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Report of the Chair of the Legal and Technical Commission on the work of the Commission at the second part of its twenty-ninth session

Addendum

I. Introduction

1. The second part of the twenty-ninth session of the Legal and Technical Commission of the International Seabed Authority was held from 1 to 12 July 2024. A total of 32 members participated in the meetings. Some members could not attend owing to budgetary or health reasons. Malcolm Clark, Se-Jong Ju and Haryo Nugroho contributed to agenda items remotely and by email. As a result of the impacts of Hurricane Beryl in Jamaica, which disrupted and delayed the planned work schedule, the Commission held meetings remotely from 3 to 5 July 2024.

II. Activities of the contractors

A. Report on the status of the contracts for exploration and periodic reviews of the implementation of plans of work for exploration

2. The Commission took note of the status of contracts for exploration as at 31 May 2024, which had not changed much since March.¹ It noted that three contractors had submitted their five-year periodic reports in the first half of 2024, which were currently under review.²

¹ See [ISBA/29/C/5](#).

² China Ocean Mineral Resources Research and Development Association; Government of the Republic of Korea; and Global Sea Mineral Resources NV. Periodic review reports are expected from the following contractors in 2024: Institut français de recherche pour l'exploitation de la mer; Marawa Research and Exploration Ltd.; Ocean Mineral Singapore Pte. Ltd.; Beijing Pioneer Hi-Tech Development Corporation; and Ministry of Natural Resources and Environment of the Russian Federation.



3. Pursuant to paragraph 15 of [ISBA/29/C/5](#), the Commission had developed a five-year periodic review reporting template aimed at ensuring that contractors provided analytical information in a concise manner during the periodic reporting process, such as information related to gap analyses and how such gaps would be bridged in the following reporting cycle.³

Prospecting report

4. On 1 and 9 to 11 July, the Commission considered a prospecting survey report from Argeo Survey AS (Argeo). It noted that, on 28 February 2023, the Secretary-General received notification of the intention from Argeo to conduct a prospecting survey in the northern part of the Mid-Atlantic Ridge pursuant to regulation 4 of the regulations on prospecting and exploration for polymetallic sulphides in the Area.⁴

5. The prospecting activities took place between April and May 2023 and, on 7 December 2023, Argeo submitted a report to the Secretary-General with a preliminary analysis of the data collected.

6. The Commission took note of the key results obtained, including actions undertaken by the prospector to operate in compliance with the United Nations Convention on the Law of the Sea, as well as the rules, regulations and procedures of the Authority, including in relation to the protection and preservation of the marine environment. After consideration of the report and additional responses by the prospector, the Commission noted that the prospector had complied with the regulations on prospecting and exploration for polymetallic sulphides in the Area and that it would submit an annual report in 2024, which would be considered by the Commission at its next session.

B. Implementation of training programmes under plans of work for exploration and allocation of training opportunities

7. On 1 July, the Commission heard a briefing on the status of the contractors' training programmes since part I of its session, held in March 2024. It noted that, since March, a total of 40 training placements had been successfully implemented by 10 contractors pursuant to 12 contracts for exploration. Furthermore, 20 out of 25 training placements offered pursuant to six contracts for exploration had been selected by the Commission for the benefit of candidates from developing member States. The remaining five placements had been recommended for re-advertisement owing to the limited number of applications received. The Commission acknowledged that, in line with the Women in Deep-Sea Research pledge, progress had been made to ensure greater gender balance through the selection of qualified female candidates for 50 per cent of training placements, where possible, and welcomed continued efforts in that regard.

8. On 11 July, the Commission, on the basis of the recommendations of the training subgroup, selected two candidates and alternates for at-sea and post-cruise training offered by the Federal Institute for Geosciences and Natural Resources of Germany pursuant to its exploration contract for polymetallic sulphides.⁵

9. The Commission welcomed information provided by the secretariat on the training expenditure incurred by contractors from 2001 to 2022. It noted the need to

³ [ISBA/29/LTC/7](#).

⁴ [ISBA/16/A/12/Rev.1](#), annex.

⁵ See [ISBA/29/LTC/9](#).

remind contractors to submit disaggregated figures for training costs in their annual reports.

10. The Commission noted that the launch of the International Seabed Authority Capacity Development Alumni Network ⁶ would foster synergies with other programmes and initiatives implemented by the Authority and promote further engagement of former trainees from the contractors' training programme.

C. Annual reports of contractors

11. During the second part of its twenty-ninth session, the Commission considered 30 annual reports on activities carried out by the contractors in 2023, submitted pursuant to section 10 of the standard clauses for exploration contracts. The Commission expressed appreciation to the secretariat for its support in the evaluation of the annual reports.

12. Following extant practice, the Commission set up three working groups to review the following aspects of the annual reports: legal, financial and training; geological and technological; and environmental. It dedicated 5 out of the 10 days of its meetings (2 to 4 and 8 and 9 July) to the consideration of the annual reports within the respective working groups.

13. The Commission noted that some contractors had indicated in their annual reports that they would and in some cases already had sought adjustments to their plans of work and suggested that such adjustments would be necessary owing, inter alia, to the continued absence of a regulatory framework for exploitation and uncertainties in global economic conditions, as well as metal price forecasts. In that connection, the Commission observed that such adjustments would need to be in line with the respective contracts and follow proper consultation with the Authority. While the Commission would continue to monitor the work of those contractors, with the expectation that their work would be carried out in accordance with their respective obligations, the Commission wished to bring the matter to the attention of the Council.

14. The Commission assessed the performance of all contractor activities on the basis of the criteria contained in [ISBA/29/LTC/5](#). Owing to the disruption to and delay in its work caused by Hurricane Beryl, the Commission decided to continue to work in the intersessional period on such assessment and revert to the matter during the first part of the thirtieth session. In line with the procedure described in [ISBA/29/LTC/5](#), the Commission preliminarily identified those contractors that would merit specific attention and requested the secretariat to transmit its concerns in order to consider the matter further in early 2025.

15. In addition to specific comments on each report to be conveyed to the individual contractors by the Secretary-General, the Commission considered the general comments set out below.

Legal, financial and training aspects

16. The Commission noted with satisfaction that the contractors had submitted their annual reports within the prescribed deadline. It noted that, although most contractors had complied with the reporting requirements set out in [ISBA/21/LTC/15](#) and [ISBA/21/LTC/15/Corr.1](#), some had not. Contractors were reminded to comply with the reporting requirements listed in the template, including the strict use of chapter numbering and headings to structure their annual reports. All chapter numbers and

⁶ See www.isa.org.jm/join-the-isa-capacity-development-alumni-network-ican/.

headings must be included, even if no work had been carried out on specific topics in a given year.

17. The Commission reiterated that contractors were required to report correctly and completely on activities in their contract area. The Commission noted with appreciation the extent of detailed information submitted but encouraged contractors to consider doing so in a more concise manner. It was equally noted that some contractors referred to external sources instead of including the relevant information in their annual reports. Annual reports should contain all information required to present specific topics.

18. While most contractors had complied with their plans of work, the Commission noted with concern that expenditure levels for a number of contractors had been far lower than estimated and reminded contractors who had yet to do so to provide explanations on the variance. On the other hand, other contractors had reported much higher expenditure, indicating that they had been updating their exploration work. The Commission noted that that was a positive trend. The Commission also noted with satisfaction that a number of training programmes had been completed in 2023.

Geological and technological aspects

19. The Commission noted that, in general, contractors had performed their activities in accordance with their plans of work. Contractors that had conducted activities beyond their planned undertakings and reported discoveries of new polymetallic sulphide deposits for 2023 were commended, while others who had not performed their activities as projected were encouraged to strategize on how to do so. It was noted that the responses from contractors to the questions related to geological and technological aspects raised in the previous reporting cycle had been satisfactory.

20. The Commission noted that some contractors had not complied with all requirements in section III of [ISBA/21/LTC/15](#) and [ISBA/21/LTC/15/Corr.1](#), (for example, ship track, navigation and bathymetry). It was requested that the delivery of digital data be improved and that it be submitted in line with the DeepData database templates.⁷ Significant progress was observed in the utilization and quality of data provided by various contractors. While there had been notable improvement, the Commission noted that some contractors were still not providing digital data, which remained a critical aspect for comprehensive and efficient data management within the Area. Furthermore, the Commission requested that maps be included in the annual reports to present any spatially related data (such as sampling sites of materials analysed).

21. The Commission noted that few contractors had made significant progress in conducting tests of mining components, while others had not provided information regarding mining technology. The Commission reminded contractors whose contracts were coming to an end to provide information on their strategy to prepare for the exploitation stage.

22. The Commission also noted that several contractors were entering the last five years of their contract and had not performed resource estimation or developed mining equipment and testing protocols.

23. The Commission noted that, with regard to polymetallic nodule exploration activities, there was a large disparity in the degree of progress made among contractors towards commercial production. While some contractors had succeeded in testing mining components at sea, others were still conducting the conceptual design of

⁷ [ISBA/21/LTC/15](#) and [ISBA/21/LTC/15/Corr.1](#), annex IV; see also www.isa.org/jm/exploration-contracts/reporting-templates/ and <https://data.isa.org/jm/isa/map/>.

mining systems. The Commission requested contractors to consider cooperating or collaborating with other contractors in the development of their mining systems.

Environmental aspects

24. The Commission commended the quality and quantity of environmental studies conducted by a number of contractors. It noted an increasing number of comparisons and collaborations within regions or with regard to certain mineral resource types. To that end, contractors were also encouraged to conduct environmental studies outside their contract areas to help to inform the establishment and/or review of regional environmental management plans. However, the Commission reminded contractors that arrangements with other contractors to facilitate cooperation and/or engaging in joint activities did not exempt them from the obligation to carry out their own plans of work and provide information on activities undertaken.

25. The Commission noted that a number of contractors had yet to undertake systematic surface observations of seabirds and pelagic fauna, such as marine mammals, sea turtles and other megafauna (for example, sharks, tuna and sunfish), which might be affected by the mineral resource-related activities of contractors. The Commission further noted that studies in general carried out by contractors on pelagic biological communities (in the water column) were limited.

26. It was also noted that some contractors included large appendices as part of their annual reports. While the Commission appreciated that level of detail where appropriate, it was proposed that contractors submit relevant supplementary data and information in separate files or as hyperlinks.

27. The Commission noted with appreciation that more contractors had undertaken gap analyses to achieve the goals of the five-year programme of activities, in line with the requirements contained in ISBA/19/LTC/8. It noted, however, that a number of them were focused on a particular biological component. The Commission recommended that contractors undertake a comprehensive evaluation across the entire environmental baseline, which should include the study of chemical and physical oceanography, geological properties, fluxes to the sediment, bioturbation and sedimentation rates, and biological communities.

28. The Commission noted, with respect to environmental baseline studies, that adequate levels of sampling effort and replication still needed to be addressed by a number of contractors.

29. The Commission reminded contractors to submit environmental digital data using the designated reporting templates and through the “upload” user interface on the DeepData portal.⁸

30. In general, the definition and level of description in the programme of activities of contractors could be improved, albeit in a concise manner. It noted that, in several cases, contractors had not provided indications of the level of sampling effort and distribution for the following year. The Commission reminded contractors to do so in the annual reporting and periodic review processes.

D. Relinquishment of areas under contracts for exploration for polymetallic sulphides and cobalt-rich ferromanganese crusts

31. On 1 July, the Commission took note of the relinquishment of areas under three contracts for exploration of polymetallic sulphides and cobalt-rich ferromanganese

⁸ Available at www.isa.org.jm/exploration-contracts/reporting-templates and <https://data.isa.org.jm/isa/map>.

crusts, signed between the Authority and the following contractors: Federal Institute for Geosciences and Natural Resources;⁹ Japan Organization for Metals and Energy Security;¹⁰ and China Ocean Mineral Resources Research and Development Association.¹¹

32. The Commission noted that contractors had been complying with the requirements contained in the regulations on exploration and the recommendations on relinquishment¹² and reiterated its invitation to contractors to consider, on a voluntary basis, the ecological characteristics of an area when identifying cells for relinquishment.

III. Applications for approval of plans of work for exploration

33. The Commission continued with its consideration of the two applications submitted by the Government of India. It is noted that the Commission received notification of responses from the applicant on 28 May 2024 to questions posed to the applicant on 7 March 2024.¹³

34. The Commission considered the application for a plan of work for polymetallic sulphides on 3, 4, 10 and 11 July 2024. On 6 July, the Commission formulated additional questions for the applicant. On 10 July, the Commission received a letter from the Secretary-General transmitting responses from the applicant to the questions. On 11 July, the Commission recommended the approval of the application and adopted its report and recommendation to the Council.¹⁴

35. The Commission considered the application for a plan of work for cobalt-rich ferromanganese crusts from 8 to 11 July 2024 and adopted a report for the consideration of the Council.¹⁵

IV. Regulatory activities of the Authority

Development of environmental threshold values

36. On 5 July, the Commission took note of the progress that had been made with respect to the development of environmental threshold values by the subgroups of the intersessional expert group. In view of the need to align progress across the three subgroups effectively and enable discussions on possible interactions between the environmental pressures that might result from mining, an in-person meeting of the intersessional expert group was held in Kingston from 27 to 29 June 2024.

37. The Commission noted that significant progress had been made within the respective groups related to the status of the knowledge base for determining threshold levels, the scope of thresholds, including appropriate indicators, and the approaches to developing threshold values considering levels of uncertainty and confidence.

⁹ See [ISBA/29/C/16](#).

¹⁰ See [ISBA/29/C/18](#).

¹¹ See [ISBA/29/C/17](#).

¹² Regulation 27 of the regulations on prospecting and exploration for polymetallic sulphides in the Area ([ISBA/16/A/12/Rev.1](#), annex), regulation 27 of the regulations on prospecting and exploration for cobalt-rich ferromanganese crusts in the Area ([ISBA/18/A/11](#), annex) and [ISBA/25/LTC/8](#).

¹³ See [ISBA/29/LTC/2](#) and [ISBA/29/LTC/3](#).

¹⁴ [ISBA/29/C/14](#).

¹⁵ [ISBA/29/C/19](#).

38. The Commission highlighted the value of the in-person meeting in advancing the development of threshold values in a timely manner. The draft report of the intersessional expert group was expected to be considered by the Commission at its next meeting during the first part of the thirtieth session. The draft report would be released for stakeholder consultation following its consideration by the Commission.

V. Environmental management planning

Development of a standardized approach for the development, approval and review of regional environmental management plans

39. The Commission, during the first part of the session, had provisionally adopted a standardized procedure for the development, establishment and review of regional environmental management plans, including a template with minimum requirements contained in [ISBA/29/C/10](#). At the same meetings, the Commission had decided to support the practical implementation of the standardized procedure and template by developing recommendations on technical guidance for the Commission to complement the standardized procedure and template, thereby creating a comprehensive package for the development, establishment and review of regional environmental management plans.¹⁶ The Commission had worked extensively to that end since March and had held a virtual meeting on 20 June 2024.

40. In finalizing the draft standardized procedure, template and recommendations, the Commission considered the written comments in the eight written submissions¹⁷ made by member States and observers on an earlier version of the draft standardized procedure and template, contained in [ISBA/27/C/37](#). The Commission's consideration of the written comments is summarized in the annex to the present note. The Commission noted that the written comments reflected the key elements in the proposals submitted to the Council in 2020 on a procedure¹⁸ and template¹⁹ for regional environmental management plans.

41. The Commission further noted that some aspects of the standardized procedure, template and recommendations would need to be aligned with the regulations for exploitation of mineral resources in the Area, when adopted. It was further envisaged that the recommendations would need to be updated to incorporate advancements in scientific knowledge and ensure that they provided appropriate technical guidance to continue to support the regional environmental management plan process. During the meetings, the Commission further reviewed the draft recommendations on 1 and 5 July and, on 10 July, the Commission adopted the recommendations.²⁰

¹⁶ See [ISBA/29/C/7](#).

¹⁷ Available at www.isa.org.jm/protection-of-the-marine-environment/regional-environmental-management-plans/standardized-approach/.

¹⁸ [ISBA/26/C/6](#).

¹⁹ [ISBA/26/C/7](#).

²⁰ [ISBA/29/LTC/8](#).

Annex

Consideration of the written comments on the draft standardized procedure for the development, approval and review of regional environmental management plans (ISBA/27/C/37, annex)

1. In the revision of the draft standardized procedure and template for the development, establishment and review of regional environmental management plans, and through the preparation of the recommendations for the development of such plans in support of the standardized procedure and template, the Commission addressed the majority of the written comments received, agreeing on many, notably the following:

- Indicate that a regional environmental management plan must be in place before the consideration of any plan of work for exploitation in the region concerned.
- Avoid expressing a fixed number of workshops needed to support the development of a regional environmental management plan.
- Content and procedure for creating the regional environmental assessment and data reports should be formalized together with lists of scientific information to be compiled under these reports.
- Relevant experts, stakeholders in the field and representatives of relevant international bodies should be invited to any particular workshop on the basis of an expert and stakeholder mapping exercise.
- Expand upon the criteria for the selection of experts who will be able to participate in the workshops.
- Provide a minimum of 90 days for stakeholder consultation on regional environmental management plans.
- Specify the conditions that may trigger the review of a regional environmental management plan and include consultations during the review and revision of the plan.
- Include the preparation of regular reports on newly available scientific information and monitoring data by the Commission and make them available.
- The review of the regional environmental management plan would possibly lead to the revision of management measures in the plan.
- The template should contain minimum requirements that every regional environmental management plan would need to fulfil.
- Identify the overarching goals and objectives of regional environmental management plans that could be standardized in the template.
- Specify the information needed to describe regional geological, oceanographic and environmental settings, human activities, management measures and description of ecologically important areas in the template.
- Include a section on a regional monitoring programme in the standardized procedure and template.
- Include a list of potential management measures under the regional environmental management plan template (area-based, seasonal/temporal, restrictions on biota, etc.).

- Include consideration of ways to avoid impact from potential mining operations in area-based management tools.
2. The Commission considered that the following written comments would require further consideration and were not incorporated into the standardized procedure, template and recommendations:
- Inclusion of reference to article 149 of the United Nations Convention on the Law of the Sea. A footnote was added in the standardized procedure to note that the concept was still under negotiation in the Council. Therefore, such references were not inserted. If necessary, any references to underwater cultural heritage would need to be aligned with the regulations on exploitation of mineral resources in the Area once they have been adopted.
 - Comment that a regional environmental management plan should serve to manage potential conflicts between different human activities occurring in the same region. The Commission considered that as part of the regional environmental management plan process, cumulative impacts from different activities should be analysed and assessed to inform the establishment of management measures in line with the mandate of the Authority, but that the regional environmental management plans could not manage potential conflict between activities.
 - Comment related to whether standardized procedure and template for regional environmental management plans should be a binding standard. The Commission noted that different views had been expressed in the written submissions received from the member States concerning the nature of regional environmental management plans.
 - Comment related to the possible establishment of expert committees to undertake certain tasks in the regional environmental management plan process that were currently carried out by the Commission. The Commission noted that different views had been expressed in the written submissions received from the member States in that regard. The development and review process of regional environmental management plans, as outlined in the revised standardized procedure, template and recommendations, provided for effective engagement with external experts through workshops and public consultation of draft regional environmental management plans.
 - Comment related to the compilation of all data in the data report and regional environmental assessment in one database (such as DeepData). The data report and regional environmental report are available on the International Seabed Authority website, and links to the datasets compiled are provided in the reports. However, uploading all data to DeepData would require significant resources given the volume and varied format of data and that many data sets are not held by the Authority.
 - Comments related to the inclusion of scenarios for mining activities and designation of mining areas within contract areas, as part of the management measures under the regional environmental management plan. The Commission considered that as the regional environmental management plan needed to be in place before consideration of any application for a plan of work for exploitation in the region concerned and given the uncertainty at present on the nature and extent of mining operations for some mineral resources, it would be challenging to develop and evaluate realistic scenarios.
 - Comment related to the establishment of guidance under the regional environmental management plan on the size and locations of impact and preservation reference zones within contract areas. The Commission considered

that the guidance on impact and preservation reference zones should be set out through relevant rules, regulations, standards and guidelines related to contract areas and not be set out in the regional environmental management plans.

- Comment related to the provision of a compensation mechanism for contractors if establishing area-based management tools within their contract areas would result in the most prospective areas being protected and unavailable for resource development. The Commission considered that there should be further discussion on how contractors could carry out relinquishment if it improved regional environmental management.
