



Briefing to the 21st Session of the International Seabed Authority

13-24 July 2015

This briefing is submitted by the Deep Sea Conservation Coalition (DSCC), a coalition of over 70 non-governmental organizations concerned about the deep sea. The DSCC has been an observer organization to the Authority since 2014. The briefing provides recommendations on the development of a regulatory framework for mineral exploitation in the Area.

Our submission on the report 'Developing a Regulatory Framework for Mineral Exploitation in the Area' is available at <https://www.isa.org.jm/stakeholder-response/deep-sea-conservation-coalition>.

The DSCC has also contributed to a workshop held in Horta, Azores, from 1-3 June 2015 to begin the process of identifying elements for a science-based proposal for a Strategic Environmental Management Plan (SEMP) for deep seabed mineral exploration and exploitation in the Atlantic Basin in the international seabed Area. This workshop, which we hope will be followed by others, illustrates the importance of developing the relationship between the framework exploitation regulations, SEMPs, and the regulations that would apply to contractors and mining at individual sites.

The United Nations General Assembly in its Oceans resolution [69/45](#) invited the ISA to consider developing and approving environmental management plans in other international seabed area zones, in particular where there are currently exploration contracts. SEMPs should be adopted prior to issuing permits for mining specific sites within a region (ideally they should be adopted before further exploration licenses are granted). Strategic Environmental Assessments (SEAs) and SEMPs are a necessary prerequisite to determine the size, locations and numbers of areas that should be set aside to conserve source populations, ensure species connectivity and viable population sizes, and otherwise ensure continued ecosystem function and viability in a given bioregion. A SEMP is a necessary framework within which to evaluate individual, site specific, environment impact assessments and establishing management plans for such sites, determine the number of individual sites that can or should potentially be authorized for mining within a bioregion (the 'carrying capacity' of the region, or how many sites could be mined), and a critical mechanism for assessing potential and actual cumulative impacts at appropriate bioregional scales, not only those related to seabed mining activities but also impacts of other activities, or from other sources, combined (e.g. ocean acidification, deep-sea fishing). The SEAs and SEMPs must be science based and will need to be developed independently of individual contractors' EIAs, although the SEMPs can and should benefit from the environmental baseline information collected by contractors in a region.

Environmental Impact Assessments (EIAs) and Environmental Management Plans (EMPs), on the other hand, are intended to be site specific, conducted later in the process, and designed to assess and manage the impacts of proposed mining activities in specific sites. They are generally carried out by the contractor, and must be publicly available, subject to public comment and independently reviewed

Similar workshops to the one in the Azores on the Atlantic Basin will need to be held in other areas such as the Indian Ocean and western Pacific Ocean as part of the process of developing SEMP for those areas.

The ISA report has highlighted a number of issues which will need to be addressed in future workshops and other consultations. These include liability, insurance, financial guarantees and a Liability Fund, a Sustainability Fund, procedures for evaluation of environmental impact assessments (EIAs), environmental management plans, long-term monitoring, and developing further SEMP.

Transparency and the development of effective working methods are crucial. The DSCC welcomed the open meeting session held by the Legal and Technical Committee (LTC) during the 20th Session. The DSCC further welcomes support at Council and Assembly for the LTC to open its meetings to observers as a rule rather than the exception. This would ensure not only transparency but that the LTC obtains the best advice and support in what will be a challenging and complex process.

It seems clear too that the working methods of the Authority will need to adapt to meet the increasing demands on the ISA, including the development of exploitation regulations and procedures. Consideration should be given to the establishment of a Scientific Committee, as well as appropriate working groups and subsidiary committees to assist the LTC and Council. Subsidiary organs can be established under UNCLOS Art. 158, paragraph 3. In addition, the Council can establish subsidiary organs under UNCLOS Art. 162, paragraph 2(d) as can the Assembly under UNCLOS Art. 160, paragraph 2(d). It may also be that the LTC, Council and Assembly can establish working groups to assist them. It would be important that the Council, for instance, establishes any working group with clear terms of reference and timeframes and that the working group reports back to the Council.

DSCC position on deep seabed mining

The deep ocean is a vital force within the Earth system and must be protected from harm. The priority approach to the consumption of mineral resources should be one of sustainability, reuse, improved product design and recycling of materials rather than exploring for new sources of minerals, including in the deep-sea. If deep-sea mining is permitted to occur, it should not take place until appropriate and effective regulations for exploration and exploitation are in place to ensure that the full range of marine habitats, biodiversity and ecosystem functions are adequately and effectively protected, including through a network of marine protected areas and reserves.

The regulations and their framework must be robust and include:

- clear conservation and management objectives;
- transparent and enforceable procedures including access to information, public participation, and review procedures;
- requirements based on the precautionary and ecosystem approaches and the polluter pays principle;
- publicly available, comprehensive, prior environmental impact assessments, based on extensive, high quality environmental baseline information, and independent review procedures.

They should also ensure that significant adverse impacts (SAIs) on vulnerable marine ecosystems (VMEs) and ecologically or biologically significant areas (EBSAs) are prevented and that other serious harm to the marine environment does not occur. Protected areas must be established to achieve agreed objectives and cumulative impacts from mining and other activities and sectors must be also considered.

The development and adoption of any deep-sea mining exploration and exploitation regulations must be transparent and participatory and any mining activities permitted thereafter must respect the common heritage of humankind and ensure real benefits to society as a whole. Mechanisms for liability and redress must be established, and research and other initiatives to promote conservation and sustainable management must be implemented. Management must be effective, accountable, and transparent with ongoing monitoring, compliance, enforcement and transparent review procedures.

DSCC Recommendations

Substantive Content of Exploitation Regulations on Environmental Protection

1. Establishment of an environmental baseline:
 - 1.a An essential and fundamental part of an EIA and an Environment Management Plan (EMP) as well as a Strategic Environmental Assessment (SEA) and Management Plan (SEMP).
 - 1.b Establishes sufficient good quality/comparable data/information to describe the existing environment, and will enable the ISA to both properly assess the potential and actual environmental impacts and put into place management strategies to protect the marine environment.
 - 1.c Identifies vulnerable marine ecosystems (VMEs) and ecologically and biologically significant areas (EBSAs) and other similar ecological features, as well as relevant bioregional processes (e.g. species connectivity, source and sink populations, migratory routes of pelagic species potentially affected by mining operations).
 - 1.d Contractors should be required to share environmental baseline information to contribute to the information based needed to effectively conduct regional SEAs and develop SEMP
2. EIAs and Environment Management Plans (EMPs):
 - 2.a Once an environmental baseline is established, the EIA must take into account all potential effects of the proposed mining activities and include, *inter alia*, an assessment of direct, indirect, acute, chronic and cumulative impacts e.g. mortality, displacement, plume, sediment, toxicity, food-web impacts, noise etc., identify potential adverse impacts on other activities (e.g. fisheries), and identify other impacts such as those arising from climate change and ocean acidification on deep-sea ecosystems.
 - 2.b EMPs must be developed in an open and transparent process, must be based on adequate EIAs, and be designed to prevent significant adverse impacts (SAIs) on vulnerable marine ecosystems as well as ecologically or biologically significant areas, other serious harm to the marine environment, and implement other conservation objectives identified in the SEMP.
3. Strategic Environmental Assessments (SEAs) and Strategic Environmental Management Plans (SEMPs):
 - 3.a SEAs and SEMP must be implemented for identifying and establishing networks of protected areas on a regional basis prior to allowing commercial mining in individual claims within a region.
 - 3.b Must take into consideration the potential impacts of mining on biodiversity, habitats and ecosystems on a regional scale.
 - 3.c Must be designed to protect representative habitats and source populations, ensure species connectivity remains intact, prevent extinctions, and ensure the effective functioning of a range of additional ecosystem processes relevant to the particular biogeographic region concerned.
 - 3.d SEMP should include provisions for periodic SEAs as a key tool to address cumulative effects of multiple exploration and exploitation activities in a region, as well as to take into consideration cumulative impacts from other activities affecting the region as well. SEAs should be conducted periodically (e.g. every 3-5 years), particularly as new information is generated from contractor's accumulation of baseline data, EIAs and EMPs as well as independent research and surveys, and the SEMP revised accordingly.
 - 3.e Develop appropriate management responses, including establishing protected areas, strategies to prevent SAIs to EBSAs and VMEs, and avoiding serious harm to the marine environment
4. Protected Areas
 - 4.a A programme must be developed for identifying and establishing representative networks of protected areas, including marine reserves, VMEs, and EBSAs, under both SEMP and under site specific EMP.
 - 4.b Protected areas need to be designed with a view to broadly protecting habitats, species composition and ecosystem functioning, especially in regions where site specific mining activities may result in the complete removal or significant alteration of the habitat or underlying substrate at particular sites.
5. An effective management response:
 - 5.a A well resourced continual pre and post activity monitoring programme should be established and an early warning system implemented in case of accidents, incidents or unforeseen effects.
 - 5.b An environment bond should be required from the contractor to ensure that contractors comply with regulations and best environmental practice.

- 5.c A Sustainability Fund should be established, for instance, to carry out environmental research where it is not otherwise being carried out.
- 5.d Sharing of research data and facilities and cooperative research efforts should be facilitated and encouraged by the Authority.
- 5.e Best known environmental practices must be adopted by applicants. These should be reviewed by the ISA regularly and updated as necessary.
- 5.f Cooperation between contractors should be encouraged, in order to share and promote best environmental practices, including through reviews and through incentives, as well as sharing baseline environmental data as indicated above.
- 5.g Environmental bottom lines for the conservation of species, populations and ecosystems and prevention of significant adverse impacts on the environment should be set using the best available science to ensure, on a precautionary basis, for viability, recovery, growth and ecosystem processes and species and habitat connectivity.
- 5.h VMEs and EBSAs should be protected.

Procedural Aspects of Regulations

The procedures must:

1. Establish a clear and transparent framework with timelines and chains of responsibility for the State/contractor obligations from the start of the process until its completion and any continued obligations following mining (e.g. long-term monitoring of impacts after the closure of a site);
2. Provide for transparent, comprehensive and fair evaluation of applications;
3. Provide for independent scientific review of EIAs and EMPs, including requirements to improve an EIA or EMP if need be (e.g. provide more baseline information, better assessments of risk and/or development of mitigation measures) and further scientific review as a condition for approval of EMPs;
4. Provide for ongoing review and adaption of regulatory and management procedures including EMPs, SEMPs, monitoring and control procedures, and long term monitoring at regular intervals;
5. Provide for development, implementation and adaptation of EMPs, environmental best practices and industry best practices;
6. Provide a fair and equitable contractor-pays cost structure consistent with the Common Heritage of Mankind;
7. Establish clear timelines for applications for the submission and review of applications; and
8. Establish effective procedures for access to information, public participation and review opportunities for stakeholders.

Information and transparency principles applicable:

1. Transparency, public participation, application of Aarhus Principles of access to information, public participation and access to review processes should be adopted.
2. Use of best available science.
3. Precautionary approach to address scientific uncertainty.
4. Applications: transparent, comprehensive and fair evaluation.
5. EIAs: independent scientific review, public comment.

Forms of Applications

1. Applications should include: EIA, EMP, financial plan, plan of work, closure plan, training plan, emergency response and procedure plan, health safety and maritime security plan, and a social impact assessment. EIAs and EMPs must be independently reviewed and approved or disapproved and amended as necessary as part of a public review process.

Sustainability Fund

1. A fundamental challenge to ensuring that mining activities can be regulated to protect the marine environment is a lack of knowledge about the marine environment. This could be addressed through the development of a Sustainability Fund that would enable the ISA to direct further research in relation to marine ecosystems in the Area and develop institutional capacity.
2. ISA currently has no budget for large-scale research activities. The Fund could be financed by a levy, e.g. USD x per ton of ore recovered and could also be used to provide for independent monitoring and scientific review.

Central Data Repository and Environmental Information

1. The ISA Secretariat needs the continued mandate and adequate resources to establish and maintain the Central Data Repository.
2. Environmental information must be standardised and disclosed and not be kept confidential, and sharing of environmental information should be required. Reports from contractors and sponsoring States should also be disclosed and not be confidential. The ISA should draft and agree comprehensive procedures and criteria for the release and withholding of information.

Mitigation, Adaptive Management and Remediation

1. EMP will need to focus on prevention, mitigation and/or avoidance
2. Adaptive management must be rigorously defined
3. NZ Supreme Court in the case of *Sustain Our Sounds v King Salmon*, SC 84-2013, [2014] NZSC 40 paras. 129, 130 has said that the question of whether the precautionary approach requires an activity to be prohibited until further information is available, rather than an adaptive management approach, will depend on:
 - 3.a the extent of the environmental risk (including the gravity of the consequences);
 - 3.b the importance of the activity;
 - 3.c the degree of uncertainty; and
 - 3.d the extent to which an adaptive management approach will sufficiently diminish the risk and the uncertainty.

Liability Fund

1. An international framework is needed to ensure prevention of and response measures for addressing unexpected negative consequences of mining exploration or exploitation activities and to recover the costs, or to claim compensation or other relief on behalf of the international community.
2. A Liability Fund should be established to address the gaps identified by ITLOS in the Seabed Mining Advisory Opinion, such as when a contractor is insolvent or otherwise unable to meet its obligations.

An Atlantic Basin SEMP

Further progress in the drafting of a science-based proposal for an Atlantic Basin SEMP outside of areas of national jurisdiction for future consideration by the ISA should be encouraged.

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