

# IMPLEMENTATION AND REVIEW OF THE STRATEGIC PLAN 2019–2025



# 04





The Strategic Plan of ISA for the period 2019–2023 was developed in consultation with ISA Members and other relevant stakeholders. It was adopted by the Assembly at its 24th session in July 2018<sup>9</sup> and subsequently extended until 2025.<sup>10</sup> The Strategic Plan includes nine strategic directions, which have guided the work of ISA since 2019. Actions necessary to achieve the objectives of the Strategic Plan and corresponding expected outputs have been

defined in the High-Level Action Plan adopted by the Assembly at its 25th session in July 2019. During its 28th session held in July 2023, the Assembly decided it shall be extended to 2025 in line with the extension of the Strategic Plan.<sup>11</sup>

This Chapter presents the progress made under each strategic direction between July 2023 and June 2024.

## SD 1. Realize the role of ISA in a global context

### Contribution of ISA to the 2030 Agenda for Sustainable Development

ISA is committed to ensuring that its programmes and initiatives contribute to the 2030 Agenda for Sustainable Development and its constituent SDGs, particularly SDG 14 (Life below water). In 2021, the ISA Secretary-General commissioned an independent report to review the contribution of ISA to the achievement of the 2030 Agenda

for Sustainable Development. Documentary evidence and interviews with experts and individuals from a broad range of backgrounds representing the full spectrum of ISA stakeholders concluded that ISA contributes meaningfully to 12 of the 17 SDGs (Figure 5).



<sup>9</sup> ISA. 2018. Decision of the Assembly of the International Seabed Authority relating to the strategic plan of the Authority for the period 2019–2023 (ISBA/24/A/10).

<sup>10</sup> ISA. 2023. Decision of the Assembly of the International Seabed Authority on the second periodic review of the international regime of the Area pursuant to article 154 of the United Nations Convention on the Law of the Sea (ISBA/28/A/16).

<sup>11</sup> ISA. 2019. Decision of the Assembly of the International Seabed Authority relating to the implementation of the strategic plan for the Authority for the period 2019–2023 (ISBA/25/A/15).



**Figure 5.** ISA currently contributes to 12 of the 17 SDGs through the implementation of its mandate



## Participation in the Intergovernmental Conference for the conclusion of an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction

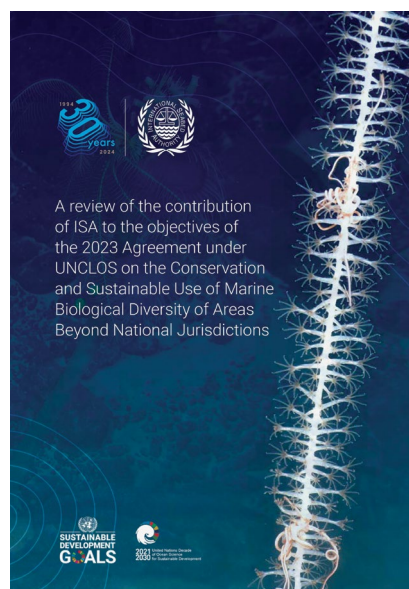
The key role of ISA in advancing the 2030 Agenda for Sustainable Development was also underscored at a high-level event co-organized by Argentina, Bangladesh and ISA on the margins of the SDG Summit in New York on 19 September 2023. Recognizing the central role of science in the full achievement of the 2030 Agenda for Sustainable Development, the Secretary-General launched a global Call to Action to ensure the stewardship of the Area and its resources for the benefit of all humanity through investment in deep-sea science, technology and innovation. The Call to Action was particularly aimed at promoting collective action around four key priorities: (i) increasing investments in science and technology, (ii) aligning relevant research agendas at various levels with the ISA MSR Action Plan as the global deep-sea research agenda, (iii) promoting deep-sea literacy and (iv) leveraging ISA's experience in support of the implementation of the 2023 Agreement.

As of June 2024, the call for action has been signed by nine Members of ISA, including the President of Nauru, the Prime Minister of the Cook Islands, and the Ministers of Foreign Affairs of Argentina, Bangladesh, Malta, Mauritius, Norway, Singapore and Tonga.

In its resolution 72/249 of 24 December 2017, the UN General Assembly decided to convene an Intergovernmental Conference (IGC) to conclude an international legally binding instrument under UNCLOS on the conservation and sustainable use of marine biological diversity in ABNJ. Member States agreed that the implementing agreement should address, together and as a whole, four elements of a “package deal” agreed upon in 2011, namely: i) marine genetic resources, including questions on the sharing of benefits, ii) measures such as area-based management tools, including marine protected areas, iii) environmental impact assessments (EIA) and iv) capacity-building and the transfer of marine technology.

The ISA Secretariat has participated in the IGC since 2017, contributing statements at all substantive sessions, in line with regular requests of its Member States that encouraged the Secretariat to represent the perspectives of ISA and its mandate during discussions.<sup>12</sup> At the resumed fifth session of the IGC in 2023 and the invitation by the IGC President, H.E. Ms. Rena Lee of Singapore, the Secretary-General submitted a statement on behalf of ISA.<sup>13</sup>

In 2024, in order to identify the contribution ISA can make to the implementation of the 2023 Agreement, the Secretary-General commissioned a report on how the experience gained over the 30 years of existence of ISA could be leveraged in support of the collective implementation and achievement of the objectives set forth in the 2023 Agreement.<sup>14</sup> To support this process, the Secretary-General established a Group of Experts to provide expert input and strategic advice (**Box 1**).



<sup>12</sup> See ISA. 2018. Statement by the President of the Assembly of the International Seabed Authority on the work of the Assembly at its twenty-fourth session ([ISBA/24/A/12](https://www.isa.org/jm/wp-content/uploads/2018/12/ISA_President_Statement_24th_Session.pdf)). ISA. 2019. Statement by the President on the work of the Assembly of the International Seabed Authority at its twenty-fifth session ([ISBA/25/A/17](https://www.isa.org/jm/wp-content/uploads/2019/12/ISA_President_Statement_25th_Session.pdf)).

<sup>13</sup> ISA. 2023. Statement by the ISA Secretary-General at the resumed fifth session of the Intergovernmental conference for the conclusion of an internationally legally binding instrument on the conservation and sustainable use of biological diversity in areas beyond national jurisdiction. Available at: [https://www.isa.org/jm/wp-content/uploads/2023/03/ISA\\_Secretary-General\\_Statement\\_IGC5\\_resumed\\_online\\_version-27.02.23.pdf](https://www.isa.org/jm/wp-content/uploads/2023/03/ISA_Secretary-General_Statement_IGC5_resumed_online_version-27.02.23.pdf).

<sup>14</sup> ISA. 2024. A review of the contribution of the International Seabed Authority to the implementation of the objectives of the 2023 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. Available at: [https://www.isa.org/jm/wp-content/uploads/2024/06/The\\_contribution\\_of\\_ISA\\_to\\_the\\_BBNJ\\_objectives.pdf](https://www.isa.org/jm/wp-content/uploads/2024/06/The_contribution_of_ISA_to_the_BBNJ_objectives.pdf).

**Box 1. Group of experts to assist in the preparation of the report on the contribution of ISA to the objectives of the 2023 Agreement under UNCLOS**



**Mrs. Noorah Mohammed Algethami**  
Legal Consultant, Ministry of Foreign Affairs, Saudi Arabia



**Dr. Gemma Andreone**  
Director of the Institute of International Legal Studies of the National Research Council



**Ms. Azela Arumpac-Marte**  
Legal Advisor, Permanent Mission of the Philippines to the UN and ISA



**Ms. Asha Challenger**  
Legal Adviser, Permanent Mission of Antigua and Barbuda to the UN



**H.E. Ms. Angella Comfort**  
Permanent Representative of Jamaica to ISA



**Mr. Zhang Dan**  
Research Associate, China Institute for Marine Affairs, China



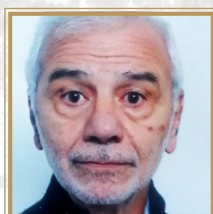
**Mr. Alan Evans**  
Head of Policy Unit, UK National Ocean Center



**Ms. Khalilah Hackman**  
Minister Counsellor, Permanent Mission of Ghana to the UN



**Prof. James Harrison**  
University of Edinburgh



**Mr. Elie Jarmache**  
Law of the Sea Expert, former LTC member, France



**Mr. Bartosz Jasinski**  
Expert, Team for Oceanic Research Department of Geological Supervision and Raw Materials Policy, Ministry of Climate and Environment, Poland



**H.E. Mr. Michael Kanu**  
Permanent Representative of Sierra Leone to the UN and ISA



**Mrs. Youna Lyon**  
Marine Policy Expert, Advisory Committee on the Protection of the Sea



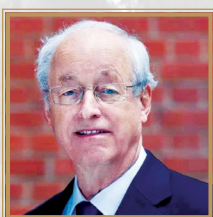
**Ms. Fernanda Millicay**  
Minister, Argentina MFA; Former Permanent Representative of Argentina to the IMO



**Mr. Kentaro Nishimoto**  
Associate Professor of International Law, Tohoku University, Japan



**Prof. S. Shanthakumar**  
Director, Gujarat National Law University, India



**Prof. Rudiger Wolfrum**  
Former Judge, ITLOS, Germany



**Ms. Yulia Y. Zhuzhginova**  
Third Secretary, Ministry of Foreign Affairs of the Russian Federation



## Cooperation with Member States



In May 2024, the Secretary-General undertook an official visit to Antigua and Barbuda. He met with the Prime Minister, the Honourable Gaston Browne as well as the H.E Senator the Honourable Samantha Marshall, Minister of State in the Ministry of Health, Wellness, the Environment and Social Transformation. During the Fourth international conference on SIDS, Antigua and Barbuda co-hosted two side events organized by ISA. One entitled "Leveraging SIDS knowledge, technology, innovation and capacity to advance deep-sea research for the benefit of humanity" and another "Leveraging partnerships and transformative actions to advance women's empowerment and leadership in deep-sea research to support inclusive and sustainable ocean governance." On 24 May, the Secretary-General signed a letter of cooperation with the Five Islands Campus to expand opportunities for active participation of Caribbean nationals in MSR programmes through the existing Center for Excellence in Oceanography and the Blue Economy based in Antigua and Barbuda.



On 20 May 2024, during the official celebration of the National Day of Cameroon, the President of Cameroon invited the ISA Secretary-General to attend the celebrations as a guest of honour. This visit was also the opportunity for the Secretary-General to meet with the Minister for External Relations, the Minister of Mines, Industry and Technology Development, the Minister for Environment, Nature Protection and Sustainable Development, the Minister for Scientific Research and Innovation, the Minister of Defence, the Minister of Transport and the Minister of Fisheries and Animal Industries of the Republic of Cameroon. The work of ISA was discussed at length, and future areas of cooperation were identified. On 17 May 2024, the Secretary-General and the Director of the IRIC signed the memorandum of understanding on the establishment of the African Academy for Deep-Sea Diplomacy (ADSEA), approved during the 28th session of the Assembly.



In June 2024, the Secretary-General was invited by the Chinese Institute of Marine Affairs and SIO to provide an update on the work of ISA at the 7th International Symposium on Scientific and Legal Aspects of the Regimes of the Continental Shelf and the Area in Qingdao. On that occasion, the Secretary-General also signed a letter of cooperation with SIO. During the visit, the Secretary-General met with high-level officials of China, including Mr. Sun Shuxian, Vice Minister for Natural Resources, Assistant Minister Miao Deyu of the Ministry of Foreign Affairs, and Mr. Gou Haibo, Deputy Director-General of the Department of Treaty and Law of the Ministry of Foreign Affairs. The visit was an opportunity to also meet some contractors sponsored by China, Beijing Pioneer Hi-Tech Development Corporation and China Minmetals Corporation, as well as the Chinese representatives of the ISA-China Joint Training and Research Centre (JTRC).



During the 2024 Ocean Decade Conference held in Barcelona, Spain, in April, the Secretariat organized a satellite event in collaboration with the governments of Argentina, Bangladesh and the Cook Islands. The Prime Minister of the Cook Islands, H.E. Mark Brown, opened the event. Two knowledge institutes, the National Oceanography Centre, UK, and the National Marine Biodiversity Institute of the Republic of Korea (MABIK), also supported the event. The participants discussed progress made by ISA and its partners in advancing scientific research priorities identified by ISA Members for the sustainable management of the Area and its resources, identified future areas of action and exchanged best practices. The Government of Argentina, as champions of the ISA MSR Action Plan, reiterated the call for action for more investment in science launched by the Secretary-General in September 2023.



In January 2024, the Secretary-General and the President of the NIOF of Egypt signed a memorandum of understanding establishing the ISA-Egypt JTRC in Alexandria, Egypt. This significant event marked the first visit of any ISA Secretary-General to Egypt, as well as the start of a new era of collaboration and development in marine science and technology in the Middle East and Africa. The ISA-Egypt JTRC will enable ISA and its Member States to cooperate, promote training and capacity development opportunities in deep-sea-related activities, stimulate and advance the MSR in developing States, foster cooperation in MSR and technological development, including, where feasible and appropriate, the transfer of marine technology. It is important to note the ISA-Egypt JTRC will also lead the way in developing and implementing specific activities and programmes to advance women's



In February 2024, a Parliament group from Germany visited the Secretariat to discuss matters concerning raw material extraction in the deep sea and marine protection. The work of ISA in relation to the development of the draft exploitation regulations, REMPs and MSR was also discussed.





In February 2024, the Secretary-General made an official visit to Japan during the international workshop for the development of the REMP for the Northwest Pacific.

In Tokyo, the Secretary-General met with H.E. Ms. Yōko Kamikawa, Minister for Foreign Affairs of Japan, Mr. Shin Hosaka, Vice-Minister for International Affairs in the Ministry of Economy, Trade and Industry, Dr. Hiroyuki Yamato, President of the Japan Agency for Marine-Earth Science and Technology (JOGMEC), Mr. Hiromasa Oba, President of Deep Ocean Resources Development Co. Ltd. (DORD) and Mr. Nobuyuki Aoyama, Chairman of the Ocean Mining Industry Promotion Round-table.

In Kobe, the Secretary-General also met with Mr. Yasunaga Bo, President of the Assembly of Kobe City, and Prof. Masato Fujisawa, President of Kobe University, where he joined an expert round-table discussion on the interaction between the mandate and responsibilities of ISA and the 2023 Agreement adopted under UNCLOS for the conservation and sustainable use of biodiversity beyond national jurisdiction. He also met Dr. Hiroko Sugioka, Director of the KOBEC with which the ISA Secretariat signed a letter of cooperation to strengthen partnership in the field of marine education and research.



In November 2023, the President of MABIK, a Board member of the ISA Partnership Fund (ISAPF), visited ISA and met with the Secretary-General to discuss scaling up the collaboration

between ISA and MABIK. The Secretariat continued to advance its collaboration under the letter of cooperation signed in 2022 with the Ministry of Oceans and Fisheries of the Republic of Korea (MOF-ROK), organizing two SSKI in collaboration with the MABIK. In October 2023, a workshop on enhancing biological data sharing to advance deep-sea taxonomy was organized in Ho Chi Minh City, Viet Nam. In June 2024, a workshop was organized in Seoul, Republic of Korea, for the development of a scientific approach for identifying key and representative deep-sea taxa in support of the protection of the marine environment in the Area.



In March 2024, the Secretary-General hosted a visit by Dr. Grace Naledi Pandor, Minister of International Relations and Cooperation of South Africa, to the Secretariat. This visit was

an opportunity to discuss the support of South Africa to the mandate and work of ISA as well as future areas of cooperation in support of ISA's efforts in science and technology transfer, particularly towards developing States and for advancing women's empowerment in ocean affairs.



In June 2024, the Government of Italy and the ISA Secretariat organized a symposium, "Blue economy and the role of critical raw materials in the

development of sustainable ocean economies: challenges, opportunities and innovations." This was an opportunity to promote science, technology, innovation and capacity development through collaboration and partnerships at national, regional and global levels for the development of sustainable blue economies. The event brought together institutional actors, researchers, private companies and other interested stakeholders to discuss the relevance of deep-seabed mineral resources for a carbon-neutral future, sustainable blue economy and the technological solutions that allow harnessing the mineral resources of the Area while minimizing environmental harm.



In October 2023, ISA and the Government of the United Republic of Tanzania convened the sixth annual contractors meeting in Dar es Salaam.

This was an opportunity for the ISA Secretariat to update contractors on organizational priorities, related activities and issues relating to their obligations. The meeting was also an opportunity for contractors to share information. The Secretary-General was invited to attend the 2023 Tanzania Mining and Investment Forum, where he joined a panel to discuss "Critical minerals and rare earth elements powering the green energy transition."



In October 2023, the Secretary-General met with Ms. Maria Angela A. Ponce, Assistant Secretary, Maritime and Ocean Affairs, Department of Foreign Affairs, Hon. Charles C. José, Acting Secretary of Foreign Affairs and Ambassador Antonio M. Lagdameo, Permanent Representative of the Republic of the Philippines to ISA to discuss future areas of collaboration on the margins of the ISA-Philippines national capacity development workshop on deep-sea related matters held in Manila, Philippines.

The Secretary-General also held meetings with Senator Loren Legarda and Secretary Maria Antonia Yulo Loyzaga from the Department of Energy and Natural Resources and Secretary Raphael Lotilla from the Department of Energy to discuss blue economy-related matters. The Secretary-General also delivered a lecture entitled "Deep seabed mining: opportunities and challenges" at the University of the Philippines.

## Cooperation with the UN and UN-Oceans

The ISA Secretariat collaborates with the UN and its specialized agencies, funds and programmes on matters of mutual interest, including through UN-Oceans. Over the reporting period, ISA worked with the International Maritime Organization (IMO), the International Labour Organization (ILO), the United Nations Division for Ocean Affairs and the Law of the Sea (UN DOALOS), the United Nations Department of Economic and Social Affairs (UN DESA), the United Nations Environmental Programme (UNEP), the Secretariat of the Convention on Biological Diversity, the Food and Agriculture Organization (FAO), the United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP), the Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO), the United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS) and the United Nations Office on Drugs and Crime (UNODC) (Chapter 2 and Figure 4). This ongoing collaboration provides a platform for ensuring more effective cooperation in the conservation and sustainable use of marine resources, consistent with UNCLOS and international

law. The work carried out by ISA in this regard is shared annually through the information provided by the Secretary-General to the meeting of the States Parties to UNCLOS and his statement to the UN General Assembly.<sup>15</sup>

Finally, ISA contributes to the report of the UN Secretary-General on Ocean Affairs and the Law of the Sea and the Resolution on Oceans and the Law of the Sea (**Box 2**).<sup>16</sup>

The Secretariat also continued to engage actively in the work of UN-Oceans and participated in a series of technical meetings, including a meeting of principals, to discuss cooperation and coordination in relation to the 2023 Agreement under the UNCLOS on the conservation and sustainable use of marine biological diversity of ABNJ. At this meeting, the Secretary-General highlighted areas where the contribution of ISA could bring significant added value to support the implementation of the 2023 Agreement, building on 30 years of experience in effectively regulating and managing the common heritage of humankind.

### Box 2. Extract of Resolution A/RES/78/69 on Oceans and the Law of the Sea

Reaffirming the importance of the work of the [ISA] in accordance with the [UNCLOS] and the [1994 Agreement]:

59. Reiterates the importance of the ongoing elaboration and standardization by [ISA], pursuant to article 145 of the [UNCLOS], of rules, regulations and procedures to ensure the effective protection of the marine environment, for, inter alia, the protection and conservation of the natural resources of the Area and for the prevention of damage to the flora and fauna of the marine environment from harmful effects that may arise from activities in the Area;
60. Welcomes the progress of the work of [ISA] on draft regulations for exploitation of mineral resources in the Area, but also notes the impact of the coronavirus disease (COVID-19) on the meetings within its premises in 2020 and 2021, and in this regard encourages [ISA] to continue its work on the draft regulations as a matter of priority and to provide sufficient opportunities and time for substantive consideration and discussion of the draft regulations as well as the relevant standards and guidelines, and emphasizes the ongoing need for openness and transparency and for the draft regulations to ensure that any exploitation activities would take place with the effective protection of the marine environment in accordance with [UNCLOS];
61. Notes the adoption by the Council of decisions ISBA/28/C/9, ISBA/28/C/24 and ISBA/28/C/25 at its twenty-eighth session;
62. Also notes the decisions adopted to create the position of interim Director General of the Enterprise and the supplementary budget for the period 2023–2024 to cover the costs associated with the establishment of the position;
70. Also notes [ISA's] database (DeepData), which aims to serve as the principal repository of all data and information relating to activities in the Area.

15 ISA. 2023. Statements of the Secretary-General: 78th Session of the United Nations General Assembly, Agenda Item 75 (a) Oceans and the Law of the Sea. Available at: [https://www.isa.org.jm/wp-content/uploads/2023/12/ISA\\_Secretary-General\\_Statement\\_UNGA\\_78.pdf](https://www.isa.org.jm/wp-content/uploads/2023/12/ISA_Secretary-General_Statement_UNGA_78.pdf).

16 See United Nations. 2023. Oceans and the law of the sea: resolution of the General Assembly (A/RES/78/69).

## Strategic alliances and partnerships with global, regional and sub-regional organizations

ISA has established strategic alliances and partnerships with many global, regional and sub-regional organizations on matters of mutual interest in compliance with UNCLOS and international law.



On 29-30 August 2022, the United Nations Office on Drugs and Crime's Global Maritime Crime Programme and ISA jointly organized an expert group meeting on enforcement-related issues in deep-sea mining. The meeting was held in a hybrid format in Bali, Indonesia. Participants discussed enforcement issues associated with the specific roles and responsibilities of ISA, contractors, sponsoring States and flag states and identified areas of cooperation between the two organizations. The two organizations also jointly organized an information session on the margins of the fifth workshop under the Abyssal Initiative for Blue Growth in Tonga in June 2023.



In September 2023, the Secretariat and the UN DOALOS organized a workshop to support the regular process for global reporting and assessment of the state of the marine environment, including socioeconomic aspects.



In light of the mandate of ISA under UNCLOS, Article 146 and recommendations of the Legal and Technical Commission (LTC), the secretariats of ISA and ILO prepared a memorandum of understanding to formalize their cooperation. This is to ensure that ISA is able to draw on the expertise and advice of ILO and apply the highest international standards on human health and safety and conditions of work on-board vessels used for activities in the Area. The Council approved the Agreement of cooperation during the Part II of the 28th session.



The secretariats of ISA and FAO have been involved in a dialogue to formalize the cooperation between the two organizations in relation to research and monitoring of the spatial interaction of fisheries with activities in the Area, the development of REMPs, MSR and exchange of data. The Council approved the signing of a memorandum of understanding during Part I of the 29th session.



The Council of ISA approved a memorandum of understanding between ISA and the African Union to provide a framework for the implementation of the legal regime governing activities in the Area in the interest of the African Union Member States.

Discussions between the Secretariat and the African Union Commission are progressing to identify an appropriate time in 2024 to proceed with its signature.





The Secretariat has been closely following the work of the Commission for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Commission). The two organizations signed a memorandum of understanding in June 2011 to formalize their cooperation in areas of mutual interest while recognizing their respective mandates.

Based on a request from the OSPAR Commission for observations on a revised NACES nomination proforma, the ISA Secretariat formulated observations and forwarded them to the OSPAR Commission on 9 June 2023. The ISA Secretariat participated in the sixth meeting under the Collective Arrangement of OSPAR in London on 7 and 8 June 2023 to exchange information on ongoing initiatives of relevance to the collective arrangement. The ISA Secretariat also participated in the meeting of the OSPAR Commission in Oslo from 26 to 30 June 2023.

On 17 November 2023 and 18 January 2024, the ISA Secretariat participated in meetings of an Ad Hoc Working Group on Amendments to the OSPAR Convention, which related to deep-sea mining.

On 17 November 2023, the secretariats of ISA and OSPAR held a bilateral meeting to discuss cooperation, and it was agreed to continue this collaboration to ensure proper consultation and coordination.

On 21 and 22 February 2024, the ISA Secretariat participated in the Collective Arrangement meeting in London.

During the week of 15 to 19 April 2024, the Secretariat participated in the meeting of the Environmental Impacts of Human Activities' Committee in Madrid, when deep-sea mining was discussed. The Secretariat repeated its wish to follow the Committee's task force on deep-sea mining closely.

The OSPAR Commission has been invited to attend workshops and stakeholder consultations with respect to the development of REMPs. Also, the OSPAR Commission has been approached by the ISA several times to ensure alignment of discussions on a possible extension of the geographical scope of the draft REMP for the mid-Atlantic Ridge and for OSPAR to join this global process.

During the first part of the twenty-ninth session, the Secretary-General of the ISA presented a report to the Council on the cooperation between the two secretariats.<sup>17</sup> The report had been requested by the Assembly of the ISA during the second part of the twenty-ninth session. After the presentation of the report, some delegations proposed that a framework for coordination with the OSPAR Commission be developed. The Council took note of the report and requested the Secretary-General to provide regular updates on the status of cooperation between the two organizations.



The Secretariat participates in and regularly collaborates with the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP). GESAMP is a group of independent scientific experts established in 1969 to advise the UN System organizations on scientific aspects of marine environmental protection. In September 2023, ISA hosted, for the first time, the 50th session of GESAMP at its headquarters in Kingston.

17 ISA. 2024. Status of consultations between the International Seabed Authority and the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic: Report of the Secretary-General (ISBA/29/C/6).

## Gender equality and women's empowerment

As one of the International Gender Champions since March 2020, the ISA Secretary-General is part of a network of leaders and decision makers determined to break down gender barriers and make gender equality a reality in their spheres of influence.

In addition to the International Gender Champions Gender-Based Violence Pledge and the Panel Parity Pledge, the Secretary-General of ISA also pledged to:

- Advance women's empowerment and leadership in MSR, particularly deep-sea research focusing on designing and implementing tailored activities and programmes to address the specific challenges faced by women scientists from developing States, especially least developed countries (LDCs), landlocked developing countries (LLDCs) and Small Island Developing States (SIDS).
- Ensure that the ISA Secretariat maintains gender parity, including at the most senior levels (P5 and above) and engages in all efforts to promote gender equality and the leadership of women in the development and implementation of international law of the sea.

Both pledges have shown ongoing progress. Further, different steps and activities have been carried out throughout the reporting period to continue to advance women's empowerment and leadership, particularly through significant efforts made towards enhancing the role and participation of women from developing States in deep-sea research, including through tailored capacity-building and capacity development activities. Customized initiatives such as the Women in Deep-Sea



Research project (WIDSR), a collaboration with UN-OHRLLS launched in 2021, the Impact Group on Research and Oceans or the IGROW launched within the International Gender Champions Network in 2022 and S.H.E., the mentoring programme launched in 2023 under the WIDSR project, have all contributed to addressing unique challenges faced by female scientists from developing countries, including LDCs, LLDCs and SIDS. Efforts continue to ensure the active participation of women in exploration cruises, with more contractors pledging to allocate 50 per cent of training opportunities to qualified women from developing countries. Efforts are under way to create an operational framework for enabling the safe participation of women in exploration cruises.

As of June 2024, 57 per cent of ISA staff members, including 50 per cent of the senior management team, are women. Several measures have been put in place to facilitate women's professional engagement without compromising their essential family roles. In that regard, the Secretariat has successfully implemented different policies that provide women a number of benefits to support them in their family and professional roles since 2020, such as a policy on breastfeeding that provides the necessary support for nursing mothers, including during duty travel.<sup>18</sup>



<sup>18</sup> ISA. 2020. Policy on breastfeeding (ISBA/ST/SGB/2020/3).

## SD 2. Strengthen the regulatory framework for activities in the Area

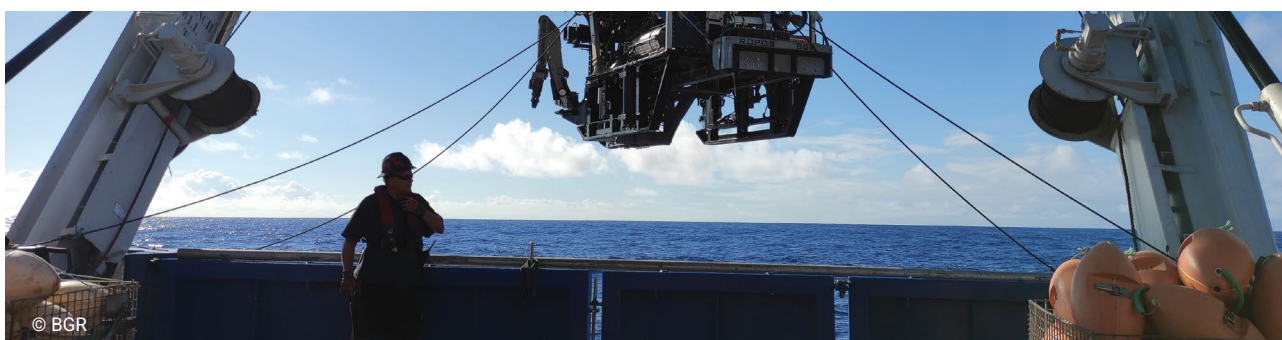
The fundamental right of all States to carry out activities in the Area is guaranteed by Part XI of UNCLOS and the 1994 Agreement. The basic conditions for prospecting, exploration and exploitation are prescribed in Annex III of UNCLOS. In addition, ISA is mandated by the 1994 Agreement to adopt the necessary rules, regulations and procedures to facilitate activities in the Area as exploration activities progress.

The priority for ISA was to develop a comprehensive set of rules, regulations and procedures for prospecting and exploration for mineral resources in the Area. ISA has adopted three sets of exploration regulations for the prospecting and exploration for polymetallic nodules (PMN) (2000<sup>19</sup> and revised in 2013),<sup>20</sup> polymetallic sulphides (PMS) (2010),<sup>21</sup> cobalt-rich ferromanganese crusts (CFC) (2012)<sup>22</sup> (Figure 6). These regulations are supplemented by a series of recommendations for the guidance of contractors issued by the LTC and updated periodically (Box 3).

Since 2014, ISA has been developing rules, regulations and procedures to govern the exploitation phase, including necessary standards and guidelines. Following a series of public consultations and progress briefings to the Council, the LTC submitted draft exploitation regulations to

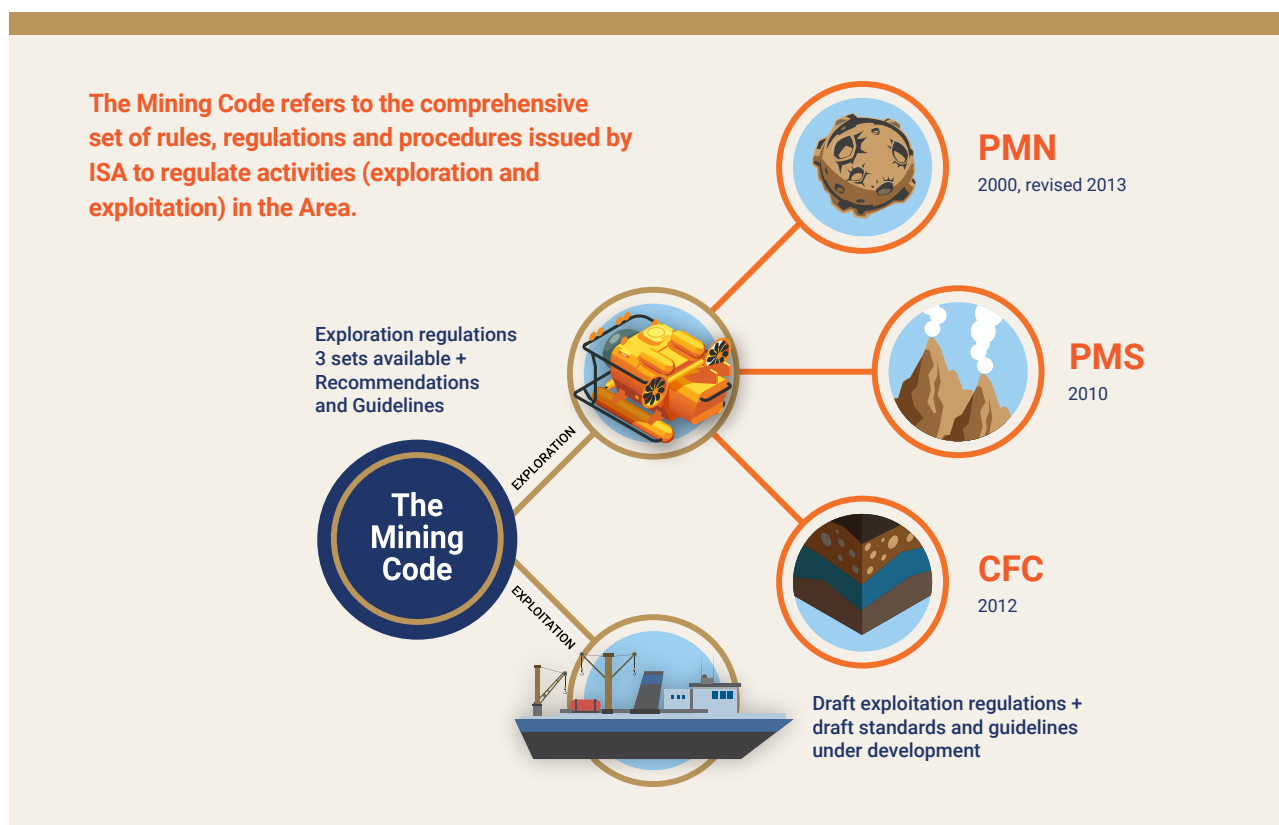
the Council in 2019.<sup>23</sup> These have been under consideration by the Council since then. During its meeting in July 2023, the Council took stock of the progress made and agreed on a timeline following the expiration of the two-year period pursuant to section 1, paragraph 15, of the Annex to the 1994 Agreement.<sup>24</sup> It was recognized that agreeing on a timeline and modalities for the work of the Council until July 2024 would provide predictability to all ISA Members and other stakeholders. It was agreed that a consolidated text would be provided for the negotiations during the Council meeting in March 2024 and that the working modalities would be reviewed.

The consolidated text was released on 16 February 2024. It was welcomed by many delegations participating in Part I of the 29th session of the Council held in March 2024. Delegations participated in conceptual discussions relating to the exploitation regulations and negotiations of the consolidated text and reached the beginning of Part III. It was agreed that the reading of the consolidated text would continue in July 2024. As per decision ISBA/28/C/24, it was also agreed to assess, at the end of the Council meetings to be held in July 2024, the remaining work that would be needed prior to the adoption of the exploitation regulations and to consider a revised road map to that end.



- 19 ISA. 2013. Decision of the Assembly of the International Seabed Authority relating to the regulations on prospecting and exploration for polymetallic nodules in the Area ([ISBA/19/A/9](#)).
- 20 ISA. 2013. Decision of the Council of the International Seabed Authority relating to amendments to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area and related matters ([ISBA/19/C/17](#)).
- 21 ISA. 2010. Decision of the Assembly of the International Seabed Authority relating to the regulations on prospecting and exploration for polymetallic sulphides in the Area ([ISBA/16/A/12/Rev.1](#)).
- 22 ISA. 2012. Decision of the Assembly of the International Seabed Authority relating to the Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area ([ISBA/18/A/11](#)).
- 23 ISA. 2019. Draft regulations on exploitation of mineral resources in the Area: prepared by the Legal and Technical Commission ([ISBA/25/C/WP.1](#)).
- 24 ISA. 2023. Decision of the Council of the International Seabed Authority on a timeline following the expiration of the two-year period pursuant to section 1, paragraph 15, of the annex to the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea ([ISBA/28/C/24](#)).





**Figure 6. The Mining Code**

### Box 3. Recommendations for the guidance of contractors

The following recommendations are currently available to supplement the exploration regulations:

- Training programmes under plans of work for exploration<sup>25</sup>
- The content, format and structure of annual reports<sup>26</sup>
- The reporting of actual and direct exploration expenditure<sup>27</sup>
- The assessment of the possible environmental impacts arising from exploration for marine minerals in the Area<sup>28</sup>
- The relinquishment of areas under the exploration contracts for PMS and CFC<sup>29</sup>



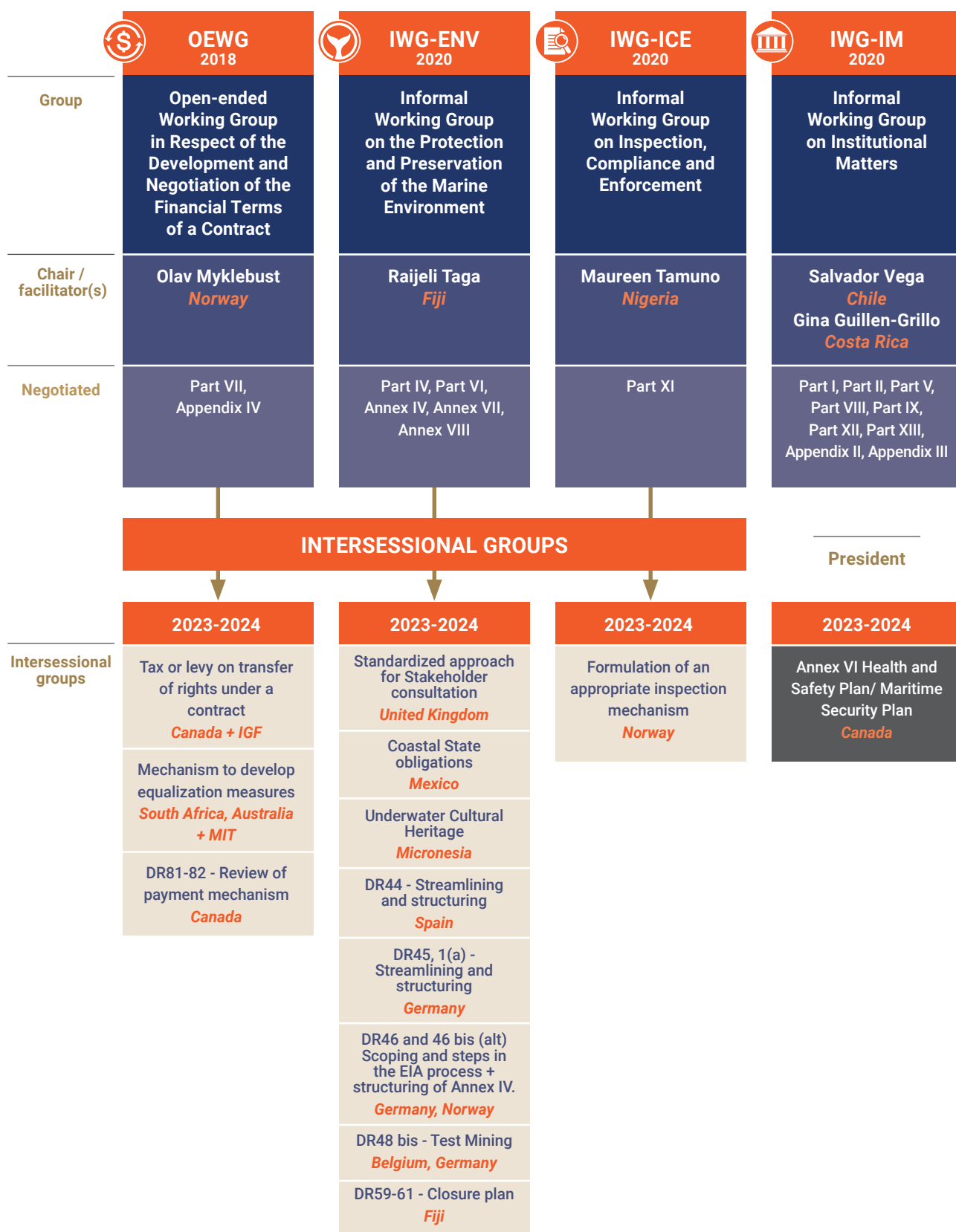
25 ISA. 2024. Recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration: Issued by the Legal and Technical Commission (ISBA/19/LTC/14/Rev.1).

26 ISA. 2024. Recommendations for the guidance of contractors on the content, format and structure of annual reports (ISBA/21/LTC/15). ISA. 2024. Recommendations for the guidance of contractors on the content, format and structure of annual reports: corrigendum (ISBA/21/LTC/15/Corr.1).

27 ISA. 2023. Recommendations for the guidance of contractors for the reporting of actual and direct exploration expenditure: Issued by the Legal and Technical Commission (ISBA/21/LTC/11).

28 ISA. 2023. Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area: Issued by the Legal and Technical Commission (ISBA/25/LTC/6/Rev.3).

29 ISA. 2019. Recommendations for the guidance of contractors on the relinquishment of areas under exploration contracts for polymetallic sulphides or cobalt-rich ferromanganese crusts: Issued by the Legal and Technical Commission (ISBA/25/LTC/8).



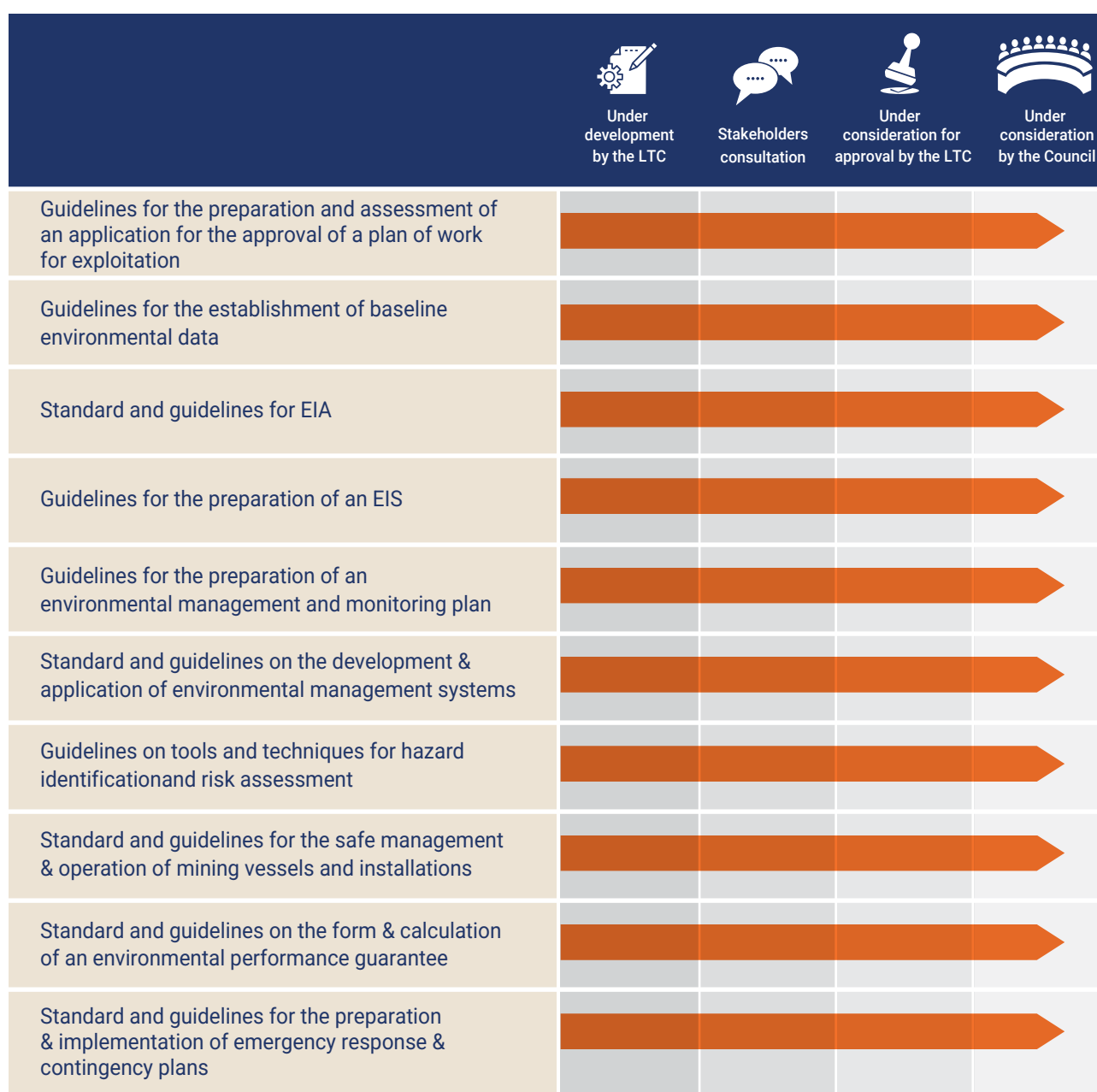
**Figure 7.** Informal working groups and intersessional working groups established by the Council to advance the work on the Draft regulations on the exploitation of mineral resources in the Area

## Standards and guidelines

Detailed standards and guidelines will support the exploitation regulations. As decided by the Council, these are developed in a three-phased approach with specific standards and guidelines needed by the time of adoption of the draft regulations on exploitation (phase 1) before the receipt of an application of a plan of work for exploitation (phase 2) and before commercial mining begins (phase 3). Standards and guidelines undergo a four-stage process: development by the LTC, stakeholder consultation, approval by the LTC and submission to the Council for approval.

During 2020 and 2021, the LTC prepared 10 draft standards and guidelines under phase 1 (**Figure 8**). A stakeholder consultation where the LTC considered contributions took place from 8 April to 3 July 2021. The Council considered the report of the Chair of the LTC on phase 1 standards and guidelines in Part I of its 27th session in March 2022.

Once adopted, the exploitation regulations and associated standards and guidelines will join the existing exploration regulations to form what will become a complete “Mining Code” for the Area.



**Figure 8. Status of the preparation of phase 1 of Draft standards and guidelines**



## Technical studies

During the reporting period, the ISA Secretariat published one technical study on “Potential interactions between fishing and mineral resource-related activities in ABNJ: a spatial analysis” (Technical Study 33), to support and inform the ongoing discussions on the development of a regulatory regime for exploitation.

## National laws and regulations

Activities in the Area may be carried out by the Enterprise and by States parties, State enterprises or natural or juridical persons in association with ISA. To be eligible to carry out such activities, natural and juridical persons must satisfy two requirements. First, they must be either nationals of a State party or effectively controlled by it or its nationals. Second, they must be sponsored by such States when the applicant is not a State party.

Under UNCLOS, sponsoring States are required to take “all measures necessary” to ensure compliance by the sponsored contractor with UNCLOS and the terms of their contract. Such measures include adopting laws, regulations and administrative measures in their legal systems. At its 23rd session in 2017, drawing on the advisory opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea, the Assembly

invited sponsoring States to review their respective national legislation if they had not already done so. Since 2011, the Secretary-General has reported to the Council on the status of such laws, regulations and administrative measures.

As of 2 April 2024, ISA’s online National Legislation Database contains information on or the texts of relevant national legislation received from the following 39 States: Bangladesh, Belgium, Benin, Brazil, China, Cook Islands, Cuba, Czechia, the Dominican Republic, Ecuador, Egypt, Fiji, France, Georgia, Germany, Guyana, India, Japan, Kenya, Kiribati, Mexico, Micronesia (the Federated States of), Montenegro, Nauru, Netherlands, New Zealand, Nigeria, Niue, Oman, Republic of Korea, Russian Federation, Saudi Arabia, Singapore, Sudan, Tonga, Tuvalu, United Kingdom of Great Britain and Northern Ireland, United States of America and Zambia. It also contains information received from the Secretariat of the Pacific Community (SPC). The database contains further information and the texts of national laws, regulations and administrative measures submitted by the aforementioned member and observer States of ISA.<sup>30</sup> It will continue to be updated upon receipt of new information. A comparative study on national legislation concerning deep-seabed mining is also available on the ISA website.<sup>31</sup>



30 ISA. National Legislation Database. Available at: <https://www.isa.org.jm/national-legislation-database>.

31 ISA. 2021. Comparative Study of the Existing National Legislation on Deep Seabed Mining. Available at: [https://www.isa.org.jm/wp-content/uploads/2022/04/Comparative\\_Study\\_NL.pdf](https://www.isa.org.jm/wp-content/uploads/2022/04/Comparative_Study_NL.pdf).

## SD 3. Protect the marine environment

ISA is exclusively mandated to protect the marine environment from the possible negative impacts associated with deep-sea mining in the Area. To that end, UNCLOS Article 145, requires ISA to adopt rules, regulations and procedures designed to prevent, reduce and control pollution and other hazards to the marine environment. The effective protection of the marine environment is guaranteed through requirements for environmental baseline studies, EIA and monitoring, as set out in exploration and future exploitation regulations. Plans of work for exploration activities must include a programme for oceanographic and environmental studies designed to build an environmental baseline before exploitation.

The work of ISA to protect the marine environment focuses on the following areas:

- the continued development of the regulatory framework, including environmental standards, guidelines and environmental threshold values
- the review and development of REMP in priority areas where there are exploration contracts
- the review and synthesis of data collected from environmental baseline studies, monitoring and assessments conducted by exploration contractors.

### Environmental regulations, standards and guidelines

The regulations for prospecting and exploration for the three types of seabed minerals in the Area include strong and robust environmental safeguards. The LTC is responsible for keeping these regulations under review. For the exploration phase, the LTC issued its Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in 2002.<sup>32</sup> These have been revised by the LTC several times, most recently in 2023.<sup>33</sup> The recommendations describe the procedures to be followed in the acquisition of baseline data and the monitoring to be performed during and after any activities that have the potential to cause serious harm to the environment (**Box 4**). The recommendations

list activities carried out during exploration that are considered to have no impact on the marine environment. They also specify activities requiring an EIA during exploration, including testing of mining components and other activities, and set out a detailed process for the review of the environmental impact statement (EIS) by the LTC.

All the data and information contractors submit annually are collected, organized and compiled in the ISA DeepData database by the ISA Secretariat. All environmental data is accessible to the public through the DeepData portal (**Box 5**) on the ISA website.<sup>34</sup>



32 ISA. 2002. Recommendations for the guidance of the contractors for the assessment of the possible environmental impacts arising from exploration for polymetallic nodules in the Area: Issued by the Legal and Technical Commission (ISBA/7/LTC/1/Rev.1).

33 ISA. 2023. Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area: Issued by the Legal and Technical Commission (ISBA/25/LTC/6/Rev.3).

34 ISA. DeepData. Available at: <https://data.isa.org.jm/isa/map>.

## Box 4. EIA and baseline environmental studies during exploration

An application for approval of a plan of work for exploration must be accompanied by an assessment of the potential environmental impacts of the proposed activities and a description of a programme for oceanographic and baseline environmental studies. Procedures to follow in the acquisition of baseline data and the monitoring to be performed during and after any activities that have the potential to cause serious harm to the environment are described in the Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area.

### Activities requiring an EIA include:

- the use of sediment disturbance systems that create artificial disturbances and plumes on the sea floor
- test-mining and testing of mining components
- the testing of discharge systems and equipment
- drilling activities using onboard drilling rigs
- sampling with the epibenthic sled, dredge, trawl, or similar techniques in nodule fields that exceed 10,000 m<sup>2</sup>
- taking large samples to test land-based processes.

Environmental baseline studies entail collecting data on physical oceanography, chemical oceanography, geological properties, biological communities, bioturbation and fluxes to the sediment. These studies aim to document the natural conditions and gain insight into natural processes and natural environmental variability to establish baselines against which to assess and monitor the possible effects of exploration activities. The baseline data acquired provides the basis to make accurate environmental impact predictions (e.g. the assumed impact and its process, the seabed disturbance plume, discharge plume, potential toxicity, noise and intensity of light).

The revised recommendations provide further clarity regarding the review of EIAs in relation to stakeholders consultation.<sup>35</sup> The contractor is to include information on the stakeholder consultation when submitting the EIS. The EIS should include:

- (a) A description of the nature and extent of any consultations conducted for the purposes of the statement
- (b) A description of the protocol used for collecting, logging and responding to stakeholder comments and concerns
- (c) An evaluation of how the consultations aligned with relevant consultation obligations, if any
- (d) A description of the comments and concerns of the stakeholder and how they have been addressed by the contractor in the EIS.

## Development of environmental threshold values

In November 2023, an intersessional expert group (IEG) led by the LTC was established to develop environmental threshold values, following the terms of reference adopted in line with the decision of the Council.<sup>36</sup> The IEG is expected to work in three subgroups, focusing primarily on the following specific topic areas identified by the Council: a) toxicity, b) turbidity and settling of resuspended sediments and c) underwater noise and light pollution.

Virtual meetings of the three subgroups were held in December 2023, February and May 2024 to advance the synthesis and review of existing data and information

on thresholds, such as baseline and experimental data, as well as guidance and reports from other regulatory agencies and industries. A face-to-face meeting of the IEG is scheduled to take place in June 2024 to facilitate discussions on possible interactions between the environmental pressures that may result from mining. Experts will also discuss the possible approaches for developing environmental threshold values for future exploitation activities in the Area. During the second part of the 29th session, the LTC will report to the Council on the progress and steps required to conclude the IEG report, including stakeholder consultation.

35 ISA. 2023. Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area: Issued by the Legal and Technical Commission (ISBA/25/LTC/6/Rev.3).

36 ISA. 2022. Decision of the Council of the International Seabed Authority relating to the development of binding environmental threshold values (ISBA/27/C/42).



## Box 5. DeepData: the ISA Deep Seabed and Ocean Database

DeepData was launched at the 25th session of ISA in 2019. It hosts data related to activities in the Area and is ISA's flagship source of information on the state of deep-seabed resources and the environments in which they exist.



### DeepData in figures



**143,000**  
sample submission  
per year since 2012



**187,000**  
ecology data records  
and  
**311,000**  
taxonomy data  
results



**5.8 million**  
conductivity,  
temperature and  
depth sensor  
readings



**281,000**  
geotechnical  
parameter records



**5.5 million**  
water property  
records



**2.8 million**  
website visits

## Internalization of costs associated with environmental externalities

In line with the decision of the Council, the Secretariat commissioned a study on the environmental costs of exploitation activities, including the extent to which it is possible to internalize the costs associated with environmental externalities in the framework of the royalty mechanism to apply to exploitation contractors.<sup>37</sup> The “Report on the value of ecosystem services and natural capital of the Area” was published on the ISA website in May 2023.<sup>38</sup> It was accompanied by a note prepared by the Secretariat providing background and modalities. The report was supplemented in October

2023 by a “Guidance on the economic valuation of ecosystem services and natural capital of the Area.”<sup>39</sup> Following proposals made by some delegations during the third part of the 28th session of the Council, the Secretariat made arrangements for Dr. Luke Brander, author of the report, to deliver the results of his research in person during the meeting of the Open-ended Working Group in respect of the development and negotiation of the financial terms of a contract during the meetings of the Council held in March 2024.

<sup>37</sup> ISA. 2022. Decision of the Council of the International Seabed Authority relating to the commissioning by the secretariat of a study on the internalization of environmental costs of exploitation activities the Area into the production costs of minerals from the Area (ISBA/27/C/43).

<sup>38</sup> ISA. 2023. Report on the value of ecosystem services and natural capital of the Area. Available at: <https://www.isa.org.jm/wp-content/uploads/2023/06/Report-on-Valuation-of-ecosystem-services.pdf>.

<sup>39</sup> See ISA. 2023. Guidance on the economic valuation of ecosystem services and natural capital of the Area. Available at: <https://www.isa.org.jm/wp-content/uploads/2023/11/Guidance-on-economic-valuation-Part-II-of-the-report.pdf>.

## Regional environmental management plans

ISA has established an environmental management plan for the CCZ and is establishing REMPs in other regions where exploration activities are taking place.

### Development of a standardized approach

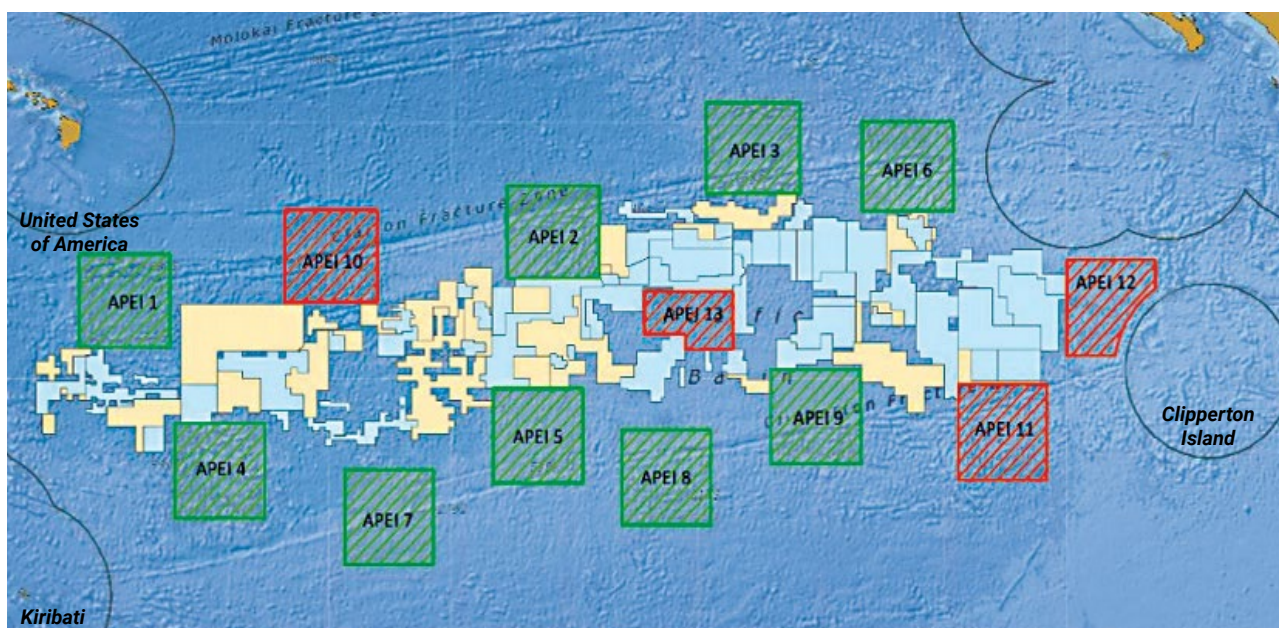
In 2022, upon request of the Council,<sup>40</sup> the LTC presented its recommendations to the Council on a standardized approach to facilitate the development, implementation and review of REMPs.<sup>41</sup> Following discussions in plenary during the third part of the 28th session, the Council requested the LTC to further review the draft in light of specific considerations raised. It also invited stakeholders to submit written comments on the draft by January 2023.

During its meeting in March 2024, the LTC revised and completed, on a provisional basis, the standardized procedure and a template with minimum requirements. The LTC noted that some aspects of the standardized procedure would need to be updated in order to align them with the regulations for the exploitation of mineral resources in the Area when adopted. At the technical level,

the LTC decided to support the practical implementation of the standardized procedure and template by developing a guidance document for REMPs. The guidance document will be aligned with the standardized procedure and will provide practical and technical details, including the recommended scientific data and information, methodologies and approaches. The LTC will work intersessionally with a view to presenting the standardized procedure, template and guidance document, as referenced, to the Council during the second part of the 29th session.

### Clarion-Clipperton Zone

The environmental management plan for the CCZ was adopted in 2012 and has been reviewed twice (2016 and 2021). At the core of this plan is the designation of a network of 13 areas of particular environmental interest (APEIs), covering a total area of 1.97 million km<sup>2</sup> of seabed (Figure 9). These APEIs are established to protect biodiversity and preserve ecosystem structure and functions.



**Figure 9.** The network of APEIs in the CCZ represents 1.97 million km<sup>2</sup> of protected seabed

40 ISA. 2020. Decision of the Council concerning a standardized approach for the development, approval and review of regional environmental management plans in the Area (ISBA/26/C/10).

41 ISA. 2022. Guidance to facilitate the development of regional environmental management plans: Report and recommendations by the Legal and Technical Commission (ISBA/27/C/37).

## Other regions

In line with the strategy endorsed by the Council at its 25th session, the development of REMP is under way in other areas where exploration activities are currently taking place, including the northern mid-Atlantic Ridge, the Indian Ocean and the Northwest Pacific Ocean (**Figure 10**).<sup>42</sup>

During the 27th session, the LTC presented its recommendation on the draft REMP for the northern mid-Atlantic Ridge, drawing on the outcomes from the three expert workshops for this region. The Council decided to postpone consideration of the draft REMP pending the adoption of a standardized procedure for the development, review and approval of REMPs and further decided that the LTC should review the draft REMP in light of such a procedure. Since 2018, ISA has convened eight international expert workshops under the leadership of the LTC. These workshops involved 380 experts from 55 countries working to advance the development of REMPs in the priority areas.

In collaboration with the Government of India, a workshop was convened to initiate the development of a REMP for the Indian Ocean in May 2023. The main outcomes of this workshop included the review of scientific data and information to support the identification of the potential geographical scope for the REMP and area-based management tools, as well as the validation of a qualitative model for cumulative impact assessment. The report has been finalized and made available on the ISA website,<sup>43</sup> together with the data report.

The most recent REMP workshop was held in Tokyo, Japan, in February 2024 on the development of the REMP for the Area of the Northwest Pacific Ocean. The workshop was organized in collaboration with JOGMEC and DORD, with support from the Ministry of Economy, Trade and Industry of Japan and the National Institute of Advanced Industrial Science and Technology. The results of this and previous workshops will support the LTC in formulating the core scientific elements for the REMP in this region.



**Figure 10. Status of development of REMPs for the different regions of the Area**

42 ISA. 2019. Implementation of the Authority's strategy for the development of regional environmental management plans for the Area: Report of the Secretary-General (ISBA/25/C/13).

43 ISA. 2023. Workshop on the development of a REMP for the Area of the Indian Ocean, with a focus on the mid-ocean ridges and central Indian Ocean basin. Available at: <https://www.isa.org.jm/events/workshop-on-the-development-of-a-remp-for-the-area-of-the-indian-ocean-with-a-focus-on-the-mid-ocean-ridges-and-central-indian-ocean-basin>.



## SD 4. Promote and encourage MSR in the Area

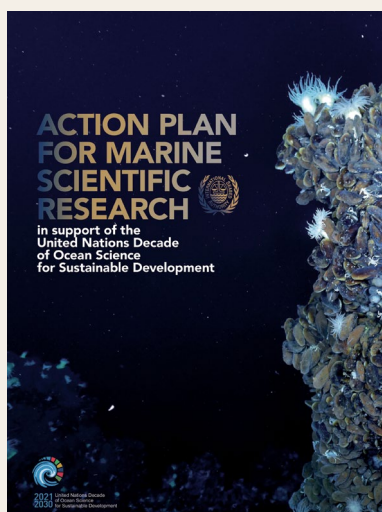
A core responsibility assigned to ISA by UNCLOS is to promote and encourage the conduct of MSR in the Area, as well as to coordinate and disseminate the results of such research and analysis when available (UNCLOS, Article 143). This mandate is completed by the responsibility to encourage the development and implementation of appropriate programmes for strengthening the research capabilities of developing and technologically less advanced States.

The Secretariat implements several initiatives to operationalize these responsibilities in light of the six strategic research priorities (SRPs) (Box 6) identified by Member States in the ISA MSR Action Plan, which was adopted in July 2020. The ISA MSR Action Plan has since served as a global agenda for deep-sea research, through which the Secretariat and its partners have carried out different programmatic activities. Its implementation has been championed by Argentina since 2021.

During the reporting period, the Secretariat continued to actively participate in the implementation of the United Nations Decade of Ocean Science through its contribution to the Ocean Decade Alliance, the United Nations Decade Monitoring and Evaluation Working Group and the Decade Communications Advisory Group.

In April 2024, the Secretariat also participated in the United Nations Ocean Decade Conference organized in Barcelona, where it led a side event entitled “Leveraging knowledge, innovation and empowerment in deep-sea research in support of the stewardship of the Area for the benefit of humankind.” This event served as an opportunity to present the progress made in the implementation of the ISA MSR Action Plan, discuss future areas of action and exchange best practices. The Secretariat also co-organized two side events. The first, “How to harness private sector data to boost ocean science and drive a sustainable ocean economy,” was organized in partnership with United Nations Global Impact and the Corporate Data Group of IOC-UNESCO. This event was an opportunity for the Secretariat to present DeepData as a best practice example for the collection of data through the participation of the private sector and the release of such data for the benefit of all. The second, “Empowering women for the ocean decade: achieving gender equity in ocean sciences and policymaking,” was organized in collaboration with the World Maritime University and the International Hydrographic Organization (IHO). This event was an opportunity for the Secretariat to share the different initiatives carried out to advance career opportunities for women scientists from developing States by enhancing their participation in deep-sea search.

### Box 6. Six SRPs of the ISA MSR Action Plan



#### SRP 1

Advancing scientific knowledge and understanding of deep-sea ecosystems, including biodiversity and ecosystem functions, in the Area



#### SRP 2

Standardizing and innovating methodologies for deep-sea biodiversity assessment, including taxonomic identification and description, in the Area



#### SRP 3

Facilitating technology development for activities in the Area, including ocean observation and monitoring



#### SRP 4

Enhancing scientific knowledge and understanding of potential impacts of activities in the Area



#### SRP 5

Promoting dissemination, exchange and sharing of scientific data and deep-sea research outputs and increasing deep-sea literacy



#### SRP 6

Strengthening deep-sea scientific capacity of [ISA's] Members, in particular developing States



## Strategic alliances and partnerships for generating transformative science and knowledge

In line with the SRPs identified by Member States in the ISA MSR Action Plan, the Secretariat strengthened and expanded the partnerships established to leverage synergies and collective engagement in support of shared objectives. The main objective remains to promote cooperation and coordinate MSR efforts among contractors, scientific and academic communities, national agencies and international and regional organizations concerning activities in the Area.

In October 2023, together with MOF-ROK and MABIK,

the Secretariat organized an SSKI workshop on enhancing biological data sharing to advance deep-sea taxonomy in Ho Chi Minh City, Viet Nam.

Furthermore, ISA leveraged its partnerships and amplified the value of collaborative efforts in knowledge generation through specialized scientific activities conducted during the reporting period. For example, through the ISA's call for taxonomic projects "1,000 reasons," the Secretariat awarded 10 projects to 10 separate research institutes and universities.

### Box 7. Taxonomic projects awarded under the "1,000 reasons" campaign

- 1. Dr. Aaron Evans (Citizen Scientist):** Collaborating with renowned institutions, including the Monterey Bay Aquarium Research Institute, the National Museum of New Zealand Te Papa Tongarewa and the Natural History Museum of the United Kingdom, among others, this expert stands poised to make significant contributions to our understanding of deep-sea squids.
- 2. Dr. Jesse Kelly (Citizen Scientist):** Collaborating with renowned institutions, including the Monterey Bay Aquarium Research Institute, the National Museum of New Zealand Te Papa Tongarewa and the Natural History Museum of the United Kingdom, among others, this expert stands poised to make significant contributions to our understanding of deep-sea squids.
- 3. Dr. Jeremy Horowitz (Smithsonian Institution, National Museum of Natural History):** Renowned for its scientific expertise, the Smithsonian Institution will spearhead a taxonomy project on black corals led by Dr. Horowitz.
- 4. Dr. Magdalini Christodoulou (The Biology Centre of the Upper Austria Landes-Kultur GmbH):** Working in conjunction with the German Centre for Marine Biodiversity Research, Dr. Christodoulou focus will be on unearthing new sea star species in the uncharted depths of the ocean.
- 5. Dr. Anna Jazdzewska (University of Łódź):** Collaborating with the German Centre of Marine Biodiversity Research Institute, Dr. Jazdzewska will leverage expertise in deep-sea amphipod taxonomy.
- 6. Dr. Swee Lim (National University of Singapore):** Teaming up with the Natural History Museum, London and the Lee Kong Chian Natural History Museum, Singapore, the project led by Dr. Lim promises to be a fusion of global expertise in sponge taxonomy.
- 7. Dr. Tim O'Hara (Museums Victoria):** In collaboration with the Natural History Museum, London, and the Natural History Museum of Luxembourg, Dr. O'Hara's project offers a unique blend of multidisciplinary perspectives on brittle-star taxonomy and evolution.
- 8. Dr. Nuria Sanchez (University Complutense of Madrid):** Partnering with the Senckenberg Society for Nature Research, Germany, Dr. Sanchez will explore the less-known Kinorhyncha and Loricifera species.
- 9. Dr. Sarah Viana (University of Cape Town):** Working alongside Stellenbosch University and Iziko Museums of South Africa, Dr. Viana is set to bring new insights into deep-sea sharks from the southern hemisphere.
- 10. Dr. Yadong Zhou (SIO):** Embarking on this venture, the project led by Dr. Zhou will expand our scientific horizons on deep-sea Echinoderms and Polychaetes.



The Secretariat continued its dialogue with the Joint Programme Initiative Healthy and Productive Seas and Oceans to ensure alignment between its deep-sea related projects and the priorities of activities carried out in the Area identified by ISA Members, the role and mandate of ISA and its different organs. It is in this context that the Secretariat provided input on the scoping paper developed for a new project on the ecological aspects of deep-sea mining. The Secretariat will continue to follow the discussions to ensure that the key findings and outcomes of this project constructively support the work of ISA.

Throughout the reporting period, the ISA Secretariat continued to participate in the advisory boards of several international scientific research projects and programmes to align the outcomes of scientific activities and maximize their contribution towards the SRPs identified in the ISA MSR Action Plan (Box 6).

- The Deep Ocean Observing Strategy project is a community-driven initiative established under the umbrella of the Global Ocean Observing System, which brings together representatives from the United States of America and international networks engaged in sustained deep ocean observation, mapping, exploration, modelling, research and management. This partnership is facilitating the creation of a collaborative network of scientific institutions and ISA contractors to develop a pilot project for long-term ocean observation in the CCZ, focusing on oceanographic patterns and biogeochemical conditions in the region. This partnership will contribute to implementing SRP 3 (Facilitating technology development for activities in the Area, including ocean observation and monitoring).
- Seabed Mining And Resilience To Experimental impact, funded by the Government of the United Kingdom, aims to investigate how deep-sea ecosystems respond to and recover from broad-scale disturbances. Drawing on experimental field assessments of impacts from test mining activities in the CCZ by the Pioneer Investors, this project will contribute to SRP 4 (Enhancing scientific knowledge and understanding of potential impacts from activities in the Area), including the long-term resilience of deep-sea ecosystems.
- Conservation & Restoration of deep-sea ecosystems in the context of deep-sea mining, a project led by Institut français de recherche pour l'exploitation de la mer or the French Institute for Ocean Science (Ifremer) and financially supported by the Governments of Belgium, France, Germany, Ireland, the Netherlands, Portugal and Spain, continues to integrate environmental and biological data and compare

ecological processes between abyssal plain and mid-ocean ridge ecosystems to identify key traits and functions affecting community resilience. This project also aims to provide empirical evidence to test the effectiveness of different restoration actions on the recovery of communities from the potential impacts of future exploitation activities. It contributes to SRP 2 (Innovative technologies for biodiversity assessment) and SRP 6 (Capacity development) Discussions are progressing as the SSKI establishes linkages with standardization and the incorporation of functional trait information to complement taxonomic data.

- The project Technology based impact assessment tool for sustainable, transparent deep sea mining exploration and exploitation (TRIDENT), launched in January 2023, is a project led by the Institute for Systems and Computer Engineering, Technology and Science of Portugal with a consortium of 22 European scientific partners, financially supported by the EU Commission. This project aims at developing remote and automated monitoring systems for deep-seabed mining, which will support the development of reliable and cost-effective systems for the prediction and continuous environmental impact monitoring of seabed activities in the Area (SRP 4).

## Facilitating technology development for activities in the Area

The Secretariat and the Institute for Systems and Computer Engineering, Technology and Science of Portugal convened an expert scoping workshop entitled “Charting future horizons: harnessing advanced technologies for the protection and sustainable use of the international seabed area” in Porto, Portugal. The workshop aimed to review the current status of deep-sea technologies and data management, identify trends and solutions, especially for developing countries, address knowledge gaps and promote scientific advancement, develop concrete activities to boost technological capacity, engage partners for sustainable mineral resource development and assess technological readiness for responsible seabed mineral recovery and marine environment protection. The collective efforts of the workshop are expected to yield intelligent, efficient and environmentally responsible technological solutions aimed at ensuring the sustainability of activities within the Area. Furthermore, the workshop aims to catalyse accelerated progress in enhancing the technological capabilities of developing nations, particularly in the fields of deep-sea research and the recovery of seabed minerals.

## Collecting and disseminating high-quality deep-sea data

Building on the partnership with the International Oceanographic Data and Information Exchange network of IOC-UNESCO as a node for its Ocean Biodiversity Information System (OBIS), the ISA has significantly increased the quantity and quality of data that is made available on its OBIS node. The number of occurrence records increased by 163 per cent to over 137,000 records. This included the identification of 33 new taxa (organisms) by ISA contractors. The number of data sets has also increased by 57 per cent or 36 data sets, making a total of 99 data sets available on the node.

The Secretariat initiated a series of scientific reviews to improve the quality of taxonomic data available on DeepData. The recommendations resulted in the hosting of workshop activities surrounding taxonomic nomenclature and the implementation of a single unique identifier in the downloadable taxonomic data in the form of an occurrence identifier as present in the Darwin Core standard.

The Secretariat has made significant headway in enhancing the accessibility of oceanographic data obtained by ISA contractors by sharing this data with other publicly available databases, including the World Ocean Database hosted by IOC-UNESCO and the National Oceanic and Atmospheric Administration. The objective behind this effort is to improve the overall accessibility of information and data available through DeepData.

In 2022, most contractors successfully made use of

the updated data reporting templates that had been endorsed by the LTC in 2021. The Secretariat has planned a series of data management training sessions to address areas of concern observed during the initial utilization of the templates. The objectives of the training series are to increase awareness of the new features of the reporting templates, address the knowledge gaps identified, synchronize the preparation of digital data with the recording of metadata information and improve the utilization of the DeepData platform as the primary mode for submitting digital data to the Secretariat.

The training series commenced in April 2024. Contractors came to Jamaica for a one-week review of their data sets. Five contractors confirmed their participation in the first phase of the review face-to-face sessions. Phase 2 is still being planned.

Building on its successful partnership with MABIK, the Secretariat will co-organize a deep-sea taxonomic data standardization and sharing workshop in October 2024. The objective will be to discuss existing best practices in deep-sea taxonomic research to generate FAIR data and enhance capacity in deep-sea biological data sharing. Organized under the auspices of SSKI, the workshop will contribute to increasing the quality and availability of deep-sea biological data collected in the Area and enhancing the use of DeepData and other publicly available databases of the same type. It will also aim to share best practices for collecting, processing and reporting biological data.



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## Contributing towards improved high-resolution mapping of the seabed in the Area: AREA2030



ISA remains committed to contributing data to advance the general knowledge and understanding of the world's oceans and to improve the high-resolution mapping of the world's seabed by 2030. In this spirit, ISA launched the AREA2030 initiative in partnership with IHO in June 2022. This partnership also contributes to the United Nations Decade of Ocean Science for Sustainable Development and the Seabed 2030 project, a collaboration between the General Bathymetric Chart of the Oceans and the Nippon Foundation of Japan to advance the definitive map of the world ocean floor at 100 m resolution by 2030.

In line with the ISA MSR Action Plan, AREA2030 continuously compiles all bathymetric data shared voluntarily by ISA contractors and submits it through IHO as a collective contribution to the United Nations Ocean Decade and towards the achievement of the goals and targets of the 2030 Agenda for Sustainable Development.

As of October 2023, the ISA Secretariat facilitated the submission of high-resolution bathymetric data from 11 contractors representing 16 exploration contracts. The Interoceanmetal Joint Organization (IOM) provided data collected in the CCZ between 1992 and 2001, Global Sea Mineral Resources of Belgium (GSR) has made data

from its contract area publicly available, DORD of Japan provided data on APEIs in the CCZ, Federal Institute for Geosciences and Natural Resources of Germany (BGR) provided bathymetry data for a total of 120,000 km<sup>2</sup> of seabed in the Pacific CCZ, and 188,500 km<sup>2</sup> of seabed along the Indian Ocean ridges and Ifremer provided data for its two exploration contract areas in the Atlantic (PMS - 10,000 km<sup>2</sup>) and in the CCZ (PMN - 75,000 km<sup>2</sup>) at a resolution of 100 m. Other contractors contributing voluntarily to the AREA2030 initiative include United Kingdom Seabed Resources Ltd. (now "Loke CCZ"), Nauru Ocean Resources Inc. (NORI), Tonga Offshore Mining Ltd. (TOML), Marawa Research and Exploration Ltd. of Kiribati, Cook Islands Investment Corporation (CIIC) and the Government of Korea.

The contribution of ISA contractors to global efforts to improve sea floor mapping through AREA2030 is critical, as they collect unique bathymetric data at unprecedented high-resolution during their exploration activities in the Area. Voluntary disclosure and sharing of high-resolution bathymetric data contribute to the global database of the international seabed and help further our understanding of fundamental ocean crust geology, oceanography, seabed habitats, potential geohazards and various potential resources.



## Advancing deep-sea taxonomy



One of the six SRPs identified in the MSR Action Plan relates to standardizing methodologies for deep-sea biodiversity assessment in the Area, including taxonomic identification and description.

Over the past year, the ISA Secretariat and its strategic partners have spearheaded several activities on species cataloguing, data sharing and development of tools for species identification under the SSKI.<sup>44</sup> The SSKI aims to advance scientific knowledge of deep-sea biodiversity, facilitate capacity-building efforts for deep-sea taxonomy research and inform relevant decision-making processes. The European Union, the Republic of Korea and the Government of France have granted significant financial support for SSKI activities. The SSKI has also been supported by a growing network of scientific institutions and international organizations, including the IOC-UNESCO's OBIS, the Convention on Biological Diversity and the World Register of Marine Species (WoRMS).

In May 2023, the "1,000 reasons" campaign was launched to mobilize efforts towards increasing knowledge on deep-sea biodiversity and understanding of the evolutionary history and resilience of deep-sea ecosystems (SSKI Outcome 1). The response to the call was unprecedented, with 65 applications received from 21 countries from all five ISA regional groups and one country with observer status. Ten successful projects with researchers from esteemed scientific institutions (Smithsonian Institution, National Museum of Natural History, University of Łódź, National University of Singapore, Museums Victoria, the Biology Centre of the Upper Austria Landes-Kultur GmbH, SIO, the Ministry of Natural Resources, University of Cape Town) and two citizen scientists were selected based on their scientific merit, potential impact and feasibility. The projects started in December 2023 and are expected to describe nearly 100 new species by the end of 2024. Each project has received financial support of up to USD20,000, covering laboratory analysis, data processing,

personnel remuneration, etc. The results will be published in open-access scientific journals and incorporated into the ISA's DeepData and WoRMS databases. This initiative signifies a monumental effort to describe at least 1,000 new deep-sea species by 2030, enhancing our collective knowledge of life in ABNJ.

Another key outcome of SSKI is improved consistency, efficiency and reusability of scientific data and information for biodiversity assessments through integrative tools (SSKI Outcome 2). In July 2023, in partnership with WoRMS, SSKI launched a species checklist for the CCZ in the Pacific Ocean. Designed to support taxonomic identification and harmonization of regional baseline studies, this checklist will be an essential tool for ISA exploration contractors and the scientific community. It currently includes taxonomic information and geolocation data on the occurrence of 285 species. The checklist contains FAIR data and will be updated as new species are described and new occurrences are recorded. It is expected that this species checklist will allow enhanced assessments of spatial and temporal patterns of biodiversity, potential impacts of human activities and levels of recovery. It is also expected that the checklist will provide the scientific basis to inform EIAs and regional environmental management planning while supporting the implementation of Part XI of UNCLOS, the 1994 Agreement and broader policy goals in support of the conservation and sustainable use of marine biodiversity and resources in ABNJ.

Increased generation and flow of taxonomic data and information, including enhanced availability, accessibility, and interoperability (SSKI Outcome 3) has been promoted through a series of workshops on deep-sea taxonomy organized jointly by ISA, MOF-ROK and MABIK.

In October 2023, a workshop on enhancing biological data sharing to advance deep-sea taxonomy was held in Ho Chi Minh City, Viet Nam. Addressing a major challenge in large-scale collective research, i.e. the standardization and interoperability of data, the workshop focused on best practices for deep-sea taxonomic research to generate FAIR data and enhance the capacity for sharing deep-sea biological data. Attended by 41 experts from 27 countries, including 14 developing countries, the workshop provided an opportunity for hands-on training in navigating ISA's DeepData database and exploring deep-sea biological data on major open-access platforms, including OBIS, WoRMS and

44 ISA. Sustainable Seabed Knowledge Initiative. Available at: <https://www.isa.org.jm/sski>.



Barcode of Life Data Systems. Workshop participants recognized that the development of ISA DeepData in alignment with existing biological data platforms has been an important step to enhance the sharing of biodiversity data collected in the Area and that using data and metadata standards such as Darwin Core is crucial for continued improvement of data interoperability between DeepData and other global biodiversity databases.

Contributing to the effectively informed decision-making process of ISA and other relevant global policy agendas through improved deep-sea biodiversity knowledge (SSKI Outcome 5), the Secretariat hosted a side event during the 28th session of the ISA Council in July 2023. Celebrating the first anniversary of the launch of SSKI, the event sought to raise awareness, disseminate project outputs, foster new partnerships and mobilize additional resources for the SSKI.

Another important activity to facilitate the uptake of science into global biodiversity agendas was the workshop on developing a scientific approach to identifying key deep-sea taxa for effective protection of the marine environment in the Area, held in Seoul, Republic of Korea, in June 2024 in collaboration with MOF-ROK and MABIK. The primary objective of this workshop was to develop a robust approach for identifying deep-sea taxa that are of particular importance for the ongoing work of ISA in relation to establishing effective environmental management measures in the Area, including environmental baseline studies, monitoring efforts and impact assessments. The results of the workshop guided future research programmes, particularly focusing on targeted biological sampling and identifying indicator species for effective monitoring, as well as elements to design future SSKI activities to promote taxonomic descriptions and capacity-building.





## Advancing women's empowerment and leadership in deep-sea research

The Secretariat has further advanced the implementation of the WIDSR project established in cooperation with the UN-OHRLLS.

To date, the project has mobilized 40 partners, including seven Member States, five research organizations, seven international and regional organizations and 21 private contractors (Box 8), for the identification and implementation of key actions that aim at mainstreaming gender equity policies and approaches into deep-sea research-related sectors and academic fields.<sup>45</sup>

In June 2023, the Secretariat operationalized one of the recommendations made in the 2022 gender mapping report “Empowering women from LDCs, LLDCs and SIDS in deep-sea research” by establishing and launching the S.H.E. global mentoring programme. Designed to address the underrepresentation of women from developing States in deep-sea-research-related sectors by stimulating their personal and professional development to enhance their career opportunities,<sup>46</sup> the S.H.E mentoring programme was made possible due to the support of eight internationally renowned experts who had accepted the invitation of the Secretary-General to serve as mentors. Following a call for expressions of interest, eight women scientists

from Egypt, Indonesia, Kenya, Nigeria, South Africa, Tunisia and Tanzania were selected as mentees. The first step, consisting of developing a development plan with clear personal, professional and scientific goals has been made for each mentee.

By the close of 2023, another transformative milestone was reached under the WIDSR project, with 19 ISA contractors pledging to dedicate half of their training slots in the ISA Contractors’ Training Programme (CTP) to deserving women candidates from developing countries.

### Box 8. Partners of the WIDSR project



#### WIDSR strategic partners:



#### Governments:



#### International and regional organizations:



#### Research organizations



#### ISA contractors:



<sup>45</sup> ISA. Women in Deep-Sea Research Project. Available at: <https://www.isa.org.jm/capacity-development-training-and-technical-assistance/widsr-project>.

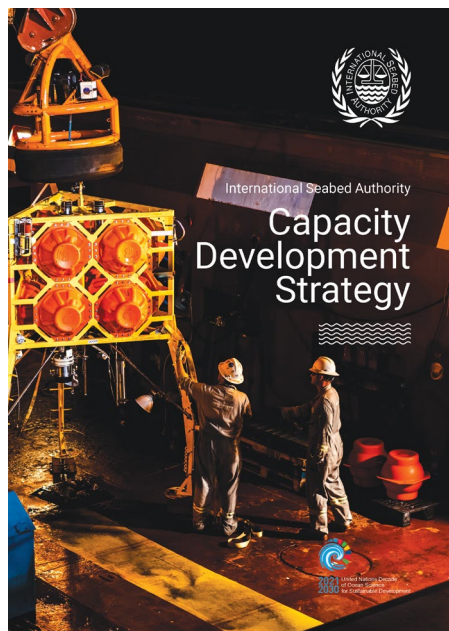
<sup>46</sup> ISA. S.H.E. See Her Exceed Mentoring Programme. Available at: <https://www.isa.org.jm/widsr-mentoring-programme-2>.

## SD 5. Build capacity for developing States

ISA is mandated by UNCLOS and the 1994 Agreement to design and implement mechanisms to build and develop the capacity of developing States. Such mechanisms should aim not only at promoting and encouraging the transfer of technology and knowledge to developing States but also at ensuring the expansion of opportunities for their participation in activities in the Area.

### Capacity development strategy

During the reporting period, the Secretariat continued to implement the ISA Capacity Development Strategy<sup>47</sup> adopted by the Assembly in 2022.<sup>48</sup> All the programmes and activities implemented by ISA are designed and implemented with the objective of addressing the priority capacity development needs identified by its developing Member States through a survey carried out by the ISA Secretariat in 2020.<sup>49</sup>



**Table 2. Key results areas identified by the ISA Capacity development strategy**

| Key results areas |  |
|-------------------|--|
| 1                 | Ensuring that capacity development programmes and activities are meaningful, tangible, efficient, effective and targeted at the needs of developing States as identified by them |
| 2                 | Establishing and furthering strategic partnerships in support of capacity development  |
| 3                 | Strengthening institutional capacities through technology transfer and technical assistance  |
| 4                 | Advancing women's empowerment and leadership in deep-sea-related disciplines through targeted capacity development activities  |
| 5                 | Improving deep-sea literacy through better awareness and understanding of the legal regime of the Area and the role and mandate of ISA   |

47 ISA. 2022. Capacity development strategy. Available at: [https://www.isa.org.jm/wp-content/uploads/2022/12/ISA\\_Capacity\\_Development\\_Strategy\\_2022.pdf](https://www.isa.org.jm/wp-content/uploads/2022/12/ISA_Capacity_Development_Strategy_2022.pdf).

48 ISA. 2022. Decision of the Assembly of the International Seabed Authority relating to the implementation of a programmatic approach to capacity development (ISBA/27/A/11).

49 ISA. 2020. Review of capacity-building programmes and initiatives implemented by the International Seabed Authority 1994-2019. Available at: <https://www.isa.org.jm/publications/review-of-capacity-building-programmes-and-initiatives-implemented-by-the-international-seabed-authority-1994-2019>.

## National focal points in charge of liaising with the ISA Secretariat on matters relating to capacity development

As of June 2024, 69 national focal points for capacity development (NAFOP-CD) had been nominated by Member States. NAFOP-CD operates at the national level, ensuring the effective dissemination of pertinent information and facilitating the identification of their respective countries' specific needs for technical assistance. Additionally, NAFOP-CD takes an active role in identifying potential partners to collaborate on the implementation of training and capacity development initiatives. By doing so, NAFOP-CD serves as a vital link between national entities and ISA, fostering collaboration and addressing the capacity-building requirements outlined in the UNCLOS.

During the reporting period, the Secretariat hosted the fourth virtual meeting of the NAFOP-CD network in November 2023. The focal points were updated on the progress made in the implementation of the ISA Capacity Development Strategy. The meetings also covered the latest initiatives to enhance coordination between the Secretariat and NAFOP-CD to expand outreach for capacity development opportunities with a view to generating greater awareness, interest and applications from more suitable and diversified candidates. It is also important to note the meetings served as useful opportunities for the focal points to update the Secretariat on trends, needs and other useful information that can be used to inform and implement effective training and capacity development programmes.

## Monitoring, evaluation and outreach

Work is under way to identify clear indicators and targets to assess the quality of all the capacity development activities implemented by ISA and their long-term impacts on career development. In December 2021, the Secretariat launched a dashboard presenting all the data related to the implementation of ISA's capacity development activities by country, region, gender, type of training and year on the ISA website.<sup>50</sup> In December 2023, the Secretariat contacted each Member State whose citizens had benefited from capacity development activities implemented by ISA, providing them with a list of beneficiaries by gender, discipline and type of training received. This enabled Member States to develop a pool of national experts and support their respective efforts and decision-making processes. Between July 2023 and June 2024, more than 230 individuals from 62 different countries have benefited from at least one ISA capacity-building and/or development activity, including workshops.

In February 2024, the ISA Secretariat successfully launched the ISA Capacity Development Alumni Network

(iCAN), which brings together the beneficiaries of past ISA capacity development programmes. The main objective of iCAN is not only to promote and encourage the transfer of technology to developing States but also to ensure the expansion of opportunities for individuals of developing Member States of ISA to participate in activities in the Area. Additionally, iCAN will enable the Secretariat to monitor the midterm and long-term impact of the training provided and access and leverage the expertise of former participants and trainees, where possible, as mentors, experts or consultants.

A total of 73 individuals (64 per cent males and 34 per cent females) already joined the network after the first call for expression of interest in December 2023. Further, 30 per cent are nationals of LDCs, and 7 per cent are from LDCs/SIDS. Notably, 79 per cent of alumni members are former CTP trainees. Calls for applications to join iCAN are opened by the Secretariat at specific intervals during the calendar year. Further work is being undertaken by the Secretariat to facilitate communication among alumni and identify tailored activities.

50 ISA. Capacity building dashboard. Available at: <https://capacitybuilding.isa.org.jm:4431>.



## Contractors' training programme

CTP is rooted in the provisions of Resolution II of UNCLOS, which expounds the legal obligations of ISA contractors from Article 15 of Annex III of UNCLOS to provide and fund practical training programmes for ISA personnel and developing States. To date, over 400 training opportunities have been provided to such personnel through CTP.

In October 2023, the Secretariat developed a Code of Conduct for Trainees of the CTP in response to requests expressed by Contractors and trainees. The Code of Conduct took into consideration feedback received from contractors and former trainees.

Between July 2023 and June 2024, the Secretariat promulgated and provided relevant administrative support to the LTC to conduct selections for 139 training placements offered by 16 ISA contractors for 35 training programmes to be implemented between 2023 and 2025. During the reporting period, 10 additional contractors (CIIC, China Ocean Mineral Resources Research and Development Association (COMRA), China Minmetals

Corporation, IOM, JOGMEC, JSC Yuzhmorgeologiya, the Ministry of Natural Resources and Environment of the Russian Federation (MNRE), the Ministry of Earth Sciences of the Republic of India (MoES) and MOF-ROK) pledged to allocate 50 per cent of their training opportunities to qualified women applicants, when possible, in the context of the WIDSR project.

In February 2024, the ISA Secretariat hosted the fifth CTP end-of-training certificate presentation ceremony, where 30 trainees from 14 different developing States were celebrated in the presence of contractors' representatives and the LTC members. Among the graduates, 17 (57 per cent) were women, and nine were nationals from geographically disadvantaged States (five SIDS, three LDCs and one LDC/SIDS).

Eventually, in March 2024, the LTC revised its Recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration.<sup>51</sup>



**“** I'm thrilled to be a part of this training, seeing it as a pathway to enhance my expertise in the field of marine science and advance my understanding of the role of international organizations in sustainable utilization of marine resources. The chance it provides to explore and experience the work carried out in a commercially important drilling zone aligned with environmental concerns and how ISA is contributing to these operations is really impressive. **”**

— **HETTIWATHAGE PUSHPAMALI**  
Marine Biologist  
Sri Lanka

**2023 CONTRACTORS' TRAINING PROGRAMME**

Hettiwathage was selected by ISA Legal and Technical Commission in August 2023 to benefit from a training opportunity provided by Blue Minerals Jamaica Limited (BMJ) in accordance with its exploration contract for polymetallic nodules with ISA. Hettiwathage will participate in a 6 to 10 weeks cruise in Mexico with a focus on the collection and conservation of marine/biological samples.





**“** I expect that this training will improve my ability to handle marine/biological samples, expand my knowledge of offshore mining and sustainable offshore mining practices, and teach me more about the Clarion Clipperton Zone. The knowledge that I will gain from the course will be used to create future programmes, regulations, and research initiatives for my organization. **”**

— **LAUREANA T. NEPOMUCENO**  
Aquaculturist I  
Philippines

**2023 CONTRACTORS' TRAINING PROGRAMME**

Laureana was selected by ISA Legal and Technical Commission in August 2023 to benefit from a training opportunity provided by Blue Minerals Jamaica Limited (BMJ) in accordance with its exploration contract for polymetallic nodules with ISA. Laureana will participate in a 6 to 10 weeks cruise in Mexico with a focus on the collection and conservation of marine/biological samples.





**“** I expect to gain an understanding of the international legal procedure to conduct deep sea mining of polymetallic nodules with innovative application technologies under the guidance of the Alseas team of experts. I look forward to developing my skill sets in the geotechnical field to promote knowledge sharing and development with fellow professionals. **”**

— **SINEAD JAHOUR**  
Renewable Energy Consultant  
Trinidad and Tobago

**2023 CONTRACTORS' TRAINING PROGRAMME**

Sinead was selected by ISA Legal and Technical Commission in August 2023 to benefit from a training opportunity provided by Blue Minerals Jamaica Limited (BMJ) in accordance with its exploration contract for polymetallic nodules with ISA. Sinead will participate in a 6 to 10 weeks cruise in Mexico with a focus on the collection and conservation of geotechnical samples.





**“** I can say that my academic journey was a smooth sail once I received this scholarship. This opportunity became my motivation to excel in my studies as it was an affirmation of great potential. I would like to express my sincere gratitude to the International Seabed Authority for choosing me as a Tonga Offshore Mining Limited scholarship recipient. **”**

— **MELE MATOTO**  
Marine Science Graduate  
Tonga

**2024 CONTRACTORS' TRAINING PROGRAMME**

Mele was selected by ISA Legal and Technical Commission in October 2022 to benefit from an undergraduate scholarship opportunity provided by Tonga Offshore Mining Limited (TOML) in accordance with its exploration contract for polymetallic nodules with ISA. In May 2024, Mele successfully completed her studies in Marine Science through the University of South Pacific (USP) in Fiji.




<sup>51</sup> ISA.2024.Recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration: issued by the Legal and Technical Commission (ISBA/19/LTC/14/Rev.1).

**Table 3. CTP selections during the reporting period**

| Contractor                           | Mineral | Number of / placements | Modality                                 | Status of implementation | WIDSR pledge |
|--------------------------------------|---------|------------------------|--|--------------------------|--------------|
| BGR                                  | PMN     | 4                      | Deep Dive                                | In progress              | ✓            |
|                                      | PMN     | 4                      | Deep Dive                                | Pending                  | ✓            |
|                                      | PMS     | 2                      | At-sea and post-cruise training          | In progress              | ✓            |
| Blue Minerals Jamaica Ltd.           | PMN     | 12                     | At-sea training                          | Pending                  | ✓            |
| CIIC                                 | PMN     | 2                      | Deep Dive                                | In progress              | ✓            |
|                                      | PMN     | 1                      | Fellowship (Masters)                     | Pending                  | ✓            |
|                                      | PMN     | 2                      | Seminar                                  | Pending                  | ✓            |
|                                      | PMN     | 2                      | Expert deployment to the ISA Secretariat | Pending                  | ✓            |
|                                      | PMN     | 1                      | Internship                               | Pending                  | ✓            |
| CMC                                  | PMN     | 3                      | At-sea training                          | Pending                  | ✓            |
| COMRA                                | CFC     | 4                      | At-sea training                          | Pending                  | ✓            |
|                                      | CFC     | 2                      | Engineering                              | Pending                  | ✓            |
|                                      | PMN     | 5                      | Engineering                              | Pending                  | ✓            |
|                                      | PMS     | 6                      | At-sea training                          | In progress              | ✓            |
|                                      | PMS     | 4                      | Engineering                              | Pending                  | ✓            |
| DORD                                 | PMN     | 5                      | At-sea training                          | Completed                | ✓            |
| Ifremer                              | PMN     | 2                      | At-sea training                          | Pending                  | ✓            |
|                                      | PMS     | 1                      | At-sea training                          | In progress              | ✓            |
|                                      | PMS     | 1                      | Internship                               | Pending                  | ✓            |
|                                      | PMS     | 1                      | Internship                               | Pending                  | ✓            |
| JSC Yuzhmoregeologiya                | PMN     | 4                      | Theoretical and at-sea training          | Pending                  | ✓            |
| Marawa Research and Exploration Ltd. | PMN     | 3                      | Deep Dive                                | Completed                | ✓            |
|                                      | PMN     | 3                      | Deep Dive                                | Pending                  | ✓            |
| MNRE, Russian Federation             | CFC     | 5                      | Theoretical training                     | Pending                  | ✓            |
|                                      | PMS     | 2                      | Theoretical training                     | Pending                  | ✓            |
| MoES, India                          | PMN     | 10                     | Theoretical                              | Pending                  | ✓            |
|                                      | PMS     | 5                      | On-land                                  | Pending                  | ✓            |
| MOF-ROK                              | CFC     | 2                      | At-sea training                          | Pending                  | ✓            |
|                                      | PMN     | 4                      | Deep Dive                                | Pending                  | ✓            |
|                                      | PMS     | 2                      | At-sea                                   | Pending                  | ✓            |
| NORI                                 | PMN     | 2                      | Undergraduate scholarships               | Pending                  | ✓            |
| Ocean Minerals Singapore             | PMN     | 4                      | Fellowship (Masters)                     | Pending                  |              |
| TOML                                 | PMN     | 2                      | Undergraduate scholarships               | Pending                  | ✓            |
| Loke CCZ I (formerly UKSR I)         | PMN     | 8                      | Online training                          | In progress              | ✓            |
| Loke CCZ II (formerly UKSR II)       | PMN     | 17                     | Online training                          | Pending                  | ✓            |

## Deep-DiplomaSea

In November 2023 and May 2024, the Secretariat hosted two additional Deep-DiplomaSea webinars aimed at enhancing awareness of its mission and activities among diplomats and senior UN agencies' personnel. The webinars provided a comprehensive overview of ISA's governance structure, decision-making processes and fundamental role in managing and regulating deep-sea mineral-related activities. The emphasis was placed on ensuring the effective protection of the marine environment, promoting MSR and ensuring equitable benefit-sharing from activities in the Area.

A significant focus of the session centred around the development of the Mining Code by ISA Members, establishing a legal framework for activities in the Area. As the ISA transitions from exploration to exploitation in the Area, the event highlighted the evolving legal and regulatory landscape, offering participants insights into the challenges and opportunities on the horizon. The webinar also dedicated a segment to exploring the roles and responsibilities of sponsoring States and contractors, emphasizing the importance of responsible and sustainable management of deep-sea mineral resources.



The banner features a dark blue background with a large, stylized, glowing blue and purple abstract shape on the left. At the top center is the International Seabed Authority (ISA) logo, which consists of a circular emblem with a scale of justice and the text 'INTERNATIONAL SEABED AUTHORITY'. Below the logo, the title 'Deep-DiplomaSea' is written in a large, white, serif font, followed by 'Webinar Series 2023/2' in a smaller, yellow, sans-serif font. The main text of the webinar is in white, serif font: '“Awareness session for personnel of Permanent Missions to ISA & and the UN on the role, mandate and work of the International Seabed Authority”'. Below this, the date and time are listed in yellow, sans-serif font: '16 Nov 2023 | 8:00AM - 12:00PM (Jamaica time)', preceded by a small calendar icon. A call to action 'Register here' is in white, sans-serif font, followed by a hand cursor icon and 'by 9 Nov 2023'. In the bottom right corner, there is a logo for the '2021 United Nations Decade of Ocean Science for Sustainable Development'. At the very bottom, in small white text, it says: 'This webinar will be open to a maximum of 70 attendees. Selection will be made on the basis of the first applications, gender and geographical representation and will favour diplomats recently engaged in the work of ISA.'

## Internship programme

The Secretariat accepts interns on a limited basis, depending on the specific needs of the respective offices within the Secretariat. The purpose of the internship programme is twofold: (a) provide a framework through which students and young government officials from diverse academic backgrounds can gain exposure to the work and functions of ISA to enhance their educational experience and/or gain experience in the work of ISA and (b) enable ISA to benefit from the assistance of qualified students and young government officials specialized in various fields within the scope of activities of ISA. The nature of the internships is not predefined. Rather, the Secretariat determines the number and nature of internships according to the requirements of its

offices. Selection and recruitment are ongoing. Each intern is supervised by a designated staff member of the Secretariat.

During the reporting period, a total of five individuals served as interns in the ISA Office of Legal Affairs. Four interns worked under the supervision of a Legal Officer to cover, inter alia, supporting the ISA organs, such as the LTC, the Council and the Assembly, in preparation of the documents and organization of the first and second parts of the 29th sessions. The fifth intern worked under the guidance of the Knowledge Management Officer in the library.



## Secretary-General Award for Excellence in Deep-Sea Research

Since 2017, ISA has been promoting and encouraging the excellence of young researchers from developing States through the ISA Secretary-General's Award for Excellence in Deep-Sea Research. This award is aimed at recognizing and encouraging the achievements of young researchers from developing countries who have made outstanding contributions to the advancement of scientific knowledge of the deep-sea environment or to the development of environmentally sustainable regulatory frameworks.



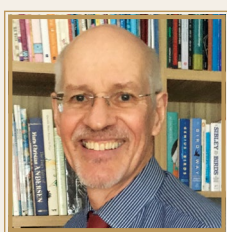
**Ms. Rima Browne**  
2023 Awardee, Cook Islands

In July 2023, during the 28th session of the Assembly, the Secretary-General presented the fourth edition of the award to Ms. Rima Browne from the Cook Islands. Ms. Browne is a geographer at the Cook Islands Seabed Minerals Authority. She was recommended for the award by the advisory committee responsible for the selection process appointed by the ISA Secretary-General for her contribution to mapping the seabed of the Cook Islands.

The geomorphology and inset maps produced as part of Ms. Browne's research provide essential information for marine habitat management, mineral resource assessment, marine spatial planning, submarine communications infrastructure and natural hazard risk assessments, among other possible applications.

In December 2023, the Secretary-General launched the fifth edition of the Award for Excellence in Deep-Sea Research. The awardee for 2024, who will be formally announced during the 29th session of the Assembly in July 2024, will also have the opportunity to participate in an exploration cruise with Loke CCZ.

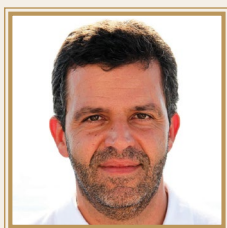
### Box 9. Members of the 2023 Advisory Committee for the ISA Secretary-General Award for Excellence in Deep-Sea Research



**Dr. Gordon L.J. Paterson**  
Natural History Museum, UK



**Ms. Jihyun Lee**  
Secretariat of the Convention  
on Biological Diversity



**Professor Pedro Madureira**  
Evora University, Portugal



**H.E. Dr. Maureen Tamuno**  
Ministry of Foreign Affairs, Nigeria



**Dr. G. A. Ramadass**  
MoES, India

## Africa Deep Seabed Resources project



ISA, the African Union and the Norwegian Agency for Development Cooperation (NORAD) have been implementing the Africa Deep Seabed Resources (ADSR) project since 2019. The project stems from a joint voluntary commitment (#OceanAction40945) registered at the 2017 United Nations Ocean Conference and renewed in 2022.

The ADSR project aims to foster international and regional cooperation to support the sustainable development of Africa's blue economy. It involves the organization of workshops in each African sub-region. Four workshops have been organized so far: Côte d'Ivoire (October 2018), South Africa (May 2019), virtually (June 2021, hosted by ISA and the Government of Mauritius) and Nigeria (October 2022). Jointly hosted by ISA and the Government of the Federal Republic of Nigeria, the last ADSR workshop brought together senior representatives from Nigerian ministries and authorities,

seven other African countries (Comoros, Eritrea, Ethiopia, Ghana, São Tomé and Príncipe, Sudan and Uganda) and over 250 registered participants from industry, academia and civil society organizations. Two more regional workshops will be hosted in Morocco and Senegal.

The ADSR project also commissioned a socioeconomic and environmental cost-benefit assessment to help African States understand the relevance of engaging in activities related to the sustainable development of deep-seabed resources in the Area to support their blue economies. Consultations on the draft report with Member States and stakeholders in the African region are scheduled for the third quarter of 2023. The publication of this report is expected in November 2023.

Another key component of the project was the deployment of 10 African experts to the ISA Secretariat, completed in 2022.

## Abyssal Initiative for Blue Growth



The Abyssal Initiative for Blue Growth is implemented by ISA in partnership with UN DESA under the voluntary joint commitment #OceanAction40974, registered at the 2017 United Nations Ocean Conference and renewed in 2022.

The Abyssal Initiative aims at strengthening the capacity of Pacific SIDS to develop and implement appropriate enabling legal, institutional and policy frameworks for the sound and sustainable management of marine mineral resources in the Area.

As of June 2024, there were 15 Pacific SIDS among ISA Members. Four of these are sponsoring contracts for mineral exploration in the Area: the Cook Islands, Kiribati, Nauru and the Kingdom of Tonga. The Abyssal Initiative

held its first workshop in Tonga in February 2019, which consisted of a broad consultation between Pacific SIDS, representatives of civil society organizations and the private sector. Based on this consultation, a list of specific activities was designed to address the needs identified by the four participating States. Two regional workshops were organized in August 2019 in Nauru and Kiribati to discuss MSR and the role and responsibilities of sponsoring States.

Initially, the Abyssal Initiative planned to hold its final workshop in April 2022 in partnership with the Kingdom of Tonga to address benefits-sharing issues. However, due to the volcanic eruption in Tonga in December 2021, the workshop was postponed to June 2023.

## ISA-Egypt Joint Training and Research Centre

ISA signed a memorandum of understanding with the NIOF of Egypt to establish a JTRC in Alexandria, Egypt, on 17 January 2024.<sup>52</sup> The memorandum of understanding, initiated following a proposal by the African Group at ISA and approved by the Assembly in July 2023, responds to the growing need for specialized training and research facilities in the region aimed at enhancing capacity development and fostering MSR. It also anchors the contribution of African States to the advancement of strategic priorities identified by the international community through the global deep-sea research agenda adopted by all ISA Members in December 2020 in the form of the MSR Action Plan and the ISA Capacity development strategy adopted in 2022.

The ISA-Egypt JTRC will focus on providing training programmes, conducting collaborative research, organizing conferences and seminars and disseminating research findings. Importantly, the ISA-Egypt JTRC will also lead the way in developing and implementing specific activities

and programmes to advance women's empowerment and leadership in deep-sea research.

A steering committee will be established to guide the ISA-Egypt JTRC's operations, ensuring alignment with the strategic directions of ISA and the needs of the region.

The first activity hosted by the newly established JTRC is the training course on EIA, an activity financed under the ISAPF. The Training course will take place at the seat of the JTRC in Alexandria in September 2024.



## ISA-China Joint Training and Research Centre

ISA also signed a memorandum of understanding with China for the establishment of the JTRC in Qingdao. The second training workshop with the ISA-China JTRC was organized in October 2023. This workshop was entitled "Marine science and technology" and involved 25 participants from 21 developing countries, including three nationals from SIDS and six from LDCs. Half of the participants were women. More than 20 experts in the field shared their knowledge and experience with the trainees.

The training workshop was designed to introduce the trainees to cutting-edge science and technology in deep-sea-related fields with specific emphasis on SRPs identified in the ISA MSR Action Plan and measures to ensure the effective protection of the environment, deep-sea biodiversity and habitats and deep-sea technologies and equipment. It allowed the trainees to operate underwater vehicles, meet and exchange with international deep-sea scientists and experts, and gain hands-on training on-board a research vessel.



<sup>52</sup> ISA. 2023. Memorandum of understanding between the International Seabed Authority and the National Institute of Oceanography and Fisheries of Egypt concerning the establishment of a joint regional training and research centre: Note by the Secretary-General (ISBA/28/A/13).



## Collaboration with the Indian Ocean Rim Association

ISA and the Indian Ocean Rim Association (IORA) continued to collaborate in the implementation of a joint project designed to address the needs identified by IORA members pertaining to deep-sea research activities within the Indian Ocean.

This joint project aims to enhance the institutional capacities of LDCs and SIDS in deep-sea-related disciplines and the law of the sea in general.

In 2023, a total of 58 beneficiaries from IORA and ISA Member States participated in various ISA capacity development programmes and activities. These programmes and activities included the ISA CTP, REMP workshop for the Indian Ocean (2023), SSKI and the ISA-China JTRC workshop 2023.

ISA and IORA also joined hands in the organization of two side events at the 2024 United Nations SIDS Conference.



**Salman Farisi**

**IORA Secretary-General**

### The statement of the Secretary-General of IORA at the 2024 SIDS Conference



*"Since the signing of the memorandum of understanding on collaboration between ISA and IORA in 2022, many capacity-building projects have been undertaken with special emphasis on developing dedicated activities that aim at advancing women empowerment and leadership in ocean affairs, including the law of the sea and deep-sea research matters. We highly appreciate the strategic partnership between IORA and ISA to promote capacity building for the Member States, including LDCs and SIDS, on MSR."*

## ISA-SPC partnership for the enhancement of scientific and technical capacities of Pacific countries in relation to the sustainable development of deep-sea mineral resources

Building on the memorandum of understanding signed in 2015 by the two organizations, ISA and SPC responded to requests from Pacific SIDS to develop a joint project to provide targeted assistance on technical aspects of the sustainable development of deep-seabed mineral resources. SPC implements the project with the support of ISA and in partnership with the University of the South Pacific. It is structured around four key areas:

- facilitating consultation and training of regional experts on deep-sea-related matters
- enabling students from the Pacific to research deep-seabed-related topics
- organizing at-sea training for students
- facilitating two-month placements in the ISA Secretariat for selected students.

## Collaboration with the United Nations Technology Bank for Least Developed Countries

The Secretariat and the United Nations Technology Bank for Least Developed Countries (UNTLDC) have been collaborating in the implementation of a joint project aimed at conceptualizing, designing and implementing coordinated activities to enhance the capacities of LDCs in support of the sustainable development of emerging blue economic sectors since 2022. This joint project framework aligns with the objectives outlined in the Doha Programme of Action for the Least Developed Countries for the Decade 2022-2031. It also aligns with the ISA's mandate to facilitate the active participation of developing States and foster the transfer of technology and scientific knowledge related to activities in the Area to developing States. In 2024, with the financial support of the ISAPF, ISA and UNTLDC carried out the first joint National Expert Deployment Programme, which allowed two experts from LDCs to join the ISA Secretariat for three months each.



### Box 10. Ms. Sundi Kilugala Malomo



In January 2024, the ISA Secretariat welcomed Ms. Sundi Kilugala Malomo, a Tanzanian expert with a diverse background in geology, business administration and mining-related affairs. Ms. Malomo works in the Ministry of Minerals, the Mines Inspectorate and Environment Department of the United Republic of Tanzania, overseeing the implementation of feasibility studies, mining plans, environmental management and safety protocols. Her responsibilities also extend to promoting research and development in the mineral sector to enhance government revenue and ensuring the safety of mining activities. During her time with the Secretariat, Ms. Malomo worked on the geochemistry of uranium, thorium and potassium and their radioisotopes in the marine environment.

### Box 11. Dr. Sushmita Bhandari



In February 2024, Dr. Sushmita Bhandari, a geologist in the Ministry of Industry, Commerce and Supplies, the Department of Mines and Geology, Government of Nepal, also joined the ISA Secretariat. Dr. Bhandari received several awards and grants, including the CAS-TWAS President's Fellowship 2017 and the 2021 Student Research Grant Program from the Society of Economic Geologists Foundation, Inc., USA. Her research interests include rare metals, critical minerals, geochemistry, mineralogy and petrology. She has published several papers in international geoscience journals, such as *Ore Geology Reviews* and *Minerals*. During her time with the Secretariat, Dr. Bhandari worked on lithium geochemistry in the marine environment to assess its potential as an additional lithium resource.

## Establishment of the African Academy for Deep-Sea Diplomacy

In May 2024, ISA signed the memorandum of understanding with the IRIC approved by the Assembly at its 28th session. Through the partnership established under the memorandum of understanding, ISA and IRIC will cooperate in the planning and implementation of specific training activities with a focus on Part XI of the UNCLOS and the 1994 Agreement.

In particular, this partnership foresees the creation of a dedicated curriculum on the law of the sea for African diplomats to be jointly managed by ISA and IRIC with a view to supporting the development of enhanced knowledge and expertise of African countries.

The initiative also received support by the ISAPF Board which, at its meeting in January 2024, decided to allocate a grant for the development of ADSEA, a training course to be carried out under the memorandum of understanding between ISA and IRIC and aimed at implementing its main objectives. ADSEA will provide blended training to diplomats from French-speaking African countries in the field of the law of the sea, with particular reference to the regime of the Area under Part XI of UNCLOS.

ADSEA will be launched in 2024 and will take place in Yaoundé, Cameroon.



## ISA-Ifremer deep-sea taxonomy postdoctoral fellowship



The Secretariat established a deep-sea taxonomy postdoctoral fellowship for candidates from developing States Members of ISA in cooperation with the Ifremer and with the financial support of the Government of France.



## Box 12. ISA-Ifremer 2022-2024 fellow Dr. Ranju Radhakrishnan shares preliminary results of her postdoctoral work



Dr. Ranju Radhakrishnan (India) concluded her 18-month fellowship on 29 February 2024. The fellowship focused on advancing taxonomic descriptions of deep-sea species, pioneering the development and testing of novel methods and technologies for the identification of species in the abyssal depths and conducting comprehensive assessments of changes in diversity and abundance. It marks a significant contribution towards increased global scientific capacity in deep-sea biodiversity assessments (SSKI Outcome 4).

Dr. Radhakrishnan received invaluable support from the Blue Revolution network of taxonomic experts, who aided in species identification, as well as a broader team dedicated to technological advancements. Moreover, the fellow integrated into the Blue Revolution training programme, participating in the Meioscool 2023 summer school and providing mentorship to ISA trainees hosted by Ifremer (CTP). Dr. Radhakrishnan showcased her work at the SSKI side event during the ISA Council meeting in July 2023 and further disseminated her research results at the 56th European Marine Biology Symposium held in Reykjavik, Iceland, in September 2023.

## Collaboration with the National Maritime Foundation of India

In January 2023, the ISA Secretariat and the National Maritime Foundation of India signed a letter of cooperation to jointly conduct studies and projects on matters of mutual interest related to the sustainable development of deep-seabed resources in the Indian Ocean region. Discussions are currently under way to operationalize the first set of activities.

Indian Ocean region. Discussions are under way to initiate the first series of activities under this collaboration.

## Collaboration with the Research and Information System for Developing Countries

In January 2023, the ISA Secretariat signed a letter of cooperation with the Research and Information System for Developing Countries of India. This collaboration aims to enable joint research and publications concerning deep-sea-related subjects and facilitate national, regional and international policy dialogue on topics of shared interest. Furthermore, the two intend to develop joint programmes and dedicated initiatives focused on enhancing the capacities of developing States, particularly in the areas of ocean governance and MSR within the

## Collaboration with the Gujarat Law University

Following signing a letter of cooperation with the Gujarat National Law University of India in January 2023, the ISA Secretariat supports the development of capacity development activities that promote the effective implementation of UNCLOS, including Part XI and the 1994 Agreement. Such activities will include organizing seminars, publishing materials to support collaborative research, facilitating dialogue among relevant stakeholders and disseminating information. Emphasis will be put on facilitating the involvement of women in the law of the sea.



## Building excellence in deep-sea research in support of the blue economy objectives of Antigua and Barbuda and the Caribbean

ISA and the Government of Antigua and Barbuda have partnered to support the development of dedicated capacity development activities in MSR and technology development in their emerging blue economy sectors. This includes supporting a centre of excellence and fostering regional and international cooperation in the Caribbean region.

The initiative will also focus on increasing the participation of women in MSR and related fields in the region. The

ISAPF Board allocated funding of USD100,000 to the project “Advancing Caribbean Blue Economy” with a view to supporting the development of further initiatives in January 2024. The project aims to assess the immediate capacity needs of Caribbean countries in the field of MSR in the Area and to develop a tailored curriculum to advance deep-sea research in the Caribbean region. The curriculum will also represent a platform to launch a regional meeting of the S.H.E. mentoring programme.

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## Collaboration with Kobe Ocean-Bottom Exploration Center

On 21 February 2024, the Secretariat and KOBEC in Japan signed a letter of cooperation to partner in the conduct of research and studies on topics of mutual interest, including but not limited to a sustainable blue economy, and to promote specific activities and initiatives that

recognize and facilitate the role and participation of women in research related to the Area. Discussions are under way to initiate the first series of activities under this collaboration.



## Deep Dive: ISA's e-learning platform

Deep Dive is a unique e-learning platform exclusively designed to address all elements of the legal regime in UNCLOS, Part XI and the 1994 Agreement. It comprises five modules covering the legal, scientific and technological aspects of activities in the Area. Deep Dive builds on the exclusive body of expertise and experience of internationally renowned experts in deep-sea-related matters. The first module of self-paced lessons has been released on ISA's Deep Dive platform in July 2023 (**Box 13**).

Deep Dive has been conceived to enhance the capacity of government officials and practitioners from Member States, including developing States, Members of ISA, young graduates, staff of partner institutions and other relevant stakeholders to understand better and implement the legal regime of the Area and the different elements that construct the conduct of activities in the Area. Deep Dive aims to facilitate the development and implementation of national legal frameworks and help strengthen national institutions to enable countries to participate more actively in the activities carried out in the Area and fully benefit from the opportunities offered by the blue economy. Deep Dive is a meaningful, tangible, efficient, effective and targeted response to the needs of developing States, as identified by them.

The first call for applications for the first cohort of Deep Divers was issued in July 2023. Of the 83 applications received, 23 students have been selected. Three seats were also made available under CTP. On 31 December 2023, the first cohort, composed of 15 women and 13 men from 17 countries, concluded Dive 1 on the e-learning platform and 20 were awarded the Deep Dive certificate.

On 15 January 2024, the second cohort of students, 12 women and 24 men, including six trainees under CTP, successfully enrolled in Deep Dive. The second cohort has benefited from Dive 1, Dive 2 and Dive 3 and has concluded the training programme on 22 April 2024.

The third call for applications for the new cohort of students was issued on 12 March 2024. A total of 36 students started their Dives on 13 May 2024 and are expected to complete it on 11 August 2024. The call for the fourth cohort will be issued on 17 June 2024. The deadline for this call will be 31 July 2024 with the expected start date in September 2024.

### Box 13. Deep Dive learning content



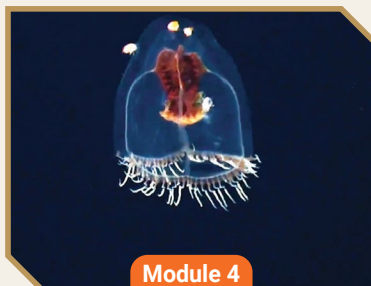
Module 1  
UNCLOS and governance  
of the Area



Module 2  
Marine mineral resources  
of the Area



Module 3  
MSR in the Area



Module 4  
Protection of the marine  
environment from activities  
carried out in the Area



Module 5  
Technology development and  
innovation in relation to the  
sustainable development of  
mineral resources of the Area



## Box 14. Deep Dive experts

### Lead experts



**H.E. Mr. Michael W. Lodge**

Module 1



**Prof. Pedro Madureira**

Module 2



**Dr. Samantha Smith**

Module 3



**Prof. Yoshihisa Shirayama**

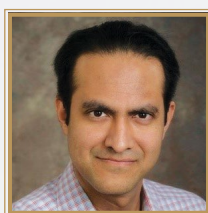
Module 4



**Mr. Leonhard Weixler**

Module 5

### Deep Dive experts



**Prof. Saleem Ali**

Module 2



**Dr. Ing. Berit Floor Lund**

Module 5



**Dr. Marie Bourrel-McKinnon**

Module 1, 4



**Mr. Harald Brekke**

Module 2



**Mr. Eden Charles**

Module 1



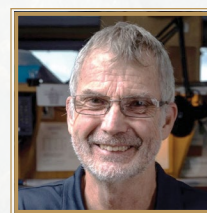
**Prof. Georgy Cherkashov**

Module 2, 5



**Prof. Aldo Chircop**

Module 1



**Dr. Malcom Clark**

Module 3, 4



**Mr. Tara Davenport**

Module 1



**Mr. Kris De Bruyne**

Module 5



**Mr. Alden Denny**

Module 5



**Ms. Mariana Durney**

Module 1



**Box 14. Deep Dive experts** (continued)**Dr. Katsunori Fujikura**

Module 4

**Prof. Tomohiko Fukushima**

Module 3, 4

**Dr. Luciana Genio**

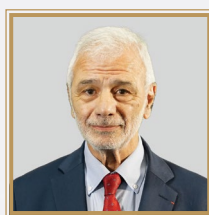
Module 3, 4

**Dr. Warwick Gullett**

Module 1

**Mr. Johan Heiler**

Module 5

**Mr. Elie Jarmache**

Module 1, 3

**Prof. Daniel Jones**

Module 4

**Prof. Atsuko Kanehara**

Module 4

**Dr. Thomas Kuhn**

Module 2

**Dr. Anna Lim**

Module 5

**Ms. Kamila Mainowicz**

Module 3

**Dr. Kirsty McQuaid**

Module 4

**Dr. Kira Mizell**

Module 2

**Dr. Nobuyuki Okamoto**

Module 5

**Dr. Ellen Pape**

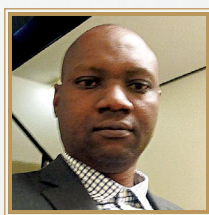
Module 3

**Dr. John Parianos**

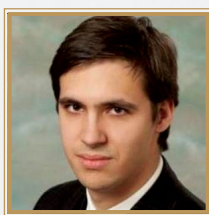
Module 2

**Dr. Sven Petersen**

Module 2

**Dr. Samuel Popoola**

Module 3

**Dr. David Pusztai**

Module 5

**Dr. Wanfei Qiu**

Module 4



## Box 14. Deep Dive experts (continued)



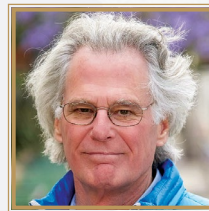
**Dr. Carsten Ruhlemann**  
Module 5



**Mr. Gianni Scherl**  
Module 5



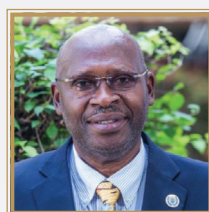
**Dr. Ulrich Schwarz-Schampera**  
Module 5



**Prof. Dale Squires**  
Module 1, 2



**Dr. Birte Timm**  
Module 5



**Mr. Joshua Tuhumwire**  
Module 2



**Dr. Ann Vanreusel**  
Module 4



**Dr. Annemiek Vink**  
Module 3



**Ms. Michelle Walker**  
Module 1



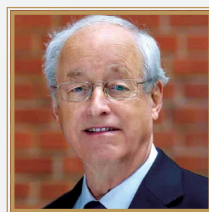
**Ms. Lea Kolmos Weis**  
Module 4



**Sir Michael Wood**  
Module 1



**Dr. Noemie Wouters**  
Module 3



**Dr. Rüdiger Wolfrum**  
Module 1



**Mr. Akira Usui**  
Module 5



**Table 4. Deep Dive Modules Content**

| <b>Module 1: UNCLOS and the Area</b> |  | <b>Lead Expert:</b><br>H.E. Mr. Michael W. Lodge          |
|--------------------------------------|--|---|
| <b>Lessons</b>                       | <b>Title</b>   | <b>Expert</b>   |
| Lesson 1                             | Introduction   | H.E. Mr. Michael W. Lodge                                 |
| Lesson 2                             | The Area: legal and scientific perspective   | H.E. Mr. Michael W. Lodge<br>Dr. Ulrich Schwarz-Schampera |
| Lesson 3                             | ISA: role, functions and structure   | Sir Michael Wood  |
| Lesson 4                             | The Mining Code  | Ms. Michelle Walker                                       |
| Lesson 5                             | Responsibilities and obligations of sponsoring States                                    | Dr. Rüdiger Wolfrum                                       |
| Lesson 6                             | The Enterprise   | Mr. Eden Charles  |
| Lesson 7                             | Equitable sharing of benefits from activities in the Area                                | H.E. Mr. Michael W. Lodge                                 |
| Elective 1                           | LDCs, LLDCs and SIDS and UNCLOS and the sustainable development of ocean-based economies | Dr. Marie Bourrel-McKinnon                                |
| Elective 2                           | Deep-seabed mining and submarine cables  | Dr. Tara Davenport  |
| Elective 3                           | Implementation of Art. 82 of UNCLOS: challenges and opportunities                        | Prof. Aldo Chircop  |
| Elective 4                           | Common heritage of Mankind   | Mr. Elie Jarmache   |
| Elective 5                           | Process for making an application for a plan of work for exploration                     | Dr. Ulrich Schwarz-Schampera                              |
| Elective 6                           | Settlement of disputes under Part XI   | Ms. Mariana Durney  |
| Elective 7                           | Due regard   | Dr. Warwick Gullett                                       |
| Elective 8                           | Equity as a conceptual basis for the development of benefits sharing criteria            | Prof. Dale Squires  |

| <b>Module 2: Marine mineral resources of the Area</b> |  | <b>Lead Expert:</b><br>Prof. Pedro Madureira |
|---|--|--|
| <b>Lessons</b>  | <b>Title</b>   | <b>Expert</b>                                |
| Lesson 1  | Minerals, Metals, Mineral Resources and Reserves: basic definitions  | Prof. Pedro Madureira                        |
| Lesson 2  | Marine mineral resources: scientific aspects   | Dr. Sven Petersen                            |
| Lesson 3  | Marine mineral resources: economic and social perspectives   | Prof. Saleem Ali                             |
| Lesson 4  | The current status of exploration for marine minerals resources in the Area                                      | Mr. Joshua Tuhumwire                         |
| Lesson 5  | From exploration to exploitation: the mineral resource assessment  | Dr. John Parianos                            |
| Lesson 6  | The need for minerals in the current world   | Prof. Pedro Madureira                        |
| Elective 1  | The geology of PMN   | Dr. Thomas Kuhn                              |
| Elective 2  | The geology of PMS   | Prof. Georgy Cherkashov                      |
| Elective 3  | The geology of CFC   | Dr. Kira Mizell                              |
| Elective 4  | Marine mineral resources: technological perspectives   | Dr. Ulrich Schwarz-Schampera                 |
| Elective 5  | Potential revenues from the exploitation of minerals in the Area   | Prof. Dale Squires                           |
| Elective 6  | Marine mineral resources of the continental shelf – links with article 82 of UN Convention on the Law of the Sea | Mr. Harald Brekke                            |

| <b>Module 3: Marine scientific research</b> |   | <b>Lead Expert:</b><br>Dr. Samantha Smith |
|---|---|---|
| <b>Lessons</b>                              | <b>Title</b>  | <b>Expert</b>                             |
| Lesson 1                                    | MSR technologies and techniques (offshore and lab-based)                              | Dr. Annemiek Vink                         |
| Lesson 2                                    | Biology of PMN  | Dr. Ellen Pape                            |
| Lesson 3                                    | Biology of PMS  | Mr. Samuel Popoola                        |
| Lesson 4                                    | Biology of cobalt-bearing ferromanganese crusts                                       | Prof. Tomohiko Fukushima                  |
| Elective 1                                  | ISA MSR Action Plan in support of the UN Decade of Oceans for Sustainable Development | Dr. Noemie Wouters                        |
| Elective 2                                  | Legal regime of MSR in the Area   | Mr. Elie Jarmache                         |
| Elective 3                                  | The Deep-Sea: An introduction to environment characteristics and habitats             | Dr. Malcolm Clark                         |
| Elective 4                                  | Available data and role of ISA in sharing environmental information                   | Dr. Luciana Genio                         |

| <b>Module 4:</b> Protection of the marine environment from activities carried out in the Area |  | <b>Lead Expert:</b><br>Prof. Yoshihisa Shirayama |
|---|--|--|
| Lessons   | Title  | Expert   |
| Lesson 1  | Legal obligations to protect the marine environment and the precautionary approach                     | Prof. Atsuko Kanehara                            |
| Lesson 2  | Overview of environmental obligations in the ISA regime  | Dr. Marie Bourrel-McKinnon                       |
| Lesson 3  | Environment and ecosystems associated with each deposit type   | Dr. Kirsty McQuaid                               |
| Lesson 4  | Overview of baseline studies: importance and ISA expectations  | Dr. Luciana Genio                                |
| Lesson 5  | Environmental risk assessment & impact assessment in a DSM context                                     | Dr. Malcolm Clark                                |
| Lesson 6  | Development and implementation of REMPs in the Area  | Dr. Wanfei Qiu                                   |
| Elective 1  | Environmental management plan and monitoring – a technical perspective                                 | Prof. Tomohiko Fukushima                         |
| Elective 2  | Deep-sea meiofauna of the Clarion Clipperton Zone  | Dr. Ann Vanreusel                                |
| Elective 3  | Deep-sea megafauna of the CCZ  | Prof. Daniel Jones                               |
| Elective 4  | Environmental management plan and monitoring – a legal perspective                                     | Mrs. Lea Kolmos Weis                             |
| Elective 5  | Simplified Monitoring of Deep-sea ecosystems – Focus on deep-sea marine protected Areas, MPAs in Japan | Dr. Katsunori Fujikura                           |
| Elective 6  | Environmental management plan and monitoring – a technical perspective                                 | Prof. Tomohiko Fukushima                         |

| <b>Module 5:</b> Technology development and innovation in for the sustainable development of mineral resources of the Area |  | <b>Lead Expert:</b><br>Mr. Leonhard Weixler |
|--|--|---|
| Lessons  | Title  | Expert                                      |
| Lesson 1   | Technologies for prospection for mineral resources in the Area                               | Dr. Anna Lim                                |
| Lesson 2   | Methods and tools for exploration for PMN in the Area  | Dr. Carsten Ruhlemann                       |
| Lesson 3   | Technologies for extraction of PMN in the Area   | Mr. Johan Heiler                            |
| Lesson 4   | Methods and tools for exploration for PMS in the Area  | Mr. Alden Denny Adepth                      |
| Lesson 5   | Technologies for extraction of PMS in the Area   | Mr. Leonhard Weixler                        |
| Lesson 6   | Scopes, methods and tools for exploration of CFC   | Prof. Akira Usui                            |
| Lesson 7   | Development of mining technology for seafloor massive sulphides and CFC                      | Dr. Nobuyuki Okamoto                        |
| Elective 1   | Monitoring for exploration and exploitation activities                                       | Prof. Georgy Cherkashov                     |
| Elective 2   | Logistics/transport before and after exploitation  | Dr. Birte Timm                              |
| Elective 3   | Vessel and Fleet Management  | Mr. Gianni Scherl                           |
| Elective 4   | Testing of mining components during exploration: a legal and regulatory framework            | Dr. David Pusztai                           |
| Elective 5   | Testing of mining components during exploration: technological approach                      | Mr. Kris De Bruyne                          |
| Elective 6   | Bathymetry: detailed mapping for exploration   | Dr. Ing. Berit Floor Lund                   |
| Elective 7   | Area 2030: Facilitating the high-resolution mapping of the international seabed area by 2030 | Dr. Ulrich Schwarz-Shampera                 |

## SD 6. Ensure fully integrated participation by developing States

The legal regime for the deep seabed under Part XI of UNCLOS and the 1994 Agreement is based on two core expectations: that the regime would have a universal character and that due attention would be given to the interests and needs of developing countries. The latter expectation is reflected in UNCLOS, Article 148, which affirms the promotion of effective participation of developing States in activities in the Area with due regard to their special interests and needs. Other provisions of Part XI provide preferential access for developing

countries (the reserved area system) and grant priority in the enjoyment of the proceeds of deep-seabed mining (equitable distribution).

Presently, ISA prioritizes identifying and promoting opportunities for personnel from developing States to be trained in marine science and technology. Particular attention is paid to the needs of LDCs, LLDCs, SIDS and technologically less advanced States.

### Operationalization of the Enterprise

The Enterprise is the organ of ISA conceived by UNCLOS to carry out activities in the Area directly, including the transporting, processing and marketing of minerals recovered from it on behalf of all Members of ISA, subject to the directives and under the control of the Council. Under the 1994 Agreement, certain limited functions of the Enterprise are to be carried out by the Secretariat until the Council decides that the Enterprise should function independently.

In March 2020, the LTC considered a study on issues related to the operationalization of the Enterprise and made recommendations to the Council, including those relating to the establishment of the position of Interim Director-General of the Enterprise in the Secretariat.<sup>53</sup>

At its meetings in March 2023, the Council decided to formally adopt the recommendations of the LTC to establish the position of Interim Director-General for the Enterprise.<sup>54</sup> The Council further requested that the

Secretary-General submit a supplementary budget proposal for the financial period 2023-2024 to cover the costs of the Interim Director-General for its consideration at the second part of the 28th session in July 2023. The Assembly adopted the supplementary budget proposal under the recommendation of the FC at its 28th session in July 2023.<sup>55</sup>

After a thorough selection process, Mr. Eden Charles (Trinidad and Tobago) was appointed Interim Director-General of the Enterprise, pursuant to Article 170 and Annex IV of UNCLOS. Based at the ISA headquarters, the Interim Director-General reports administratively to the Secretary-General while being accountable to both the Council and the Assembly. Once fully operational, the Enterprise will play a crucial role in facilitating the participation of developing States in deep-seabed mining in the Area, as it will be able to carry out such activities in the reserved areas in association with them.

<sup>53</sup> ISA. 2019. A study related to issues on the operationalization of the Enterprise. Available at: [https://www.isa.org.jm/wp-content/uploads/2022/06/Operationalization\\_of\\_the\\_Enterprise.pdf](https://www.isa.org.jm/wp-content/uploads/2022/06/Operationalization_of_the_Enterprise.pdf).

<sup>54</sup> ISA. 2023. Decision of the Council of the International Seabed Authority relating to the establishment of the position of an interim director general of the Enterprise (ISBA/28/C/10).

<sup>55</sup> ISA. 2019. Decision of the Assembly of the International Seabed Authority relating to the implementation of the strategic plan for the Authority for the period 2019–2023 (ISBA/25/A/15).



## Fourth International Conference on Small Island Developing States

The Secretary-General participated in the Fourth international conference on SIDS entitled “Charting the Course Towards Resilient Prosperity” from 27 to 30 May 2024 when the international community gathered in Antigua and Barbuda to review sustainable development progress of the SIDS and propose a new decade of partnerships and solutions to supercharge their path to resilient prosperity.

As underscored in many regional preparatory documents for the conference, the role and mandate of ISA substantially contribute to supporting SIDS in their quest for a more resilient and sustainable future. This is particularly true with respect to the sustainable use of ocean resources through sound and responsible ocean governance. In this respect, some delegations stressed the importance of the finalization of the Mining Code

by ISA as a tool to ensure that mineral-related activities are conducted responsibly and sustainably.

The Secretariat organized two side events during the conference. The first, “Leveraging knowledge, technology, innovation and capacity to advance deep-sea research for the benefit of humanity,” was co-hosted by Antigua and Barbuda, Jamaica and Singapore and co-sponsored by the Cook Islands, Fiji, Malta, Norway and IORA. This side event was an occasion to highlight the contribution of ISA to the protection of the environment beyond national jurisdiction for the benefit of humanity and the enhancement of the rule of law in the oceans. Challenges, opportunities and best practices in deep-sea research and the role of partners to build resilience in the ocean economy in SIDS in line with their priorities were also explored and discussed.



**United Nations**



**2024 SIDS Conference**

27-30 MAY, 2024 – ANTIGUA AND BARBUDA

Co-hosts



Co-sponsors



## Box 15. Extracts from statements delivered during 2024 SIDS Conference side event: Leveraging knowledge, technology, innovation and capacity to advance deep-sea research for the benefit of humanity

**H.E. Mr. Michael W. Lodge, Secretary-General, ISA**

*"Over the last 10 years, the Big Ocean States (BOS) have made remarkable progress towards a more integrated approach to sustainable development and to building resilient prosperity for the current and future generations. This progress is a testament to the resolute ownership and leadership shown by BOS across international forums. ISA is no exception. In pursuing the unique opportunities provided by the UNCLOS when it comes to access to the resources of the Area to develop ocean-based economies, BOS have pushed forward the bold and ambitious collective vision of a shared future for humanity based on the sustainable use of the Area and its resources. Yet, our journey has only just begun. It is for this reason that, since 2020, ISA has been leading the shaping of the global agenda for deep-sea research through its Action Plan for Marine Scientific Research in support of the UN Decade of Ocean Science for Sustainable Development, endorsed by all its 168 Members. Structured around six SRPs, this global deep-sea research agenda enables ISA and its partners to contribute, day after day, to advancing global science, knowledge and understanding in support of more resilient prosperity and the development of sustainable ocean economies for BOS as well as LDCs and LLDCs."*

**The Honourable Mark Brown, Prime Minister of the Cook Islands**

*"For us, data and knowledge are more valuable than the resources itself. This is because it is only with knowledge and understanding that we can make sound decisions to unlock our blue economy and improve our lives and those of our children. Knowledge empowers us all. As such, it is important to continue identifying and prioritizing avenues for ocean knowledge and scientific advancement at national, regional and global levels. I note that ISA celebrates its 30th anniversary this year. Most, if not all, ISA's work so far has been and continues to be entirely dedicated to advancing science and global knowledge of the deep sea for the benefit of us all. ISA stands as a cornerstone of science and evidence-based governance of the global commons and the prerequisite for the sustainable use of ocean resources as well as the protection of the marine environment."*

**Dr. Mohamad Maliki Bin Osman, Minister in the Prime Minister's Office, Second Minister for Education and Foreign Affairs of Singapore**

*"I encourage SIDS to leverage ISA's many initiatives to advance scientific, environmental and technological knowledge and to advance research on various aspects of seabed exploration and the deep-seabed environment. Singapore welcomes more partnerships with SIDS to cultivate deep-sea literacy for our shared benefit, including capacity-building in marine science and technology."*

**The Honourable Kamina Johnson Smith, Minister of Foreign Affairs and Foreign Trade of Jamaica**

*"ISA has the unique mandate under UNCLOS to ensure the effective protection of the Area and its resources as the common heritage of humankind. Jamaica was instrumental in the conclusion of UNCLOS. We wholeheartedly support the work of ISA in its role to protect the environment beyond national jurisdiction. As the host country of ISA, we are pleased with the work ISA has accomplished in 30 years of existence and its significance for the deep-sea regime. We look forward to the even greater focus and strategic activities that ISA will conduct in the years ahead for the sustainable development of ocean economies, based on scientific research, particularly for SIDS."*

**Mr. Andreas Motzfeldt Kravik, State Secretary with the Ministry of Foreign Affairs, Norway**

*"Norway supports ISA and the ongoing work among States Parties to finalize the regulatory framework for exploration and exploitation of minerals in the Area, in accordance with UNCLOS."*

**Mr. Li Junhua, Head of the UN DESA and Secretary-General of the 4th SIDS Conference**

*"The responsible use and protection of our ocean is critical for advancing the 2030 Agenda and to the well-being of SIDS and other low-lying and coastal territories. The global deep-sea research agenda is a key tool to support well-informed decision-making in SIDS and beyond."*

**Professor Dale Webber, Director of the Centre for Marine Sciences at the University of the West Indies**

*"Especially in the Caribbean, we have seldom had opportunities to explore, with profundity, our deep-sea ecosystems. It would be extremely beneficial for SIDS, through the capacity development and institutional strengthening contribution of ISA, to further enhance their deep-sea science and gain knowledge of the resources."*

**H.E. Mrs. Vanessa Frazier, Permanent Representative of Malta to ISA and the UN**

*"By leveraging strategic partnerships, SIDS can enhance their participation, resilience and sustainability in existing and emerging ocean sectors. As a committed strategic partner, Malta launched the "Island for Islands" initiative in 2021, which is aimed at enhancing collaboration between small island States, including SIDS, allowing them to share knowledge and experiences."*

**H.E. Dr. Salman Al Farisi, Secretary-General, IORA**

*"IORA and ISA share a common view on the important role of SIDS in the sustainable management of ocean and coastal resources. Since the signing of the memorandum of understanding on collaboration between ISA and IORA in 2022, many capacity-building projects have been undertaken with special emphasis on developing dedicated activities that aim at advancing women's empowerment and leadership in ocean affairs, including the law of the sea and deep-sea research matters."*

**Dr. Branson Belle, Director of the Centre of Excellence for Oceanography and the Blue Economy at the Five Islands Campus of the University of the West Indies, Antigua and Barbuda**

*"Leveraging partnerships in education and research is also critical to enable SIDS to participate and benefit in opportunities arising from the emerging blue economy."*



The second side event, “Leveraging partnerships and transformative actions to advance women’s empowerment and leadership in deep-sea research to support inclusive and sustainable ocean governance,” was co-hosted by Antigua and Barbuda and sponsored by the Cook Islands, Malta, the UNTBLDC and IORA. Views and ideas were

exchanged on how to mainstream gender equality in the highly technical and emerging field of ocean science and demonstrate concrete actions towards women’s empowerment and leadership in MSR through collaboration efforts and partnerships.



**2024 SIDS Conference**  
27-30 MAY, 2024 – ANTIGUA AND BARBUDA





## Box 16. Extracts from statements delivered during 2024 SIDS Conference side event: Leveraging partnerships and transformative actions to advance women's empowerment and leadership in deep-sea research to support inclusive and sustainable ocean governance

**H.E. Mr. Michael W. Lodge, Secretary-General, ISA**

"The BOS recognize that gender equality and women's empowerment can have a transformative and multiplier effect on sustainable development. They also recognize that increasing women's leadership, participation and representation is key to safe, prosperous and resilient societies. ISA shares such a vision fully. It is doing its part in creating the enabling conditions to advance women's empowerment in ocean affairs and deep-sea research. For example, in 2021, together with the UN-OHRLS and 32 partners, including seven Member States, five international and regional organizations, 15 private sector entities and several scientific and academic institutions, ISA launched the WIDSR project. Several impressive milestones have already been achieved demonstrating how impactful collective action can be at national, regional and international levels."

**Honourable Samantha Marshall, Minister of State within the Ministry of Health Wellness, the Environment and Social Transformation, Antigua and Barbuda**

"It is a long-established fact that the underrepresentation of women in science has been a net negative, both in terms of the societal impact from decreased opportunities for women and girls and the loss of potential research from the exclusion of half of the population. We need to continue our efforts to address this historical injustice. We are at a moment in time where new and expanding fields of research in the deep sea provide an opportunity to address the gender gap in science. We applaud ISA for its programmes aimed at addressing the gender gap in MSR in pursuance of SDG 14. In 2023, the Government of Antigua and Barbuda has participated in several training opportunities offered by ISA and their international partners as a way to develop technical capacity for our female officials in this emerging sector."

**The Honourable Fekitamoeloa Katoa 'Utoikamanu, Minister for Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications, Kingdom of Tonga**

"As a key actor in the development of sustainable blue economies of BOS, ISA has been a very strong and efficient advocate and the facilitator of concrete and impactful actions in support of women's empowerment and leadership in ocean affairs. ISA's actions are a catalyst to ensure the sustainable use and management of ocean area resources, particularly in deep-sea research and related disciplines. This, we commend. I am here today to reiterate our full support."

**The Honourable Penelope Beckles, Minister of Planning and Development, Trinidad and Tobago**

"Trinidad and Tobago, home to internationally recognized marine scientists like Professor Judith Gobin and Dr. Diva Amon, actively promotes women's empowerment in deep-sea research as crucial for sustainable development. Our dedication to diversity and inclusivity fuels innovation in marine ecosystem management, enhancing sustainability, bolstering resilience and advancing prosperity, ensuring our small island thrives for future generations."

**Ms. Rabab Fatima, UN-OHRLS and Special Adviser for the SIDS4 Conference**

"The Antigua and Barbuda Agenda for SIDS is clear about the multiplier effect of women's empowerment for sustainable development. Together, we can transform deep-sea research to not only discover the unknown but to do so with the full participation of the many talented and capable women who are key agents to achieve our shared mission."

**Mr. Deodat Maharaj, Managing Director of the UNTBLDC**

"The UNTBLDC is delighted with our partnership with ISA and its emphasis on delivering results where it matters: on the ground and for the lives of people."

**H.E. Ms. Janine Felson, Deputy Permanent Representative of Belize to the UN**

"The demand for deep-sea research will only increase with the growing interest in the ocean as a solution to the myriad developmental and environmental issues. Every effort should be made to ensure that women in science, especially those least represented as scientists from SIDS, will have the advantage in deep-sea research. ISA's commitment to WIDSR, particularly SIDS, is a welcome opportunity for targeted engagement, mentorship and building a network that can sustain and inspire early career researchers now and well into the future."

**Ms. Francesca Cassar, Economic and Development Coordinator at the Permanent Mission of Malta to ISA and the UN**

"Malta is proud to be a long-standing partner of ISA in addressing the role of women in MSR. Quality education is a vital component towards realizing the full potential of girls, who will become the women leaders of tomorrow. Malta continues to do its part by offering training opportunities to young professionals in ocean governance and the law of the sea thanks to the presence of the International Ocean Institute and the IMO International Maritime Law Institute on our shores."

**Mr. Edward Herman, Partnerships and Cooperation Director at the Seabed Minerals Authority of the Cook Islands**

"Capacity development for the women of Cook Islands is the cornerstone of our achievements and progress for an empowered nation of women in science, supported at the political, social and technical levels both locally and internationally."

**H.E. Dr. Salman Al Farisi, Secretary-General, IORA**

"Since the signing of the memorandum of understanding furthering the collaboration between ISA and IORA in 2022, many capacity-building projects have been undertaken with special emphasis on developing dedicated activities that aim at advancing women's empowerment and leadership in ocean affairs including the law of the sea and deep-sea research matters."

**Dr. Tricia Lovell, Deputy Chief Fisheries Office and Vice-Chair of the National Ocean Governance Committee, Antigua and Barbuda**

"As we reflect on the themes of partnerships, cooperation and transformative action, I am keenly aware that I am the product of and a testament to the benefits of strategic partnerships that support capacity initiatives for SIDS and other developing States. I feel privileged to have been given these opportunities, particularly as a woman of colour who comes from a SIDS. Still, I am also aware that more needs to be done to empower women in MSR. ISA's initiatives in this regard are, therefore, welcomed and applauded."



## Transfer of technology

Article 144 of UNCLOS, as modified by Section 5 of the Annex to the 1994 Agreement, deals with the transfer of technology. Article 144 requires ISA to take measures to acquire technology and scientific knowledge and promote and encourage their transfer to developing countries. To this end, ISA and States Parties cooperate to initiate and promote programmes for the transfer of technology concerning activities in the Area to the Enterprise and developing States.

The 1994 Agreement further sets out principles on which the transfer of technology under Article 144 will be based. This includes fair and reasonable commercial terms for the acquisition of deep-seabed mining technology, the principle of full and effective cooperation between States Parties and contractors, the need to promote international technical and scientific cooperation through training, technical assistance and scientific cooperation programmes in marine science and technology and the protection and preservation of the marine environment.

As deep-seabed mining technology continues to develop rapidly, including technology for monitoring the impacts of mining on the marine environment, the Secretariat has engaged in different initiatives aimed at devoting greater attention to the implications and modalities for implementation of UNCLOS (Article 144), based on the actual technological needs of developing States.

## Collaboration with the Federation of Indian Chambers of Commerce and Industry

In September 2023, the Secretariat and the FICCI signed a letter of cooperation to design and implement capacity development activities, sensitization workshops and other initiatives to raise awareness on the role and mandate of ISA within the Indian industry network. FICCI is the main Indian platform for networking and consensus-building within and across industrial sectors. It is the first port of call for Indian industry, policymakers and the international business community.

The Government of India is dedicated to ensuring long-lasting security and growth for all in the region, including upgrading the skills of its nationals in support of the effective implementation of UNCLOS and the 1994 Agreement. To this end, the Secretariat and FICCI are discussing the organization of a webinar to raise awareness among Indian industry, government, policymakers, think tanks and academic institutions about the blue economy and the available business opportunities for Indian industry in the deep-sea emerging sector.



## SD 7. Ensure equitable sharing of financial and other economic benefits

Equitable sharing of the financial and other economic benefits from activities in the Area is an essential element of the legal regime created by Part XI of UNCLOS. UNCLOS establishes the principle that all activities in the Area, including the recovery of minerals, must be carried out for the benefit of all humankind, irrespective of the geographic location of States. In pursuance of this principle, UNCLOS requires that ISA provides for the equitable sharing of financial and other economic benefits on a non-discriminatory basis.

As the Council advances its work on adopting the necessary regulatory framework that would permit commercial recovery, the FC, which has the primary responsibility to draft appropriate rules and procedures on equitable benefit-sharing, has developed formulas for equitable sharing of financial and other economic benefits, reflected in ISA Technical Study 31.<sup>56</sup> In May 2022, the FC discussed the equitable sharing of financial and other economic benefits derived from activities in the Area based on a summary report provided by the Secretary-General on the outcomes of discussions on the matter held during the last meetings of the Council and Assembly.<sup>57</sup>

The FC requested the Secretariat to prepare draft proposals for the establishment of a seabed sustainability fund.

In response to that request, the Secretary-General presented a report containing a draft proposal for the establishment of a seabed sustainability fund and guiding questions to support the discussion of the FC at its meetings during the 28th session. The FC proposed referring to such a fund as the “Common Heritage Fund.” It recommended it be used to invest in people and in preserving and developing the Area sustainably. The rationale behind its establishment is to create and maintain inherent value for generations to come from the resources of the Area. The objective of the Fund would be to invest in capacity development, knowledge and competence related to the ocean with a view to enhancing the ISA contributions to the implementation of the 2030 Agenda for Sustainable Development and the achievement of SDGs. In this regard, a draft regulation for the establishment of the Common Heritage Fund has been prepared for consideration by the FC during meetings planned for July 2024.



<sup>56</sup> ISA. 2022. Technical Study 31: Equitable sharing of financial and other economic benefits from deep-seabed mining. Available at: <https://www.isa.org.jm/publications/technical-study-31-equitable-sharing-of-financial-and-other-economic-benefits-from-deep-seabed-mining>.

<sup>57</sup> ISA. 2022. Development of rules, regulations and procedures on the equitable sharing of financial and other economic benefits derived from activities in the Area pursuant to section 9, paragraph 7 (f), of the annex to the 1994 Agreement: Report of the Secretary-General (ISBA/27/FC/2).



## SD 8. Improve the organizational performance of ISA

The High-Level Action Plan identifies the need to improve the organizational performance of ISA continuously. This includes strengthening the management culture, reducing risk and introducing best practices through the planning, development and implementation of organizational reforms (High-Level Action 8.1.1).

During the reporting period, further progress was made to increase the transparency, efficiency and accountability of the administrative services of the Secretariat. Audited financial statements period between 2017 and 2023<sup>58</sup> and a dashboard on the status of payment of contributions to the ISA budget were made available on the ISA website.<sup>59</sup> The Secretariat joined the United Nations Financial Disclosure Programme.<sup>60</sup> The Secretary-General and staff members at the D-1 level and above have filed financial disclosure statements for 2023 and 2024 accordingly.

The efficiency and effectiveness of the staff learning and development programme were further enhanced by improving the planning and resource allocation of the programme. Group training on public speaking and presentation skills and project management have been conducted or are ongoing. The Secretary-General issued a revised policy on the staff selection system for the purpose of clarifying and consolidating the existing policies and practices relating to the selection of ISA staff and with due regard to the need for economy and efficiency.<sup>61</sup> Several Member States have indicated their interest in the Senior Professional Officer programme, which is closely modelled on a similar programme deployed successfully by the IMO. In February 2024, a new secure website for the LTC was launched, incorporating the latest features to enable the LTC members to carry out their tasks and abide by standing confidentiality obligations.

The Secretariat has continued to build on the work done since 2020 to develop and maintain a risk management framework through the ongoing adjustment and improvement of the ISA Business Continuity Plan, which aims at ensuring smooth and continuous administrative services and efficient standard operating procedures in support of knowledge- and information-based organization. A table-top exercise on earthquake response was conducted in January 2024, with participation and support from the host Government, including the Ministry of Foreign Affairs and Foreign Trade, Ministry of Health and Wellness, Jamaica Constabulary Force, Jamaica Fire Brigade, National Land Agency and the United Nations Department of Safety and Security.

As a participant in the UN common system of organizations, ISA contributes to and participates in the work of the International Civil Service Commission (ICSC) and utilizes common system services and tools such as Inspira, One HR, the United Nations Department of Safety and Security, the United Nations Appeals Tribunal and the United Nations Staff System College. ISA also contributes to the United Nations Security Management System. This ensures access to disaster evacuation arrangements and medical evacuations, helping ISA participate in the Inter-Agency Security Management Network and relevant Security Training Working Groups. ISA is not currently a member of the Chief Executives Board but has joined its Human Resources and Budget and Finance networks as an observer. ISA has led the 2023 comprehensive local salary survey initiated by the ICSC, which has led to an increase of salary for staff members of the General Services category by 21.75 per cent and for staff members of the National Professional Officer category by 13.5 per cent, applicable to all organizations and agencies of the UN common system in the duty station Kingston, Jamaica. ISA has also implemented the new parental leave framework adopted by the ICSC, which applies retrospectively to 1 January 2023.

58 ISA. Finance Committee. Available at: <https://www.isa.org.jm/organs/the-finance-committee>.

59 ISA. Contributions dashboard. <https://www.isa.org.jm/contributions-dashboard>.

60 ISA. 2023. Secretary-General's bulletin: Financial disclosure statements (ISBA/ST/SGB/2023/3).

61 ISA. 2023. Administrative instruction: Staff selection system (ISBA/ST/AI/2023/3).

## Resource management and future financing of ISA

As the Council works towards adopting regulations on the exploitation of mineral resources in the Area and the associated standards and guidelines, ISA needs to prepare to become an effective regulator of industrial activities while also implementing its other mandates under UNCLOS and the 1994 Agreement. This will require a significant increase in the capacities of its organs and bodies, including the Secretariat.

In that connection, the Secretary-General issued a report on the future financing of ISA for consideration by the FC in 2021.<sup>62</sup> The report provided indicative budget projections through 2030 based on reasonably foreseeable scenarios. In its decision relating to financial and budgetary matters of 14 December 2021, the Assembly took note of the estimated financial and budgetary implications associated with the expected evolution of ISA in the next five to 10 years and the need to ensure that it is equipped with the capacity and resources necessary to fulfil its obligations under UNCLOS and the 1994 Agreement.<sup>63</sup> At the request of the FC, an updated report was prepared by the Secretariat.<sup>64</sup> During the 28th session, the Assembly took note of the forecast budgetary requirements associated with the anticipated evolution of the ISA's work over the period from 2025 to 2030 and the need to ensure adequate capacity and resources necessary to fulfil its obligations under UNCLOS and the 1994 Agreement.

The High-Level Action 8.2.1 (ii) also tasks the Secretariat with developing measures and mechanisms to encourage contributions by Members and relevant stakeholders to the programmes, projects and initiatives of ISA, especially those relating to capacity development. In that context, the Secretariat hired a consultant to develop a resource mobilization strategy and action plan to assist in identifying and mobilizing the financial resources needed. The resource mobilization strategy and plan have been developed through the consultation of a large spectrum of key relevant stakeholders (FC, LTC, representatives of the Members States, partners, donors, contractors, observers and non-governmental organizations) and a thorough review by the FC.

The ISAPF was established on 3 August 2022 by the ISA Assembly during its 27th session.<sup>65</sup> The ISAPF is a multi-donor trust fund aimed at promoting and encouraging MSR in the Area for the benefit of humankind and contributing to dedicated capacity development programmes and activities aligned with the priority needs identified by developing States Members of ISA. Since 2022, the ISAPF has received contributions from France (USD107,281), Greece (USD52,520), China (USD20,000), Mexico (USD10,000), Russia (USD90,024), Monaco (USD21,518), and Spain (USD4,781.36). As of 1 March 2024, the ISAPF had an available balance of USD712,396, including both earmarked and unmarked funds. The Board of the ISAPF held its second meeting on 29 January 2024 and allocated a total of USD552,500 to five initiatives (**Box 17**).



62 ISA. 2021. Future financing of the International Seabed Authority: Report of the Secretary-General (ISBA/26/FC/7).

63 ISA. 2021. Decision of the Assembly of the International Seabed Authority relating to financial and budgetary matters (ISBA/26/A/33).

64 ISA. 2023. Financing of the International Seabed Authority and forecast budgetary requirements 2025–2030: Report of the Secretary-General (ISBA/28/FC/2). ISA. 2022. Financing of the International Seabed Authority and forecast budgetary requirements 2025–2030: Report of the Secretary-General, Corrigendum (ISBA/28/FC/2/Corr.1).

65 ISA. 2022. Draft decision of the Assembly of the International Seabed Authority relating to financial and budgetary matters (ISBA/27/A/L.2).



**ISA  
Partnership  
Fund**

### **Box 17. Initiatives endorsed by the ISAPF in June 2023**

#### **Development of a data visualization platform for the Area**

**Awarded USD125,000**

This project aims to create an accessible platform showcasing the scale and nature of activities in the Area and an enhanced understanding of scientific data collected by ISA in the Area.

#### **ADSEA**

**USD175,000**

Building on the memorandum of understanding between ISA and the IRIC adopted by the Assembly, this initiative seeks to develop a dedicated curriculum on the Law of the Sea, with specific reference to the regime of the Area, for African diplomats, equipping them with the knowledge and skills necessary for effective participation in deep-sea governance.

#### **Enhancing and leveraging the knowledge of African experts in deep-sea research through the establishment of the ISA-Egypt JTRC**

**Receiving USD100,000**

This project will support a series of tailored activities to build the capacity of African researchers and to support deep-sea literacy in the context of the recently signed memorandum of understanding between ISA and the NIOF, Egypt.

#### **Promoting deep-sea research in the Indian Ocean**

**Allocated USD52,500**

This project focuses on increasing the institutional capacities of the Member States of the IORA, particularly LDCs and SIDS, in matters related to deep-seabed and Law of the Sea and supporting women leadership in deep-sea-related activities for qualified women scientists from IORA members.

#### **Advancing the Caribbean blue economy through the Centre for Excellence for Oceanography and the Blue Economy**

**USD100,000**

This initiative is dedicated to mapping the immediate capacity needs of Caribbean countries in the field of MSR in the Area and to developing a curriculum for advancing deep-sea research in the Caribbean region.



## SD 9. Commit to transparency

### Enhance deep-sea literacy

Improving public understanding of the deep sea and the legal regime is paramount. The Secretariat, in partnership with relevant stakeholders, has initiated the development of dedicated activities focusing on raising awareness of the work currently undertaken by the international community through ISA to advance understanding of the deep seabed, regulate human activities with respect to important resource potentials and ensure adequate protection of the marine environment.

#### Wakatoon digital colouring book activity

Progressing with its deep-sea literacy efforts, the Secretariat has developed a dedicated educational tool to enable children aged 4-12 to learn about the wonders of the deep sea. The short activity titled “Discover the

seabed with Olivia” is a phone and tablet app accessible from anywhere in the world with Internet access. The colouring pages feature a female deep-sea scientist, Dr. Olivia, who takes us on-board her submarine as she explores the deep sea, addressing complex issues pertaining to the management of 54 per cent of the world’s ocean seabed and the role of ISA. The objective is to sensitize children to the important role that science plays in supporting the precautionary approach and responsible management of the global commons and the role that women and girls could play in this endeavour.

The Wakatoon app brings the coloured drawings to life in a two-minute video available in the six official UN languages (Arabic,<sup>66</sup> Chinese,<sup>67</sup> English,<sup>68</sup> French,<sup>69</sup> Russian<sup>70</sup> and Spanish)<sup>71</sup> as well as Swahili<sup>72</sup> and Tongan.<sup>73</sup>



66 ISA. Wakatoon, Arabic. Available at: [https://www.isa.org.jm/wp-content/uploads/2023/03/ISA\\_Wakatoon\\_AR.pdf](https://www.isa.org.jm/wp-content/uploads/2023/03/ISA_Wakatoon_AR.pdf).

67 ISA. Wakatoon, Chinese. Available at: [https://www.isa.org.jm/wp-content/uploads/2023/03/ISA\\_Wakatoon\\_CH.pdf](https://www.isa.org.jm/wp-content/uploads/2023/03/ISA_Wakatoon_CH.pdf).

68 ISA. Wakatoon, English. Available at: [https://www.isa.org.jm/wp-content/uploads/2022/12/Wakatoon\\_EN\\_cover.pdf](https://www.isa.org.jm/wp-content/uploads/2022/12/Wakatoon_EN_cover.pdf).

69 ISA. Wakatoon, French. Available at: [https://www.isa.org.jm/wp-content/uploads/2022/12/Wakatoon\\_FR\\_cover.pdf](https://www.isa.org.jm/wp-content/uploads/2022/12/Wakatoon_FR_cover.pdf).

70 ISA. Wakatoon, Russian. Available at: [https://www.isa.org.jm/wp-content/uploads/2023/03/ISA\\_Wakatoon\\_RU.pdf](https://www.isa.org.jm/wp-content/uploads/2023/03/ISA_Wakatoon_RU.pdf).

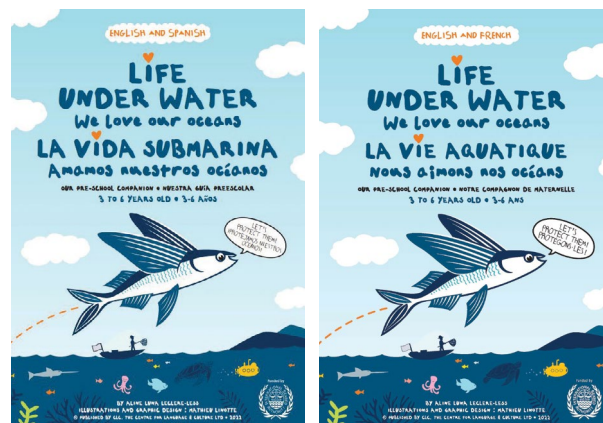
71 ISA. Wakatoon, Spanish. Available at: [https://www.isa.org.jm/wp-content/uploads/2023/03/ISA\\_Wakatoon\\_ES.pdf](https://www.isa.org.jm/wp-content/uploads/2023/03/ISA_Wakatoon_ES.pdf).

72 ISA. Wakatoon, Swahili. Available at: <https://www.isa.org.jm/wp-content/uploads/2023/10/ISA-Wakatoon-Swahili-print.pdf>.

73 ISA. Wakatoon, Tongan. Available at: [https://www.isa.org.jm/wp-content/uploads/2023/10/ISA\\_Wakatoon\\_Tongan.pdf](https://www.isa.org.jm/wp-content/uploads/2023/10/ISA_Wakatoon_Tongan.pdf).

## Activity book for children from 3 to 6 years of age

In April 2023, the ISA Secretariat launched an activity book for children aged 3-6 titled “Life under water preschool companion.” Building on the increasing interest of education experts in tailored tools to enhance the sensitization and understanding of children about the need to protect and sustainably use the ocean and its resources, the Secretariat partnered with an accredited Jamaican preschool providing learning in English, French and Spanish, the three main languages spoken in the Caribbean, to develop this new resource material. The book was created to inspire children to act in favour of the conservation and sustainable use of the oceans.



## World Oceans Day

On 8 June 2023, World Oceans Day, the Secretariat opened its doors to the students of the elementary school, Emmanuel Christian Academy, to introduce them to the wonders of the deep ocean. More than 70 students (8-10 years old) spent the afternoon with the staff of the Secretariat and engaged in different educational activities. The emphasis was on the vital role of MSR to ensure the protection and sustainable use of the ocean and its resources. The students were also presented the “Life Under Water Pre-School Companion,” an activity book in French, English and Spanish developed with education experts to sensitize children and parents to active participation in the conservation and sustainable use of the oceans.



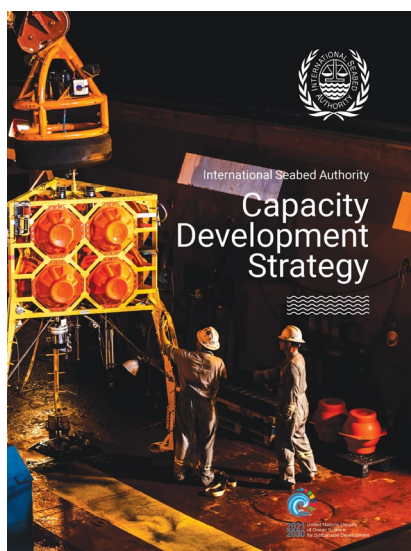
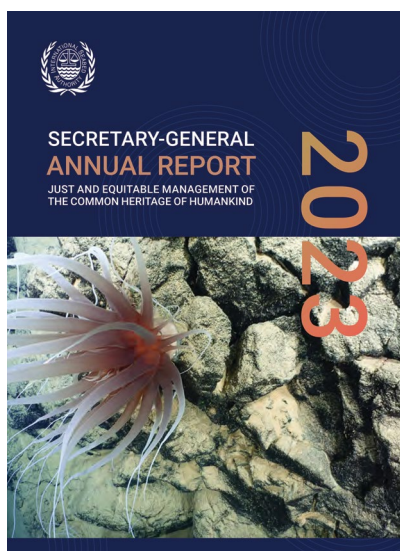
Later in June, a dedicated session was organized in the Tonga Side School of Tongatapu where the Secretary-General rubbed elbows with several classes of students. He introduced them to the deep-sea creatures living in the ocean through the ISA Wakatoon activity “Discover the seabed with Olivia,” where the deep-sea scientist Dr. Olivia took them aboard a submarine into the mysteries of the deep sea through interactive colouring pages. This was also the launch of the activity in the Tonga language especially made for the occasion.



## Stakeholder engagement

ISA is committed to meaningful and informed engagement with all stakeholders in the work of its different organs and the advancement of its mandate. This commitment has been reflected in the consultations with different stakeholders organized to develop the draft regulations on exploitation, their associated draft standards and guidelines, the ISA Strategic Plan 2019–2025, environmental thresholds and REMPS.





## Public information and outreach

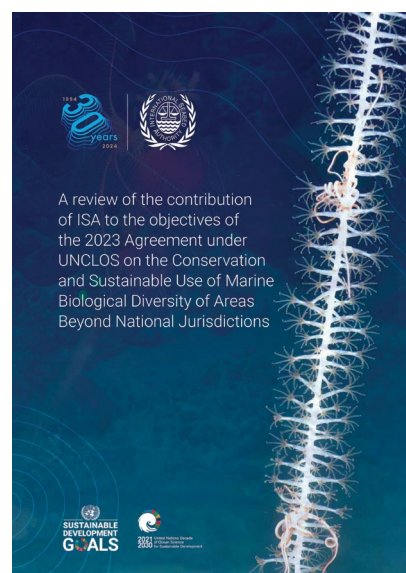
### Publications

Since July 2023, 13 new publications have been released and made available on the ISA website, including one report, two brochures, four policy briefs, two discussion papers, one technical study, two workshop reports and one legal reference book.

### Reports

**A review of the contribution of the International Seabed Authority to the implementation of the objectives of the 2023 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**

The report, commissioned by the ISA Secretary-General, assesses the implications of the 2023 Agreement under UNCLOS in ABNJ for the work of ISA. The review of the 2023 Agreement focuses on access and benefit-sharing of marine genetic resources, area-based management tools, EIAs and capacity-building. The report highlights the need for coherence between the 2023 Agreement and ISA's mandate, emphasizing that ISA will remain the principal regulator of activities in the Area. The report suggests ISA's existing practices in ABNJ and EIAs will be crucial, although they will need to interact with new treaty bodies. It also explores the complex implications of marine genetic resources provisions for ISA. The report underscores ISA's potential to contribute to capacity-building and technology transfer significantly and recommends strengthening relationships with the new treaty bodies through formal agreements and active engagement by states to ensure coordinated implementation.



### Brochures

**The Sustainable Seabed Knowledge Initiative: advancing knowledge in deep-sea biodiversity to inform global policy agendas for the benefit of humankind**

This brochure provides an overview of the goal and objectives of SSKI in relation to improving global knowledge and understanding of the deep sea. It also identifies the direct contribution of the initiative to SDG14 and other global ocean agendas, like the 2023 Agreement and the Kunming-Montreal Global Biodiversity Framework.

### Status of exploration activities in the Area

This new brochure aims to provide regular updates on the status of exploration and future exploitation activities in the Area with a focus on detailing the scale of the activities in operation, as well as the actors involved, including in relation to the use of reserved areas.





## Policy briefs

### Advancing women's empowerment and leadership in deep-sea-related disciplines and research: from commitment to action

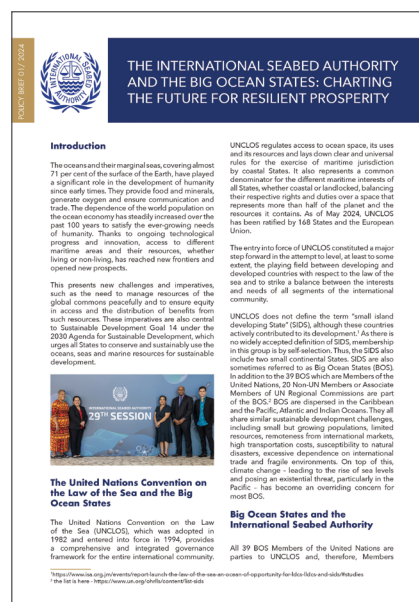
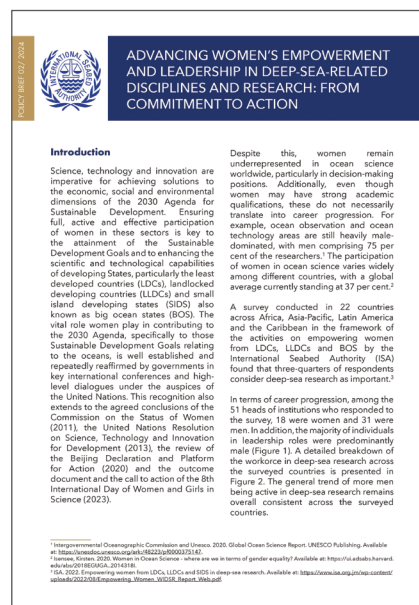
This policy brief documents that ISA has made significant strides in advancing women's empowerment and leadership in deep-sea research, essential for achieving the 2030 Agenda for Sustainable Development. Despite the underrepresentation of women in ocean sciences, particularly in leadership roles, ISA has developed strategic initiatives to address this gap. The WIDSR project, launched in 2021, promotes women's participation through policy development, capacity building and strategic partnerships. Initiatives like the S.H.E. mentoring programme and the CTP have provided training and career opportunities for women from developing countries. ISA has also achieved gender parity within its Secretariat and launched the Impact Group on Research and Oceans or the IGROW platform to enhance women's involvement in ocean affairs. Through these efforts, ISA aims to ensure women's active participation in deep-sea research, contributing to sustainable development and the implementation of UNCLOS.

### The International Seabed Authority and the Big Ocean States: charting the future for resilient prosperity

This policy brief outlines the pivotal role of the oceans in global development, focusing on the governance framework provided by UNCLOS. It highlights the challenges and opportunities faced by SIDS, also known as Big Ocean States (BOS), particularly in resource management and equitable benefit-sharing. The brief underscores the importance of ISA in facilitating sustainable oceanic activities and promoting capacity-building among the BOS, advocating for inclusive and equitable approaches to ocean governance to ensure the long-term prosperity of all nations.

### How to apply for an exploration contract for mineral resources in the Area

This policy brief outlines the process and requirements for applying for exploration contracts for mineral resources in the Area regulated by ISA. It details applicant criteria, submission requirements, fees, evaluation processes and contract terms, including applications for reserved areas.



## Discussion papers

### The rights and obligations of ISA and the Sponsoring State with respect to activities in the Area

This paper discusses the division of rights and obligations between ISA and sponsoring States under UNCLOS and contractual agreements. It explores ISA's mandate, sponsorship purposes and relationship with sponsoring States. Cooperation obligations, including financial, technical and environmental aspects, are central to the discussion. The paper emphasizes transparency, accountability and environmental protection, covering precautionary measures, impact assessments and monitoring. It also analyses the rights of coastal States, historical site protection and activity accommodation within the Area. The paper proposes frameworks for incident resolution, compliance enforcement and post-termination obligations.

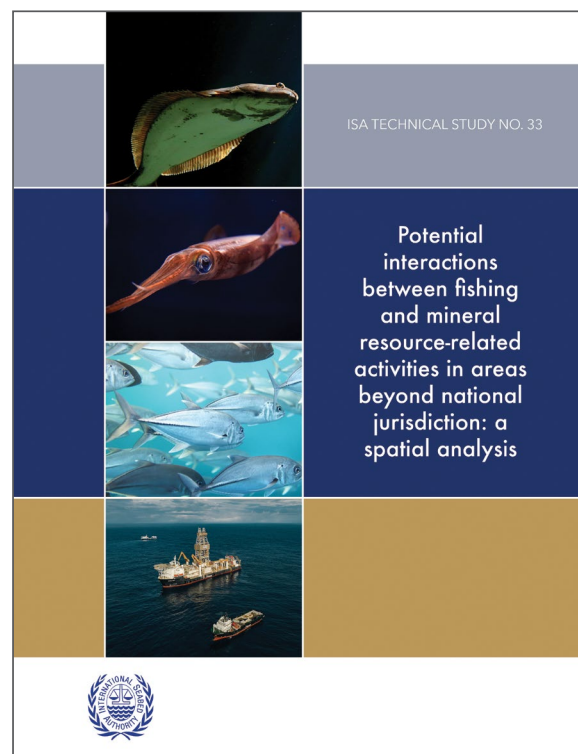
### Development of regional environmental management plans in the International Seabed Authority and their legal status

This policy brief describes how REMPs play a pivotal role in safeguarding marine ecosystems, are integral to the ISA's environmental strategy and are rooted in UNCLOS. Acting as policy instruments, REMPs guide decision-making, establish conservation measures and aid in identifying protected areas. They evolve with scientific insights and stakeholder input, shaping ISA's approach to exploration and exploitation. While not legally binding, draft exploitation regulations acknowledge REMPs' importance, ensuring alignment with environmental goals. Their flexible nature fosters effective environmental management, promoting sustainable seabed resource utilization.

## Technical studies

### Technical Study 33: Potential interactions between fishing and mineral resource-related activities in areas beyond national jurisdiction: a spatial analysis

This technical study examines the extent of spatial overlap between fishing activities in ABNJ and areas allocated or designated by ISA between 2012 and 2020. The results of this study will inform ISA's efforts to fully assess the potential impacts of future mining activities on fisheries and minimize such impacts through spatial planning and management. The results can also contribute to enhanced dialogue and coordination between respective regional fisheries organizations and ISA. Using publicly available data from the RAM Legacy Stock Assessment Database and the Global Fishing Watch, this study found that fishing hours in ISA contract areas and reserved areas comprised less than 2 per cent of the total in ABNJ in all years and less than 1 per cent in most years under observation. There was very limited overlap between fishing with gears that operate at or near the sea floor in ABNJ and contract areas and reserved areas for deep-sea mineral resource exploration. However, there was fishing with pelagic gears, especially drifting longlines and purse seines in some contract areas, reserved areas and APEIs. The study results suggest that direct conflicts for operating space between fisheries and deep-sea mineral exploration and exploitation are expected to be infrequent and readily managed. Indirect impacts are more likely to occur and should be a priority for further research.



## Workshop reports

### Enhancing genetic approaches to advance deep-sea taxonomy

The workshop “Enhancing Genetic Approaches to Advance Deep-Sea Taxonomy,” organized by ISA in collaboration with the MOF-ROK and the MABIK, aimed to enhance genetic data sharing and application for deep-sea species identification. Held in November 2022, the workshop focused on improving data interoperability, standardizing environmental DNA methodologies and promoting collaborative efforts. Key outcomes included recommendations for standardized protocols, the creation of comprehensive genetic reference catalogues and capacity-building initiatives to support sustainable ocean governance and biodiversity assessment.

### SSKI inception workshop

ISA held an inception workshop for the SSKI from 29 November to 1 December 2022, in Seochon, South Korea, to develop a comprehensive implementation plan for SSKI. The initiative, launched at the UN Ocean Conference in June 2022, aims to enhance deep-sea biodiversity data generation and dissemination, focusing on capacity building, stakeholder engagement and integrating scientific data into global ocean policy. The workshop, attended by experts and stakeholders, facilitated discussions on strategies, partnerships and resource mobilization for effective SSKI implementation, supporting the UN Decade of Ocean Science.



## Legal reference

### Selected decisions and documents of the 28th session

This bilingual publication in English and French contains all decisions and documents of the 28th session of the ISA Council and Assembly.



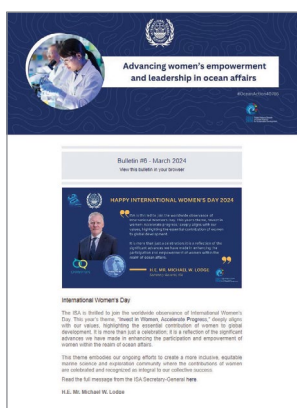
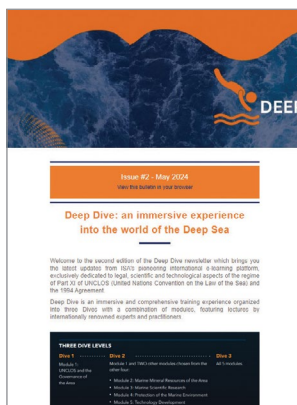
## Online presence

The Secretariat works on continuously improving the ISA website to provide swift access to information and enhance the user experience on mobile devices. It currently publishes four electronic bulletins, which are shared with all of its stakeholders on a monthly or quarterly basis:

- ISA newsletter (monthly)
- WISDR bulletin (quarterly)
- ISA publications digest (quarterly)
- Deep Dive newsletter (quarterly).<sup>74</sup>

ISA has also published a bulletin during the sessions of the Council and the Assembly providing daily updates on discussions since 2021.

Since 2021, the meetings of the Council and the Assembly have also been streamed live on the ISA Web TV in the six official languages of the UN.<sup>75</sup>



<sup>74</sup> ISA. Newsletters. Available at: <https://www.isa.org.jm/isa-newsletters>.

<sup>75</sup> ISA. ISA Web TV. Available at: <https://www.isa.org.jm/isa-web-tv>.

## Nii Allotey Odunton Museum

The Nii Allotey Odunton Museum was inaugurated in 2019. It comprises a unique collection dedicated to deep-sea exploration in the Area, featuring models of research ships, varied samples of seabed minerals, representations of deep-seabed mining technology, scientific equipment, maps and videos. All items in the collection were donated by ISA Members, contractors and partner research institutions.

The collection has continued to grow steadily since the inauguration of the museum. ISA welcomes new donations that will contribute to increasing our global knowledge of the deep sea and the deep seabed.





## Satya N. Nandan Library

The Satya N. Nandan Library is named after the first ISA Secretary-General, Satya N. Nandan. It serves as the main information resource for staff, UN agencies, Member States, permanent missions and researchers seeking specialist information on the law of the sea, ocean and marine affairs, deep-seabed mining and seabed resources.

During the reporting period, the library ramped up its efforts to promote research and scholarship by acquiring a variety of electronic resource portals while maintaining and updating both its print and electronic collections through a robust acquisitions programme. The library also engaged in a necessary weeding exercise. The resources removed from the collection were donated to several local tertiary-level institutions. Moreover, to offer deeper insights into the history and work of ISA, the staff regularly facilitates visits and access to the library and the Nii Allotey Odunton Museum for delegates and participants in several training programmes hosted at ISA.

The library continued managing a budget for acquiring books and materials and engaged in exchanges with other institutional partners. Together, the Satya N. Nandan

Library and the Library of the International Tribunal for the Law of the Sea are joint members of the United Nations System Electronic Information Acquisition Consortium, a UN System-wide initiative of Secretariat libraries functioning with the objective of gaining better purchasing agreements for electronic information, sharing opportunities for training and providing support on resource management. This membership generates considerable savings for participating agencies and is mutually beneficial to ISA and the International Tribunal for the Law of the Sea.

To further its work in harnessing and maintaining institutional knowledge and information collected throughout the years, the Secretariat is currently progressing with the establishment of a knowledge management hub, which is expected to have an increased impact on the activities and work undertaken by relevant offices in discharging the responsibilities assigned by members of ISA.

In October 2023, a functional digital library populated with a full archive repository of UNCLOS and ISA records was launched.

