



Towards an ISA Environmental Management Strategy for the Area

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Experts from international, scientific and legal institutions, non-governmental organizations and the private and public sectors met at a workshop in Berlin, Germany from March 20-24, 2017 to discuss the scope of developing a long-term Environmental Planning Management Strategy for the Area. The workshop was jointly organized by: the German Environment Agency (UBA), on behalf of the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB); the Federal Institute for Geosciences and Natural Resources (BGR), on behalf of the Federal Ministry for Economic Affairs and Energy (BMWi); and the Secretariat of the International Seabed Authority (ISA) and supported by the Institute for Advanced Sustainability Studies Potsdam e.V. (IASS).

Introduction

The 100-plus experts and stakeholders came from a wide range of geographical regions. Their professional backgrounds and interests ranged from academia, science, law, environmental management, civil society, contractors, ISA staff and members of the Legal and Technical Commission (LTC). The forum facilitated the exchange of views and provision of feedback from multidisciplinary perspectives on various issues in connection with the design and development of the environmental provisions of the Mining Code.

The objective of the workshop was to assist the ISA to design a strategy for the environmental management of deep seabed mining based on the Discussion Paper on Environmental Matters issued by the Secretariat in January 2017.

Among the items discussed were environmental standards, environmental impact assessment procedures and criteria, adaptive management, regional environmental management, together with elements of a long-term environmental strategy for the ISA.

The workshop interactive working format included introductory plenary presentation of thematic background discussion documents by experts that were distributed to all participants prior to the event.

Topics were discussed under Chatham House rules by applying the world café method - a structured conversational process in which groups of people discuss a topic or question at several tables.

This Briefing Paper reflects a summary of workshop discussions and points for further consideration as follows:

Substantive Criteria

- Environmental objectives would be crucial in order to determine the acceptable level of “harmful effects” consistent with Article 145 of UNCLOS and therefore needed further elaboration.
- Environmental objectives could be general for all mineral resources. However, the translation into acceptable levels of “harmful effects” might require a separate approach for each resource category.
- It was considered essential to develop acceptable impact criteria for the application process (evaluation criteria for use by the LTC).
- It was proposed that seabed integrity be used as one potential parameter for the assessment of effects of mining activities on the seafloor environment, complemented by others such as species richness, community structure and ecosystem functions, while not excluding much-needed research on pelagic systems/water column impacts associated with return water discharges and sediment plumes.
- A “marine environmental health index” composed of eight indicator variables was proposed as an option for defining a “good status” of the seabed.
- The long-term preservation of sufficiently large and ecologically representative and connected areas was proposed as a key environmental management tool for achieving effective protection of the marine environment.
- Without prejudice to the terms of the Convention and the 1994 Agreement, the criteria for the approval of a Plan of Work (PoW) require further elaboration. Such criteria could include whether an applicant has been able to demonstrate or has taken all reasonable steps to demonstrate the ability to put in place a management system “to ensure effective protection for the marine environment from harmful effects” which may arise from exploitation activities. Furthermore, an application might not be successful in the case of insufficient data (needs definition) to assess the effects of the proposed PoW on the marine environment or insufficient monitoring capabilities.

Roles and Responsibilities

- Clarification was needed on the division of responsibilities and tasks among sponsoring States and

the ISA and its organs in order to allow for effective supervision and enforcement of contractor activities in the Area.

- The ISA must have the capacity to effectively control and assess the activities of contractors in a timely manner, and to ensure that the rules are effectively enforced.
- Clarification on which ISA organ should be responsible for the various actions. If cost allows, the introduction of a new organ or section within the Secretariat to take responsibility for environmental matters might be considered.
- Matters of jurisdictional competences for “activities in the Area” that require clarification i.e. the role of the ISA, States Parties, sponsoring State, flag State, etc. This will need to be reflected in further drafts of the Exploitation Regulations.

General Principles and Approaches

- The three pillars of transparency - access to environmental information, public participation and access to justice - were seen to be essential. Further consideration is needed on how to “operationalise” all three pillars, including access to justice in the context of the common heritage of mankind.
- The definition of 'Interested persons' in the Draft regulations was viewed as being too narrow and limited to “directly affected persons” in the opinion of the ISA. The definition of "interested persons" and the stakeholder engagement process should match the standards of other international frameworks.
- Further consideration as to how the precautionary approach can be embedded in the regulatory framework and structure is necessary.
- Currently, the ability of science to define and measure ecosystem-related parameters and functions is limited in the deep sea realm, and the operationalisation of the ecosystem approach needs further consideration.

Environmental Standards

- While building on existing international standards, the development of ISA environmental standards was considered critical (Area /resource specific) for





various processes and topics, including a framework for risk assessment and the determination of environmental thresholds and trigger points on the basis of suitable state and pressure indicators, reporting and monitoring, and others. An integrated, multi-stakeholder process for the development of environmental standards was seen as an effective and reasonable approach. These environmental standards should have scientific considerations as their primary basis.

- Monitoring and reporting on performance standards as defined in the process above should be compulsory. A benefit would be the creation of a level playing field with some flexibility on the ways and means to achieve the required performance (desired outcome).

Environmental Impact Assessment

- Environmental Impact Assessment (EIA) is without doubt an important tool and its content, roles and functions should be clearly specified.
- The specific requirements and procedures for the overall EIA process should be clearly formulated, including which body undertakes different processes. EIAs should be publicly available for review and comment as part of the evaluation procedures for approval of an EIA by the ISA. It was proposed that the EIAs should be independently reviewed by scientific experts.
- Baseline survey standards as specified for the exploration phase, will need to be updated for the purposes of exploitation, to reflect more comprehensive spatial and temporal requirements and other measurements to underpin effective EIAs.
- Potential effects beyond the “Area” must be considered in the EIA, and adjacent coastal states consulted.
- The Environmental Impact Statement (EIS) template is being redrafted and guidelines to support content definition of the EIS should be developed further.
- Scoping was proposed as a mandatory step. The aspects to be addressed in the EIA should be determined through scoping.
- Information gathered through EIA should feed into regional management mechanisms and vice versa.
- Environmental Risk Assessment (ERA) should be an integral part of the EIA process.

Adaptive Management

- Adaptive Management (AM) should be seen as a tool for environmental risk management of specific projects. AM requires a cautious and gradual development and application of equipment and collection systems to a certain extent to allow for adaptive measures
- AM was seen as a crucial factor for unresolved uncertainty before development, as well as to ensure a precautionary reaction to unanticipated effects.
- On the project level, the implementation of risk management is principally a contractor responsibility based on any applicable ISA guidelines.
- AM should not be used as a substitute for binding regulations necessary to protect the environment and avoid harmful effects. The overall question is whether any adaptive management regime can be considered consistent with a precautionary approach, taking into account the extent to which it can reduce uncertainty and risk.
- There is a potential for AM to impact security of tenure if overly prescriptive.
- When used, Active AM should be considered as part of the Environmental Management and Monitoring Plan (EMMP).
- Use of the periodic review process of the PoW (or the individual EMMP) was considered as an additional tool (to active AM by the EMMP) to review new knowledge, information and experience. This mechanism should include recommendations as to possible adjustments to necessary measures to secure effective protection, or to prevent serious harm. The extent to which any recommendation should be mandatory requires clarification.
- The EMMP must contain measurable thresholds at which pre-agreed AM responses can be triggered. Closely approaching or exceeding these thresholds may lead to compliance notice/warnings or to specific actions being issued by the ISA.
- Effective monitoring of activities by the ISA, including the capacity for ‘real time’ monitoring and assessment and notification when thresholds are being approached, and mandating actions (trigger points) to be taken where necessary to avoid exceeding thresholds, were seen as being crucial functions of the ISA (the Inspectorate).

Test Mining

- Testing of collecting systems and equipment was seen as an important step.
- It is necessary to clarify the role of testing in the overall procedure although the decision and level of testing is primarily a commercial one.

- The type of equipment and technological solutions used to optimise the environmental performance of deep seabed mining are crucial for determining and minimising impacts on the marine environment. The type of equipment and technological solutions used to optimise the environmental performance of deep seabed mining are crucial for determining and minimising impacts on the marine environment. Thus, testing of equipment and collection systems with regard to their environmental impacts, including verification of modelling results (e.g. for plumes), was seen as highly important.
- Type of technology and its environmental performance is extremely important for environmental protection. The iterative definition and achievement of Best Available Technology (BAT) is important. Test mining could and should provide information to this end.

Tiered Governance Approach

There was support for a tiered approach to ocean environmental management, including environmental objectives and data collection, from an overarching and strategic scale, through the regional level down to project-specific level. Specifically, it was suggested that an overarching strategic policy document (high-level SEA-SEMP or “environmental strategy”) and individual regional or (sub-regional) management plans (REMPs) could be useful:

- There is a need for a transparent, inclusive and accountable process;
- Planning mechanisms should consider, where applicable, cumulative effects, multi-sectoral uses and alternatives (location, technique and conceptual) in accordance with the Convention;
- Planning mechanisms should be tied to project approvals;
- Prime responsibility is with the ISA, but, where practical, cooperation with other competent international organisations, contractors and independent researchers, as appropriate. The role of the sponsoring State has to be defined, if any;
- Where practical, mutually beneficial collaboration or cooperation with other competent international organisations or institutions, such as the IMO, UNEP, and including, where appropriate, regional sea

conventions institutions, will be required in order to give reasonable regard to other legitimate users of the marine environment;

- It was suggested by some participants to include provisions on planning mechanisms in the Draft Environmental Regulations, but others recommended to take such provisions out;
- Spatial management was seen to be crucial. Regional environmental management plans should be in place before EIAs are carried out, but to do this funding mechanisms and the commitment of member states are required.

The CCZ EMP is a good first step in guiding the development of regional management plans:

- The definition and determination of APEIs or similar protected areas should primarily be based on scientific criteria, in particular on ecological representativeness and other more comprehensive criteria;
- Additional data is required by the ISA to further enhance or revise the EMP and inform further decision-making;
- The role of Impact Reference Zones (IRZ) and Preservation Reference Zones (PRZ) can be important, but clear management objectives as well as technical criteria for their design need to be developed further (workshop proposed);
- Monitoring is necessary for future decision-making. Thus, this has to be organised and funded;
- REMPs should be reviewed and updated periodically on the basis of new scientific information or analyses. This, in turn, may require modifications to project-specific EMMPs.

Science

Identification of gaps in science: there is a need to identify gaps and to target research at appropriate scales, which may require several nations working together. It would be helpful if scientific efforts not only focuses on the basic research aspect, but also integrates environmental management topics in relation to mining activities. Funding mechanisms for large-scale, coordinated international research programmes have to be clarified and initiated.



The International Seabed Authority is an autonomous international organization established under the 1982 United Nations Convention on the Law of the Sea and the 1994 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea. The Authority is the organization through which States Parties to the Convention shall, in accordance with the regime for the seabed and ocean floor and subsoil thereof beyond the limits of national jurisdiction (the Area) established in Part XI and the Agreement, organize and control activities in the Area, particularly with a view to administering the resources of the Area.