UN Security Council

Creating international jurisdiction on the possible ownership and use of metal deposits in the Pacific Ocean



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Date: 29/12/2013

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Introducing your Chairs

Hello everyone!

My name is Joppe Deelstra. It is an honour to be your chair for the UN Security Council together with my friend Wisse (right on bottom picture). I am currently studying Chemical Science and Engineering at the University of Twente. I am really looking forward to returning to my high school this February! Besides my busy study I enjoy hanging out with friends, climbing, and partying. Last year I was part of the ET of FAMUN, which I greatly enjoyed. Furthermore, I have been a delegate multiple times and have chaired once as president of the GA. I really enjoy MUN's because of the debating and its international nature. For me it is not all about the debating though. What I value most is meeting new people and having a lot of fun!

Should you have any questions about the research report or want to contact me for other reasons, feel free to do so!

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An Introduction to the Issue

"We are not living in an era of change, but in a change of era."

6 billion people are in possession of a mobile phone. Electric driving becomes more and more accessible. Solar and wind energy are on the rise. With the technological march to complete sustainable energy production and storage and a growing population, the earth is running out of metals.

Out of the 83 stable elements in the periodic table, 70 of them can be found in your phone. Some of these elements, mostly metals, can be hard to come by.

Mining on land has numerous serious disadvantages. Only some of these are [1]:

- Forced displacement of original inhabitants in mining locations, often of indigenous communities.
- Operations without regard to human rights are common.
- Direct negative health effects employees and other people near the mines.
- Disastrous deforestation and loss of biodiversity due to land clearing for mining.
- Soil erosion.
- Chemical waste entering the environment by means of e.g. groundwater.

Another way of acquiring minerals the world needs is by **seabed mining**. Seabed mining has multiple advantages, including [2]:

- The seabed yields an abundance of minerals.
- Mining on the seafloor does not impact land in a negative way.
- Due to the possibility of automation, human rights violations will be minimized.
- The seabed (outside of the economic exclusive zone) is shared by all nations, creating an opportunity for LEDC's to benefit economically as well.

These advantages sound great, but some difficulties do appear. Who will have access to these minerals, who will be allowed to sell them, and how devastating will the mining be to oceanic life?

Definition of Key Terms

Biodiversity Hotspots	Regions with high levels of biodiversity that may be particularly sensitive to disturbance, requiring careful consideration in the context of seabed mining.
Clarion-Clipperton zone	An area of 4.5 million square km in the Pacific Ocean with metal nodules on the ocean floor. A lot of testing is done in this zone.
Common Heritage of Mankind	A principle that certain areas of the seabed, beyond national jurisdiction, and their resources are the common heritage of all humanity, as outlined in UNCLOS.
Deep-sea Mining Code	The set of rules and regulations being developed by the ISA to govern the exploration and exploitation of mineral resources in the international seabed area.
Environmental Impact Assessment (EIA)	A process that evaluates the potential environmental effects of a proposed activity, such as seabed mining, and helps inform decision-making.
Exclusive Economic Zone (EEZ)	An area extending 200 nautical miles from a country's coastline where that country has special rights regarding the exploration and use of marine resources.
International Seabed Authority (ISA)	Established by UNCLOS, the ISA is an international organization responsible for regulating seabed mining in areas beyond national jurisdiction.
Precautionary Principle	A principle that suggests that if an action or policy has the potential to cause harm to the public or the environment, in the absence of scientific consensus, the burden of proof falls on those advocating the action.
Resource Nationalism	A political and economic ideology that emphasizes a country's control over its own natural resources, which may play a role in discussions about seabed mining rights and benefits.
UNCLOS (United Nations Convention on the Law of the Sea)	This international treaty establishes the legal framework for the use of the world's oceans and is crucial for governing seabed mining activities.

A General Overview of the Issue

Locations

Minerals in the deep sea can generally be found in 3 forms, all of which are on the seafloor.

- 1. **Hydrothermal vents** [3]. Hydrothermal vents form in volcanically active areas. In these areas, magma wells up to the surface or just below the seafloor. They are rich in iron, zinc, copper, lead, and cobalt.
- 2. **Cobalt crusts** are rock-hard, metallic layers that form on the flanks of submarine volcanoes, called seamounts. These crusts form over millions of years as metal compounds in the water are precipitated. Apart from being rich in, cobalt, they also contain a large amount of manganese, iron, copper and platina.
- 3. Together with cobalt crusts [4], **manganese nodules** are considered to be the most important deposits of metals and other mineral resources in the sea today. These nodules contain mainly manganese, but also iron, nickel, copper, titanium and cobalt.

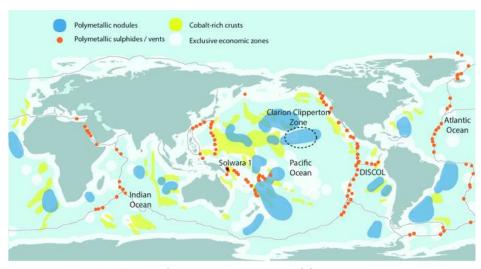


Figure 1: Geographic locations of vents, nodules, and crusts [5]

Mining the minerals and environmental concerns

Many companies and nations are looking to mine the precious minerals on the ocean's floor. Today, civilisation is in the testing phase for this relatively new technology. A lot of testing is done in the Clarion Clipperton zone (sea figure 1 above). However, we should be careful. We know more of the surface of the moon than the deep-sea floor where these minerals are found. Immensely

complex ecosystems could be destroyed in a heartbeat and never be repaired. Hydrothermal vents may even have been the place where life started. Many nations have opted for a partial or full ban on sea-bed mining for this reason.

Environmental concerns play a role in the morality of seabed mining and is important to think about. However, the issue is about 'creating international jurisdiction on the possible ownership and use of metal deposits in the Pacific Ocean'. Therefore, research report, as well as the debate, will mainly focus on the political side of the issue.

A repeat of colonialism

The wealthiest countries are generally the most technologically advanced. In the race to the riches on the ocean floor, these technological advancements mean the difference between success and failure. In 1967 Arvis Pardo, 'Father of the new law of the sea', gave a speech [6] to the UN regarding this issue. He said the race would "reserve the plurality of the world's resources for the exclusive benefits of less than a handful of nations. The strong would get stronger, the rich richer."

Timeline of key events/Historical Background

1960s	Assessment of deep-sea mining prospects began with J.L. Mero's "Mineral Resources of the Sea."
1960s-1982	France, Germany, and the United States dispatched research vessels in search of deep-sea mineral deposits.
1980	The United States enacted the Deep Seabed Hard Mineral Resources Act, as it did not ratify the United Nations Convention on the Law of the Sea (UNCLOS).
1982	The United Nations Convention on the Law of the Sea (UNCLOS) was opened for signature at Montego Bay, Jamaica, on 10 December
1994	United Nations Convention on the Law of the Sea (UNCLOS) 1994 Implementation Agreement signed and the ISA is established.
2004	New Zealand's Foreshore and Seabed Act was enacted, replaced by the Marine and Coastal Area Bill in 2011.
2017	Japan Oil, Gas and Metals National Corporation (JOGMEC) carried out the world's first large-scale mining of hydrothermal vent mineral deposits using the research vessel Hakurei.
2020	The Cook Islands passed two deep-sea mining laws, including the Sea Bed Minerals (SBM) Act of 2019, enabling effective and responsible management.
2021	A moratorium on deep-sea mining until rigorous and transparent impact assessments are carried out was enacted at the 2021 world congress of the International Union for the Conservation of Nature (IUCN).
2022	Impossible Metals announced the completion of the first trial of its underwater robotic vehicle, 'Eureka 1,' for selectively harvesting polymetallic nodule rocks from the seabed.
2023	In December, Greenpeace activists disrupted the deep-sea mining exploration vessel The Coco, owned by The Metals Company, seeking to block data collection for a mining permit in the Pacific Ocean.

Major Parties Involved

Japan

Japan's effort to mine the seabed is moving from the research and development stage toward resource extraction as technological advance is spurred by the demands of national economic security. Japan's new National Security Strategy document, released in December 2022 states that "with regard to supply chain resilience, Japan will curb excessive dependence on specific countries." [7]

South Korea

South Korea is a big supporter of seabed mining. It's economy is shifting more and more towards technologically advanced products, for which metals are essential.

South Korea held talks with ISA Secretary-General Michael Lodge in Seoul, where they discussed expanding cooperation on setting standards for commercial deep-sea mining and looked at supporting deep-sea mineral development for developing countries [8]

LEDC's

It is important for LEDC's (less economically developed countries) not to fall behind on the advancements made. This is difficult though. Therefore, it is common for them to partner up with MEDC's, or companies from MEDC's.

France

France is in favour of a ban on seabed mining, mostly due to environmental concerns. "Seabeds play a major, critical role in regulating the climate, and the destruction of their ecosystems could have significant repercussions on the global carbon cycle." [9]

France therefore issued a call on behalf of 13 nations in a declaration titled "Calling for a partnership for the Deep Sea." The declaration stresses that scientific knowledge of deep-sea ecosystems is still far too inadequate to consider mining, which presents a risk of irreversible damage.

Russia and the USA

Russia and the USA have shown major interest in the Arctic Ocean. Though this report is about the Pacific Ocean, this shows their stands on the matter. Both nations are also looking to increase influence in the Clarion Clipperton zone.

China

China big supporter of seabed mining. The China Minmetal Corporation is a state-owned company, working on development of seabed mining technology. Resources like metals are vital for China's fast-growing economy and geopolitical influence.

UK

UK government announced it would back a temporary suspension on supporting or sponsoring any exploitation licences to mine metals from the sea floor until enough scientific evidence was available to understand the impact on ecosystems. [10]

Previous Attempts to solve the Issue

The ISA

he International Seabed Authority (ISA) [11] is an autonomous international organization established under the 1982 United Nations Convention on the Law of the Sea (UNCLOS) and the 1994 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea (1994 Agreement).

ISA is the organization through which States Parties to UNCLOS organize and control all mineral-resources-related activities in the Area for the benefit of humankind as a whole. In so doing, ISA has the mandate to ensure the effective protection of the marine environment from harmful effects that may arise from deep-seabed-related activities.

All member states of UNCLOS are automatically members of the ISA. As of 18 May 2023, ISA has 169 Members, including 168 Member States and the European Union.

The Clarion-Clipperton zone

The ISA is responsible for reviewing applications for mining and experimenting in the deep sea. Most experiments take place in the Clarion-Clipperton zone. ISA has entered into 15-year contracts for the exploration for manganese nodules, polymetallic sulphides and cobalt-rich crusts in the deep seabed with 22 contractors. [12]

When a contract is approved, the country in question will be appointed a 75 thousand square km area of the Clarion-Clipperton zone. In order to ensure that LEDC's will not be behind on development, an equal area is set aside for a developing country. Other countries, but also companies can get access to this area by partnering with an LEDC. On the list of contracts [12], you will find, for example, the government of Poland, India and Korea, but also 'Nauru Ocean Resources Inc'. Nauru is a tiny island in the pacific that is sponsoring the Canadian 'The metals company'. This way both companies and LEDC's can profit from the resources in the deep.

Possible solutions for the Issue

Unfortunately for the debate, the solution has been thought out quite well already. For this reason, it is more interesting to look at what still needs to be done rather than come up with a whole new solution (although that would be encouraged)

However, one could still raise some questions about the way the issue is being dealt with today.

- Why would a nation like Nauru, with it's 12 thousand inhabitants, have the right to an oceanic area 3.5 thousand times the size of the nation as a whole?
- Is 'the common heritage of mankind' a valid argument for dividing the world's resources. Wouldn't a developing country like Algeria deserve more resources per capita than any western nation?
- How will we ensure that global tensions won't rise in this modern era goldrush?

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