Fathoming Liability in the Context of Deep Seabed Mining

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I. Introduction

Good afternoon everyone. Thanks to Bob Beckman for inviting me to speak today and to everyone at CIL for being such kind and generous hosts. I am delighted and honoured to be here; and I want to offer my condolences for the very recent loss of Singapore's founding father.

Now, this afternoon I want to explore several specific issues of liability at international law that may arise in the context of deep-sea mining (DSM). One pole star of the Law of the Sea since the end of World War II has been the importance of maintaining the stability of expectations. Liability is one area where some uncertainty remains; and states and contractors have sought (and continue to seek) clarity on their liability before any real exploitation of deep-sea minerals begins. Indeed, in many ways these issues have been in the foreground since Nauru and Tonga sought guidance for themselves in 2009 by prompting the Council of the Authority to request an Advisory Opinion from the Seabed Disputes Chamber of ITLOS regarding the responsibility and obligations of states sponsoring persons and entities with respect to activities in the "Area" – the deep seabed beyond national jurisdiction.

I should mention at the outset that the focus of my comments today is on liability for damage occasioned by deep seabed mining that takes place beyond the outer limits of the continental shelf as defined in Article 76 of UNCLOS. Of course, some of the discussion will be equally relevant to seabed mining on the continental shelf and extended continental shelf, but

that is not my focus. I should also highlight that my comments mainly concern the liability that may arise in connection with environmental harm caused by deep-sea mining.

So then to start. In February 2011, the Seabed Disputes Chamber delivered the Advisory Opinion just mentioned – its first. The Opinion provides important clarifications on a number of issues associated with obligations established by the Convention and the Mining Code adopted by the Authority (at that time the Exploration Regulations for nodules and sulphides, but now also for cobalt rich crusts and eventually the Exploitation Regulations that are currently in development).

For our purposes today, the Chamber was requested to opine on "the extent of liability of a State Party for any failure to comply with the provisions of the Convention … by an entity whom it has sponsored under [Part XI.]" In the course of reaching its opinion, it became clear that the failure to comply by a sponsored entity would only give rise to responsibility and thus liability of the sponsoring state if the sponsoring state did not meet a "due diligence" standard reflected two places in the Convention.

With the foregoing in mind, I want to make three basic points today. First, I want to discuss how the application of a "due diligence" standard means that there is a significant potential that harm (both environmental harm and more generally) will go unremedied. Second, I want to consider how the principle of "residual liability" might have been used and might yet be developed to eliminate this potential situation of *damnum absque injuria* (damage without wrongdoing and, thus, without remedy); even though the application of the principle of residual liability was rejected by the Chamber because it lacks legal normativity at present. Third, I want to talk about how

latent aspects of "due diligence" might be used to address the problem now, as well how the Exploitation Regulations now in development by the Legal and Technical Commission of the Authority might assist.

II. Due Diligence and the Liability Gap

Turning then to due diligence and the protection of the marine environment from activities associated with deep sea mining. It is axiomatic that all states have a duty to prevent environmental harm, including harm to the marine environment. In the words of the famous Principle 21 of the 1972 Stockholm Declaration on the Human Environment, States have a duty to ensure that activities under their jurisdiction and control do not cause harm to the environment of other states or to areas beyond national jurisdiction. Under UNCLOS, this duty is augmented in the positive language of Article 192 that provides states "have the obligation to protect and preserve the marine environment". According to the International Court of Justice, the duty to prevent harm is firmly entrenched in customary international law. It is also embedded in Article 3 of the Convention on Biological Diversity, the ratification of which has a universality approaching that of the Charter of the United Nations (there are 194 parties, with only the U.S. and the Holy See holding out – and the Holy See does not have a whole lot of biodiversity)

Be that as it may, some commentators have maintained that the duty to prevent harm entails absolute or strict liability, but the overwhelming view of states and international lawyers is that the obligation of prevention is not one that dictates the prefect achievement of result. Rather, the duty of prevention requires the exercise of due diligence by a state to prevent significant environmental harm caused by activities within its jurisdiction or

control. The due diligence standard, when met, raises a significant equitable problem of allocation. The question becomes: where should the loss lie for significant extra-territorial harm – for example to the common heritage of humankind represented by the Area – that is caused by activities under the jurisdiction and control of a state when due diligence has been exercised by that state to prevent such harm? The answer is that when harm results from such an activity, if the state is exercising the diligence that is due, then it does not commit a wrongful act through the breach of its obligation to prevent harm because the standard of care required is met. Accordingly, under a due diligence standard neither an innocent injured state -- nor any state possessing *erga omnes* rights in the event of environmental harm caused in areas beyond national jurisdiction -- will be able invoke state responsibility in order to establish liability in order to pay for necessary remediation and/or compensation. Without more then, the default position of international law is to allow the loss occasioned by harm, where the due diligence standard applies and has been met, to rest with the innocent state or to be externalized to the area beyond national jurisdiction, including to common heritage.

In considering the nature of the obligation of due diligence, the Seabed Disputes Chamber described it as a "variable concept" that "may change over time as measures considered sufficiently diligent at a certain moment may become not diligent enough in light of, for instance, new scientific or technological knowledge". Further, the Chamber recognized that "the standard of due diligence has to be more severe for riskier activities". The Chamber went on to point out that the diligence required by custom and the Convention obliges sponsoring states to adopt "laws and regulations" and to take "administrative measures which are, within the

framework of its legal system, reasonably appropriate for securing compliance by persons under its jurisdiction".

So I want to recap due diligence liability: We all know that state responsibility, and any reparations that may follow, including liability for damages, are dependent on the existence of an internationally wrongful act that includes the breach of an international obligation. In the context of due diligence obligations, the breach lies in failing to meet the diligence required by the circumstances. Exercise due diligence and there is no breach even if there is significant harm. In order, then, to give some context to due diligence, we should highlight some of the major international obligations that states sponsoring DSM activities must observe. Two especially important direct obligations considered by the Chamber are those related to the precautionary approach and environmental impact assessment.

Turning to the precautionary approach, the Chamber said "the link between an obligation of due diligence and the precautionary approach is implicit in the law of the saw as shown by [initial prescription of provisional measures against Japan increasing its take in the] Southern Bluefin Tuna Cases." It then observed "that the precautionary approach has been incorporated into a growing number of international treaties and instruments, many of which reflect the formulation of Principle 15 of the Rio Declaration" and that "this has initiated a trend towards making this approach part of customary international law".

In the end, though, the Chamber once again avoided being definitive about custom, as it had in the Southern Bluefin Tuna cases. Instead, dased on the Regulations on nodules and sulphides, it concluded that states must

apply a precautionary approach as an integral part of their due diligence obligation not to cause harm "in situations where scientific evidence concerning the scope and potential negative impact of the activity in question is insufficient but where there are plausible indications of potential risks." Disregarding such risks would constitute a failure to meet the standard of due diligence in applying the precautionary approach and entail responsibility.

The second direct obligation I want to mention is the preparation of an Environmental Impact Assessment (an "EIA"). Referring to the ICJ's Pulp Mills judgment, the Chamber stressed that an EIA is both "a direct obligation under the Convention and a general obligation under customary international law". Here, the Chamber was definitive about custom. It is true that the Chamber acknowledged that the ICJ decision had been limited to consideration of impacts on the environment in a transboundary context. It went on to state, however, that the ICJ's reasoning also applied to activities in an areas beyond the limits of national jurisdiction, and the ICJ's references to "shared resources" applied to resources that are the common heritage of mankind. The Chamber concluded that the EIA requirement casts a wide net, and it seems clear that failing to carry out an adequate EIA before permitting an activity to proceed would breach the diligence required by the Convention, the Regulations, and the customary obligation to prevent harm.

Beyond the precautionary approach and environmental impact assessment, the Seabed Disputes Chamber highlighted, more generally, that the basic due diligence obligation of a sponsoring state is "to ensure" compliance by a contractor with obligations found in:

- Part XI of the Convention (governing The Area);

- Relevant Annexes to the Convention (particularly Annex III);
- Rules, Regulations and Procedures promulgated by the Authority;
- The terms of its exploration contract with the Authority; and
- Any other obligations imposed on it by international law.

This duty "to ensure" compliance, however, does not require that a contractor, in fact, comply with all the requirements of its contract or the Convention in all cases. Rather, the Chamber described this duty to ensure as an obligation "to deploy adequate means, to exercise best possible efforts, to do the utmost, to obtain this result". That being done, the obligation of general due diligence is met despite non-compliance by the contractor and any harm that may result.

III. Residual Liability

I turn now to consider the relationship between due diligence and the principle of residual liability in more detail. Rules to govern liability and compensation for environmental harm that fall outside the ordinary rules of state responsibility (because the requisite due diligence is present) have been sought at least since the appearance of the "further development" clause in Principle 22 of the 1972 Stockholm Declaration. In treaty after treaty since Stockholm, "further development" clauses have appeared that require states to cooperate in the elaboration and adoption of norms to regulate liability and compensation. As a result, slowly but increasingly, liability conventions for specific activities or areas (like shipping, biosafety, and Antarctica) have been negotiated. The ordinary posture of international law in these liability conventions is first to look to a responsible private operator or contractor for compensation for harm caused that is not the result of a wrongful act attributable to the state. The residual liability of states for damages when an operator or contractor is unable to or is shielded from providing

compensation, however, has not yet been a regular feature of these liability conventions. It certainly is not yet written into the positive law of the sea.

Turning to the Convention, the liability of a state arising from a sponsored entity's failure to comply with the provisions of UNCLOS is governed by the general responsibility and liability provisions set out in Article 235, as well as the more specific provisions of Article 139 and Annex III, Article 4. In addition, in determining the scope of liability Article 304 of UNCLOS requires "the application of existing rules [at the time of the dispute, not at the time UNCLOS was adopted or ratified] regarding responsibility and liability under international law." This includes "further rules" of customary international law on responsibility and liability "develop[ed]" since the adoption of UNCLOS, as well as general principles of international law.

Looking at these rules in detail, we find that Article 235 of UNCLOS establishes general rules of responsibility and liability in relation to convention's broad obligations to protect and preserve the marine environment. It provides that states must fulfill their obligations to protect the marine environment and will be held liable in accordance with international law.

Article 139 of UNCLOS sets forth more specific responsibility and liability for states in relation to activities in the Area under Part XI of the Convention. Paragraph 2, explicitly establishes the due diligence standard for sponsoring states. It provides in part that:

> 1. States Parties shall have the responsibility to ensure that activities in the Area, whether carried out by States Parties, or state enterprises

> or natural or juridical persons which possess the nationality of States Parties or are effectively controlled by them or their nationals, shall be carried out in conformity with this Part ...
>
> 2. … [D]amage caused by the failure of a State Party or international organization to carry out its responsibilities under this Part shall entail liability …. A State Party shall not however be liable for damage caused by any failure to comply with this Part by a person whom it has sponsored …, if the State Party has taken all necessary and appropriate measures to secure effective compliance ….

Annex III of UNCLOS addresses the basic conditions set for prospecting, exploration and exploitation in the Area. Article 4(4) of Annex III sets out a diligence standard in relation to a sponsoring state's laws. It provides that a sponsoring state must ensure its laws provide that a contractor carries out activities in the Area in conformity with the Convention and the terms of its contract. It also establishes a due diligence standard in these terms:

> A sponsoring State shall not, however, be liable for damage caused by any failure of a contractor sponsored by it to comply with its obligations if that State Party has adopted laws and regulations and taken administrative measures which are … reasonably appropriate for securing compliance by persons under its jurisdiction.

As can be seen, no explicit form of residual liability is provided for by UNCLOS. As a result, UNCLOS leaves a "liability gap" in at least three instances:

- where a state takes all necessary and/or appropriate measures required by international law and blameless actions of the contractor nevertheless cause environmental harm;
- where a state takes the requisite necessary and/or appropriate measures and the private operator is blameworthy, but insolvent or its assets are beyond the reach of the sponsoring state; and
- where the sponsoring state has failed to take the required measures but there is no causal link that can be proved connecting it with the environmental harm.

Given the gap, some parties in the Advisory Proceedings argued that residual liability might be applied under Article 304. Thus, if residual liability was going to be found to be applicable by the Seabed Disputes Chamber, it was because its application would be warranted as a liability rule that had been further developed since the adoption of UNCLOS.

While establishing the existence of residual liability as a customary norm was always going to be difficult, one way around it was suggested in a statement made by the Mexican Ambassador, Joel Hernandez, during the oral proceedings. Ambassador Hernandez urged an interpretation of UNCLOS that incorporated strict liability for sponsoring states into their duty to prevent harm because of the significant hazards associated with DSM. In such a case the only proof necessary would be the existence of harm and a causal link to an act or omission by the sponsoring state. Due diligence would have no bearing. However, given Article 139 and Annex III, the Chamber was of the view "that liability for damage of the sponsoring State arises only from its failure to meet its obligation of due diligence", which ruled out strict liability altogether.

Another route to establishing residual liability was suggested by pointing to the International Law Commission's (ILC) work on the Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities. The point of departure for the Principles on Allocation is the establishment of primary liability of private operator(s) in the first instance. However, the Principles recognize a situation may arise in which prompt and adequate compensation for harm by a private operator, like a sponsored entity, fails. In such a situation, a residual liability remains with the state under Principle 4(5) to "ensure that additional financial resources are made available."

It was argued that cogent reasons existed to support the application of residual liability as an emerging norm. First, it was emphasized that it would be inequitable to leave significant harm to the common heritage unremedied in cases where the private operator is insolvent and the sponsoring state had acted with due diligence. The question was posed as to why a state deriving major benefits from the exploitation of global public goods in the Area should be able to shift the loss occasioned by environmental harm caused by that exploitation to the world at large? Allowing such an outcome was said to undermine long attempts by the international community to ensure that environmental externalities associated with public goods are accounted for and paid by the user benefiting from such goods.

The real question posed for the Chamber, however, was not whether it should take account of contemporary trends like residual liability in the law. Clearly it was required to do so under by Article 304 of UNCLOS. The real question was whether it could find, first, that residual liability was a customary norm outside of UNCLOS, and if so, whether it posed any sort

of inconsistency with the convention. The Chamber could not get past the first task in finding a customary norm.

In addition to the dearth of state practice, one obstacle to proving custom was the ILC Commentary to the Principles on Allocation. The Commentary recognizes that that the Principles are intended to aid in "the process of development of international law in this field," indicating they are a work of progressive development instead of codification of existing custom. This view is further supported by the fact that they are styled "Principles" instead of "Draft Articles" ripe for negotiation as part of a codification convention. On the other hand, the Commentary also explicitly leaves open the question of whether the various Principles it sets out currently reflect custom. And, some commentators, seizing on this, have said that the Principles "show how the Commission has made use of existing general principles of law [and it] successfully reflects the modern development of civil-liability treaties, without in any way compromising or altering those which presently exist".

Avoiding the issues of proof of customary law, some parties argued that residual liability could be read into the requirements of "all necessary and appropriate measures," "necessary measures," and the adoption of "laws ... regulations and ... administrative measures which are ... reasonably appropriate for securing compliance" found in Articles 139 (2), 153(4), and Annex III, Article 4(4). This would mean that a sponsoring state's legal system, in order to meet the requirements of due diligence, would need to include a provision ensuring additional state financial resources were made available when an operator could not be held liable.

It was said that undertaking activities in the Area creates a unique relationship between the sponsoring state, the community of nations, the sponsored entity, and the International Seabed Authority. It was claimed that the Chamber in interpreting UNCLOS ought to make allowance for the advent of the principle of residual state liability embodied in Principle 4(5) of ILC Principles of Allocation to prevent a situation in which no party is responsible for environmental harm to the common heritage.

In the end the Chamber was unwilling to read this much into the law of the sea. The Chamber stated that it was aware that "under the current UNCLOS provisions gaps in liability ... might occur" and "of the efforts made by the International Law Commission" to close the gaps by "address[ing] the issue of damages resulting from acts not prohibited under international law." However, according to the Chamber, "such efforts have not yet resulted in provisions entailing State liability for lawful acts."

IV. Due Diligence and the "Liability Gap"

So, if we accept, as we must, that the principle of residual liability is not part of the current corpus of conventional or customary international law, does that necessarily mean that we are left with a liability lacuna for the foreseeable future? I want to suggest today that the answer is no.

First of all, the Seabed Disputes Chamber itself, in its Advisory Opinion, urged the Authority to consider the establishment of a trust fund under pursuant to Article 235, paragraph 3 of the Convention. The fund would cover situations where a contractor does not meet its liability in full while the sponsoring State is not liable under article 139, paragraph 2, of the Convention because it has exercised due diligence. Such a fund would not

fill the liability gap, but it would be available to cover damage when the gap was present.

Thus far, the Authority has not brought the trust fund into being. But, the Authority is only beginning to flesh out its regulatory framework for exploitation. Indeed, the Authority's Legal and Technical Commission just released a first Draft "Regulatory Framework for Mineral Exploitation in the Area" last month. But, an "Environmental Liability Trust Fund" is included as a potential provision of the Legal and Technical Commissions's "Suggested Structure for Exploitation Regulations". Hopefully, as the exploitation regulations make their way through Council, the trust fund idea will become a reality and be adequately resourced. However, even if the trust fund languishes, the latent content of a sponsoring state's due diligence obligations may already provide a significant measure of protection. While the Chamber elaborated some of this content as I've already noted, it did not exhaust the requirements of due diligence especially in connection with exploitation -- the deep-sea mining activity that carries the most risk.

One aspect that the Chamber did not consider in its Advisory Opinion is the impact of the liability gap on what due diligence may require of sponsoring states in the context of action to forestall this very eventuality. I want to suggest today that the liability gap makes it essential that sponsoring states, in meeting their due diligence obligations associated with deep-sea mining, must take effective measures within their own legal systems to ensure the gap is filled for sponsored activities. And, as I will explain, I don't mean by virtue of the imposition of residual liability on the state.

But first I want to argue that for a sponsoring state to knowingly allow such a potential gap to persist, given the extent of potential harm to common heritage, is unreasonable. And, it becomes even more unreasonable if easily available mechanisms exist to plug the gap and they are not employed. The long trail of treaty "further development" clauses supports this conclusion. It is also supported more specifically by the existing Regulations for Nodules, Sulphides, and Crusts. All three regulations require a contractor to provide the Authority in its Plan of Work with a "guarantee of its financial … capability" to effectively address emergencies, including environmental emergencies, caused by its activities in the Area. If the contractor fails to provide an adequate guarantee, then the sponsoring state either must ensure the contractor provides the guarantee or it must take the requisite emergency measures itself.

The legal task required by due diligence on the part of all sponsoring states in filling the liability gap is relatively straightforward. Simply put, in regulating the recovery of minerals in the Area by a sponsored entity through its own regulatory framework, a sponsoring state's obligation of due diligence requires the imposition of the provision of an up front mandatory security or surety by the sponsored entity (the contractor) to cover the potential liability gap situation. This has already been recognized by the Cooks Islands. Its 2009 Seabed Minerals Act provides that contractors must provide a prescribed form of financial security (bonds, insurances, guarantees, and so on) sufficient to cover the costs of damage associated with its licensed seabed mineral activities. This includes the costs of any remediation necessary after the exploitation ends.

Importantly, by treating this up front security requirement as a universal customary obligation of due diligence applicable to all sponsoring

states, any regulatory race to the bottom in terms of attracting investment by virtue of weak rules is avoided. This seems to be recognized by the emerging exploitation regulations found in the Legal and Technical Commission's draft regulatory framework on mineral exploitation in the Area. Part IV of the "Suggested Structure for Exploitation Regulations" contains a proviso for Environmental Bonds and Performance Guarantees. More specifically, the draft indicates that "reasonable conditions" imposed on a Plan of Work for exploitation might include the provision of a bond or financial guarantee.

One gets the sense, though, from the commentary of the Legal and Technical Commission that even the necessity of the bond (at least in contracts with the Authority) is controversial. The commentary highlights that commercial operators prefer insurance to bonds (presumably to preserve liquidity) and that the interaction between commercial insurance and any bond mechanism still needs to be investigated, together with the appropriate quantum of any bond. And, it is true that the Cook Island's law focuses on insurance and reinsurance (although the option to employ cash security is present). In the end, the exploitation regulations could make insurance rather than a cash security the mechanism that it uses to address the need to remediate harm and any gap in liability.

That is why it is important that the parallel customary international law due diligence obligation exists. The regulations, if indeed they are limited to insurance, will be one size fits all. On the other hand, what due diligence requires is driven by circumstances (particularly the degree of uncertainty and gravity of the risk); so that insurance might suffice in one case, but significant upfront bonds might be dictated in another.

Putting aside the disagreement that may surround bonds versus insurance, one thing, at least in my view, is clear: the obligation of due diligence does require that some form of security is a predicate to exploitation of the Area. Of course, there is a prerequisite to even reaching the point of considering the *form* of security which is most appropriate to fill a potential liability gap. A sponsoring state's other due diligence obligations of applying precaution and assessing environmental impacts must first be met. Those are issues for another paper, but I would call your attention to a February 2015 decision by the New Zealand Environmental Protection Authority's Decision-Making Committee, which refused to grant a marine consent to Chatham Rock Phosphate Limited to mine phosphorite nodules on the Chatham Rise located on New Zealand's continental shelf (1600 m). The applicant in the case offered to establish an up front trust fund for the purpose of addressing the adverse effects of the mining as a condition of the consent. The Decision-Making Committee, however, rejected the offer (and an accompanying adaptive management plan) because neither could ensure the survival of a number of potentially unique benthic communities dependent on stony coral that would be destroyed by the proposed drag-head mining operation. (All were agreed that the Chatham Rise ecosystem would be changed from the current hard sediment habitat to one that was wholly soft sediment where stony coral, and its dependent communities, cannot live).

Conclusion

With that additional prerequisite in mind, let me turn to my conclusion. As the international community moves closer to exploiting the resources of the deep seabed, it is imperative that an adequate and effective liability regime is in place to protect and preserve a mostly unknown

environment and the benefits beyond mineral resources it contains. The environment of the Area has importance for activities other than mining. For instance, the deep-sea hydrothermal vent ecosystems of the Area may hold life forms that still await discovery and development of options for energy, food, and medicine for present and future generations. Moreover, we are largely ignorant of the full implications of how mining will harm the environment. For example, it is still unknown how mining will impact benthic life and its food supply away from mining areas.

A significant defect currently exists in the liability framework concerning harm caused by a sponsored entity in the Area. It has the potential to render the liability regime inadequate and ineffective. The problem is the near certainty that significant, recurring environmental harm caused by sponsored entities will occur for which the text of the Convention text itself imposes no liability. Even if the Convention itself does not yet provide a solution, I believe that the customary obligation of due diligence does.

Thank you.