

**Annex II: Status of implementation by the Commission of the relevant high-level actions and associated outputs
for the reporting period 2021-2023**

No. High-level action	Outputs for 2021-2023			
	Description	Responsibility of LTC	Status ¹	Comments
Strategic direction 1: realize the role of the Authority in a global context				
1.5.1 Promote and strengthen dialogue among States, relevant international organizations and stakeholders to foster the use of practical tools for mutual “reasonable regard” in order to accommodate activities in the Area and other activities in the marine environment	Develop practical tools to facilitate the implementation of “reasonable regard”	Associated organ (in partnership with Council)	Ongoing	Some LTC members participated in the second workshop organized by ISA and IPCP on 29-30 October 2018 in collaboration with the Government of Thailand, on submarine cables and activities in the Area with a view of “Developing practical options for the implementation of the ‘due regard and reasonable regard’ obligations under UNCLOS” (ISBA.25/A/2 , para.106). The outcomes of the workshop have been published as ISA Technical Study 24 .
Strategic direction 2: strengthen the regulatory framework for activities in the Area				
2.1.1 Promote the development of rules, regulations and procedures covering all phases of deep sea mining activities	(ii) Facilitate consultation on and a review of available options to be taken into consideration for deciding on the financial model	Coordinating organ (in partnership with FC)	In progress	Since July 2018, and the establishment of an open-ended working group (OEWG) for the development of the payment mechanism regime, a total of

¹ The different status used to assess the progress of each high-level actions and/or associated outputs are regrouped in three categories, namely: (i) “completed”, (ii) “in progress”, and (iii) “on hold”. In order to reflect the different status of completion, particularly the fact that some outputs are recurring, two different sub-categories of progress status have been identified. One relates to the “ongoing” nature of some outputs, understood as requiring ongoing attention and adjustment. The other one relates to the fact that in some cases, because the output is to be reported against a specific reporting period or action, the status of completion is “achieved”.

				seven meetings have been held (April 2023), with an eight meeting to be held in July 2023. During this meeting, the OEWG will also consider the outcomes of intersessional work on two conceptual issues, namely: a mechanism to develop equalization measures and the issue of tax or levy on transfer of rights under a contract for exploitation
	(iii) Review a possible operating framework for the review, development and integration of standards and guidelines	Coordinating organ	In progress	During the 26 th session, the LTC devoted significant amount of time to the development of phase 1 standards and guidelines. A report was also issued by the Chair of the LTC to inform the Council of the general approach used to review stakeholder comments. The LTC anticipates the need for further revisions when the text of the regulations on exploitation of mineral resources is finalised (ISBA/27/C/2). During the 27 th session of the Council in 2022, the Council adopted decision ISBA/27/C/42 on the need for the development of binding environmental thresholds Standards and to set measurable requirements with regards to levels of harm from activities in the Area. The Commission in March 2023 during part I of the 28 th session prepared terms of reference for a scientific and

				technical expert group to advance the development of these Standards. The comments provided by the Council will be considered by the LTC in its July session.
2.1.2 Monitor and keep under review rules, regulations and procedures to ensure that they are consistent with the policies, objectives, criteria, principles and provisions set out in the Convention and the 1994 Agreement	(i) Review and report cases of non-compliance by contractors	Organ responsible	Ongoing	Following its meeting in July 2022, the LTC has observed situations in which a minority of contractors appeared to rely on the work performed in other contract areas. The LTC reminded those contractors of their individual obligations for each contract and plan of work. The LTC also reminded such contractors that those arrangements might have an impact on the implementation of their future programme of work and their ability to fulfil the obligations in their contract area (ISBA/27/C/16/Add.1).
2.2.1 Keep under review rules, regulations and procedures governing mineral exploitation to ensure that they incorporate good industry practice and best practices for environmentally responsible management, in order to promote investment on a level playing field, and that the terms used are clear and consistent	No output against this action	Associated organ	Ongoing	During the 26 th session, the LTC continued to consider the development of phase-one standards and guidelines for activities in the Area as a priority matter. On 8 April, it released the text of seven draft standards and guidelines for stakeholder consultation: (a) Draft guidelines for the establishment of baseline environmental data; (b) Draft standard and guidelines for environmental impact assessments process; (c) Draft guidelines for the preparation of an environmental impact statement;

			<p>(d) Draft guidelines for the preparation of environmental management and monitoring plans; (e) Draft guidelines on tools and techniques for hazard identification and risk assessment; (f) Draft standard and guidelines for the safe management and operation of mining vessels and installations; (g) Draft standard and guidelines for the preparation and implementation of emergency response and contingency plans. The LTC worked intersessionally to review all comments from stakeholders, including those released for stakeholder consultation in 2020, (ISBA/26/C/12/Add.2). In its meetings in September 2021, the LTC further discussed stakeholder comments and concluded its work on the revised text for all 10 phase 1 draft standards and guidelines. The LTC submitted the revised phase 1 draft standards and guidelines for the consideration and approval of the Council together with an overview of general comments raised by stakeholders of a cross-cutting nature, key comments concerning relevant issues which are specific to each of the phase 1 draft standards and guidelines, as well as the general approach to the revisions of the phase 1 draft standards and guidelines taken by</p>
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				the Commission (ISBA/27/C/2). During the 27 th Session, the Council considered these drafts. Differing views were expressed, some members of the Council suggested to revisit the issue of standards and guidelines when the regulations were more stable, whilst others expressed preference for the standards and guidelines as well as the draft regulations to be reviewed in parallel.
Strategic direction 3: protect the marine environment				
3.1.4 Keep under review best environmental practices and monitor developments in best available techniques	No output against this action	Associated organ	ongoing	The LTC considered best environmental practices and best available techniques in developing the standards and guidelines under phase 1. See above. In 2021, the Secretariat commissioned a study on remote monitoring systems in support of inspection and compliance in the Area. The study, amongst other things, identifies remote monitoring technologies and emerging technologies that could be used to obtain and process environmental data via satellites and airplanes as currently done in offshore mining.
3.2.1 Develop regional environmental assessments and management plans for all mineral provinces in the Area where exploration or exploitation is taking place	(iii) Report on progress with the implementation of the Authority's programme for regional environmental management plans	Coordinating organ	Ongoing	The LTC continued making progress in relation to the development of REMPs between 2021 and 2023, including <i>inter alia</i> with the:

				<ul style="list-style-type: none"> • Formulation of the recommendations on a standardized approach for the development, approval and review of regional environmental management plans in the Area, including a template with indicative elements (ISBA/27/C/37), which is being reviewed by the LTC in line with the decision of the Council (ISBA/27/C/44); • Completion of the draft regional environmental management plan for the Area of the northern Mid-Atlantic Ridge with a focus on polymetallic sulphide deposits (ISBA/27/C/38), drawing on the outcomes from three expert workshops and a stakeholder consultation; • Convening of the first workshop on the Development of a Regional Environmental Management Plan (REMP) for the Area of the Indian Ocean, in collaboration with the Ministry of Earth Sciences and National Institute of Ocean Technology, Government of India in May 2023. • Initiation of the preparation for the next workshop on the development of a regional environmental management plan for the Northwest Pacific
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				Ocean, in collaboration with the Government of Japan in February 2024.
	(iv) Prepare regional environmental assessments compiling relevant scientific information in support of the development of regional environmental management plans	Organ responsible	In progress	As part of the preparation for the Workshop on the Development of a Regional Environmental Management Plan (REMP) for the Area of the Indian Ocean, the Secretariat commissioned a study to compile existing scientific information and environmental data related to the geological, oceanographical and biological aspects of the marine environment in the Indian Ocean. This work was undertaken by the Council of Scientific & Industrial Research-National Institute of Oceanography of India , and the draft document was discussed at the workshop that took place from 1-5 May 2022 in Chennai, India. The draft document will be completed based on the workshop discussions and with inputs from workshop participants and other experts.
	(v) Adopt regional environmental management plans for all mineral provinces where exploration and exploitation are taking place	Associated organ	In progress	During the 27 th session, the LTC recommended the draft regional environmental management plan for the Area of the northern Mid-Atlantic Ridge for the consideration of the Council. After consideration, the Council requests the Commission to review the draft after the standardized procedure for the development,

				review and approval of regional environmental management plans and the template have been adopted by the Council, in the light of the Council's comments (ISBA/27/C/44).
3.2.2 Facilitate the implementation, in cooperation with contractors, sponsoring States and other relevant stakeholders, or regional environmental management plans for all mineral provinces in the Area where exploration or exploitation is taking or will take place	No output against this action	Coordinating organ with Secretariat	In progress	In its review, conducted during the 26 th session, of the CCZ EMP, the only plan currently adopted by the Authority, the LTC acknowledged that significant progress was made in achieving the objectives of plan, including through, inter alia, the establishment and review of the network of areas of particular environmental interest, the launch of ISA database DeepData as a central repository of environmental data collected by contractors, the convening of taxonomic standardization workshops and the convening of an expert workshop to support formulation of guidance on the design of impact reference zones and preservation reference zones. The LTC also noted that the EEMP CCZ is underpinned by a long-term perspective, and some objectives and priority actions can be implemented as contractors make further progress in their exploration activities and development of environmental management systems, in particular through the transition towards exploitation activities.

				Nonetheless, the LTC proposed further actions to advance the implementation of the plan, as reported in ISBA/26/C/43 , Table 1.
3.2.3 Keep under review the implementation of the regional environmental management plans, including with regard to the challenges and constraints identified therein, for all mineral provinces in the Area where exploration or exploitation is taking or will take place	(i) Review the implementation of the environmental management plans for the Clarion-Clipperton Fracture Zone	Associate organ	Achieved	During the 26 th session, the LTC made progress on the review of the implementation of EMP CCZ, including updates by a working group on the scientific background and rationale for establishing additional areas of particular environmental interest (ISBA/26/C/12/Add.1). At its virtual meetings held in May 2021, the LTC conducted a review of the implementation of EMP CCZ, as requested by the Council. The review built on a previous review conducted by the LTC in 2016 and identified progress made since the adoption of the plan in 2012, including in relation to the effectiveness of the network of areas of particular environmental interest, as well as further actions to advance the implementation of the plan (ISBA/26/C/12/Add.2).
	(ii) recommend specific measures to address issues identified in the review of regional environmental management plans	Organ responsible	On-going	In a bid to ensure recognition of a need for improvement in representativity, replication and connectivity, which will strengthen the effectiveness of the network of areas of particular environmental interest in the Clarion-Clipperton Zone, the LTC formulated recommendations to the Council on the establishment

				of four additional areas of particular environmental interest to enhance the effectiveness of the network (ISBA/26/C/43). The knowledge gaps identified in the REMPs have informed the ISA MSR Action Plan Activities and new programmes of the Secretariat, such as the Sustainable Seabed Knowledge Initiative (SSKI) launched in 2022
3.2.3 Keep under review the implementation of the regional environmental management plans, including with regard to the challenges and constraints identified therein, for all mineral provinces in the Area where exploration or exploitation is taking or will take place	(iii) Review the effectiveness of existing areas of particular environmental interest and consider the designation of additional areas	Organ responsible	Achieved	https://isa.org.jm/files/files/documents/c12-en.pdf During the 26 th session, the LTC recommended to the Council the establishment of four additional APEIs, in order to enhance the effectiveness of the network of APEIs (ISBA/26/C/43). The designation of four additional APEIs was approved by the Council in December 2021 (ISBA/C/26/58)
3.3.2 Encourage participation by stakeholders in the development and review of the regulatory framework adopted for the protection of the marine environment	(i) Develop procedures and mechanisms to facilitate the consultation of stakeholders	Associated organ	In progress	At part I of the 26 th session, the LTC decided that in light of the interlinkages between a number of the standards and guidelines under consideration, all should be submitted for stakeholder consultations at the same time (ISBA/26/C/12 , para.21). Stakeholder consultation was successfully conducted and the Chair presented its report (ISBA/27/C/2) to provide the Council with a summary of key issues identified by stakeholders, the Commission's general

				approach to the review of stakeholder comments, and the phase 1 standards and guidelines. These standards and guidelines are currently under consideration by the Council.
3.4.1 Establish robust monitoring programmes and methodologies to assess the potential risks that activities in the Area interfere with the ecological balance of the marine environment	(ii) Develop recommendations for the guidance of contractors on the process to be followed for conducting an environmental impact assessment of a mining test	Organ responsible	In progress	<p>During the 27th session, the LTC considered the request of the Council to review the recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area as contained in document ISBA/25/LTC/6/Rev.1 and Corr.1. The LTC set up a working group to work intersessionally on the stakeholder consultation process, as requested by the Council.</p> <p>In July 2022, the LTC considered and adopted a revised process for reviewing the environmental impact statement, and added the relevant explanatory commentaries with a view to providing guidance to the contractors with regard to the stakeholder consultation. The revised document is ISBA/25/LTC/6/Rev.2.</p>
3.4.2 Keep under review the adequacy of the monitoring programmes and methodologies	(i) Review environmental impact assessments for testing collector components in the exploitation areas	Organ responsible	In progress	During March – September 2022, the LTC reviewed an environmental impact statement from Nauru Ocean Resources Inc. (NORI), and requested further information including a separate

				Environmental Management and Monitoring Plan (EMMP), and recommend to the Secretary-General that the environmental impact statement, with all additional information subsequently provided by NORI, be incorporated into the programme of activities under the contract (ISBA/27/C/16/Add.2).
3.5.1 Monitor, through cooperation with contractors, sponsoring States and other stakeholders, pollution and hazards to the marine environment from seabed activities undertaken in the Area	(i) Develop standards and guidelines for monitoring and ensuring the conduct of risk assessments	Associated organ	Achieved	At the 26 th session, the LTC considered the development of phase-one standards and guidelines for activities in the Area. On 8 April, it released the text of seven draft standards and guidelines for stakeholder consultation, which included (d) Draft guidelines for the preparation of environmental management and monitoring plans; (e) Draft guidelines on tools and techniques for hazard identification and risk assessment; (f) Draft standard and guidelines for the safe management and operation of mining vessels and installations; (g) Draft standard and guidelines for the preparation and implementation of emergency response and contingency plans. The LTC worked intersessionally to review all comments from stakeholders. In its meetings in September 2021, the LTC further discussed stakeholder comments and concluded its work on the revised text. The LTC submitted

				them to the Council (ISBA/27/C/2) .
3.5.2 Keep under review regulations, procedures, monitoring programmes and methodologies to prevent, reduce and control pollution and other hazards to the marine environment, as well as interference with the ecological balance of that environment; to prevent damage to the flora and fauna of the marine environment	No output against this action	Organ responsible	Ongoing	At the 26 th session, the LTC considered the development of phase-one standards and guidelines for activities in the Area. On 8 April, it released the text of seven draft standards and guidelines for stakeholder consultation, including (a) Draft guidelines for the establishment of baseline environmental data; (b) Draft standard and guidelines for environmental impact assessments process; (c) Draft guidelines for the preparation of an environmental impact statement. The LTC worked intersessionally to review all comments from stakeholders. In its meetings in September 2021, the LTC further discussed stakeholder comments and concluded its work on the revised text. The LTC submitted them to the Council (ISBA/27/C/2). During the 27 th session, the LTC also considered and reviewed the guidance for contractors on the assessment of possible environmental impacts arising from exploration activities (ISBA/25/LTC/6/Rev.1, ISBA/25/LTC/6/Rev.1/Corr. 1ISBA/25/LTC/6/Rev.2). The LTC also adopted a process for the review of environmental impact statement in relation to

				the testing of mining components or other activities requiring an EIS during exploration. this is contained in section E of ISBA/25/LTC/Rev.2.
3.5.3 Implement the relevant requirements relating to the protection of the marine environment as contained in part XII of the Convention	Compile relevant guidelines on the development and management of marine protected areas beyond national jurisdictions	Associated organ	In progress	<p>Following the request by the Council to develop a standardised approach for the development, approval and review of regional environmental management plans in the Area (ISBA/26/C/10), during the 26th session, the LTC considered a report by one of its working group on the development of a template for regional environmental management plans. The LTC was briefed on the rationale for the inclusion of the suggested elements in the template. The LTC agreed that the template formulated by the working group could also serve as a general template, with indicative elements, to guide the development of future such plans. The LTC recommended to the Council the standardized procedure for development of REMP contained in ISBA/26/C/10. In March 2023, the LTC considered the request of the Council to revise the standardised procedure (ISBA/27/C/44). Following an initial exchange of views, the LTC decided to continue working intersessionally before the meeting in June 2023 (ISBA/28/C/5).</p>

Strategic direction 4: promote and encourage marine scientific research in the Area				
4.5.1 Compile summaries of the status of environmental baseline data	Perform periodic (five-year) reviews of the status of environmental baseline data	Organ responsible	In progress	<ul style="list-style-type: none"> • In the context of the review of the annual reports of contractors, the LTC highlighted the need to better understand how baseline data are building up to a level sufficient to support a robust environmental impact assessment and recommended that in the future contractors collect data bearing in mind that they should support future environmental impact assessment processes (ISBA/26/C/12/Add.1) • In support of the review of the periodic reviews the LTC with support of the Secretariat is following up the progress in the exploration programmes of the contractors and controls the activities related to period reviews including the compliance with the contractors contracts. This informs and strengthens the science-policy interface including through the REMP process.
Strategic direction 5: build capacity for developing States				
5.3.1 Promote, prioritize and implement capacity-building measures in all projects and activities, as far as practicable, implemented by the Authority, alone and in partnership, with an emphasis on the needs identified by developing States	(iii) Develop and implement measures and process that ensure the selection of the best qualified candidates	Coordinating organ	Achieved	From February 2021 to May 2023, a total of 132 trainees were selected by the LTC for 41 training programmes provided by contractors (ISBA/26/LTC/9 ; ISBA/27/LTC/5 ; ISBA/27/LTC/7 and ISBA/28/LTC/4). To facilitate the scheduling demands of contractors the LTC through its

				<p>Training Sub-group works intersessionally to conduct selection. This is reported on at the proceeding session.</p> <p>In October 2022, through Circular/2022/003, the Secretary-General requested that contractors submit their training proposals, as far as is possible, with one year's notice before intended implementation date.</p>
5.4.2 Facilitate the adjustment of contractor training programmes to meet the needs of developing States	(i) Identify, in partnership with contractors, options for the adjustment of their contractors' training programmes	Coordinating organ	In progress	<p>During the 26th session, the LTC identified the need to review the recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration (ISBA/26/C/12/Add.2). In July 2021, the LTC received updates on the progress of work from its training subgroup and requested to continue working with the secretariat to adopt revised recommendations (ISBA/27/C/16/Add.1). The new LTC will progress this matter in 2023.</p>
	(ii) Recommend measures to improve the impact of the contractors' training programmes	Coordinating organ	In progress	As above.
5.4.2 Facilitate the adjustment of contractor training programmes to meet the needs of developing States	(i) Identify, in partnership with contractors, options for the adjustment of their	Coordinating organ	In progress	As above.

	contractors' training programmes			
	(ii) Develop cost-effective measures to improve the delivery of the contractors' training programmes	Coordinating organ	In progress	As above. In October 2022, the Secretariat launched its first ever online Contractors' Training Application Platform and Database which has automated the application and the candidate selection process by the LTC. This will in turn reduce the time and administrative load associated with the vetting and selection processes.
Strategic direction 6: ensure fully integrated participation by developing States				
6.3.1 Identify training opportunities for personnel from developing States in marine science and technology	(iii) Establish and maintain a database of trainees from developing States who have benefited from training opportunities	Coordinating organ	In progress	A database has been established and once a year, the Secretariat informs all ISA members who nationals have benefitted at least one capacity development activity, including the Contractors' Training Programme, of the number, gender and discipline of training. Progress is also being made to establish an Alumni network of former CTP trainees.
6.3.2 Actively promote partnerships with Governments, contractors and international organizations to maintain and develop training opportunities for personnel from developing States	(i) Facilitate the selection of qualified candidates for training programmes under plans of work	Associated organ	Ongoing	As above
	(ii) Report on the implementation of training programmes	Associated organ	Ongoing	See ISBA/26/LTC/9 , ISBA/27/LTC/7 ISBA/28/LTC/4 .
Strategic direction 7: ensure equitable sharing of financial and other economic benefits				

Strategic direction 8: improve the organizational performance of the Authority				
8.2.2 Implement and keep under review working methods and processes of the organs of the Authority	(ii) Issue a report of the Chair of the Legal and Technical Commission on the work of the Commission	Organ responsible	Ongoing	See ISBA/26/C/12/Add.2 ; ISBA/27/C/2 ; ISBA/27/C/16 ; ISBA/27/C/16/Add.1 ; ISBA/27/C/16/Add.2 ; ISBA/28/C/5 .
Strategic direction 9: Commit to transparency				
9.3.2 Develop clear, open and cost-effective working practices and procedures to ensure that the chain of responsibility and accountability is properly managed in the development, implementation and enforcement of technical, environmental, operational, scientific and safety regulations and standards for activities in the Area	(ii) Report on the status of contracts for exploration and related matters, including information on the periodic review of the implementation of approved plans of work for exploration	Associated organ	Ongoing	Based on the standardised process of reviewing periodic reports (ISBA/25/C/19/Add.1 ; ISBA/26/C/12), the Commission took note of the information concerning the periodic review contained in ISBA/27/C/28 and in ISBA/28/C/3 and took note that several periodic reviews were completed by the Secretariat.
	(iii) Encourage contractors to provide detailed programmes of activities for five-year periods that include clear objectives	Associated organ	Ongoing	Contractors have continued to use the template developed by the LTC to prepare periodic reports. The LTC has continued to provide comments on periodic reports for the Secretary-General consideration for his engagement with contractors. The Secretary-General has continued to remind contractors, in the spirit of section F1, ISBA/23/A/13 , to provide programme of activities that set clear objectives that can be monitored and enforced. In some instances, he has requested

				contractors to resubmit revised proposed programmes that had initially failed to meet this requirement.
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