



NCS Exploration Deep Sea Minerals Conference

Technology, Potential Resources and Critical Challenges

Bergen, Norway

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OPENING REMARKS

By H.E. Michael W. Lodge,
Secretary-General of the International Seabed Authority

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It really is a great pleasure to be back in Bergen, a city I have had the pleasure to visit on two previous occasions. It is particularly a pleasure to be here in person, to renew acquaintances with old friends and to meet new friends in this rapidly developing and emerging sector.

I am also delighted to have the opportunity to participate in this conference on the potential for seabed mineral resources.

I congratulate the organizers on bringing together so many leading geologists, marine scientists, engineers, technology developers and regulators to review the current status of marine mineral exploration and technology, to share experiences and to discuss how to address the challenges of moving from exploration to commercial exploitation.

Whilst the conference is designed to address these issues primarily from a Norwegian perspective, the ocean is our shared resource and therefore the discussion is relevant to all of us as we continue to build the critical evidence-based knowledge base to enable us to make the best possible decisions.

The challenge for all of us is to understand how we can harvest deep sea mineral resources in a way that balances the need to mine with the need to deliver the sustainable development goals and tackle environmental and social governance issues, ensuring that mining is carried out in a way that is beneficial to humanity and the planet.

Within national jurisdiction, this is a matter for individual States to address within their national frameworks.

Beyond national jurisdiction, a global regime applies, and I would like to spend a few minutes this morning to briefly explain to you why this regime is so important for our common future.

In Kingston, Jamaica, at the headquarters of the International Seabed Authority, a revolution in

our collective approach to global natural resource management is gradually taking place. Together, the 168 parties to UNCLOS (167 States and the European Union) are working to put in place global regulations that will allow commercial harvesting of deep-sea mineral resources located in the seabed beyond national jurisdictions to commence.

Seafloor minerals are the only example of a global resource that has been placed under international management by a dedicated international organization established exclusively for that purpose.

For many countries, particularly the developing countries, the existence of the Authority fulfils a long-held vision that the mineral wealth of the deep seabed should not be appropriated by a few technologically advanced countries but should be accessible to all countries, including the landlocked and disadvantaged countries. As such, the efforts of the International Seabed Authority to put in place an effective regulatory framework for deep-sea mining represent a unique experiment in international relations.

The task of the Authority is to deliver on this vision and to make sure that mineral exploration and exploitation are done in the most responsible and sustainable way possible.

This is a tremendous challenge for the whole of the international community, but the rewards of getting it right are likely to be profound.

Clean technologies and infrastructure for a low carbon future carry intense mineral demands. We know that if governments are to stand any chance at all of meeting net zero emissions commitments by 2050, the supply of critical minerals from all sources – land, sea and recycling – will need to increase by orders of magnitude.

Whilst recycled metals from existing stocks may eventually play an important role in providing this supply, current choices for meeting the supply gap include terrestrial mining in regions with competing human use, terrestrial mining with potentially compromised biodiversity, coastal mining under water but within national waters and oceanic mining in the deep sea in the Area beyond national jurisdiction.

All these choices involve difficult trade-offs for society, and none is necessarily better or worse than the other.

For any system of natural resource exploitation, the essential elements of effective regulation include that the system is uniformly and consistently applied, that regulatory decisions are evidence-based, that the system is commercially viable, that there is a strong system of compliance and enforcement, and that the system is accepted by all stakeholders (often described as the social license to operate).

All these elements are present in the system under development by the International Seabed Authority. I will emphasize three aspects.

First:

Exploration for and exploitation of seabed minerals in the Area may only be carried out under a contract with the Authority and subject to its rules, regulations and procedures that apply to all nations.

Contracts may be issued to both public and private mining enterprises provided they are sponsored by a State party to the Law of the Sea Convention and meet certain standards of technological and financial capacity. Exploration contracts may be granted for a period of 15 years, during which the contractor has the exclusive right to explore for the category of minerals in question.

The Authority issues internationally legally binding regulations to implement these general principles, including standardized terms for exploration contracts. These regulations must be adopted by consensus of all member States. So far, the Authority has issued regulations to govern exploration for polymetallic nodules, ferro-manganese crusts and seafloor massive sulphides deposits.

These regulations have been applied to grant 31 contracts for exploration, including 18 contracts for exploration for polymetallic nodules in the Clarion-Clipperton Zone.

Contractors represent a range of State-funded research organizations, private sector companies and state enterprises. The States sponsoring these activities include both developed and developing States.

No State or entity has chosen to operate outside the global regime applied through the International Seabed Authority, which is testament to the fact that the regime is accepted by most of the international community.

Second:

It is a legal requirement that the Authority applies the precautionary approach to all activities in the Area. This requirement has both procedural and substantive aspects, but one of the most important elements is that all decisions must be based on the best available scientific evidence.

Substantively, the Authority imposes extensive obligations on contractors as far as environmental data collection is concerned. The emphasis during the exploration phase is on the collection of adequate baseline environmental data to determine the impact of future mining on the marine environment. Contractors are required to collect data relating to more than 100 environmental variables, including oceanographic, hydrographic, geological, chemical and biological data. All data must be provided in the format established by the Authority and environmental data are made publicly available through the Authority's global deep-sea database. These data are used to improve global knowledge of the deep ocean environment and to develop appropriate regulations to prevent, mitigate and remediate the effects of mining.

Third:

In some parts of the ocean, including the Clarion Clipperton Zone, deep sea mineral exploration has been taking place now for more than 40 years.

Exploration projects in this region are increasingly mature, with a good understanding of the resource potential. At the same time, thanks to the work done by contractors and by the International Seabed Authority, scientific understanding of environmental conditions, including species distribution and connectivity, has vastly improved both at regional scale and at the level of individual contract areas. Several contractors are now beginning to test critical components of

future mining systems prior to moving to the exploitation phase and some have even indicated that they will be ready to apply for exploitation rights within the next few years.

In these circumstances, the Authority is currently working on regulations for exploitation. This is being done through an innovative and exhaustive international consultation process that began as long ago as 2011.

This complete regulatory package, all of which can be found on the Authority's website, is currently under consideration by the Council.

There is no doubt that deep sea mining is a divisive issue for some. Looked at exclusively through the lens of ocean conservation, it is easy to criticize. Nevertheless, it is vital to understand that all mineral choices, without exception, come with a range of trade-offs associated with them. When viewed in this context, the single global, consensus-based, regime that exists under the UN Convention on the Law of the Sea offers important benefits.

The experience of the past twenty-five years, during which the regime has not only secured near-universal acceptance but also significant capital investment from States and private sector alike, demonstrates that the social license for deep sea exploration and exploitation already exists. No country or entity has challenged or has sought to operate outside of the single regime created by international law.

Clearly, much remains to be decided and there are still many environmental, financial, political and technical hurdles to be overcome before commercial deep-sea mining can begin.

However, the global, science-based, consensus-driven approach of the regulatory regime under development by the International Seabed Authority offers a credible pathway to achieving this objective and ensuring that there is no production without protection.

I look forward to listening to the presentations today and I wish you a good outcome of your discussions.
