



Effective Implementation of Environmentally Responsible Deep Seabed Mining: The Obligations of the Sponsoring State with Particular Attention to Germany and in Light of the Obligations of the Organs of the International Seabed Authority (ISA)

Potsdam, 7 November 2017

Outcome Document

On 7 November 2017, the German Environment Agency and the Institute for Advanced Sustainability Studies convened a transdisciplinary workshop in Potsdam to discuss the role of the sponsoring State in ensuring high standards of environmental protection in the conduct of deep seabed mining activities and taking into account the obligations of the organs of the ISA. The workshop had more than 30 participants including representatives of the German ministries responsible for different aspects of deep seabed mining by a German contractor, scientists from the Federal Institute for Geosciences and Natural Resources, academic researchers as well as NGO and stakeholder representatives.

Central outcomes of the workshop are:

Obligations of the sponsoring State and the ISA and its organs pursuant to the law of the sea (UNCLOS)

- 1) The obligations of sponsoring States are established in the United Nations Convention on the Law of the Sea (UNCLOS) and were interpreted and concretised in the International Tribunal on the Law of the Sea Seabed Dispute Chamber's 2011 Advisory Opinion.
- 2) The purpose of sponsorship is to create a balance between the responsibilities of the State and private actors to ensure jurisdiction and control as well as to limit the State's liability.
- 3) The due diligence obligation of the sponsoring State is an obligation of conduct, rather than an obligation of result. The sponsoring State is not residually liable.
- 4) The sponsoring State has a "responsibility to ensure" to the utmost and to the best of its abilities that the contractor upholds its responsibilities, and is further responsible for ensuring that the measures it enacts are risk-adequate. The due diligence obligations of a sponsoring State are thus more stringent than those of a flag State established in international shipping regulations.
- 5) Insufficient implementation of due diligence obligations in national law would trigger State responsibility for the actions in question. It is therefore of fundamental interest to the sponsoring State to ensure that its national legislation upholds these requirements.
- 6) In accordance with UNCLOS, the ISA has functional jurisdiction over "activities in the Area" and spatial jurisdiction over the Area itself. These jurisdictional limits also pertain to the obligations of sponsoring States. The scope of the term "activities in the Area" has not yet been legally resolved.

- 7) There are overlaps in the responsibilities of the ISA and sponsoring States, which may serve to strengthen the overarching legal framework.

Practical experience in Germany with the implementation on national and ISA level

- 8) To date only two German applications for sponsorship of exploration activities have been approved by Lower Saxony's State Office for Mining, Energy and Geology (LBEG). These concern manganese nodules in the Pacific Ocean (2006) and massive sulphides in the Indian Ocean (2013). Both applications were submitted by the Federal Institute for Geosciences and Natural Resources (BGR), an official government agency.
- 9) The focus of exploration is to determine topography, rigidity, resource density, metal composition, economic interest, biodiversity, geochemistry and bottom currents. Metallurgical processing is under development.
- 10) In accordance with Germany's implementation laws for deep seabed mining, the Federal Maritime and Hydrographic Agency (BSH) and the German Environment Agency (UBA) can issue a jointly agreed position statement in the decision-making process. Upon the agreement of the LBEG, the Federal Ministry for Economic Affairs, then forwards the sponsored application to the International Seabed Authority.
- 11) The public was not informed or included in the decision-making process concerning the two applications.
- 12) The LBEG has a legal mandate and responsibility to control the compliance of sponsored contractors with the terms of the contracts and plans of work concluded with the ISA. It is unclear, however, how control could be exercised in practice. The current exploration projects were conducted by the governmental body BGR and were not considered high-risk activities.
- 13) In the event the nature and scope of these projects change, inspections will become necessary. Despite the LBEG's legal mandate to conduct inspections, this would exceed its current capacities. It may be necessary to increase LBEG's inspection capacity in the future.
- 14) In April 2019, an initial equipment test is intended to be carried out by the Belgian company DEME (ISA contractor sponsored by Belgium) in the German and Belgian manganese nodule license areas.
- 15) The test will likely be scientifically accompanied by the European research project JPIO Mining Impact II which aims to monitor the environmental impacts of the equipment test in both test areas. A proposal has been submitted for a four-year project. Building on already available baseline data obtained close to the test sites including pre-selected preservation and impact reference zones, further field sampling is planned for April/May 2018 and March 2019 in preparation for the test. A strong focus of the project will be the monitoring of plume development during and directly after the test. Biological monitoring, with particular emphasis on species recolonisation and recovery, is planned until the end of the German license period in 2021.
- 16) The equipment test carried out by DEME will involve 4-5 days of nodule collection with a hydraulic collector device from an area of 300x300 m and is anticipated to create a plume which settles onto the seafloor up to 2-3 km distance from the source. The total test area amounts to 0.09 km² which is the equivalent of 1/2000 of the size of an exploitation area estimated at 170 km²/year. The collector to be tested is 4 m wide and is one-quarter the size of an industrial collector. It is expected to remove 10 cm of sediment at a speed of 0.5 m/s. It will mobilise and discharge ca. 300 tons of sediment per hour. The nodules will be picked up and then returned to the seafloor after ca. 100-m-long transects have been cleared. No material will be brought to the surface.
- 17) According to the LTC Guidelines for Contractors (ISBA/19/LTC/8), an assessment of possible environmental impacts (EIA) must be conducted prior to a.o. testing of collection systems and

equipment. The EIA must be submitted to the Authority one year prior to the beginning of the test, however no guidance exists as to the format for reporting. DEMA, together with the BGR, will submit an EIA to the ISA by 1 April 2018.

- 18) Because the test was not listed as part of the original plan of work for exploration in 2006, the LBEG plans to conduct a supplementary review in cooperation with the BSH/UBA/BfN.
- 19) Access for the public or stakeholders to the EIA document and options for commenting were considered necessary (acc. to ITLOS Advisory Opinion and ESPOO Convention) and desirable by the participants. The practical implementation was the subject of debate, particularly due to time constraints and the unclear legal basis for these activities. A voluntary mechanism to facilitate participation was proposed.

Regulatory concepts to ensure high standards of environmental protection

- **Reflective regulation**

- 20) There is an extreme knowledge gap concerning seabed ecosystems, environmental thresholds and the technologies necessary for both exploitation and monitoring. To address these uncertainties, institutional learning and dynamic, responsive regulation is necessary for effective implementation. It is essential that this regulation is designed to "learn" and continuously review environmental protection measures as scientific knowledge increases. That is meant by "Reflective Regulation"
- 21) The future Exploitation Regulations must include appropriate instruments ensuring reflective regulation.
- 22) The following regulatory mechanisms and measures should be applied: (1) test mining; (2) the obligation of contractors to comply with more stringent requirements as these become necessary (rather than "grandfathering" the mining practices and technologies contained in the original plan of work); (3) the effective involvement of the public; (4) access to information and (5) active scientific knowledge management by ISA.
- 23) The precautionary approach requires that the standards and requirements established at the start of activities correspond with the level of risk and degree of uncertainty associated with potential environmental impacts. As knowledge increases, these standards and requirements can be adjusted accordingly.

- **Environmental Impact Assessment**

- 24) The LTC document ISBA/19/LTC/8 – "Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area" is currently under review.
- 25) All relevant actors should be included in the review process, not merely the contractors.
- 26) The recommended process for assessing environmental impacts has several significant deficits. These include: (1) the lack of public involvement; (2) the lack of environmental thresholds and assessment methodology; (3) the lack of criteria for sufficient baseline description; (4) the lack of valid criteria for the designation of IRZ and PRZs (although these are currently under development at the ISA); and (5) the absence of a clear monitoring concept. The development of minimum standards for a monitoring concept was proposed.

- **Test mining**

- 27) Test mining is considered an essential instrument for overcoming existing knowledge gaps about ecosystems, environmental thresholds and appropriate exploitation technologies, as well as monitoring requirements and techniques.
- 28) Both UNCLOS and the Mining Code use different terminology to describe testing activities. It is therefore necessary to clearly define the terms used to regulate test mining in the Mining Code.
- 29) Moreover, test mining should be established as a prerequisite for an application for the approval of a plan of work for exploitation. Additional regulation of test mining is necessary concerning the procedural requirements for approving and conducting tests, as well as the disclosure of test results.
- 30) The LTC Guidance document for contractors (ISBA/19/LTC/8) requires that the environmental impacts of any disturbance in nodule areas exceeding 10,000 m² of seafloor are assessed prior to the conduct of tests. An assessment methodology and reporting format do not exist.
- 31) The legal requirements for test mining set by international law could be transposed into German law using a specific Verordnung (ordinance) adopted under Article 7 of the Meeresbodenbergbaugesetz (Seabed Mining Act).

- **Level playing field**

- 32) Creating a level playing field is crucial for preventing the emergence of sponsoring States of convenience.
- 33) The standards which must be complied with by all sponsoring States derive from the regulations and recommendations adopted by the ISA. It is therefore essential that ambitious standards for environmental protection are established in the future Exploitation Regulations.
- 34) Germany will aim to further the development of high standards to ensure the best possible ecological safeguards for the deep sea and the oceans.

- **Division of responsibilities between the sponsoring State and the ISA**

- 35) The division of responsibilities between the sponsoring State and ISA should be framed according to the following criteria:
 - the attribution of responsibilities supports the implementation of substantive criteria;
 - the division is clear and each area of responsibility is accountable;
 - the respective organ has the required expertise;
 - the attribution does not interfere with the general competence of the respective organ as foreseen in UNCLOS;
 - the division upholds the ISA's central role as trustee over the Area and its resources on behalf of all mankind;
 - cost-effectiveness is ensured.
- 36) The current draft Exploitation Regulations endow the Secretary General with decision-making powers. This may conflict with the facilitator role foreseen by UNCLOS.
- 37) The LTC plays a strong role in the decision-making process concerning the approval of a plan of work. It was discussed whether the influence of States, namely through the Council, should be strengthened.
- 38) It is problematic that the ISA is endowed with both legislative and executive powers. It should be discussed further whether a clear separation of powers is necessary and how this could be achieved.

- 39) The LTC's workload is likely to increase considerably if exploitation commences. It must be discussed whether additional organs or sub-organs to the LTC would enable the ISA to manage an increased workload.

- **Financial Instruments**

- 40) Hidden subsidies in the institutional financing of the ISA Secretariat must be prevented. Appropriate fees should be paid by the contractors for ISA services.
- 41) Urgent attention must be paid to the development of a comprehensive liability regime.
- 42) Sufficient insurance cover and/or contributions to a liability fund could provide a basis for addressing significant damage. There are drawbacks to these concepts, however. First, liability serves to create an economic incentive to prevent damage. Insurance cover could interfere with this essential function. Second, not all damage to the marine environment can be remediated. In such situations, the availability of financial resources does not help. Third, States have already been reluctant to establish international liability funds in other industries such as oil and gas at least on international level.