## Te Ipukarea Society – Deep Sea Mining Position Statement

## 1. Background

The deep sea is home to a range of diverse and unique species and ecosystems. Some deep-sea areas within the Cook Islands Exclusive Economic Zone (EEZ) are also rich in polymetallic nodules, which contain valuable minerals. The nodules grow over millions of years in very stable environments, and are the target of commercial mining interest, both within our EEZ, and outside, on the international seabed).

There are two main phases to deep-sea mining:

The *exploration phase* is when companies prospect for resources but will also include collection of baseline environmental data. Exploration activities can vary and will include extraction of nodules in small quantities. Environmental data collected during this phase will be used to inform Environmental Impact Assessments submitted by companies when moving on to more invasive exploration and when applying for an exploitation license.

On 22 October 2020, the Seabed Minerals Authority and the Cook Islands Government launched the tender process for companies to apply for licenses for exploration within our waters.

Note: Exploitation phase (referred to as "recovery phase" by the Cook Islands Seabed Minerals Authority) and potential impacts

The *exploitation phase* involves the extraction of minerals in commercial quantities. In order to create effective standards and guidelines for exploitation, improved understanding of impacts is critical. Research has shown that some species rely solely on nodules for habitat, so the removal of the nodules also means the removal of those species from the mined area.

Extraction of the nodules will also result in sediment plumes near the seabed, which can travel significant distances and could smother organisms and affect larval settlement. A second plume will occur when sediment from nodules is released by the mining vessel into the water column. Depending on the depth, this has the potential to affect primary production, as well as the behaviour, development, and function of fish and mammals in the water column. Both sediment plumes may have elevated levels of metal concentrations. Light and noise are also expected to have impacts on marine life.

The likelihood and extent of these potential impacts are still uncertain, including the further potential for flow-on effects (e.g. bioaccumulation of metals in pelagic fish). Combined with limited understanding of the deep-sea and how ecosystems are connected, this uncertainty has caused serious concern about deep-sea mining.

## 2. Te Ipukarea Society's Position

**Recognising** the vast amount of uncertainty surrounding the potential environmental impacts, the Society supports the call by a number of Governments and Non-Governmental Organisations around the world for a minimum ten-year moratorium on deep-sea mineral exploitation.

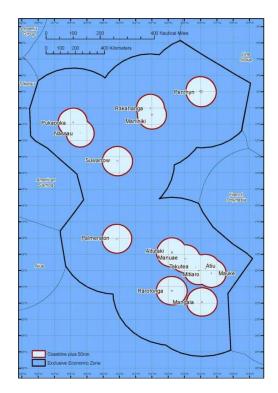
**Considering** that the National Marae Moana Spatial Plan, that maps out where certain activities can and cannot be undertaken is not completed, the Society calls for no further tenders for exploration within our Marae Moana until this is completed.

**Noting** that the current Exploration Tender Areas map does not exclude Special Unique Marine Areas (SUMAs) from the available areas for exploration, we request that exploration licences under the current tender process are not finalised until these SUMAs are accounted for.

**Understanding** that measures to help deal with uncertainty in environmental management do exist, the Society believes the current level of scientific uncertainty around the deep sea and deep-sea mining means these measures will not be effective, and therefore, that a minimum 10-year moratorium is the most appropriate application of the Precautionary Principle. This would also:

- a. align with the UN Decade of Ocean Science for Sustainable Development 2021-2030;
- b. allow for more international scientific research to be carried out, particularly by non-mining institutions, resulting in reduced uncertainty;
- c. allow time to complete the Marae Moana Marine Spatial Plan;
- d. allow time to further investigate the potential for a resource-efficient circular economy without the need to mine for new metals;
- e. not interfere with the Cook Islands efforts to contribute to global biodiversity targets;
- f. allow time for the Cook Islands Seabed Minerals Authority (SBMA) and the International Seabed Authority to improve efforts to transparently and effectively engage stakeholders in decision-making processes; and
- g. allow time for the SBMA to invite independent research organisations to assist the Cook Islands with deep sea research, in order to avoid conflicts of interest that would inevitably arise if this research is carried out solely by mining companies.

While the Society are predominantly concerned with impacts of mining for polymetallic nodules in the Cook Islands context, we appreciate that Cook Islanders are also beneficiaries of the common heritage of mankind, and that the Cook Islands is a sponsor state to an exploratory contract in the Clarion-Clipperton Zone. As such, we are concerned about all types of deep-sea mining, and the lack of scientific information around the entire deep-sea and the global industry.



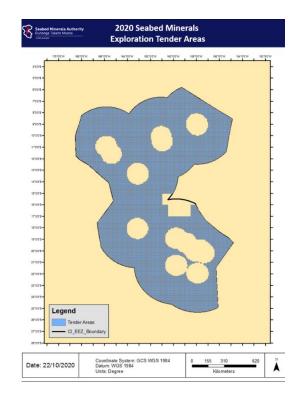


Figure 1: Map of Marae Moana. Source: Marae Moana Website Figure 2: Map of Exploration Tender Areas. The only reserved

Figure 2: Map of Exploration Tender Areas. The only reserved area shown outside of the 50nm island boundaries is already allocated for mining exploration under existing agreements. SUMAs or any other environmentally significant areas are not marked on this map. Source: SBMA Website

## Sources

McCormack, G. (2016). Cook Islands Seabed Minerals: a precautionary approach to mining. *Cook Islands National Heritage Trust*.

Levin, L. A., Mengerink, K., Gjerde, K. M., Rowden, A. A., Van Dover, C. L., Clark, M. R., Ramirez-Llodra, E., Currie, B., Smith, C. R., Sato, K. N., Gallo, N., Sweetman, A. K., Lily, H., Armstrong, C. W., & Brider, J. (2016). Defining "serious harm" to the marine environment in the context of deep-seabed mining. *Marine Policy*, 74(August), 245–259.

Miller, K. A., Thompson, K. F., Johnston, P., & Santillo, D. (2019). *An Overview of Seabed Mining Including the Current State of Development , Environmental Impacts , and Knowledge Gaps. 4*(January 2018). https://doi.org/10.3389/fmars.2017.00418

Fauna & Flora International (2020). An Assessment of the Risks and Impacts of Seabed Mining on Marine Ecosystems. FFI: Cambridge U.K. Available from: <a href="https://www.fauna-flora.org">www.fauna-flora.org</a>

Cook Islands Seabed Minerals Authority. <a href="https://www.sbma.gov.ck/">https://www.sbma.gov.ck/</a>

IUCN Motion 069 – *Protection of deep-ocean ecosystems and biodiversity through a moratorium on seabed mining*. <a href="https://www.iucncongress2020.org/motion/069">https://www.iucncongress2020.org/motion/069</a>

Johnson, D., Weaver, P., Gunn, V., Spicer, W., Mahaney, S., Tiadi, D., Alvarez Perz, A., & Tawake, A. (2016). Periodic Review of the International Seabed Authority pursuant to UNCLOS Article 154 Interim report. May, 1–103. https://www.isa.org.jm/files/documents/EN/22Sess/Art154/Art154\_InterimRep.pdf