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Te Ipukarea Society Position Statement for WCPFC21

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Submitted by Te Ipukarea Society



Te Ipukarea Society Inc
Caring for our Environment



Partnership for
nature and people

Western and Central Pacific Fisheries Commission (WCPFC)

21st Regular Session

Suva, 28 November - 3 December 2024

Te Ipukarea Society Information Paper on Deep-sea Mining

11 November 2024

Re: [SC-20 outcomes](#)

Summary

This paper provides information about threats to Pacific tuna from deep-sea mining and possible responses by the WCPFC and Members, Cooperating Non-Members and Participating Territories.

The matter was discussed in [WCPFC-20](#) in December 2023. Te Ipukarea Society presented a paper on the potential implications of deep seabed mining for tuna stocks and other pelagic species in international waters that came under the purview of the Commission ([WCPFC20-2023-OP14](#)). Noted were the effects of turbidity from discharge plumes on the primary productivity of the ocean, already impacted by rising ocean temperatures. Light and noise pollution would also occur. The Te Ipukarea Society respectfully requested that the Scientific Committee of the WCPFC consider this issue at its next meeting, with a view to getting this issue onto the agenda for WCPFC21.

WCPFC SC-20 in 2024 [noted](#) that the ISA activities in the Pacific Ocean region overlap with the WCPFC Convention Area and also noted the present uncertainties around direct or indirect interactions between deep-sea mining activities and commercial fisheries for pelagic species.

This paper highlights the critical importance of tuna fisheries to Pacific countries, SIDS in particular, and warns that deep sea mining can put Pacific communities at risk. We propose that Members, Cooperating Non-Members and Participating Territories of WCPFC support a call for a moratorium on deep-sea mining in the Western and Central Pacific Ocean unless science can demonstrate that deep sea mining will not adversely impact tuna and tuna fisheries in the region.

WCPFC Scientific Committee Recommendations

Three papers were before the Scientific Committee (SC20): [Amon et al \(2004\)](#); [ISA Technical Study 33 on 'Potential interactions between fishing and mineral resource-related activities in areas beyond national jurisdiction: a spatial analysis'](#); and a paper by the [WCPFC Secretariat, Deep Seabed Mining Activities in the WCPFC Convention Area](#).

SC20 made the following [recommendations](#) (para 153):

- SC20 noted that International Seabed Authority (ISA) activities in the Pacific Ocean region overlap with the WCPFC Convention Area.
- SC20 noted the planned activities by the ISA in the Northwest Pacific toward deep sea exploration and the ongoing deep sea exploration activities in the Clarion-Clipperton Zone (CCZ).
- SC20 also noted the present uncertainties around direct or indirect interactions between deep-sea mining activities and commercial fisheries for pelagic species.
- SC20 recommended that the Commission task the Secretariat to engage with a broad range of stakeholders to gain awareness and understanding of deep seabed mining activities and their potential direct or indirect impact on tuna fisheries in the WCPFC Convention Area.
- SC20 noted the Commission could consider tasking the WCPFC Secretariat to apply for observer status to the ISA.

Potential impacts of deep-sea mining on tuna fisheries¹

Pacific tuna stocks are already under great pressure from climate change. With the ocean having absorbed 90% of the extra heat and 20-30% of the anthropogenic CO₂ emissions, climate change is seriously impacting marine life.²

Research is showing that as a direct impact of climate-induced changes, tuna biomass in the Pacific will progressively distribute to the east in equatorial waters and, to a more modest extent, to higher latitudes. As a result the biomass of the main three tropical tuna species in the waters of ten Pacific SIDS could decline by an average of 13% under a high emissions scenario, with purse seine catches showing an average decline of 20%.³

Fisheries may be impacted by deep-sea mining in several ways. Impacts can be caused by sediment plumes (which can result in reduced forage, alteration of migration corridors or distribution of species), toxic elements in discharge waters or underwater noise, among others.⁴ Tuna make extended deep dives to depths of more than 1,000 metres below the surface and could be exposed to mine waste discharged at any point in the water column, as could those species they rely on as prey.⁵

¹ For a good summary of these see the presentation Potential interactions between deep-sea mining and tuna fisheries, presented at WCPFC SC20, available at <https://meetings.wcpfc.int/node/23115>

² Lindsey R. and Dahlman L. (2023). [Climate Change: Ocean Heat Content](#).

³ Bell, J.D., Senina, I., Adams, T. et al. Pathways to sustaining tuna-dependent Pacific Island economies during climate change. *Nat Sustain* 4, 900–910 (2021). <https://doi.org/10.1038/s41893-021-00745-z>

⁴ M.A. van der Grient, J.C. Drazen, Potential spatial intersection between high-seas fisheries and deep-sea mining in international waters, *Marine Policy*, Volume 129, 2021 <https://doi.org/10.1016/j.marpol.2021.104564>.

⁵ SPREP Secretariat. *Deep-Seabed Mining: A Pacific Environmental and Governance Challenge* (2021).

An ISA [paper](#) recognised that “any impacts of deep-sea mining operations at any depth of the water column on animal populations, ecosystem productivity, or ecological processes could indirectly impact fisheries in those zones or even at greater distances if sediment plumes or other materials released from the mining operations spread widely.”⁶ This is important as current [proposals](#) to test mining equipment are to release massive quantities of sediment, mining fines and wastewater at around 1,200 m depth after bringing the nodules to the surface.⁷ Moreover, there is potential for spillage of nodules and fines at the surface during the transfer of several million tonnes of nodules per year from the mining ship to the transport vessels that would carry the nodules to port. Parts of these continuous standing plumes may travel a thousand of kilometres or more in multiple directions and be in suspension for over a year.⁸

The extent of these impacts, including primary productivity and effects throughout the food chain,⁹ are largely unknown and currently subject to debate, especially given the significant scientific gaps in this area.¹⁰ Most research on the impacts of deep sea mining has focused on benthic organisms and impacts to pelagic organisms are less understood.¹¹

Due to climate change, the distribution of the three main tropical tuna species is expected to increasingly overlap with the CCZ as a result of climate change. This could make Pacific tuna stocks more susceptible to the impacts of deep sea mining.

Although in most cases the countries that fish the most in potential mining areas capture a small to moderate percentage of their total RFMO-reported catches from these areas, that intersection can be large, with countries such as Samoa or the Cook Islands that have 20% or more of their RFMO catch derived from a mining area. This suggests “these countries may be potentially disadvantaged if deep-sea mining has negative impacts on fisheries.”¹²

⁶ ISA Technical Study N°33 (2024). Potential Interactions between fishing and mineral resource-related activities in areas beyond national jurisdiction: a spatial analysis.

⁷ Nauru Ocean Resources Inc (NOR) Environmental Impact Assessment, executive summary, at <https://www.eisconsultationnauruun.org/>.

⁸ Muñoz-Royo, C., Peacock, T., Alford, M.H. et al. Extent of impact of deep-sea nodule mining midwater plumes is influenced by sediment loading, turbulence and thresholds. *Commun Earth Environ* 2, 148 (2021). <https://doi.org/10.1038/s43247-021-00213-8>. “Recognizing that it takes about 1 year for 10 µm sediment to settle to the bottom from the midwater column, over which time sediment can readily be transported up to 1000 km in very different directions by variable ocean currents throughout a 20-year commercial mining operation, the area over which the sediment and fines settle is a few million square kilometers (i.e., comparable to the scale of the CCFZ)” and “Transport of fine sediment over thousands of kilometers was identified, which is not surprising.”

⁹ See Bernd Christiansen, Anneke Denda, Sabine Christiansen. Potential effects of deep seabed mining on pelagic and benthopelagic biota. *Marine Policy*, Volume 114, 2020, 103442, ISSN 0308-597X, <https://doi.org/10.1016/j.marpol.2019.02.014>.

¹⁰ Amon, D.J., Palacios-Abrantes, J., Drazen, J.C. et al. Climate change to drive increasing overlap between Pacific tuna fisheries and emerging deep-sea mining industry. *Ocean Sustain* 2, 9 (2023). <https://doi.org/10.1038/s44183-023-00016-8>

¹¹ M.A. van der Grient, J.C. Drazen, Potential spatial intersection between high-seas fisheries and deep-sea mining in international waters, *Marine Policy*, Volume 129, 2021 <https://doi.org/10.1016/j.marpol.2021.104564>.

¹² M.A. van der Grient, J.C. Drazen, Potential spatial intersection between high-seas fisheries and deep-sea mining in international waters, *Marine Policy*, Volume 129, 2021 <https://doi.org/10.1016/j.marpol.2021.104564>.

Other international bodies expressing concerns about potential deep-sea mining impacts

This concern about the effects of DSM on tuna stocks has been shared with other RFMOs. In May 2023 the [IATTC Working Group on Ecosystem & Bycatch](#) made [recommendations](#) to the IATTC Commission, which [agreed](#) to:

- Be attentive to, and monitor the development of mining in the international seabed area in terms of its potential effects on the ocean ecosystem and populations of tuna and tuna-like species;
- Participate, as appropriate, in the process of discussions on the subject within the framework of the International Seabed Authority (ISA), as an observer and/or through appropriate collaborative mechanisms;
- Collaborate, in a manner consistent with its mandate, work program, and the financial, human, and material resources at its disposal, in research on the potential effects of mining in the international seabed area among others on the ocean ecosystem and populations of tuna and tuna-like species

The Secretariat paper [WCPFC21 International Ocean Conservation: Implications for WCPFC \(24 October 2024\)](#) noted that at the IATTC meeting in September 2024, the IATTC agreed that the organisation should seek observer status at the ISA. The WCPFC Secretariat has held informal discussions with both the ISA and IATTC Secretariat to share information on developments, including potential impacts of deep-sea mining on the conservation and management of tuna stocks and associated and dependent species.

Last February, the Convention on Migratory Species Conference of the Parties [adopted a resolution](#) noting in particular “the potential harmful effects of deep-seabed mineral exploitation activities on marine ecosystems and species, particularly migratory species, their prey and their ecosystems.” The resolution urges Parties “not to engage in, or support, deep-seabed mineral exploitation activities until sufficient and robust scientific information has been obtained to ensure that deep-seabed mineral exploitation activities do not cause harmful effects to migratory species, their prey and their ecosystems.”¹³

Fisheries organisations supporting a moratorium on deep sea mining

Not surprisingly, fisheries associations are positioning themselves against deep-sea mining. Four EU advisory councils where the fishing industry leads stakeholder representation, including the Advisory Council whose membership includes associations of EU high seas and distant water fishing fleets, have called for a deep sea mining moratorium. The African network of artisanal fisheries organisations, with members in 26 African countries has [also called for a moratorium](#).¹⁴ [Seafood traders](#) are also organising statements calling for a moratorium.

¹³ UNEP/CMS/Resolution 14.6 (2024). Deep-seabed mineral exploitation activities and migratory species.

¹⁴ CAOPA (2024). Exploitation minière en eaux profondes: Les pêcheurs artisans d’Afrique et du Pacifique appellent à la précaution. Available at <https://caopa.org/exploitation-miniere-en-eaux-profondes-les-pecheurs-artisans-dafrique-et-du-pacifique-appellent-a-la-precaution/21/08/2024/actu/5848/>

Cooperation among SIDS and the critical importance of tuna fisheries

About 51 percent of the global tuna catch comes from the WCPO. The WCPO skipjack fishery is on its own the largest tuna fishery in the world, accounting for 34% of worldwide tuna landings.¹⁵

The WCPO region is considered to have the greatest dependency on fisheries in the world. Ten Pacific Small Island Developing States (SIDS) dependence on tuna fisheries is such that they are considered ‘tuna-dependent’, with access fees paid by industrial fishing fleets providing an average of 37% of their government revenue and as high as 84% in some cases.¹⁶

The success Pacific SIDS achieved in the management of WCPO tuna fisheries was the direct result of their cooperative efforts. The Parties to the Nauru Agreement (PNA) Vessel Day Scheme (VDS) put the regional purse seine fisheries largely under the control of nine of Pacific SIDS. The agreement allowed the SIDS to collectively agree on management rules and higher access fees as some 90% of the purse seine catch in the WCPO comes from their combined EEZs.

The PNA was a significant achievement of Pacific solidarity which showed the strength of regional leaders working together. SIDS have a proven record of leadership on ocean protection and through strong collaboration they managed, over the last two decades, to impose measures that both improved the management of the largest tuna fishery in the world while hugely increasing benefits to SIDS’ economies.

¹⁵ International Seafood Sustainability Foundation (2024). Status of the world fisheries for tuna. ISSF Technical Report 2024-02.

¹⁶ Bell, J.D., Senina, I., Adams, T. et al. Pathways to sustaining tuna-dependent Pacific Island economies during climate change. *Nat Sustain* 4, 900–910 (2021). <https://doi.org/10.1038/s41893-021-00745-z>

Recommendations for WCPFC20

Conservation of the Pacific Ocean is key to the future of Pacific people, and DSM represents an unacceptable risk. DSM would add a new threat to the economies of many States in the region and potentially undermine two decades of Pacific Island States' efforts to improve the management of the most profitable tuna fisheries in the world.

It is recommended that:

WCPFC21 notes SC20 advice that ISA activities in the Pacific Ocean region overlap with the WCPFC Convention Area;

WCPFC21 recalls that SC20 noted the present uncertainties around direct or indirect interactions between deep-sea mining activities and commercial fisheries for pelagic species;

WCPFC21 encourages Members, Cooperating Non-Members and Participating Territories to refrain from deep-sea mining activities which may affect the marine environment and tuna stocks, and support a moratorium on deep-sea mining until science can demonstrate that deep sea mining will not adversely impact tuna and tuna fisheries, as well as other fisheries in the region and the fishing communities that rely on these fisheries.