



## Information note on the work of the International Seabed Authority relating to Environmental Impact Assessments

in the context of

Revised draft text of an agreement under the United Nations Convention on the Law  
of the Sea on the conservation and sustainable use of marine biological diversity of  
areas beyond national jurisdiction

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### I. Background

This note aims to provide an overview on the work of the International Seabed Authority (ISA) in developing a regime for the assessment of potential environmental impacts of deep-sea mining activities in accordance with the United Nations Convention on the Law of the Sea (the Convention), its 1994 Agreement and ISA rules, regulations and procedures. In this connection, the purpose of this note is also to highlight the practice of ISA on Environmental Impact Assessments (EIAs) in light of the on-going discussions on draft text of an agreement under the Convention on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction.

### II. A brief introduction on the applicable legal framework

In accordance with articles 204 to 206 of the Convention, States have the obligation to assess the potential effects of activities under their jurisdiction or control that may cause substantial pollution of or significant and harmful changes to the marine environment and to make public those assessments. These obligations apply to activities wherever they are conducted, both within and beyond national jurisdiction.

Under Article 145 of the Convention, ISA shall adopt appropriate rules, regulations and procedures for *inter alia*, the prevention, reduction and control of pollution and other hazards to the marine environment, and the protection and conservation of the natural resources of the Area and the prevention of damage to the flora and fauna of the marine environment. In fulfilling this mandate, the Council and Assembly of ISA are supported by expert advice and the recommendations from the Legal and Technical Commission (the Commission). Under Article 165 2(d) and (e), the Commission is empowered to prepare assessments of the environmental implications of activities in the Area and make recommendations to the Council on the protection of the marine environment, taking into account the views of recognized experts.

The 1994 Agreement relating to the Implementation of Part XI of the Convention reaffirms those responsibilities by stating that between the entry into force of the Convention and the approval of the first workplan for exploitation, ISA shall concentrate on, *inter alia*, the “*adoption of rules, regulations and procedures incorporating applicable standards for the protection and preservation of the marine environment*”. Procedurally, it requires that an application for approval of a plan of work shall be accompanied by an assessment of the potential environmental impacts of the proposed activities and by a description of a programme for oceanographic and baseline environmental studies in accordance with relevant ISA rules, regulations and procedures.

Based on Part XI of the Convention and the 1994 Agreement, ISA has developed detailed and substantive provisions, regulations and recommendations related to the assessment of possible environmental impacts arising from exploration for marine minerals in the Area, which define the sort of activities that require EIAs, the form and content of such EIAs when required, as well as guidance on baseline studies, monitoring and reporting, including of the impact on marine biodiversity on the seabed as well as in the water column above it. ISA is also working on draft regulations for exploitation of mineral resources in the Area, which also include detailed and sophisticated provisions relating to EIA, as examined in section V.

**In summary, it is important to recognize that Part XI of the Convention and the 1994 Agreement, together with rules, regulations and procedures that have been developed by ISA since 1994, contain a comprehensive and evolving body of international law governing environmental management of deep sea mineral activities, including processes for EIA.**



### III. Developments on the implementation of EIA obligations

Deep sea mining is a nascent industry. For the past 15 years, the contractors of ISA have undertaken various exploration activities, which include environmental baseline studies. Under the exploration regulations<sup>1</sup>, the contractors are required to undertake environmental baseline studies, taking into account relevant recommendations issued by the Commission, and submit to ISA data and information from environmental baseline studies and other monitoring activities. Over the years, the activities of the contractors have contributed to the growing body of knowledge about deep sea ecosystems. Such environmental data and knowledge provide the scientific basis for the assessment of environmental effects of future exploitation activities. During the 25th Session, the ISA's database

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<sup>1</sup> Exploration regulations are the regulations on prospecting and exploration for polymetallic nodules in the Area, the regulations on prospecting and exploration for polymetallic sulphides in the Area and the regulations on prospecting and exploration for cobalt-rich ferromanganese crusts in the Area. <https://www.isa.org.jm/mining-code/Regulations>

*DeepData* was launched and environmental data collected by the contractors, as part of environmental baseline studies, are now available to the public through ISA website in July 2019.

On the basis of the recommendations of the Commission, several activities in the exploration phase require prior EIAs, including the testing of collection systems and equipment.<sup>2</sup> Two EIAs have been carried out by the German Federal Institute for Geosciences and Natural Resources (BGR) and Global Sea Mineral Resources (GSR) relating to the proposed testing of collector system components in their respective contract areas. Public consultations were organized by the Governments of Belgium and Germany, as sponsoring States of the proposed activities.<sup>3</sup> In addition, the EIAs submitted by BGR and GSR were also posted on ISA website and made available to the general public.

#### **IV. Draft regulations for exploitation of mineral resources in the Area**

The ISA is in the process of developing draft regulations to govern exploitation of mineral resources in the Area, which includes detailed provisions relating to EIA. Under the current draft,<sup>4</sup> the ISA, sponsoring States and Contractors would have the general obligation to promote accountability and transparency in the assessment, evaluation and management of environmental effects from exploitation activities. Contractors are obligated to submit an Environmental Impact Statement (EIS) to document and report the results of an EIA which must be designed to identify, predict, evaluate and mitigate the biophysical, social and other relevant effects of the proposed mining operation.<sup>5</sup> Contractors would also be required to prepare an Environmental Management and Monitoring Plan (EMMP), which would be based on the EIA and EIS.<sup>6</sup>

The draft regulations also provide for the development of standards and guidelines<sup>7</sup>, including environmental standards, which would cover environmental quality objectives, monitoring procedures and mitigation measures.<sup>8</sup>

During the 25th Session, the Commission recommended that guidelines be developed for EIA, EMMP, environmental management systems and baseline data collection as matter of priority and completed by or after July 2020. The Commission also decided to establish two technical working groups to support the development of several environmental guidelines, and recommended processes for the development of standards and guidelines, including opportunities for stakeholder consultation and comments.<sup>9</sup> The Council took note of the recommendations made by the Commission, and emphasized that any standards, draft environmental goals, objectives and principles require discussion and adoption by the Council. The Council also expressed its intention to ensure the thorough and timely development of the regulations, bearing in mind that necessary standards and guidelines should be developed before the adoption of the regulations.<sup>10</sup>

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<sup>2</sup> ISBA/25/LTC/6

<sup>3</sup> ISBA/25/LTC/4

<sup>4</sup> Draft regulation 44, ISBA/25//C/WP.1

<sup>5</sup> Draft regulation 47, *ibid*

<sup>6</sup> Draft regulation 48, *ibid*

<sup>7</sup> Draft regulations 94 & 95, *ibid*

<sup>8</sup> Regulation 45, *ibid*

<sup>9</sup> Section IV (A) and Annex, ISBA/25/C/19/Add.1

<sup>10</sup> Paragraphs 3-6, ISBA/25/C/37

## **V. EIA under the Part XI regime and the revised draft text of a BBNJ agreement (revised draft text on BBNJ)**

Article 21bis of the revised draft text states that the objectives for the EIA section include to “operationalise the provisions of the Convention on EIA, by establishing processes, thresholds and guidelines for conducting and reporting assessments by States”, and article 23(2) of the revised draft text suggests that consultation and/or coordination with relevant legal instruments and frameworks and global bodies is to be ensured.

Many of the elements related to EIAs in Part IV of the revised draft text on BBNJ are also reflected in ISA's evolving regime for EIA, which are based on and designed to operationalise relevant provisions in the Convention and the 1994 Agreement as introduced in Section II of this note. These elements and how they are reflected in ISA's rules, regulations and procedures are summarized in the annex to this note.

## **VI. Conclusion**

ISA has 25 years' of experience in developing and implementing rules, regulations and procedures to ensure effective protection of the marine environment, including the assessment and management of environmental effects of deep sea mining activities in the Area. This is an area where there already exists comprehensive legal framework at the international level as well as institutional arrangements that reflect the delicate balance of interests between all States in the Area. Furthermore, in keeping with the status of the mineral resources of the Area as the common heritage of mankind, these institutional arrangements already provide for the full participation of all States Parties in processes relating to EIA.

Moreover, the experiences of ISA in developing the EIA regime illustrates that for an emerging industry such as deep-sea mineral extraction, the technology to be employed by the industry both to explore and exploit resources and to monitor and mitigate the impacts of such activities is constantly evolving. As such, ISA is promoting an adaptive approach for the development of rules, regulations and procedures, allowing for the consideration of changing technology and incorporation of best environmental practices.

This note attempted to show how the elements in the revised draft text on BBNJ have already been reflected, specified or elaborated in the rules, regulations and procedures developed or being developed by ISA, which will be further supplemented by the environmental standards and guidelines. The elaborate EIA regime developed by ISA builds on highly specialized knowledge and expertise related to activities in the Area. Efforts should be taken to fully preserve the integrity of ISA regime in the future agreement on BBNJ by avoiding unnecessary duplications, which will undermine the relevant framework and the work of the governing organs of ISA. This is critical so as to ensure a coherent and integrated approach to the assessment of environmental impacts of activities in areas beyond national jurisdiction in full consistency with the Convention and the 1994 Agreement.

## Annex. ISA rules, regulations and procedures related to EIA

ISA regulations and recommendations on prospecting and exploration for mineral resources	ISA draft regulations for exploitation of mineral resources
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### Threshold and criteria for EIAs (article 24 of the revised draft BBNJ text)

<ul style="list-style-type: none"> <li>Requirements for EIA are based on potential of an activity for causing serious harm to the marine environment.</li> <li>For exploration of mineral resources in the Area, which involves searching for and analysis of resources, use and testing of recovery systems and equipment, and conducting of environmental, technical and other studies, EIAs are recommended for the following activities: use of sediment disturbance systems that create artificial disturbances and plumes on the sea floor; testing of collection systems and equipment; testing of discharge systems and equipment; drilling activities using on-board drilling rigs; sampling with epibenthic sled, dredge or trawl, or similar technique, in nodule fields, that exceeds 10,000 sq.m; taking of large samples to test land base processes.</li> </ul> <p><i>(Part VI, Recommendations for the guidance of contractors ISBA/25/LTC/6 )</i></p>	<p>EIAs are required for exploitation of mineral resources in the Area, which involves the recovery for commercial purposes of resources in the Area with exclusive rights and the extraction of Minerals therefrom, including the construction and operation of mining, processing and transportation systems in the Area, for the production and marketing of metals, as well as the decommissioning and closure of mining operations.</p> <p><i>(Regulations 46, ISA draft regulations ISBA/25/C/WP.1)</i></p>
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### Cumulative impacts (article 25 of the revised draft BBNJ text)

	<p>The nature and extent of any interactions between various impacts, where they may have cumulative effects, must be considered on both spatial and temporal scales over the lifetime of the mining operation, and such impacts includes cumulative impacts of proposed mining operations, and of known activities in the region.</p> <p><i>(Annex IV, ISA draft regulations ISBA/25/C/WP.1)</i></p>
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### Transboundary Impacts (article 26 of the revised draft BBNJ text)

<ul style="list-style-type: none"> <li>Rights of coastal states in accordance with article 142 and other relevant provisions of the Convention shall not be affected.</li> <li>Any coastal states may notify the Secretary-General of ISA if there are grounds for believing that any activity in the Area is likely to cause serious harm or a threat of a serious harm to the marine environment under its jurisdiction or sovereignty.</li> <li>The Secretary-General of ISA shall act upon the establishment of clear grounds for believing that serious harm to the marine environment is likely to occur.</li> <li>Contractors shall take all measures necessary to avoid serious harm to the marine environment.</li> </ul> <p><i>(Regulation 34, ISBA/19/C/17, Regulations 36, ISBA/16/A/12/Rev.1 and ISBA/18/A/11)</i></p>	<ul style="list-style-type: none"> <li>Nothing in these regulations affects the rights of coastal States in accordance with article 142 and other relevant provisions of the Convention.</li> <li>Contractors shall take all measures necessary to ensure that their activities are conducted so as not to cause serious harm to the marine environment.</li> <li>Any coastal State may notify the Secretary-General in writing if there are grounds for believing that any activity is likely to cause serious harm or a threat of serious harm to its coastline or to the marine environment under its jurisdiction or sovereignty.</li> <li>If the Commission determines that there are clear grounds for believing that serious harm to the Marine Environment is likely to occur, it shall recommend that the Council issue an emergency order.</li> <li>The Secretary-General shall issue a compliance notice if there is breach by a contractor that resulted in serious harm to the marine environment.</li> </ul> <p><i>( Regulation 4, ISBA/25/C/WP.1)</i></p>
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**Areas identified as ecologically or biological significant or vulnerable and Strategic Environmental Assessments (articles 27 and 28 of the revised draft BBNJ text)**

In the context of environmental management of deep sea mining activities, areas or sites in need of protection from potential mining activities are mainly identified and implemented through regional environmental management plans (REMPs), which are instruments of environmental policy of ISA. The first REMP, for the Clarion-Clipperton Fracture Zone, was approved by the Council in 2012, establishing 9 Areas of Particularly Environmental Interests (APEIs) where no mining activities will take place.

*(ISBA/17/LTC/7)*

- A description is required under the template for an EIA, of relevant area-based management tools established under subregional, regional or global processes and the scope, geographical coverage and objectives of such tool. A description of any relevant area-based management measures in adjacent areas under national jurisdiction is also recommended.
- The template for an EIS also requires a description of potential impacts on such area-based management tools, and issues to be addressed, along with proposed management measures and a description of residual impacts.

*(Annex IV, ISA draft regulations ISBA/25/C/WP.1)*

**List of activities (article 29 of the revised draft BBNJ text)**

- A list of activities during the exploration phase that do not require prior EIAs, which include ocean observations and related measurements and sampling for environmental baseline studies.
- The following activities during the exploration phase require prior EIAs, as well as an environmental monitoring programme to be developed and implemented during and after the specific activity:
  - Use of sediment disturbance systems that create artificial disturbances and plumes on the sea floor;
  - Testing of collection systems and equipment;
  - Testing of discharge systems and equipment;
  - Drilling activities using on-board drilling rigs;
  - Sampling with epibenthic sled, dredge or trawl, or similar technique, in nodule fields, that exceeds 10,000 sq.m;
  - Taking of large samples to test land base processes.

*(Part VI, Recommendations for the guidance of contractors ISBA/25/LTC/6 )*

EIAs are required for exploitation of mineral resources in the Area.

*(Regulations 47, ISA draft regulations ISBA/25/C/WP.1)*

**Screening and scoping (articles 30 and 31 of the revised draft BBNJ text)**

An EIA process includes at the outset a screening and scoping process, which identifies and prioritizes the main activities and impacts associated with the potential mining operation, in order to focus the Environmental Impact Statement on the key environmental issues. The environmental impact assessment should include an environmental risk assessment.

*( Regulation 47, ISBA/25/C/WP.1)*

**Impact assessment and evaluation (article 32 of the revised BBNJ draft text)**

- Impact assessment must be based on a properly designed monitoring programme that should be able to detect impacts in time and space and to provide statistically defensible data.
- Environmental impacts are expected to be at the sea floor and also may occur at any discharge depth (if applicable) in the water column. The impact assessment should address impacts on benthic, benthic boundary layer and pelagic environments. The impact assessment should address not only areas directly affected by the activity but also the wider region impacted by seabed-disturbance plumes, the discharge plume and any materials that may be released by transporting the minerals to the ocean surface, which will depend on the technology used.

*(Part VI, Recommendations for the guidance of contractors ISBA/25/LTC/6 )*

- An EIA process includes an impact analysis to describe and predict the nature and extent of the environmental effects of the mining operation.
- In accordance with the recommended template for an EIS, this would include assessments of impacts on the physicochemical, biological and socioeconomic environment, covering the natural extent of any actual or potential impact, as well as the residual impacts that will remain.

*( Regulation 47 and Annex IV, ISBA/25/C/WP.1)*

**Mitigation, prevention and management (article 33 of the revised draft BBNJ text)**

Pursuant to article 145 of the Convention and paragraph 2 of this regulation, each contractor shall take necessary measures to prevent, reduce and control pollution and other hazards to the marine environment arising from its activities in the Area as far as reasonably possible, applying a precautionary approach and best environmental practices.

*( Regulation 31, ISBA/19/C/17, Regulations 33, ISBA/16/A/12/Rev.1 and ISBA/18/A/11)*

- An EIA process identifies measures to manage such effects within acceptable levels, including through the development and preparation of an Environmental Management and Monitoring Plan.
- Mitigation measures should be based on assessment of impacts, and a summary of the Contractor's environmental management system, environmental management and monitoring plan, and mitigation strategies are to be included in the EIS.

*( Regulation 47 and Annex IV, ISBA/25/C/WP.1)*

**Public notification and consultation (article 34 of the revised draft BBNJ text)**

The applicant for a plan of work would need to include descriptions on consultation periods, a list of stakeholders that have been consulted and the associated process, disclosure of information and responses to the key concerns and comments identified by stakeholders.

*(Annex IV, ISBA/25/C/WP.1)*

**Preparation and content of EIS (article 35 of the revised draft BBNJ text)**

The EIS shall be in the form prescribed in annex IV to these regulations and shall be:

- Inclusive of a prior environmental risk assessment;
- Based on the results of the environmental impact assessment;
- In accordance with the objectives and measures of the relevant regional environmental management plan; and
- Prepared in accordance with the applicable Guidelines, Good Industry Practice, Best Available Scientific Evidence, Best Environmental Practices and Best Available Techniques.

**Publication (article 36 of the revised draft BBNJ text)**

Testing of mining components or test-mining may be conducted by contractors individually or collaboratively. For environmental assessments, this test phase should be monitored intensively to allow the prediction of changes to be expected from the development and use of larger-scale commercial systems. When test-mining has already been carried out, even if by another contractor, the knowledge gained through those tests should be made available and applied, where appropriate, to ensure that unanswered questions are resolved by new investigations.

*(Part VI, Recommendations for the guidance of contractors ISBA/25/LTC/6)*

The Authority, sponsoring States and contractors have the general obligation to "promote accountability and transparency in the assessment, evaluation and management of Environmental Effects from Exploitation in the Area, including through the timely release of and access to relevant environmental data and information and opportunities for stakeholder participation".

*( Regulation 44 and Annex IV, ISBA/25/C/WP.1)*

**Consideration and review, decision-making, reporting and monitoring (arts. 37, 38, 39, 40 and 41 of the revised draft BBNJ text)**

- Each contract shall require the contractor to gather environmental baseline data and to establish environmental baselines, against which to assess the likely effects of its programme of activities under the plan of work for exploration on the marine environment and a programme to monitor and report on such effects.
- The contractor shall cooperate with the Authority and the sponsoring State or States in the establishment and implementation of such monitoring programme.

*(Regulation 32, ISBA/19/C/17, Regulations 34, ISBA/16/A/12/Rev.1 and ISBA/18/A/11)*

- The contractor shall prepare an environmental management and monitoring plan, which will set out the commitments and procedures on how the mitigation measures will be implemented, how the effectiveness of such measures will be monitored, what the management responses will be to the monitoring results and what reporting systems will be adopted and followed. The Plan is to be based on the EIA and EIS, prepared in accordance with the relevant regional environmental management plan, and application of guidelines *(Regulation 48, ISBA/25/C/WP.1)*.
- A contractor shall monitor and report annually under regulation 38 (2)(g) on the environmental effects of its activities on the marine environment, and manage all such effects as an integral part of its exploitation activities as set out in the Standards referred to in regulation 45 *(Regulation 51, ISBA/25/C/WP.1)*.