first-world-ocean-assessment> [Accessed 23 June 2020]
- 2 Diaz, S., Settele, J., Brondizio, E., Ngo, H., Guèze, M., Agard, J., Armeth, A., Balvanera, P., Brauman, K., Butchart, S. and Chan, K., 2020. Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Available at https://ipbes.net/sites/default/files/downloads/spm_unedited_advance_for_posting_hfn.pdf [Accessed 23 June 2020].
- 3 Bindoff, N.L., W.W.L. Cheung, J.G. Kairo, J. Aristegui, V.A. Guinder, R. Hallberg, N. Hilmi, N. Jiao, M.S. Karim, L. Levin, S. O’Donoghue, S.R. Purca Cuicapusa, B. Rinkevich, T. Suga, A. Tagliabue, and P. Williamson, 2019: Changing Ocean, Marine Ecosystems, and Dependent Communities. In: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate [H.-O. Pörtner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegría, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]. In press. pp.452-453.
- 4 Van Dover, C.L., Ardron, J.A., Escobar, E., Gianni, M., Gjerde, K.M., Jaeckel, A., Jones, D.O.B., Levin, L.A., Niner, H.J., Pendleton, L. and Smith, C.R., 2017. Biodiversity loss from deep-sea mining. *Nature Geoscience*, 10(7), pp.464-465.