

## Greenpeace UK submission to Foreign Affairs select committee's critical minerals inquiry (MIN0051)

### Introduction

Greenpeace UK welcomes the Foreign Affairs select committee's critical mineral inquiry, in particular the focus on "promoting UK values through improved environmental, social and governance performance". This submission will focus on the deep sea mining questions.

The full environmental impacts of deep seabed mining are expected to be highly damaging, both within and well beyond, the areas mined. **Therefore, the UK should join a growing number of governments and support a global moratorium on deep seabed mining.** The UK government was part of the High Ambition Coalition pushing hard for the recently agreed Global Oceans Treaty - a crucial tool for achieving the globally agreed target to protect at least 30% of the world's oceans by 2030. But the government's currently supportive position on deep sea mining could seriously undermine the strong stance it took during those negotiations.

Civil society groups are becoming increasingly vocal in their opposition to deep sea mining, and there are calls for industry to take into account the profound cultural and spiritual ties that many remote island nations have with the sea. For decades, Pacific peoples have been excluded from decision making processes in their own territories and waters. The deep sea mining industry is yet another example of history repeating itself: neo-colonial forces exploiting the Pacific, without regard to people's way of life, food sources and spiritual connection to the ocean. This has emboldened Pacific leaders to create a [moratorium alliance](#). Given exploration is currently particularly active within the Clarion Clipperton zone - **we would highly recommend the committee actively seeks to engage with researchers and civil society groups from communities from the Pacific region who have been calling for a moratorium on deep sea mining for many years. Greenpeace would be delighted to support facilitating this.**

### What are the opportunities and challenges of deep seabed mining for critical minerals?

1. We are living in a climate and nature emergency, with the oceans on the frontline. Our global oceans are facing more pressures now than at any time in human history, and are severely threatened by overfishing and the climate crisis. Vulnerable coastal communities, especially in developing countries, are the ones who pay the highest price. Our oceans sequester carbon, and give more than three billion people their livelihoods.
2. Deep sea mining is an emerging extractive industry. What little we do know indicates that deep-sea mining will destroy ecosystems and habitats that take millions of years to form. Many of the species at risk have not yet been documented by scientists. If deep sea mining is allowed to start, gigantic machines will be lowered to the ocean floor where they will scoop, dredge or cut deposits from deep ocean ecosystems, including hydrothermal vents, seamounts and abyssal plains. The material mined from the ocean floor would then be pumped up to a ship for processing, through up to several kilometres of tubing. Some of the waste (consisting mostly of sediments, mineral debris and seawater) would then be pumped back into the water, a few hundred meters below the surface.
3. Deep sea mining can never be sustainable. Mineral deposits like polymetallic nodules have taken millions of years to form and provide an important habitat for marine life. For example, nodules found 4000 metres deep in the Pacific Ocean are [where the ghost octopus lays its eggs](#). Deep sea organisms themselves are

very slow-growing and fragile, and therefore much less likely to recover from disturbance. Heavy mining gear would cause severe and irreparable harm to vulnerable deep sea ecosystems, including direct removal of seafloor habitat and organisms, or the release of sediment plumes which could smother habitats for kilometres around the mining site. The deep ocean's biodiversity and ecosystem functioning are undoubtedly important for healthy oceans, but still barely understood.

- **Social impact:** Both scientists and the fishing industry have warned that deep sea mining could risk Pacific island communities' livelihoods and jeopardise food security. [Scientists have warned](#) that "communities that rely on fish stocks for subsistence could be particularly vulnerable to the impacts of seabed mining". Voices from the fishing sector are also joining environmental groups in calling for a moratorium on deep sea mining.
  - **Climate change:** By impacting on natural processes that store carbon, deep sea mining could make climate change worse by releasing carbon stored in deep sea sediments or disrupting the processes that store carbon, though there are many uncertainties regarding the scale of such impacts. Deep sea sediments are known to be an important long-term store of 'blue carbon', naturally absorbed by marine life, a proportion of which is carried down to the seafloor as those creatures die.
  - **Pollution with noise, light and marine debris:** Fish and other marine creatures could be impacted by mining-generated noise and light pollution, as well as the discharged sediment from extraction and removal processes from the ships. The release of these potentially toxic plumes into the water column could impact a far greater range of ocean species than deep sea biodiversity, as the pollution could travel hundreds or even thousands of kilometres. Marine mammals could be deeply affected since they use sound as a primary means of underwater communication and sensing.
4. A [recent study](#) shows that the deep sea won't provide the metals needed for the shift towards e-mobility and green technologies. This study debunks the main argument of the deep sea mining industry, which is pushing to start deep-sea mining this year. Major car companies have [committed not to source any minerals from the seabed](#) and backed the call for a moratorium.
5. To limit the overall demand for minerals, investments in developing batteries that last longer, are more efficient, and rely less on the most controversial minerals such as cobalt, battery recycling & reuse, and international R&D collaboration are needed to improve battery technology in both electric vehicles and in other applications. To minimise our impact on nature when reducing our reliance on fossil fuels, we also need to:
- rethink our transport systems to minimise vehicular (and hence battery) requirements.
  - rethink the way we use materials through increased re-use and recapture
  - develop new technologies and techniques for the recapture of materials from our household and other waste.

In Aotearoa for example, there are schemes already in place to recapture materials from old phones, and other old electronics. These must be scaled up, and supported by governments across the world. Instead of focussing on deep sea mining, they should prioritise resource efficiency and a rapid transition to a circular economy.

### What should the UK's role be in regulatory development around this?

6. The UK should support a global moratorium on deep seabed mining.
7. The current legal framework to manage human activities on the oceans - the Law of the Sea and its implementing agreements - was designed and negotiated in the 1960s and 1970s, when environmental concerns were much lower than today.

8. Nearly a third of the exploration contracts in the international seabed involve **private sector companies, largely headquartered in the Global North**. Three parent companies dominate ownership of the private sector players that represent nearly half of all the contracts to explore for minerals in the Pacific's Clarion-Clipperton Zone issued by the ISA:
  - The Metals Company (TMC - formerly called DeepGreen - registered in Canada, whose subsidiaries and partners are sponsored by Nauru, Tonga and Kiribati)
  - Global Sea Mineral Resources (GSR - a subsidiary of DEME registered in and sponsored by Belgium)
  - [Loke<sup>1</sup> has recently acquired UK Seabed Resources from Lockheed Martin, sponsored by UK.](#)
9. The UK government is currently supporting research into deep sea mining having approved exploratory deep sea mining licences 10 years ago to UK Seabed Resources (UKSR), a UK subsidiary of US weapons manufacturer, Lockheed Martin. The UK now sponsors some of the largest areas for deep sea mining exploration, [covering 133,000km<sup>2</sup> of the Pacific Ocean](#), through UKSR. As of March 16th 2023, UKSR has been acquired by Norwegian company Loke.
10. The UK has historically held an important position in the ISA. According to former Secretary-General Nii Odunton the UK has been an “important and constructive participant in the work of the Authority” since then, having been a member of the ISA’s Council since 1996. However, the UK is increasingly isolated in its refusal to call for a moratorium on deep sea mining. In September 2021, a motion calling for a moratorium on deep-sea mining was adopted with almost unanimous support by the IUCN World Conservation Congress. 81 governments and government agencies from 37 states voted in favour of the motion. In June 2022, at the United Nations Ocean Conference, the President of Palau launched an alliance calling for a moratorium on deep-sea mining. Fiji, Samoa and the Federated States of Micronesia have since joined the alliance. French President Emmanuel Macron has called for a ban on the exploitation of deep seabeds, while New Zealand, Germany, Costa Rica, Chile, Spain, Panama and Ecuador have called for a moratorium or precautionary pause on deep-sea mining in international waters. The European Commission has called for deep-sea mining to be prohibited until the scientific gaps are filled and the marine environment is effectively protected, while the European Parliament has also called on EU member states and the Commission to support a moratorium on deep-sea mining.
11. We agree with Blue Marine Foundation that [mining interests are over-represented at the International Seabed Authority](#) and their decisions lack transparency. [At the November meeting of the International Seabed Authority](#), two representatives from UKSR were listed as “advisers” on the UK government’s delegation.
12. Much more research is needed to understand the biodiversity and ecosystem-functioning at the bottom of the ocean, but we already know enough to know deep sea mining is inconsistent with a sustainable future. Scientists have warned it poses significant risks to ocean ecosystems, including irreversible harm to unique habitats, potential species extinctions, and pollution of the water column. A [recently published paper](#) flagged the need for urgent research to assess the potential for harmful impacts on globally endangered species like blue whales from mining noise. Moreover, Greenpeace has already exposed that the industry can be its own worst enemy at sea: getting [machines stuck on the seafloor](#) and [discharging waste into the ocean](#).

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<sup>1</sup> According to its website Loke is a Norwegian company founded in 2019 with TechnipFMC, Wilhelmssen and Kongsberg as technology partners and investors. Loke holds, through the company UKSR, two licences to explore for mineral-rich polymetallic nodules in the Pacific. In addition, Loke is actively pursuing licences in the Norwegian Exclusive Economic Zone.

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