





### MARIPOLDATA Ocean Seminar

"Deep-sea mining and the International Seabed Authority: Recent developments, key outstanding issues and contrasting narratives."

29 September, 2021

Guest Speaker: Pradeep Singh

Pradeep A. Singh is a doctoral candidate at the University of Bremen, Germany and an independent research consultant. His areas of expertise are public international law, the law of the sea, international environmental law, climate policy, and ocean governance. Pradeep has spent the last five years working on legal and regulatory aspects of deep seabed mining and the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction. His qualifications include the following: LL.M (Harvard Law School), LL.M. in Global Environment and Climate Change Law (University of Edinburgh, Chevening scholar) and LL.B. (University of Malaya, Gold medalist).

### Reading Material for the Session:

Singh P.A. (2021) Deep Seabed Mining and Sustainable Development Goal 14. In: Leal Filho W., Azul A.M., Brandli L., Lange Salvia A., Wall T. (eds) Life Below Water. Encyclopedia of the UN Sustainable Development Goals. Springer, Cham. <a href="https://doi.org/10.1007/978-3-319-71064-8">https://doi.org/10.1007/978-3-319-71064-8</a> 135-1

Singh, P. A. (2021). The two-year deadline to complete the International Seabed Authority's Mining Code: Key outstanding matters that still need to be resolved. Marine Policy, 134, 104804. doi: <a href="https://doi.org/10.1016/j.marpol.2021.104804">https://doi.org/10.1016/j.marpol.2021.104804</a>

The monthly **MARIPOLDATA Ocean Seminar Series** offer a virtual space to get information and engage in exchanges on ocean governance issues, through presentations by international experts from academia, governments, international organisations and civil society.

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### **MARIPOLDATA Ocean Seminar Series**

### **Deep-sea mining and the International Seabed Authority:**

Recent Developments, key outstanding issues and contrasting narratives

Wednesday, September 29, 05:00 – 06:30pm (CEST)

**Venue: Online** 

Recent years have witnessed a rapid increase in interest to exploit the mineral resources of the deep ocean. Deposits located at depths greater than 200 m, such as polymetallic nodules, polymetallic sulphides and ferromanganese crusts, are known to consist critical and valuable metals such as nickel, copper, cobalt and manganese. Minerals in seabed areas beyond national jurisdiction, designated as the common heritage of humankind, are currently at the centre of attention as negotiations on regulations to facilitate exploitation activities are ongoing at the International Seabed Authority (ISA).

This presentation is divided into two parts. The first part will highlight recent developments at the ISA, whereby the recent invocation of a treaty provision known as the 'two-year' rule by the Republic of Nauru has necessitated the Council of the ISA to make haste with the negotiations of the exploitation regulations and complete the same by July 2023. In this respect, the presentation will discuss some of the key outstanding issues that remain unresolved as the Council of the ISA sets out to meet this seemingly insurmountable task before the deadline.

The second part of the presentation will delve into some narratives on deep-sea mining that have recently found their way into the ISA. This includes the discourse that deep-sea mining is essential to achieve the clean energy transition or that it is socially beneficial and environmentally friendly (at least when compared to terrestrial mining) and therefore sustainable on the one hand, and weighing some of these portrayals against marine conservation concerns and increasing calls for a moratorium on the other hand.

**Pradeep A. Singh** is a doctoral candidate at the University of Bremen, Germany and an independent research consultant. His areas of expertise are public international law, the law of the sea, international environmental law, climate policy, and ocean governance. Pradeep has spent the last five years working on legal and regulatory aspects of deep seabed mining and the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction. His qualifications include the following: LL.M (Harvard Law School), LL.M. in Global Environment and Climate Change Law (University of Edinburgh, Chevening scholar) and LL.B. (University of Malaya, Gold medalist).



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More information: <a href="https://www.maripoldata.eu/newsevents/#oceanseminarseries">https://www.maripoldata.eu/newsevents/#oceanseminarseries</a>







### 1. General Context

- Deep-seabed mining is envisaged in areas beyond national jurisdiction by several states and contractors and while exploitation has not been undertaken until this date, exploration activities have started
- Deep-seabed mining is regulated through an international organisation: the International Seabed Authority (ISA) with the mandate to act on behalf of humankind
- The "Area", defined as "the seabed and ocean floor and the subsoil thereof, beyond the limits of national jurisdiction" was declared "common heritage of (hu)mankind" under the United Nations Convention on the Law of the Sea
- There is a division between the supporters of deep-seabed mining, connecting their
  arguments to the green energy transition; and the opponents, arguing that the impacts of
  deep-seabed mining on the marine environment are severe and long-term effects uncertain

### 2. An Introduction

### Readings:

Singh P.A. (2021a) Deep Seabed Mining and Sustainable Development Goal 14. In: Leal Filho W., Azul A.M., Brandli L., Lange Salvia A., Wall T. (eds) Life Below Water. Encyclopedia of the UN Sustainable Development Goals. Springer, Cham. https://doi.org/10.1007/978-3-319-71064-8\_135-1

Singh, P. A. (2021b). The two-year deadline to complete the International Seabed Authority's Mining Code: Key outstanding matters that still need to be resolved. Marine Policy, 134, 104804. doi: <a href="https://doi.org/10.1016/j.marpol.2021.104804">https://doi.org/10.1016/j.marpol.2021.104804</a>

#### Introduction to the History of the Sustainable Development Goals (SDGs)

There are various agreements and efforts within the United Nations system to foster sustainable development. In 1972, the Stockholm Conference on Human Development contributed to the work of the World Commission on Environment and Development (or the "Brundtland Commission") and the "Our Common Future" report in 1987. It led to the Rio Declaration on Environment and Development in 1992, followed by the United Nations Conference on Sustainable Development in 2012 (the Rio + 20 Summit), which resulted in the "The future we want" Document. The UN Sustainable Development Summit 2015 then introduced the beginning of the 2030 Agenda for Sustainable Development, following the Millennium Development Goals, with the adoption of the 17 sustainable development goals (SDGs)¹.

<sup>&</sup>lt;sup>1</sup> See more information on the SDGs: https://sdgs.un.org/goals







#### Maritime Zones of UNCLOS

The United Nations Convention on the Law of the Sea (UNCLOS) divides the ocean space into different maritime zones concerning the seabed and the water column. Rights and obligations for the exploration and exploitation of mineral resources is inherently different in areas *within* national jurisdiction and *beyond* national jurisdiction.

While states have sovereign rights to explore and exploit mineral resources within national jurisdiction<sup>2</sup>. However, in areas beyond national jurisdiction there is an international organization responsible for the oversight of these explorations and exploitations: the International Seabed Authority (ISA). The seabed and subsoil thereof in ABNJ (the Area) was declared "common heritage of (hu)mankind". Therefore, the ISA has the mandate to develop rules, regulations and procedures relating to the exploration and exploitation of the mineral resources of the Area on behalf of Humankind. This organization is responsible for the approval and disapproval of mining applications and to make sure that there are no harmful effects from mining activities on the marine environment. Moreover, it needs to provide for the equitable sharing of the potential benefits that derive from mining activities.

### Narratives of Deep-Seabed Mining

There is large divide between on the one hand, *supporters of deep-seabed mining*- arguing that deep-seabed mining is needed to secure resources (for example to produce batteries, or other electronic devices that we as humans increasingly use within renewable energy sector).

On the other side, we see the calls for a moratorium on deep-seabed mining from the scientific community and conservation NGOs (including a Science Statement, signed to date by 585 marine science & policy experts from over 44 countries <sup>3</sup>, and the IUCN World Conservation Congress earlier this month) <sup>4</sup>. These *opponents of deep-seabed mining* emphasise the inevitable biodiversity loss from deep-seabed mining with unknown consequences for ocean ecosystem functions.

How to reconcile conservation and sustainable development with deep-seabed mining? Is this even possible? Can states decide on the areas beyond national jurisdiction over activities that have unknown consequences for the marine environment and our planet as a whole?

<sup>&</sup>lt;sup>2</sup> Within the framework of UNCLOS. (There are still certain limitations for exploitation, e.g. considering the obligation to protect the marine environment).

<sup>&</sup>lt;sup>3</sup> Science Statement: <a href="https://www.seabedminingsciencestatement.org/">https://www.seabedminingsciencestatement.org/</a>

<sup>&</sup>lt;sup>4</sup> IUCN World Conservation Congress has passed a moratorium on Deep-Seabed Mining: <a href="https://news.mongabay.com/2021/09/deep-sea-mining-gets-a-resounding-rejection-from-conservation-authorities/">https://news.mongabay.com/2021/09/deep-sea-mining-gets-a-resounding-rejection-from-conservation-authorities/</a>







Pradeep Singh studied narratives of deep-sea mining, contrasting the narratives of opponents and supporters of deep-seabed mining. The data sources he analyzed included documents submitted by and to the ISA, mining applications, the letter of Nauru explaining why they are invoking the provision<sup>5</sup>, speeches by delegates in the ISA negotiations, workshops organized by the ISA Secretariat and statements from private mining companies. On basis, Pradeep identified the current narratives of deep-seabed mining by different actors.

This seminar focuses on the narratives of deep-sea bed mining and the International Seabed Authority, as well as current developments of deep-sea mining, including Nauru's demand for enacting the 2-year rule to commence deep-seabed mining in 2023, even though the ISA has not yet agreed on overarching rules and regulations (the mining code).

### 3. Deep-sea mining and the International Seabed Authority: Recent developments, key outstanding issues and contrasting narratives

Presentation by Pradeep Singh

<sup>&</sup>lt;sup>5</sup> https://www.isa.org.jm/news/nauru-requests-president-isa-council-complete-adoption-rules-regulations-and-procedures

# Deep-sea mining and the International Seabed Authority

Recent developments, key outstanding issues and contrasting narratives

Pradeep A. Singh, University of Bremen MARIPOLDATA Ocean Seminar Series 29 September 2021, Virtual

### Outline

### 1. Introduction

- What is deep seabed mining (DSM)?
- What is the International Seabed Authority (ISA)?
- 2. Current Developments at the ISA
  - State-of-the-art: current exploration and future exploitation.
  - The recent invocation of the 'two-year rule'.
- 3. Key Outstanding Matters at the ISA
  - What still needs to be resolved/agreed upon?
- 4. Conflicting Narratives on DSM at the ISA
  - The 'sustainability' of DSM.
  - Future work.

### 1. Introduction — What is DSM?

- Exploration and exploitation of mineral deposits at depths greater than 200 m.
- Broad definition: "all solid, liquid or gaseous mineral resources". Main interests: polymetallic nodules, polymetallic sulphides, and cobalt-rich ferromanganese crusts.
- Located in seabed areas within national jurisdiction (continental margin of 200 nautical miles or more), as well as seabed areas beyond national jurisdiction (the Area).

### **Polymetallic nodules**

Location: Abyssal plains.

Av. depth: 4,000 – 6,000 m.

Main contents: Nickel, copper, cobalt

and manganese.

### **Polymetallic sulphides**

Location: Hydrothermal vents.

Av. depth: 1,400 – 3,700 m.

Contents: Copper, lead, zinc, some

gold and silver.

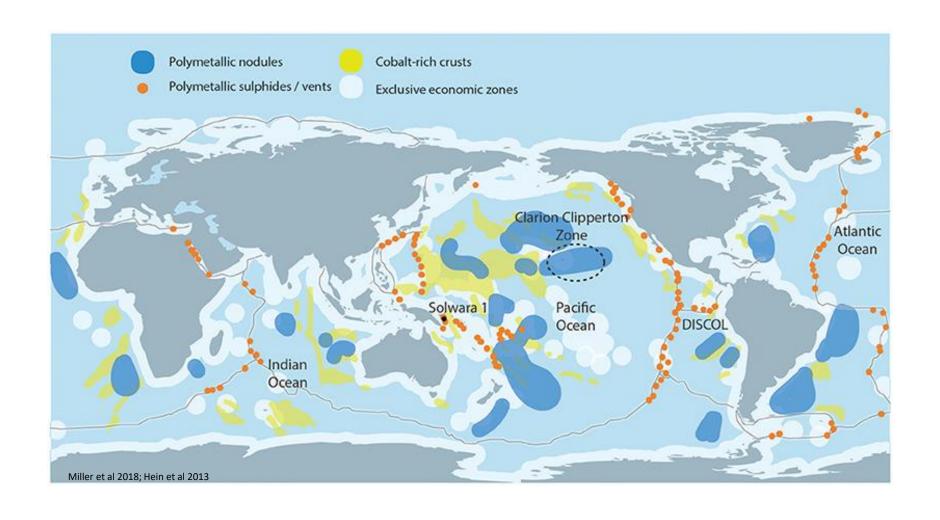
### **Cobalt-rich ferromanganese crusts**

Location: Seamounts.

Av. depth: 800 – 2,400 m.

Contents: Mainly cobalt.

# Location of mineral deposits



## Introduction – What is the ISA?

- Autonomous international organization established under Part XI of the UN Convention on the Law of the Sea 1982 (UNCLOS).
- Mandate over mineral resources of the Area, which are the 'common heritage of mankind', with the ISA acting 'on behalf of mankind as a whole'.
- Responsible for the development of regulations for mineral exploration and exploitation, considering and awarding mining contracts, and to facilitate equitable sharing of financial and other economic benefits derived from mining, whilst ensuring the effective protection of the marine environment from the harmful effects of mining.

### The ISA

- All Member States to UNCLOS collectively form the ISA.
- Primary organs:
  - Assembly
    - Supreme organ: 167 States + EU.
  - Council
    - Executive organ: 36 States only.
  - Secretariat
    - Administrative organ: Secretary-General and staff.
- Based in Kingston, Jamaica.





# 2. Current Developments at the ISA

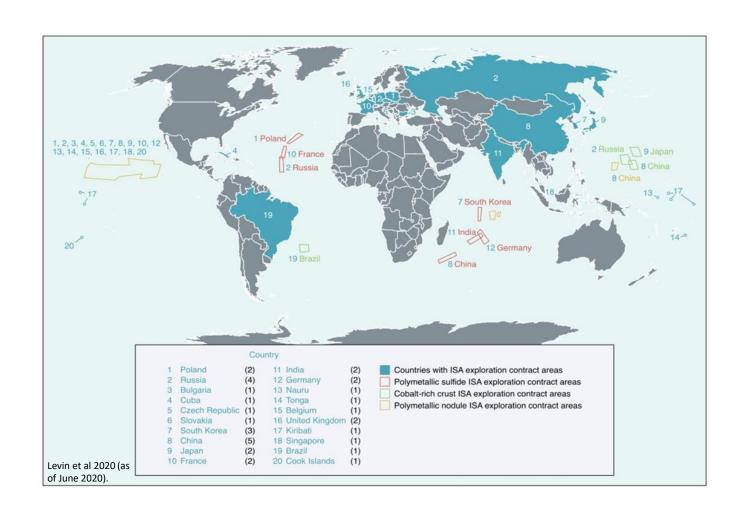
- ISA 'turned' 25 in 2019.
- Exploration have been going on for two decades
  - Nodule exploration regulations: adopted 2000 (revised 2013).
  - Sulphides exploration regulations: adopted 2010.
  - Crusts exploration regulations: adopted 2012.
- A total of 31 exploration contracts awarded.
  - Nodules: 19
  - Sulphides: 7
  - Crusts: 5
- No exploitation activities as of yet.





Current status of ISA Exploration contracts (as of September 2021). Source: ISA

# Location of current exploration contracts



# The draft exploitation regulations

- Work commenced in 2014 at the Legal and Technical Commission (subsidiary organ of the Council).
- In 2019, an advanced draft presented to the Council.
- Text negotiations commenced at the Council in July 2019 and resumed in February 2020.
  - Three informal working groups established in February 2020:
    - Protection and preservation of the marine environment
    - Inspection, compliance and enforcement
    - Institutional matters
  - In addition to existing working group on the financial terms of exploitation contracts.
- The pandemic struck in March 2020 and halted progress since.

# Recent invocation of the 'two-year rule'

- In June 2021, the Republic of Nauru invoked section 1(15) of the 1994 Agreement Relating to the Implementation of Part XI of UNCLOS.
  - 1994 Agreement 'modified' Part XI of UNCLOS (and prevails in case of inconsistencies).
  - Section 1(15) is colloquially known as the 'two-year rule' or 'trigger'.
  - Available to any ISA Member State whose national intends to submit application for exploitation.
  - Invoked amidst the pandemic, after 15 months of hiatus on the regulations.

### What does the invocation mean?

- Obligates the ISA Council to accelerate and make progress with the exploitation regulations, i.e. to complete elaboration and adoption within two years (which is by 9 July 2023), <u>failing which</u>, the Council would have to still have to consider and decide upon any pending application for exploitation despite the absence of regulations.
- Exploitation regulations must be adopted by consensus at Council.
  - The existence of one formal objection could result in a deadlock.
  - Section 1(15) addresses that legal gap.
- Inability to hold in person meetings continues to hinder text negotiations.
  - As decided in February 2020, three informal working groups were established and are expected to meet during the next Council meeting to discuss the draft text.

# 3. Key Outstanding Matters at the ISA

- It is about the exploitation regulations, but also not just the exploitation regulations per se...
- A robust, thorough and effective <u>system for exploitation</u> is needed.
- Many matters remain outstanding both in terms of negotiating and agreeing on the exploitation regulations as well as other themes that intrinsically relate to designing a system for exploitation that is expected under UNCLOS.
- These should be considered together and as one whole package at the ISA.

# What still needs to be resolved/agreed on?

### **Outstanding Matters Within the Exploitation Regulations**

- 1. Necessary standards and guidelines that are to accompany the regulations.
- 2. Overarching environmental goals and objectives.
- 3. Threshold of environmental harm to apply when assessing applications.
- 4. Processes relating to the preparation and evaluation of Environmental Plans.
- 5. Status of regional environmental management plans (REMPs).
- 6. Compulsory test mining.
- 7. Aspects related to the progression of contractors into commercial production.
- 8. Financial terms of exploitation contracts.
- 9. The inspectorate.
- 10. ISA monitoring programmes.
- 11. Insurance and environmental performance guarantees.
- 12. Environmental compensation fund.
- 13. Adjacent coastal states and transboundary harm.

### **Outstanding Matters Intrinsically Related to Exploitation**

- 1. Mechanism for the equitable sharing of benefits.
- 2. Compensation for developing States whose economies are dependent on terrestrial mining and suffer adverse consequences due to mining activities in the Area.
- 3. Constituting the Economic Planning Commission (EPC).
- 4. The operationalisation of the Enterprise.
- 5. Enhancing ISA environmental and scientific capacities.
- 6. Access to reserved areas and 'sponsorship of convenience'.
- 7. Broader reflections on the legitimacy of activities in the Area and ongoing negotiations of the 'BBNJ Instrument'.

### **Other Matters Deliberately Not Included**

- 1. Division of responsibilities (esp. sponsoring States).
- 2. The liability regime.

# 4. Conflicting Narratives on DSM at the ISA

- Focus on the narrative that DSM is "sustainable".
- Consider the following three statements:
  - 1) Deep seabed minerals are known to exist in abundance and deposits consist of e.g. nickel, copper, manganese, cobalt and other rare or critical metals.
  - 2) Supply of the above metals is essential for clean energy transition.
  - 3) DSM is necessary to mitigate the impacts of climate change.

# Narratives of 'sustainability' by proponents

- Focus on the narrative that DSM is "sustainable".
- Proponents contend it is necessary to have DSM to procure the metals needed for the clean transition, and obtaining these critical metals through DSM is more advantageous than sourcing them through terrestrial mining.
- Other averments include: the deep ocean less diverse (or desert-like), no disasters affecting population (e.g. site/tailings dam collapse), no child labor, no deforestation and changes in land use (mine sites, infrastructure).
- At the ISA, such narratives primarily made by private mining contractors and their sponsoring States and the ISA Secretariat.

### Counter narratives

- Little known about deep ocean though the little that is known clearly demonstrates its importance to humankind and vulnerability of ecosystems to human disturbances.
- Hard to compare DSM with terrestrial conditions:
  - Liquid environment: difficult to contain harm.
  - Minerals take millions of years to form and biodiversity cannot just "move away".
  - Restoration not really possible.
  - Remote location: out of sight, out of mind? Transboundary harm disproportionately affects developing coastal states.
- At what price should DSM occur if it/when takes place? What about marine biodiversity/genetic resources?
- DSM could impede drive towards alternatives, recycling and circular economy.
- DSM is "competition" and could actually end up exacerbating terrestrial mining.
- DSM will have a big ecological footprint, which seems at odds with the concept of "sustainability".

### Clash of narratives

- Appears to have heightened with the invocation of section 1(15).
- Push for regulations to be completed by the ISA in a timely fashion one the one hand, vs. external calls for a precautionary pause or moratorium on the other hand.
- No Member State has explicitly called for a pause or moratorium at the ISA as of yet. Remains to be seen how the ISA will proceed in coming months.
- "Sustainability" narrative seems to used to enhance the legitimacy (i.e. social acceptance) of exploitation, and not its legality.

### Future work

- Exploring the DSM "sustainability" narrative at the ISA.
  - Expertise from resource economics and energy politics particularly sought.
- Application for a fellowship grant submitted.
  - Work to commence in mid-2022 if successful.
  - Possible approaches include:
    - Establish focus group.
    - Conduct interviews with different stakeholders.
    - Convene working group.
    - Host expert workshop.
- Stay in touch for details.

# **THANK YOU**

Pradeep A. Singh

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### 4. Questions and Discussion

### Exploration and Exploitation of the Deep Sea

The ISA has the mandate to approve and disapprove mining activities in the "Area". After full exploration of areas of potential mining activities, states and contractors can send their applications for exploitation to the ISA, along with baseline data and management plans, and prior conducted environmental impact assessments. It is however, not clear at this stage which data and information is required to be submitted for the ISA to take a decision on the approval of mining activities. The environmental baseline data required for contractors to submit are still under negotiation (The Mining Code)<sup>6</sup>.

Questions also include whether the exploration contractors need to be the entities submitting the exploitation application. As UNCLOS does not include any provisions in this regard, it is up to the ISA negotiators to set these regulations. The outcome of this will be relevant in cases, where contractors are interested in obtaining exploration data and research, such as Germany, who is sponsoring a state-owned entity (BGR)<sup>7</sup> to explore mining potential and impacts but who might not be interested in conducting mining activities themselves. Uncertainty remains about the responsible entity to gather the data.

Today, there have been 31 exploration contracts accepted. Pradeep emphasized that exploration activities would need to be kept somehow separate from marine scientific research, despite their links. An Ocean Seminar Participant voiced concerns about the monitoring of marine species during exploration activities. During geological expeditions, "amazing creatures that no one had seen before" were found but not monitored. It will be important to discuss data monitoring in the exploration stage that could significantly contribute to the baseline data.

Exploitation of the "Area" has not yet commenced, as regulations for exploitation activities are still being developed by the ISA. With the Covid-19 pandemic, the process slowed down and Nauru invoked a provision which gives the ISA an additional 2 years (until July 2023) to decide on the mining regulations. In case of no agreement until then, the ISA would need to make decisions upon the approval or disapproval of the mining contracts with no mining regulations in place (Singh, 2021b).

<sup>&</sup>lt;sup>6</sup> Earth Negotiation Bulletin Summaries of ISA negotiations: <a href="https://sdg.iisd.org/news/negotiations-advance-on-regulations-for-exploiting-seabed-mineral-resources/">https://sdg.iisd.org/news/negotiations-advance-on-regulations-for-exploiting-seabed-mineral-resources/</a>

<sup>&</sup>lt;sup>7</sup> https://www.bgr.bund.de/EN/Themen/MarineRohstoffforschung/marinerohstoffforschung node en.html
The MARIPOLDATA Ocean Seminar Series is part of the MARIPOLDATA project which has received funding from
the European Research Council under the Horizon 2020 research and innovation programme (No 804599).







### **Databases on Deep-Seabed Mining**

The ISA has a database, storing all data that is submitted to the ISA (deep data)<sup>8</sup>. Geological ISA data is confidential, while environmental data is made public. Data from third parties could also be integrated into this database. In this way, third party data can feed into the internal database and support the decision-making of the ISA. However, the ISA does not have their own baseline database which could be contrasted against the submitted baseline data by contractors. Currently, the ISA relies almost completely on the data that contractors submit to them. Pradeep stresses the need for the ISA to collect data and generate its knowledge base<sup>9</sup>.

#### **ISA Internal Structures**

There are inherent conflicts of interests in the structure of the ISA. The conflict of interest within the ISA is that they need to regulate mining while ensuring the effective protection of the marine environment.

While the Assembly consists of 167 states, the Council makes the decision on mining approvals and disapprovals. This decision of the Council is based on the recommendations of the 30 experts in the Legal and Technical Commission (LTC), nominated by the Assembly and appointed by the Council. Pradeep explains that it is nearly impossible for the Council to disagree with the LTC, in cases where the LTC approved mining activities. However, if the LTC recommends prohibiting mining, the Council can more easily turn down this recommendation and still approve the mining activities.

With the current composition of experts, the LTC does not have the expertise to exercise the environmental responsibilities to evaluate an application to decision if it should be approved. Moreover, 1/5 of the commission members have or had links to the Mining industry. Pradeep therefore suggests to establish a Scientific and Environmental Body to support the decisions.

Further suggestions include increasing the accountability of the organs of the ISA, particularly in respect to the Secretariat. Pradeep critisises that as the structure is now, there is no possibility for complaints to be voiced and the selection of participants for ISA workshops lacks transparency. He proposes to create an ombudsperson to take on responsibility in this regard.

While in theory, the Assembly of the ISA consists of 167 member states, collective decision-making can be questioned. Only less than half of the members of the Assembly usually attend the meetings, leaving the decision-making to less than 80 states that are present and only around 50-60 that are active. He underlines the need to find ways to have states attending the Assembly. Apart from this, decisions over mining applications are left to the Council, consisting of only 36 member states.

<sup>8</sup> https://data.isa.org.jm/isa/map/

<sup>&</sup>lt;sup>9</sup> Ginzky, H., Singh, P. A., & Markus, T. (2020). Strengthening the International Seabed Authority's knowledge-base: Addressing uncertainties to enhance decision-making. *Marine Policy, 114*, 103823. doi: https://doi.org/10.1016/j.marpol.2020.103823







### In- Person vs. Virtual Meetings

The Council established three working groups, which is open for participation. With the pandemic however, informal working group meetings were canceled and some decisions have been taken under the silence procedure. Draft decisions, which were virtually submitted to members of the Assembly and the Council, were approved in cases where there were no objections.

There is criticism that the silence procedure has excluded participation of observers. An exploration application was approved to the silence procedure, despite the fact a number of observers did not approve.

The ISA invited comments of observers, which, however, were only published on the website after the decision had already been made to approve the application. It is argued that in in-person meetings, observers would have objected, while in an online forum this was not possible. Pradeep Singh has published a commentary, criticizing the possibility of using the silence procedure to exclude observers<sup>10</sup>. An in-person meeting is again planned in December. The items to be covered in the meetings are so far not decided upon yet, but could potentially include draft exploitation regulation on the agenda.

### The Relation to Terrestrial Mining

Developing countries that economically rely on terrestrial mining have raised concerns about deepseabed mining and argued for a system of compensation. The African group has issued a written statement in July in response to Nauru's invoked the provision. They demanded robust regulations for approving exploration contracts, benefits to humankind as a whole, enabling equitable benefit sharing, and a system of compensation for developing countries to balance the disadvantages they would suffer from.

One argument by supporters of deep-seabed mining is the likelihood that deep-seabed mining would solve the problem of child labor and low working conditions of workers in terrestrial mines. However, Pradeep points to the fact that an additional seabed-mining sector could potentially lead to a race to land mining and possibly lower working conditions.

Overall, deep-seabed mining could lead to a continuation or even increase of this époque of throwing away metals, turning away from a circular economy. An argument of the supporters of deep-seabed mining are costs of recycling, however the language of striving towards a circular economy is already an international political goal and increasingly high on the sustainability agenda.

<sup>&</sup>lt;sup>10</sup> (Singh, 2021): https://dsmobserver.com/2020/12/commentary-covid-19-and-the-abuse-of-the-silence-procedure-at-the-international-seabed-authority/

The MARIPOLDATA Ocean Seminar Series is part of the MARIPOLDATA project which has received funding from the European Research Council under the Horizon 2020 research and innovation programme (No 804599).







#### Definition of the Outer Continental Shelf

Definitions of the outer continental shelf vary between scientists and lawyers and is therefore understood in science and under the definition in UNCLOS.

In the legal sense, there is 200 nm of continental margin, unless it overlaps with another state. Articles 76-82 of UNCLOS regard provisions on the extended continental shelf. If states seek to extend sovereign rights beyond their continental shelves, they need to submit an application to the Commission on the Limits of the continental shelf (CLCS). In the last step, the CLCS informs the ISA of the new developments. In this way, the ISA relies on the coastal state and the CLCS recommendations. Pradeep emphasises that the ISA should be a stakeholder in delineating the extended continental shelves, because the extensions are taken out of the common heritage of humankind, to ensure extensions are made in accordance with the convention.

### ISA and BBNJ

One question in the BBNJ negotiations is currently, how coherent marine biodiversity governance can be achieved with the two regimes governing the Area and conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction. This is important for all package elements of the agreement and cross cutting issues, particularly evident when looking at the access and benefit sharing of marine genetic resources, the establishment of marine protected areas in ABNJ, and the process of environmental impact assessments<sup>11</sup>.

In the BBNJ process, discussions around "not undermining" caution states to not diminish responsibilities of ISA regarding the Area. However, it will be important for the ISA to align their efforts with the BBNJ process. While the ISA mandate is only the international seabed, the impacts are three dimensional and also affecting the EEZ of coastal states. Pradeep stresses that there is a need to open up the Regional Environmental Management Plans approach to ensure coherence with BBNJ and proposes to establish a contact group so both processes ensure coherence in their efforts. BBNJ could contribute with a potential review process under the new agreement, setting higher standards than the ISA.

### Gambling with the Potential of the Deep Sea

There is the risk that deep-seabed mining will lead to the extinction of species that we do not yet know exist. The real human benefit from the deep sea was identified as preserving it, as opposed to mining the minerals. A relevant and recent example would be the use of deep-sea enzymes for the health sector. The diversity of species, yet unknown to research, offers great potential for the development of antibiotics and vaccines. Environmental costs of deep-seabed mining will be overwhelmingly high, which burden will be shared by all, including future generations. The session ended with the realization that we could end up losing so much more than we stand to gain.

<sup>11</sup> The relationship between BBNJ and other existing instruments, bodies and frameworks in the EIA process is still unclear: Tessnow-von Wysocki, 2021. Assessing the Human Footprint on Ocean Biodiversity: https://www.maripoldata.eu/assessing-the-humans-footprint-on-ocean-biodiversity/







The MARIPOLDATA Team is happy to further contribute to keeping the momentum by bringing together policy-makers, scientists, and civil society from around the world in the monthly Ocean Seminars to discuss relevant ocean issues and present timely research, inviting experts in the field.

We thank Pradeep Singh for the presentation and discussion on Deep-sea mining and the International Seabed Authority: Recent developments, key outstanding issues and contrasting narratives.

The MARIPOLDATA Team is looking forward to upcoming Sessions!