

**TRANSCRIPT OF REMARKS BY THE SECRETARY-GENERAL OF THE INTERNATIONAL SEABED AUTHORITY,
H.E. MICHAEL W. LODGE ON DEEP SEABED MINING AND THE ENVIRONMENT AT PEW CHARITABLE
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I am delighted to be here at Pew to talk about deep seabed mining and the environment.

I have had a long and happy association with the Pew Environment Group over many years covering a range of different topics apart from deep seabed mining, so it is good to be here simply for that reason.

More immediately relevant, however, is the association that the International Seabed Authority has had over the past two years or so with the Seabed Mining Project, ably headed up by Conn Nugent, and abetted in recent times by Winnie and Megan.

I certainly want to pay tribute to what I regard as very constructive engagement with the ISA and our stakeholders in several areas, not least in our efforts to develop a Mining Code and to engage more effectively with developing country members of ISA.

Among the collaborations we have enjoyed are a highly successful workshop in Uganda earlier this year – the first ever to be held in a landlocked developing country – and partnerships in relation to two workshops on environmental matters held in Berlin.

Another highlight was the second of our annual weekend trips to Ocho Rios during the annual sessions of the Authority in Jamaica to brainstorm on matters relating to the future of deep seabed mining.

This is in addition to a wide variety of educational and informative side events during the ISA Council and Assembly meetings as well as well-informed, and invariably constructive, inputs to substantive processes in the form of stakeholder submissions, reports and studies; many of them done through Conn's Project Code initiative.

I should also mention the DSM Observer, which in my view is doing an excellent job in raising awareness on all sides of the debate.

Now, when it comes to deep seabed mining and the environment, I suspect that many of the people in this room have a preconceived notion that deep seabed mining must be bad for the marine environment in some way, even if they cannot specifically say why.

Of course, the word 'mining' conjures up images of widespread destruction, based on images of land-based mining, and when you juxtapose that with the popular image of the deep seabed as a pristine wilderness, then it instantly causes alarms to go off.

Actually, seabed mining is something that has been around for centuries. Shallow water mining and dredging for tin, gold, sand and gravel and even diamonds is nothing new and adds up to a massive industry with billions of tonnes of material moved every year. It is likely that the deep seabed mining industry will use or adapt many of the proven technologies and management techniques used successfully in shallow water mining.

Now, I am probably not going to convince anyone here that deep seabed mining is beneficial to the marine environment, although in fact there is good evidence that, compared to land-based mining, seabed mining offers a far more sustainable source of critical raw materials far into the future. It's not my job to convince anybody.

What I would say, however, is that some of the dramatic and attention-seeking headlines that I have seen recently – phrases such as an ‘invisible land grab’, ‘machines the size of buildings literally destroying the systems that keep us alive’, ‘clear-cutting the ocean floor’ and so on, are not helpful.

In fact, they are blatantly misleading.

Similarly, comparisons to disasters such as the Deepwater Horizon incident, which involved a volatile compound totally different in character to deep sea mineral ore, are misguided.

All I ask, therefore, is that, collectively, we ground discussions in reality. In particular, I believe we would all do well to bear in mind the following key points:

- DSM has not started yet. All activities to date are exploration, which involves no greater environmental impact than marine scientific research. That means that we have a unique opportunity to get it right. In fact, this is probably the best regulated industry that has not happened yet!
- Even when DSM does start, it will most likely be at the scale of a limited number of operations. Based on the size of investments required, I do not think anyone is predicting more than a handful of commercial operations during the first 15 or so years. There will be plenty of time to monitor and assess impacts, learn from experience and improve technology.
- Existing, well-established and proven environmental management techniques are easily applicable to deep seabed mining. Nobody is suggesting that environmental impact assessments should not be required, and that the regulator should not specify the level of permitted impacts. The standard environmental management tools that have been used in offshore industries for years - spatial management, impact assessment, prevention, and mitigation - are all applicable.
- Worst case scenarios are massively exaggerated and bear very little relation to reality. By and large, we are dealing with rocks and mud, not volatile compounds under pressure. There are no tailings from deep seabed mining, operations can be halted very quickly and direct impacts stopped immediately.

Having said that, it would be foolish not to acknowledge that we are embarking upon a new adventure, with many unknown factors to consider, and that there are real problems around lack of detailed knowledge of deep sea ecosystems, lack of data, and uncertainty as to the scale and duration of impacts.

What we must not do, however, is pretend that there is some sort of existential debate about whether deep sea mining should be permitted to go ahead or not. We are way past that point and have been for many years.

This is because the one factor that distinguishes deep seabed mining from any other extractive activity, or indeed any other ocean use, is the nature of the underlying legal regime established by the Law of the Sea Convention.

Seafloor minerals are the only example of a global resource that is under international management by an international organization established exclusively for that purpose. This immediately distinguishes them from other frontier resources such as outer space minerals.

As such, the International Seabed Authority represents a unique experiment in international relations. For many States, it fulfils a long-held vision that the mineral wealth of the deep seabed should not be

appropriated by a few technologically advanced countries, but would be shared between all countries, including the landlocked and disadvantaged countries, as the common heritage of mankind.

The task of the ISA is to deliver on this vision and to make sure that it is done in the most responsible and sustainable way possible.

We need to work together to ensure that this happens.

That is why I am particularly pleased to see that Pew's efforts have focused not only on providing the highest quality independent scientific and legal advocacy, but also on working together with developing countries to raise awareness and help to coordinate positions.

I see two major challenges for ISA at present.

The first is that we now have to put in place a workable regulatory framework that incentivizes contractors to commit significant investment and resources to develop exploitation projects while also addressing concerns of State Parties to the Convention, as well as other stakeholders, including environmental groups.

Some of the major concerns are around regulatory stability and predictability, and of course, the financial and environmental management regime.

Much preparatory work has already been done, in the form of technical studies and workshops, and a first consolidated draft of the Mining Code is currently out for public consultation. At its 2017 meetings, the Council of the Authority agreed to fast-track the development of the Code and, as a result, there will be two meetings of the Council in 2018.

The views of civil society are important in this process, and I look forward to the continued support of Pew.

The second major challenge is environmental planning at the regional scale.

To me, this is a greater, and potentially far more interesting, challenge. If project-based environmental management is primarily the function of the operator, the other major task of the ISA is to manage at a global and regional scale.

Of course, in one critically important way, this is already the case, because the fundamental concept of the Law of the Sea is that deep seabed mining is only allowed to take place under contract to ISA.

This means that the default position is that the seabed is off limits to mining except where expressly permitted following a lengthy process of approval. Everything is protected.

This is important and something that immediately sets deep seabed mining apart from any other high seas activity, including fishing and even bioprospecting. But more is needed to actively manage effectively at a regional scale.

We need to drastically improve knowledge of the deep seabed, both inside and outside exploration areas. I would suggest that another critical and urgent step is to design networks of protected areas, managed by ISA, where no mining should occur.

So far, the only regional environmental management plan is that for the Clarion Clipperton Zone, which was adopted in 2012.

This ground-breaking and unique plan originated in work funded by the Kaplan Fund and Pew Charitable Trusts - through the Marine Fellows program - to develop a scientific case to identify a biogeographically representative network of potential protected areas. The plan was subsequently developed through an expert consultative process under the auspices of the Authority and adopted by the political organs of the Authority.

The main feature of the plan is the nine APEIs. But this also highlights one of the main flaws of the plan. It is of limited value to just set aside protected areas on the basis of models. We need actual data to get a better overall picture of the regional environment.

The only data being collected in the CCZ are those that are collected by contractors. The amount and quality of these data have improved tremendously over the past few years, and several contractors have cooperated with ISA to gather data on the APEIs. But what we really need to see are independent scientific research cruises, preferably with the participation of ISA and developing country scientists, specifically aimed at gathering data on the APEIs and surrounding areas.

Only then can we undertake a meaningful review of the CCZ EMP and make decisions for the future.

Some progress is being made. ISA is currently cooperating with MIT on a research cruise later this month, and will also be a partner in the JPIO II European project, but I urge more scientific study to be done.

Beyond the CCZ, both the ISA Council and the General Assembly of the United Nations, have recognized the urgent need to develop regional plans in mineral provinces where exploration activities are taking place.

Member States of the Authority have repeatedly acknowledged the need for a global, multi-regional, approach that would enable the production of better policy and operational frameworks for site-specific management activities. Key areas that have been identified include the Mid-Atlantic Ocean ridge, the Indian Ocean triple junction ridge, and the Northwest Pacific.

As Secretary-General, I am strongly supportive of this approach.

I firmly believe that regional environmental plans, designed to collate all relevant scientific data for each sub-region of the Area, are the best way to complement the work already undertaken by ISA, and to give more ownership to countries in each region, particularly the developing countries.

In turn, this would strongly contribute to the discussions held within the Authority for developing necessary frameworks and processes in order to set specific management objectives for contractors in the planning and monitoring of exploration and mining activities, particularly where multiple activities are taking place in the same maritime zone.

The problem is that scientific work on the scale that is needed costs money. Even more is required if we are to carry out long term monitoring so that we can measure and understand changes to the environment over time.

Nevertheless, I believe that ISA has a unique opportunity and provides the best available political platform to establish comprehensive framework for environmental management. I hope that others will find this vision equally compelling and can join us in this enterprise.

Thank you for your attention.