

3



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IMPLEMENTATION OF THE STRATEGIC PLAN 2019 - 2023



Implementation of the Strategic Plan 2019 - 2023

The Strategic Plan of ISA for the period 2019-2023 was developed in consultation with ISA Members and other relevant stakeholders and adopted by the Assembly at its 24th session in July 2018.¹³

The Plan includes nine strategic directions, which have guided the work of ISA since 2019.

In addition, actions necessary to achieve the objectives of the Strategic Plan and corresponding expected outputs have been defined in the High-Level Action Plan¹⁴ adopted by the Assembly at its 25th session in July 2019.

This Chapter presents the progress made under each strategic direction during the period July 2021-June 2022.

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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 SDGs and the targets set by the 2030 Agenda for Sustainable Development, in particular SDG 14 (Life below water).

In 2021, the Secretary-General of ISA commissioned an independent report to review the contribution of ISA to the achievement of the 2030 Agenda and its constituent SDGs. A group of international experts (Box 1) was established to provide strategic guidance and inputs for the preparation of the report. Documentary evidence and interviews with experts and individuals from a broad range of backgrounds and representing the full spectrum of ISA stakeholders concluded that ISA currently contributes in a meaningful way to 12 of the

17 SDGs (Figure 3). The key findings of the report were presented in July 2021 during a high-level side event (“Ensuring the sustainable management and stewardship of the deep seabed and its resources for the benefit of all humanity”) organized on the margins of the High-Level Political Forum (HLPF) with the support of the Cook Islands, Ghana, Jamaica, Korea, Malta, Norway, Singapore, South Africa and Ifremer (France).¹⁵ Over 140 participants from 64 countries participated in the event.

The report¹⁶ was officially launched in November 2021 during a high-level webinar which gathered senior government representatives of Argentina, Cameroon, France, India, Indonesia, Namibia, South Africa, Tonga and Vietnam, as well as renowned international experts including from the UN Global Compact and the Scientific and Technical Advisory Panel of GEF-UNEP.¹⁷ More than 120 participants attended the launch.

¹³ ISBA/24/A/10

¹⁴ ISBA/25/A/15

¹⁵ <https://www.isa.org.jm/event/side-event-hlpf2021-ensuring-sustainable-management-and-stewardship-deep-seabed>

¹⁶ https://isa.org.jm/files/files/documents/ISA_Contribution_to_the_SDGs_2021.pdf

¹⁷ <https://www.isa.org.jm/event/report-launch-contribution-ISA-2030-agenda>



"All of us, collectively, through ISA have the unique opportunity to put in place the necessary regulatory and governance frameworks that is needed to ensure that the sustainable development of seabed mineral resources benefits all of humanity before any seabed mining begins."

Hon. Mark Brown, Prime Minister of Cook Islands at the HLPF side event, 13 July 2021



"Significant steps forward have been made by ISA in the further development of the Law of the Sea, the achievement of the goals of UNCLOS and the sustainable development of the ocean and its resources."

Mr. Miguel de Serpa Soares, Under Secretary-General for Legal Affairs and United Nations Legal Counsel at the HLPF side event, 13 July 2021

In March 2022, the Secretary-General also contributed to the discussions held in the context of thematic consultations organized by the Secretary-General of the United Nations as a follow up to his 2021 report "Our common agenda" on the future of global cooperation and effective multilateralism. The contribution of the ISA Secretariat took place under the Thematic Consultations 4 on "Protecting our planet and being prepared for the future". This was the opportunity to highlight the

success of the legal regime for the international seabed area and its potential to inspire similar mechanisms to ensure sound and careful management of global public goods in the future.¹⁸

The central role of ISA in ocean governance was also underscored at the high-level commemorative plenary meeting of the UN General Assembly held on 29 April 2022 to mark the 40th anniversary of the adoption of UNCLOS.¹⁹



"Through the years, ISA has provided many capacity-development programmes to its Member States on how to explore and exploit the deep seabed. These programmes are vital to address the knowledge and technology gap between developed and developing countries. It is critical to ensure more active participation from developing countries in these programmes. Indonesia stands ready to render its full support to ISA in advancing its work towards the achievement of the 2030 Agenda."

The Honorable Retno Marsudi, Minister for Foreign Affairs of Indonesia during the launch of the report, 30 November 2021



"The regime for the deep seabed lies at the heart of the entire system of global ocean governance under the Convention. It is its backbone and its essence. It provides us with a central platform for trade-offs between States based on consensus building. Without the Authority, we could easily have seen rampant unrestrained exploitation of the deep seabed and appropriation of its resources for the benefit of only a few."

This grand project for humanity could easily have failed. Instead, the regime has succeeded beyond all expectations in its primary objective of preventing unilateral claims to deep seabed resources. (...)

Through the development and implementation of a set of rules and standards governing deep sea mining and related activities, including marine scientific research in the Area, it becomes possible to balance the need for resource extraction with the preservation of the marine environment.

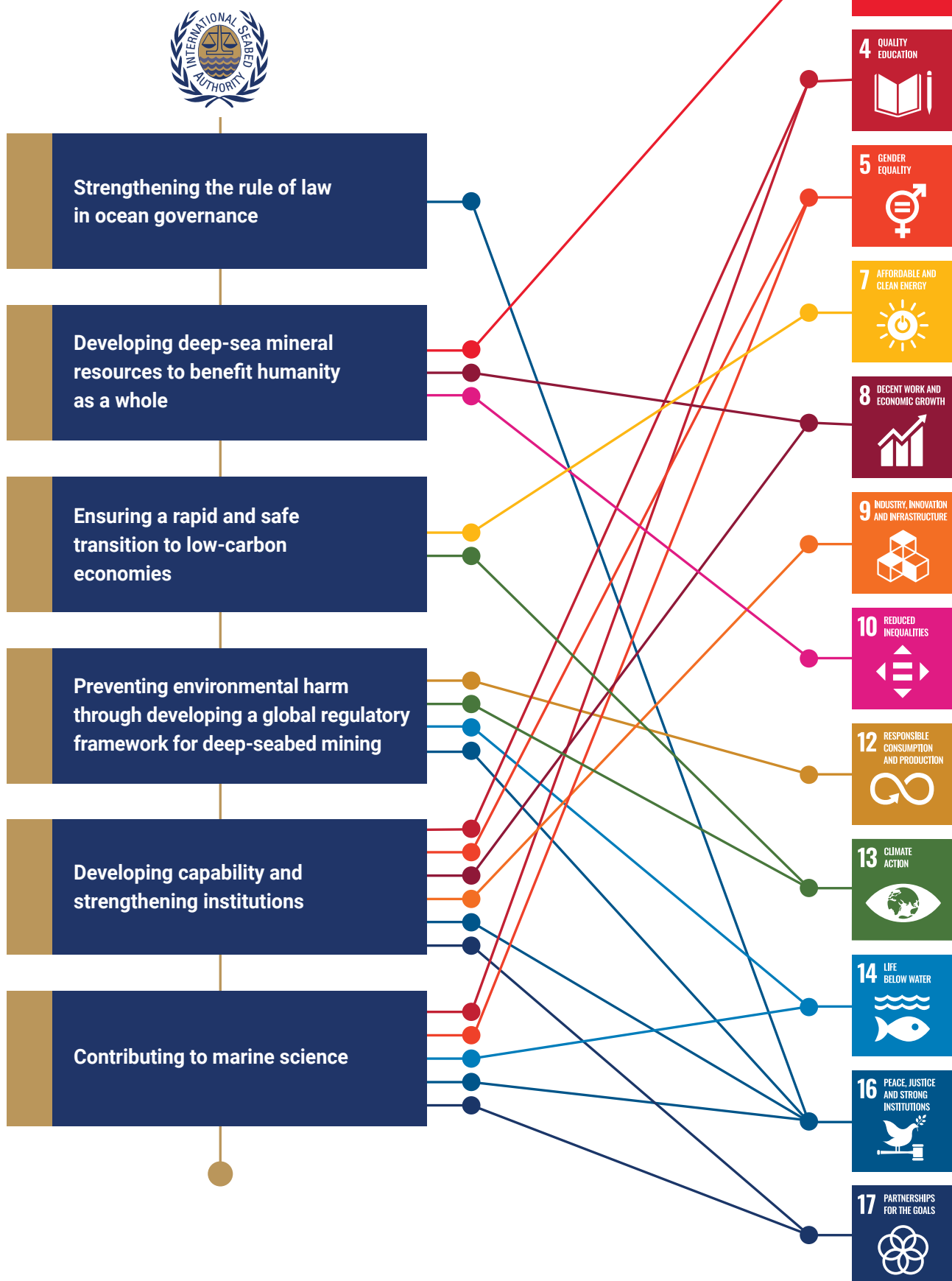
All environmental decisions are based on the best available science and a responsible application of the precautionary approach."

H.E. Mr. Michael W. Lodge, ISA Secretary-General at the UN General Assembly, 29 April 2022

¹⁸ https://isa.org.jm/files/documents/EN/SG-Stats/Statement_Our_Common_Agenda_Thematic_consultation_4.pdf

¹⁹ <https://www.isa.org.jm/news/isa-secretary-general-joins-high-level-commemorative-meeting-general-assembly-mark-40th>

Figure 5. Through the implementation of its mandate, ISA currently contributes to 12 of the 17 SDGs



Box 1. The SDG group of experts



Ms. Gillian Davidson

Leadership Council, Resolve



Prof. Saleem Ali

Scientific and Technical Advisory Panel,
Global Environment Facility, UNEP



Mr. Bebeb Djundjuna

Director of Legal Affairs and Territories,
Ministry of Foreign Affairs, Republic of Indonesia



H.E. Ms. Maria-Teresa Infante

Judge, International Tribunal
for the Law of the Sea



H.E. Ms. Mathu Joyini

Permanent Representative
of South Africa to the UN



Prof. Pedro Madureira

Deputy Head, Portuguese Task Group for
the Extension of the Continental Shelf



Prof. Marius Orion-Jedrysek

Former Secretary of State, Chief National Geologist,
Deputy Minister of Environment of Poland, Former President of
ISA Assembly (2018), Former President of the ISA Council (2016)



H.E. Ms. Alison Stone-Roof

Permanent Representative
of Jamaica to ISA



Mr. Siosua 'Utoikamanu

Member of ISA Legal and
Technical Commission



H.E. Mr. James N. Waweru, OGW

Registrar of Treaties,
Ministry of Foreign Affairs, Kenya



Photo: ISA

ISA also actively engaged in the UN Ocean Conference on the theme “Scaling up ocean action based on science and innovation for the implementation of Goal 14: stocktaking, partnerships and solutions,” held in Lisbon, Portugal, from 27 June to 1 July 2022. On that occasion, ISA participated in the plenary and in Interactive Dialogues 5, 6, 7 and 8.

- Interactive Dialogue 5: Promoting and strengthening sustainable ocean-based economies, in particular for small island developing States and least developed countries
- Interactive Dialogue 6: Increasing scientific knowledge, developing research capacity and transfer of marine technology
- Interactive Dialogue 7: Enhancing the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea
- Interactive Dialogue 8: Leveraging interlinkages between Sustainable Development Goal 14 and other Goals towards the implementation of the 2030 Agenda

In addition, ISA organised five high-level events during the Conference:

- **Ensuring the stewardship of seabed mineral resources and the protection of the marine environment of the Area for the benefit of humankind**, co-sponsored by France, Canada, the Cook Islands, India, Senegal, Singapore and Tonga.
- **Global launch of the Sustainable Seabed Knowledge Initiative (SSKI): advancing scientific understanding of deep-sea ecosystems in the Area for the benefit of all humanity**, co-sponsored by Argentina, the European Commission, the Republic of Korea, South Africa and the United Kingdom.
- **Enhancing scientific cooperation in support of regional environmental management planning in the international seabed area**, in collaboration with China, the European Commission, the Ministry of Earth Sciences of India and the Ministry of Climate and Environment of Poland.
- **Fostering international and regional cooperation in support of the sustainable development of the blue economy in LDCs, LLDCs and SIDS**, co-sponsored by Antigua and Barbuda, Bangladesh, Botswana, the Cook Islands, Malta, Norway and Tonga.
- **Advancing women empowerment and leadership in marine scientific research to support inclusive sustainable ocean governance**, co-sponsored by Antigua and Barbuda, Canada, Malta and Tonga.

High-Level Political Forum on Sustainable Development – HLPF 2021 and 2022

The HLPF is the central platform to follow-up on and review the implementation of the 2030 Agenda and the SDGs. The Secretary-General of ISA was invited to attend the HLPF 2021²⁰ as a ministerial respondent in an interactive panel discussion on “Restoring the conditions for Sustainable Development Goal progress in African countries, least developed countries and landlocked developing countries” on 8 July 2021. The Secretary-General highlighted the opportunities offered by UNCLOS to all developing States, including the most vulnerable of them, as well as the importance of UNCLOS for the realization of socioeconomic development objectives.

Emphasis was placed on a series of initiatives implemented by ISA since 2017 to empower African States, LDCs, LLDCs and SIDS to take full advantage of the possibilities open to them under UNCLOS. Such initiatives aim to i) increase awareness of policy and decision makers (e.g., through the Africa Deep-sea Resources (ADSR) project²¹ and the three studies on UNCLOS and LDCs, LLDCs and SIDS), ii) ensure that necessary governance structures and required mechanisms are in place to support the right of States parties to engage in the legal regime of the Area as set out by Part XI of UNCLOS (e.g., through the Abyssal Initiative for Blue Growth²² and the three studies on UNCLOS and LDCs, LLDCs and SIDS etc.) and iii) support the empowerment and leadership of women in deep-sea research related disciplines (e.g., through the Women in Deep-Sea Research (WIDSR) project).²³

The Secretary-General also took part in the Expert Group Meeting on SDG 14 organized in preparation of the HLPF 2022 held in May 2022 under the auspices of UN DESA. The Secretary-General was invited to deliver a presentation as part of a panel on “Supporting the United Nations Convention on the Law of the Sea.” Other experts of the Secretariat joined the panel on “Science, technology and education.”



“The regime for the deep seabed under UNCLOS, is one of the few international governance regimes that has been designed specifically in such a way that the interests and needs of developing States are fully integrated into the regime. This organization is yours, as well as the opportunities it opens to all. I therefore urge African States, LDCs and LLDCs to continue to take full advantage of the regime and realize the benefits that are available.”

H.E. Mr. Michael W. Lodge in his statement at the HLPF2021, 8 July 2021

Cooperation with the United Nations and UN-Oceans

The Secretariat of ISA has continued its collaboration with the United Nations and its sectoral agencies on matters of mutual interest. Over the reporting period, ISA worked with the International Maritime Organization, the International Labour Organization, UN DESA, the United Nations Environmental Programme, the United Nations Economic and Social Commission for Asia and the Pacific, IOC-UNESCO and UN-OHRLLS (Chapter 2 and Figure 3). This ongoing collaboration provides a platform for ensuring more effective cooperation in the conservation and sustainable use of oceans 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 UN General Assembly²⁴ and the meeting of the States parties to UNCLOS. Furthermore, ISA systematically contributes to the report of the UN Secretary-General on Ocean affairs and the law of the sea and to the resolution on oceans and the law of the sea (Box 2).^{25, 26}

²⁰ See statement of ISA Secretary-General at: <https://isa.org.jm/files/documents/EN/SG-Stats/SG-HLPFAfrica.pdf>

²¹ <https://isa.org.jm/vc/supporting-africas-blue-economy>

²² <https://isa.org.jm/vc/abyssal-initiative-blue-growth>

²³ <https://isa.org.jm/vc/enhancing-role-women-msr/WIDSR-project>

²⁴ https://isa.org.jm/files/documents/EN/SG-Stats/SG_Statement_76th_Session_of_the_United_Nations_General_Assembly_0.pdf

²⁵ See A/77/68, 28 March 2022 - <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N22/302/84/PDF/N2230284.pdf?OpenElement>

²⁶ See A/RES/76/72, 20 December 2021 - <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N21/386/39/PDF/N2138639.pdf?OpenElement>



Photo: TMC

Box 2. Extract of Resolution A/Res/76/72 on oceans and the law of the sea

Reaffirming the importance of the work of the International Seabed Authority (the Authority) in accordance with the Convention and the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 (the Part XI Agreement).

42. Takes note of the adoption by the Assembly of the Authority of the decision to implement a programmatic approach to capacity development aimed at ensuring the fully integrated participation of developing States in the activities undertaken in the Area;

64. Reiterates the importance of the ongoing elaboration and standardization by the Authority, pursuant to article 145 of the Convention, 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;

66. Welcomes the progress of the work of the Authority on draft regulations for exploitation of mineral resources in the Area, but also notes that the impact of COVID-19 and the limitations recommended on meetings within its premises since the first part of the twenty-sixth session of the Authority, held in February 2020, affected the ability of the Council of the Authority to have substantive discussions on the draft regulations and procedures necessary to facilitate the approval of plans of work for exploitation in the Area pursuant to section 1, paragraph 15, of the annex to the 1994 Part XI Agreement, and in this regard encourages the Authority 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, and emphasizes the ongoing need for openness and transparency;

69. Recognizes the importance of the responsibilities entrusted to the Authority by articles 143 and 145 of the Convention, which refer to marine scientific research and protection of the marine environment in the Area, respectively.

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

ISA is also committed to establishing strategic alliances and partnerships with sub-regional, regional and global organizations on matters of mutual interest in compliance with UNCLOS and international law.

OSPAR Commission

The Secretariat of ISA has been following closely the work of the OSPAR Commission during the reporting period. 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. On this basis, the Secretariat of ISA took note in October 2021 of the decision reflected in the OSPAR 2021 Cascais Declaration²⁷ to “designate the North Atlantic Current and Evlanov Sea base in marine protected area” (NACES MPA) and, inter alia, the intention to “exercise due diligence with regard to any activities pertaining to the seabed below the waters covered by the MPA” and to “enhance the protection by including additional OSPAR listed features and the seabed, ocean floor and subsoil thereof in the scope of the NACES MPA as supported by an evidence review process”.

Following this decision, the Secretary-General of ISA forwarded an information note to the chairperson of the OSPAR Biological Diversity and Ecosystems Committee ahead of its meeting in Reykjavik in April 2022, recalling the mandate of ISA and providing an update on the development of regional environmental management plans (REMPs) in the Area, with particular emphasis on the development of the REMP for the northern Mid-Atlantic Ridge (MAR).

In order to ensure consistency between the respective mandates and responsibilities of the two organizations recognized by UNCLOS and the 1994 Agreement, the Secretary-General of ISA proposed that consultations be held to explore the possibility of expanding the geographical scope of the REMP of the northern MAR to include the seabed of the NACES. Such consultations will help ensure that area-based management measures are established with due regard to the rights and duties of States and of ISA as set out in UNCLOS and the 1994 Agreement.

African Union Commission

During the reporting period, the ISA Secretariat and the African Union Commission made progress towards the development of a memorandum of understanding intended to facilitate an integrated and systematic approach to cooperation between the two organisations. It is expected that a draft memorandum will be presented to the ISA Council for approval before the end of 2022.

Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection

The Secretariat continued to enhance its collaboration with the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP),²⁸ including by contributing to the work on the impacts of mining wastes and other matter in the marine environment from mining operations. GESAMP is a group of independent scientific experts established in 1969 to provide advice to the UN system on scientific aspects of marine environmental protection.



Photo: BGR

²⁷ <https://www.ospar.org/site/assets/files/36552/cascaisdeclaration2021.pdf>

²⁸ <http://www.gesamp.org/>

Fourth session of the intergovernmental conference on marine biodiversity of areas beyond national jurisdiction (BBNJ 4)

On 15 March 2022, the Secretary-General of ISA presented a statement²⁹ during the “Exchange of Views” agenda item at the fourth session of the intergovernmental conference on 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 of areas beyond national jurisdiction.

The statement highlighted a set of issues of potential relevance to the discussions at the intergovernmental conference, such as matters of consistency with UNCLOS and the 1994 Agreement and intersectoral cooperation for the effective management of marine biodiversity, including under existing cooperative arrangements between ISA and competent international organizations. In addition, the Secretary-General described the progress made on possible modalities for equitable sharing of benefits from activities in the Area and outlined multiple initiatives on capacity-building and training undertaken in accordance with the mandate of ISA under UNCLOS. Finally, the Secretary-General expressed his readiness to discuss further with delegations ways that ISA can support, within its mandate, some of the responsibilities identified in the mechanisms that will be put in place to give life to the new implementing agreement under negotiation at the intergovernmental conference.

40th anniversary of the adoption of UNCLOS

10 December 2022 marks the 40th anniversary of the opening for signature of UNCLOS in Montego Bay, Jamaica. In celebration of this milestone, the Secretariat of ISA is organizing a series of events during 2022. In particular, the Women in the Law of the Sea conference, which will take place in September 2022, aims to highlight the important contributions made by women to the development and implementation of the law of the sea. The conference will also focus on the participation of women in the institutions created by UNCLOS and related regional and subregional

organizations and the pathways to enhancing the potential for women to contribute to the law of the sea in the future.

Strategic guidance and inputs to national processes

The Secretariat also provided inputs to relevant national processes pertaining to the implementation of UNCLOS and the 1994 Agreement. This includes contributions in response to inquiries by the International Relations and Defence Committee of the House of Lords of the United Kingdom on the relevance of UNCLOS in the 21st century (November 2021)³⁰ and by the French Senate on deep-sea exploration, protection of the marine environment and exploitation³¹ (January 2022).

In February 2022, the Secretary-General was invited to deliver a statement during the opening of the One Ocean Summit organized by France at the first workshop on “Strengthening the tools of governance of the ocean”. This was the opportunity to recall the success of the legal regime for the Area as the backbone of the entire system of global ocean governance under UNCLOS.³²

WOMEN in the LAW OF THE SEA CONFERENCE

Celebrating the 40th anniversary of the adoption of UNCLOS

Call for expression of interest to participate

The International Seabed Authority (ISA) is calling for speakers to express their interest to participate in its Women in the Law of the Sea Conference to be held in the second half of 2022 for a duration of 3 days.

Speakers are invited to send their resume and a short description (max 500 words) of their proposed intervention under one of the conference's sessions. Applications should be sent to cosg@isa.org.jm by 11 February 2022.

SESSIONS

- I: Impact of UNCLOS in the development of international law
- II: Maritime delimitations
- III: Military uses of the sea
- IV: Marine scientific research and transfer of technology
- V: Protection of the marine environment
- VI: Sustainable management of ocean space and its resources within and beyond national jurisdictions
- VII: Settlement of disputes
- VIII: UNCLOS and opportunities for developing States
- IX: Enhancing the participation of women in the law of the sea

Speakers from developing States and especially from least developed countries, landlocked developing countries and small islands developing States are particularly encouraged to participate.

Please visit the ISA website for more information.

bit.ly/ISA-WILOS2022

2021 United Nations Decade of Ocean Science for Sustainable Development

²⁹ https://isa.org.jm/files/documents/EN/SG-Stats/SG_Statement_Fourth_Session_of_the_Intergovernmental_Conference_on_BBNJ.pdf

³⁰ <https://committees.parliament.uk/writtenevidence/40854/pdf/>

³¹ Mission d'information sur "L'exploration, la protection et l'exploitation des fonds marins: quelle stratégie pour la France? Accessible at: http://www.senat.fr/commission/missions/2021_fonds_marins.html

³² https://www.isa.org.jm/files/documents/EN/SG-Stats/Statement_One_Ocean_Summit.pdf



"The rich mineral deposits found on the sea floor and the biodiversity associated with them create exciting opportunities for sustainable development. At the same time, we need to acknowledge that the pressures on the marine environment created because of our dependence on the resources provided by the ocean are real. They also present a challenge for effective governance and management. In this context, the Authority represents a unique experiment in civilization. The United Nations Convention on the Law of the Sea established the Authority as the organization responsible for managing this vast area of ocean space. (...) Without the Authority, we could easily have seen rampant unrestrained exploitation of the deep seabed. Instead, we have the benefit of 40 years of carefully managed deep-sea exploration which has massively expanded our collective understanding and knowledge of the ocean at large. We have also seen the progressive development of a sophisticated and balanced legal regime, open to equal participation by developed and developing States, anchored in the precautionary approach, transparency, and equity, and fully aligned with the Agenda 2030."

H.E. Mr. Michael W. Lodge, ISA Secretary-General at the One Ocean Summit, 10 February 2022

Gender equality and women's empowerment

Since March 2020, the Secretary-General of ISA is recognised as one of the International Gender Champions (IGC) and has joined 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 IGC Gender-Based Violence Pledge and the Panel Parity Pledge, the Secretary-General of ISA also made the following pledges:

- Advance women's empowerment and leadership in marine scientific research and particularly in deep-sea research with a focus on designing and implementing tailored activities and programmes aimed at addressing the specific challenges faced by women scientists from developing States including least developed countries, landlocked developing countries and small island States.
- Ensure that the ISA Secretariat maintains gender parity including at the most senior levels (P5 and above) and engage all efforts to promote gender equality and leadership of women in the development and implementation of international law of the sea.

Progress has been made on both pledges. Women's empowerment and leadership is defined as a priority of ISA's programmatic mandate, as reflected in the 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.

At the organizational level, thanks to the emphasis placed on reaching gender parity among ISA staff, 60 per cent of secretariat staff are women as of June 2022. Several administrative policies were also adopted in 2020 in relation to breastfeeding (ISBA/STSG/2020/3) to allow new mothers to work during a critical phase of childcare. In particular, nursing mothers are provided with the enabling conditions to achieve a better balance between their professional and personal lives through a more family-friendly work environment. As such, nursing mothers who need to travel for official business have access to financial support provided by ISA should they decide to travel with their infant.



In April 2022, the IGC network invited the Secretary-General of ISA and the Minister of Foreign Affairs of Tonga, the Honourable Fekita 'Utoikamanu, to establish an "Impact Group on Ocean and Women". The Impact Group will facilitate collective actions towards the following objectives: (i) ensure strategic visibility of gender issues in the field of ocean affairs (advocacy and outreach), (ii) promote and facilitate targeted capacity-building initiatives and programmes to support increased women's participation in ocean affairs (organizational as well as programmatic) and (iii) advance women's empowerment and leadership in marine scientific research and international law (including through ISA's Women in Deep-Sea Research³³ project). The first meeting and formal launch of the Impact Group on Ocean and Women was held on 7 June 2022.

³³ <https://www.isa.org.jm/vc/enhancing-role-women-msr/WIDSR-project>

SD 2

Strengthen the regulatory framework for activities in the Area

Whilst the fundamental rights of States to carry out activities in the Area are set out in Part XI of UNCLOS and in the 1994 Agreement, including the basic conditions for prospecting, exploration and exploitation (Annex 3 of UNCLOS), ISA is mandated by the 1994 Agreement with adopting necessary rules, regulations and procedures to facilitate the conduct of activities in the Area as exploration activities progress. The first priority was to develop a comprehensive set of rules,

regulations and procedures dealing with prospecting and exploration for mineral resources in the Area.

ISA has adopted three sets of exploration regulations: for the prospecting and exploration for polymetallic nodules³⁴ (2000 and revised in 2013), polymetallic sulphides³⁵ (2010) and cobalt-rich ferromanganese crusts³⁶ (2012). The regulations are supplemented by a series of recommendations for the guidance of contractors issued by the LTC and periodically updated (Box 4).

Box 3. The Mining Code

The Mining Code refers to the comprehensive set of rules, regulations and procedures issued by ISA to regulate activities (exploration and exploitation) in the Area.



³⁴ https://isa.org.jm/files/files/documents/isba-19c-17_0.pdf

³⁵ https://isa.org.jm/files/files/documents/isba-16a-12rev1_0.pdf

³⁶ https://isa.org.jm/files/files/documents/isba-18a-11_0.pdf

The ISA Council is now engaged in the development of rules, regulations and procedures for exploitation, including necessary standards and guidelines. The LTC submitted draft exploitation regulations to the Council in 2019. Whilst the Council was unable to make progress on the draft regulations in 2020, it adopted a detailed roadmap³⁷ in December 2021 to advance the work on the draft regulations during 2022 (ISBA/26/C/13/Add.1). The roadmap details how the work will progress in plenary and in the four working groups of the Council (Box 5) during the three parts of the 27th session. At the last part of the session, the Council will take stock of the progress made.



Photo: GSR

Box 4. Recommendations for the guidance of contractors

Recommendations related to the following topics are currently available to supplement the exploration regulations:

- Training programmes under plans of work for exploration (ISBA/19/LTC/14)
- The content, format and structure of annual reports (ISBA/21/LTC/15 and ISBA/21/LTC/15/Corr.1)
- The reporting of actual and direct exploration expenditure (ISBA/21/LTC/11)
- The assessment of the possible environmental impacts arising from exploration for marine minerals in the Area (updated in 2020) (ISBA/25/LTC/6/Rev.1 and ISBA/25/LTC/6/Rev.1/Corr.1)
- The relinquishment of areas under the exploration contracts for polymetallic sulphides and cobalt-rich ferromanganese crusts (ISBA/25/LTC/8)

Box 5. Informal working groups established by the Council to advance the work on the draft Regulations on exploitation of mineral resources in the Area

In July 2018, the Council of ISA established an open-ended working group to discuss a payment mechanism and rates of payment for deep-sea mining. The group is chaired by Mr. Olav Myklebust (Norway) and has held four meetings to discuss the various options and associated rates of payment as of June 2022.

In February 2020, the Council of ISA decided to establish three additional informal working groups to work respectively on:

- the protection and preservation of the marine environment, facilitated by Dr. Raijeli Taga (Fiji)
- inspection, compliance and enforcement, facilitated by H.E. Dr. Maureen P. Tamuno (Nigeria)
- institutional matters, co-facilitated by H.E. Ms. Georgina Guillén Grillo (Costa Rica) and H.E. Ms. Constanza Figueroa Sepúlveda (Chile).

³⁷ ISBA/26/C/44, annex

Standards and guidelines

The exploitation regulations will be supported by detailed standards and guidelines. As decided by the Council, these are being 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), prior to 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 6). A stakeholder consultation took place from 8 April to 3 July 2021 and contributions were considered by the LTC. The Council considered the report of the Chair of the LTC on phase 1 standards and guidelines at 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.

During the course of the reporting period, the Secretariat of ISA published several Technical Studies to support and inform the ongoing discussions on the development of a regulatory regime for exploitation, in particular:

- Technical Study 25: Competencies of the International Seabed Authority and the International Maritime Organization in the context of activities in the Area and Technical Study 26: Competencies of the International Seabed Authority and the International Labour Organization in the context of activities in the Area provide matrixes to facilitate the understanding on the respective mandate of each organization and interface of their competencies with respect to activities in the Area.
- Technical Study 27: Study on an Environmental Compensation Fund for activities in the Area.
- Technical Study 29: Remote monitoring systems in support of inspection and compliance in the Area provides insight on how ISA could adapt existing technology in the offshore petroleum and other related industries to the development of an inspection mechanism for activities in the Area.
- Technical Study 31: Equitable sharing of financial and other economic benefits from deep-seabed mining.

Figure 6. Status of the preparation of phase 1 draft standards and guidelines

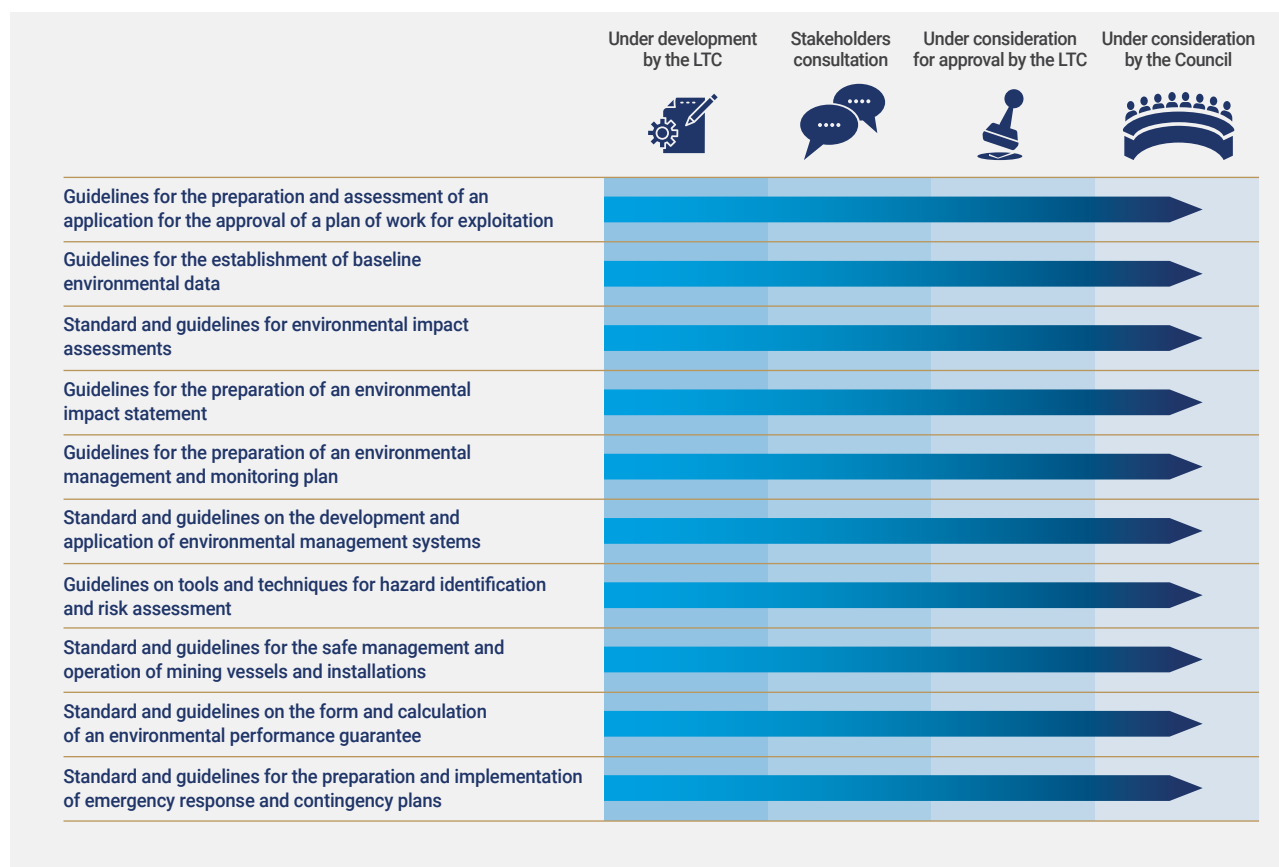




Photo: TMC

National laws and regulations

Activities in the Area may be carried out by the Enterprise, and, in association with ISA, by States parties or State enterprises or natural or juridical persons. In order 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.

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 the adoption of laws, regulations and administrative measures within their legal systems. At its 23rd session in 2017, the Assembly invited sponsoring States, if they had not already done so, to review their respective national legislation, drawing on the advisory opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea. Since 2011, the Secretary-General reports to

the Council on the status of such laws, regulations and administrative measures.

As of June 2022, the Authority’s online database contains information on or the texts of relevant national legislation received from the following 37 States: Bangladesh, Belgium, Benin, Brazil, China, Cook Islands, Cuba, Czechia, Dominican Republic, Ecuador, Fiji, France, Georgia, Germany, Guyana, India, Japan, Kenya, Kiribati, Mexico, Micronesia (Federated States of), Montenegro, Nauru, Netherlands, New Zealand, Nigeria, Niue, Oman, Republic of Korea, Russian Federation, 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. The database contains further information and the texts of national laws, regulations and administrative measures submitted by the aforementioned member and observer States of the Authority.³⁸ It will continue to be updated upon receipt of new information. A comparative study on national legislation concerning deep seabed mining is available on the ISA website.³⁹

³⁸ <https://isa.org.jm/index.php/national-legislation-database>

³⁹ https://www.isa.org.jm/files/files/documents/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 requires ISA to adopt rules, regulations and procedures designed to prevent, reduce and control pollution and other hazards to the marine environment (Art. 145). The effective protection of the marine environment is guaranteed through requirements for environmental baseline studies and environmental impact assessments 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 prior to exploitation. The work of ISA to protect the marine environment focuses on three areas:

- continued development of the regulatory framework, including environmental standards and guidelines

- the review and development of regional environmental management plans (REMPs) in priority areas where there are exploration contracts
- review and synthesis of data collected from environmental baseline studies, monitoring and assessment conducted by the 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 2013.

Box 6. Environmental impact assessments (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 by a description of a programme for oceanographic and baseline environmental studies. 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 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.⁴⁰

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 on-board drilling rigs
- sampling with epibenthic sled, dredge or trawl, or similar techniques, in nodule fields that exceeds 10,000 m²
- taking of large samples to test land-based processes.

Environmental baseline studies entail the collection of 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, with a view to establishing baselines against which to assess and monitor possible effects of exploration activities. The baseline data acquired provide the basis to make accurate environmental impact predictions, for example the assumed impact and its process, including the seabed disturbance plume, discharge plume, potential toxicity, noise and intensity of light.



⁴⁰ See ISBA/26/LTC/Rev.1 and Corr.1 ; https://isa.org.jm/files/files/documents/ISBA_25_LTC_6_Rev.1_Corr.1-2007786E.pdf

These were revised by the LTC in 2019 and 2020. 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 6). They also specify activities requiring an environmental impact assessment (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 by the LTC.

All the data and information submitted by contractors every year are collected, organized and compiled in the ISA DeepData database by the ISA Secretariat. All environmental data are made accessible to the public through the DeepData portal on the ISA website.⁴¹

Regional environmental management plans

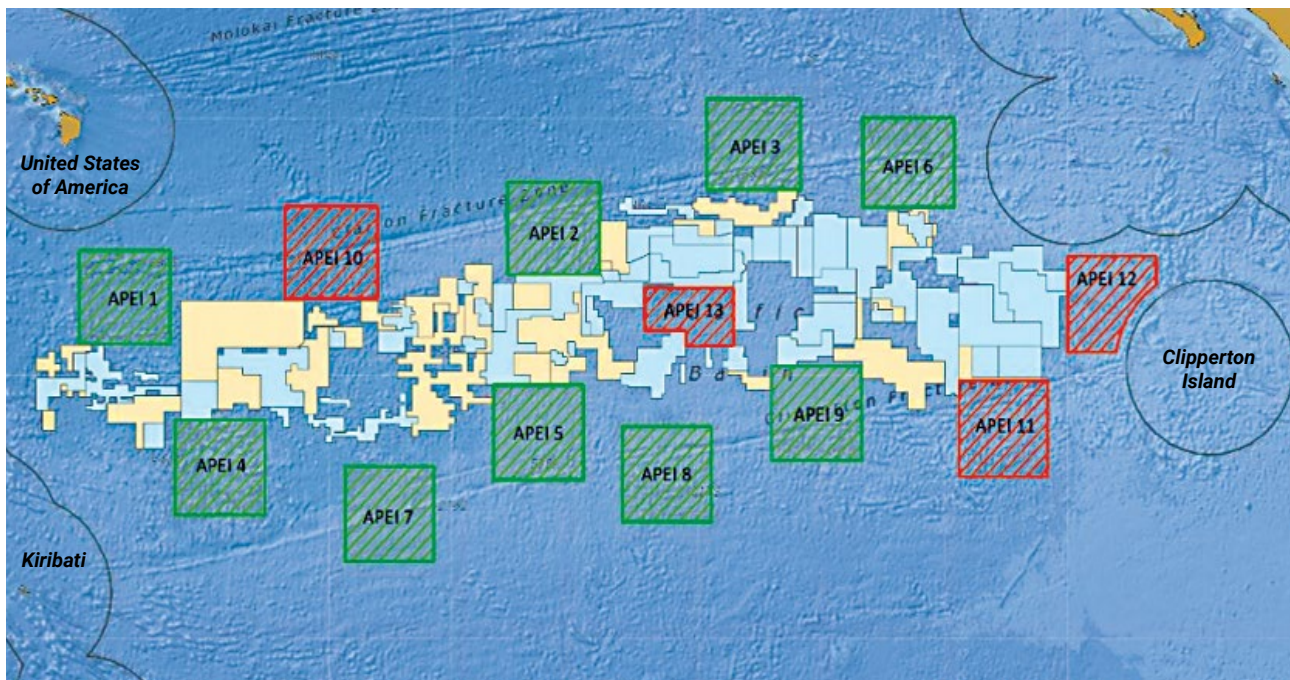
ISA has established an environmental management plan for the Clarion-Clipperton Zone (CCZ) and is in the process of establishing regional environmental management plans (REMPs) in other regions where exploration activities are taking place.

Clarion-Clipperton Zone (CCZ)

The environmental management plan for the CCZ was adopted in 2012 and included the designation of a network of nine “areas of particular environmental interest” (APEIs). These APEIs are established to protect biodiversity and ecosystem structure and functions. The initial network covered a total of 1.4 million km² of seabed of the CCZ fully protected from future exploitation of mineral resources.

In 2021, following a comprehensive review of the implementation of the environmental management plan for the CCZ, which was supported by an independent scientific process, the LTC recommended further actions to advance the implementation of the plan. These included the establishment of four additional APEIs to enhance the effectiveness of the overall network. The Council endorsed this recommendation in December 2021.⁴² As a result, the network of APEIs in the CCZ now comprises 13 APEIs covering a total area of 1.97 million km² of protected seabed.

Figure 7. The network of APEIs in the CCZ represents 1.97 million km² of protected seabed



⁴¹ <https://www.isa.org.jm/deepdata>

⁴² ISBA/26/C/58

Other regions

The development of REMP is underway in other areas where exploration activities are currently taking place, including the northern Mid-Atlantic Ridge, the Indian Ocean triple junction, the Northwest Pacific and the South Atlantic Ocean.

In May 2021, the LTC tasked a working group with drafting the REMP for the area of the northern Mid-Atlantic Ridge based on the results of three dedicated international workshops that have taken place since 2018. In April 2022, the LTC decided to release the draft REMP for stakeholder consultation until 3 June 2022. The LTC will consider the comments received through the stakeholder consultation during its meeting in July 2022, with a view to submitting the revised REMP for later consideration by the Council.

In October 2020, a workshop was also convened to support the development of a REMP for the Northwest Pacific Ocean, in collaboration with the Ministry of Oceans and Fisheries of the Republic of Korea and the Korea Institute of Ocean Science and Technology (KIOST). Preparations are in progress for additional workshops to facilitate the development of REMP in the Indian and Northwest Pacific oceans.

Building on the strategy endorsed by the Council at its 25th session,⁴³ significant progress was made towards a standardized approach for the development of REMP, as requested by the Council.⁴⁴ The LTC is currently formulating recommendations for a standardized approach, including a template with indicative elements for REMP.

Figure 8. Status of development of REMP for the different regions of the Area



⁴³ ISBA/25/C/13

⁴⁴ ISBA/26/C/10

SD 4

Promote and encourage marine scientific research in the Area

As the organization exclusively mandated to manage activities in the Area, ISA is required to promote and encourage the conduct of marine scientific research in the Area, as well as coordinate and disseminate the results of scientific research and analysis, when available.⁴⁵ ISA also has the duty to encourage the development and implementation of appropriate programmes for strengthening the research capabilities of developing States and technologically less-developed States. ISA is implementing several initiatives in partnership with relevant stakeholders to effectively discharge its responsibilities. Improving coordination amongst stakeholders is key to succeed in this endeavour, including through the adoption of strategies designed to increase synergies and mobilize adequate resources.

ISA Action plan in support of the UN Decade of Ocean Science

To maximise the contribution of ISA to the UN Decade of Ocean Science for Sustainable Development 2021-2030, the Assembly has adopted a dedicated Action Plan (ISA MSR Action Plan, [Box 7](#)). The active contribution of ISA is reflected through its participation in the UN Decade Advisory board, the UN Decade Alliance and the UN Decade Monitoring and Evaluation working group as well as in the Decade Communications Advisory Group.

Box 7. ISA MSR Action Plan

ISA's commitment to contributing to the UN Decade of Ocean Science was formalized with the adoption by the Assembly of the ISA MSR Action Plan.⁴⁶ The Plan is championed by Argentina. It identifies six strategic research priorities:



1



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

2



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

3



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

4



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

5



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

6



Strengthening deep-sea scientific capacity of ISA members, in particular developing States

⁴⁵ UNCLOS, art.143(3).

⁴⁶ ISBA/26/A/17

Strategic alliances and partnerships for generating transformative science and knowledge

Pursuant to the High-Level Action Plan for 2019-2023 and in line with the ISA MSR Action Plan, the Secretariat of ISA has established several strategic, technical and financial partnerships. These partnerships are designed to promote cooperation and coordinate marine scientific research efforts among contractors, scientific and academic communities, national agencies and international and regional organizations with respect to activities in the Area.

Data and information sharing was reinforced through strengthened strategic alliances with sectoral bodies and specialised entities including IOC-UNESCO and the International Hydrographic Organization (IHO). The Secretariat also organized a series of meetings and workshops during the reporting period to actively engage the international scientific community in establishing collaborative knowledge platforms in different areas. This was particularly successful in relation to the work of the Secretariat to advance deep-sea taxonomy in the Area and for technology development and innovation in support of the sustainable development of mineral resources, including in relation to environmental protection and monitoring of activities carried out in the Area.

The Secretariat has joined the advisory board of several international scientific research projects and programmes with a view to aligning the outcomes of scientific activities and maximizing their contribution towards the strategic research priorities identified in the MSR Action Plan (Box 7).

- **The Deep Ocean Observing Strategy (DOOS)** project is a community-driven initiative established under the umbrella of the Global Ocean Observing System (GOOS), 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. The partnership with DOOS will facilitate the development of a collaborative network of scientific institutions and ISA contractors with the intention 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 the implementation of strategic research priority 3: "Facilitating technology development for activities in the Area, including ocean observation and monitoring."

- **The Seabed Mining and Resilience to Experimental impact (SMARTEX)**, funded by the Government of the United Kingdom, aims to investigate how deep-sea ecosystems respond to and recover from broad-scale disturbance. Drawing on field experimental assessment of impacts from test mining activities in the CCZ, this project will contribute to enhancing scientific knowledge and understanding of potential impacts from activities in the Area (strategic research priority 4), including long-term resilience of deep-sea ecosystems.
- **Conservation & Restoration of deep-sea ecosystems in the context of deep-sea mining (DEEP-REST)**, a project led by Ifremer (France) and financially supported by the Governments of Belgium, France, Germany, Ireland, the Netherlands, Portugal and Spain, will 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. DEEP-REST also aims to provide empirical evidence to test the effectiveness of different restoration actions on the recovery of communities from potential impacts of future exploitation activities.

Collecting and disseminating high-quality deep-sea data

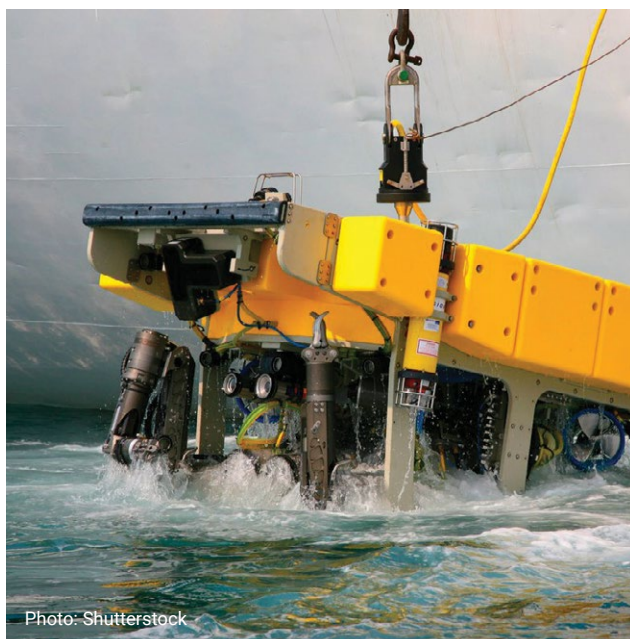
The Secretariat implemented several collaborative scientific initiatives, which contribute to enhancing the collection, analysis and synthesis of the results of research activities. In May 2021, DeepData joined the International Oceanographic Data and Information Exchange (IODE) network of IOC-UNESCO as an Associate Data Unit, enabling the ISA Secretariat to serve as a node for IODE's Ocean Biodiversity Information System (OBIS). The objective is to further enhance the global access to the biodiversity data contained in DeepData, including taxonomic information, species abundance and distribution. The metadata will also contribute to IODE's Ocean Data and Information System Catalogue ODISCat.

In March 2022, ISA signed a letter of collaboration with the World Register of Marine Species (WoRMS). WoRMS endeavours to provide a full taxonomic overview of all marine life in support of scientific research, policy making and general public knowledge. This new collaboration will help ensuring the quality of deep-sea taxonomic information and data contained in the ISA DeepData database including through periodic scientific reviews between DeepData and WoRMS' thematic subregister, the World Register of

Deep-Sea Species (WoRDS). ISA and WoRMS will also develop training and sensitization activities for ISA data providers and users of taxonomic data with a view to standardizing data exchange protocols and promote the use of biodiversity information for scientific research in the international seabed area.

In September 2021, the LTC endorsed updated templates for ISA contractors to report geological and environmental data and a new template for the submission of metadata to further enhance quality assurance and quality control procedures. The new templates will facilitate the identification and future public use of environmental research data to contribute to a better scientific understanding of all environmental aspects in the Area. The legend worksheet of the new templates cross-references the structure of DeepData with the Darwin Core Standard to facilitate interoperability with other databases, including the OBIS database. The environmental template also benefited from the strategic partnership between ISA and WoRMS.

Most contractors successfully used the updated reporting templates during the submission of annual reports in 2022. Nevertheless, the Secretariat has planned a series of data management training sessions to address areas of concern that have been 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.



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

ISA is committed to contributing to advancing the general knowledge and understanding of the world's oceans and to improving the mapping of the world's seabed by 2030. In this spirit, ISA has launched the AREA2030 initiative in partnership with IHO. This partnership will also contribute to the Seabed 2030 project, a collaborative project between the Nippon Foundation of Japan and the General Bathymetric Chart of the Oceans (GEBCO) to produce the definitive map of the world ocean floor at 100 m resolution by 2030.

In line with the ISA MSR Action Plan, AREA2030 aims to compile all bathymetric data shared voluntarily by ISA contractors and to submit them as a collective contribution to the UN Decade of Ocean Science for Sustainable Development and towards the achievement of the goals and targets of the 2030 Agenda for Sustainable Development. AREA2030 was officially presented on the occasion of ISA's World Oceans Day celebrations on 8 June 2022.

As of June 2022, the ISA Secretariat has facilitated the submission of high-resolution bathymetric data by four contractors. The Interoceanmetal Joint Organization (IOM) provided data collected from 1992 to 2001 in the CCZ, Belgium's Global Sea Mineral Resources (GSR) has made data from its contract area publicly available, Japan's Deep Ocean Resources Development Co. Ltd. (DORD) provided data on areas of particular environmental interest in the CCZ and Germany's Federal Institute for Geosciences and Natural Resources (BGR) provided data for a total of 120,000 km² of seabed in the CCZ and for 188,500 km² of seabed along the Indian Ocean ridges. Other contractors are in the process of finalizing their voluntary contributions to the AREA2030 initiative.

The contribution of ISA contractors to global efforts to improving seafloor 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 contributes immensely to the global knowledge of the international seabed and helps further our understanding of seabed habitats, potential geohazards and a variety of potential resources.

Advancing deep-sea taxonomy

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



To address this research priority, the Secretariat developed the Sustainable Seabed Knowledge Initiative (SSKI) with the support of relevant scientific groups. SSKI is an innovative global knowledge framework that aims to generate, assess and disseminate deep-sea biodiversity data and information. This project, which is co-financed by the European Commission, brings together key stakeholders, including member States, the scientific community, international organizations and the industry (in particular ISA contractors) with a view to creating a holistic network of partners and ensuring the sustainability of joint efforts.

Specific short-, medium- and long-term activities aimed at enabling the integration of deep-sea taxonomic knowledge into the work of ISA for the protection of the marine environment in the Area, have been further listed in a roadmap developed by the Secretariat. This roadmap builds on the outcomes of two virtual workshops organized in collaboration with the Ministry of Oceans and Fisheries of the Republic of Korea (MOMAF) and the National Marine Biodiversity Institute of Korea (MABIK) on taxonomic standardization (September 2020) and image-based biodiversity assessments (October 2021).

Along with the increased use of deep-sea imagery as a powerful non-invasive method for investigating the deep-sea environment, significant advances have been made towards the use of environmental DNA (eDNA) as another non-destructive, cost-effective and easily replicable tool to study deep-sea biodiversity.

A third workshop will be convened with MABIK in November 2022 in Seochun-gun, Korea to address the standardization of methodologies for collecting and sharing genetic sequence data and information as a way to enhance biodiversity assessments in the Area.

Advancing technology to support sustainable mining of mineral resources in the Area

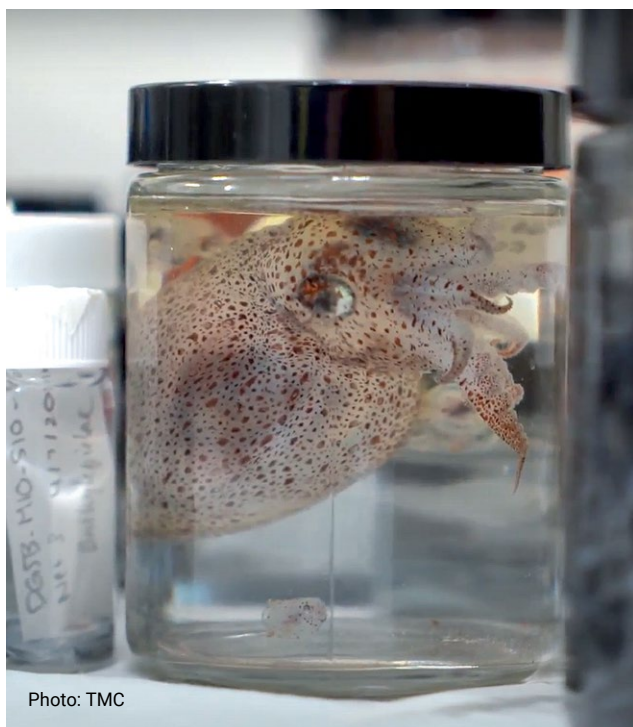


Photo: TMC

Pursuant to strategic research priority 3 of the ISA MSR Action Plan (Facilitating technology development for activities in the Area, including ocean observation and monitoring), the Secretariat organized an expert scoping meeting in partnership with the National Oceanography Centre (NOC) of the United Kingdom in November 2021. The meeting aimed to advance technology development and innovation in support of the sustainable development of mineral resources, including in relation to environmental protection and monitoring of activities carried out in the Area. Participants also discussed ways and means to facilitate innovations for advancing smart technologies in support of effective transition from exploration to exploitation.

A second workshop organized in partnership with NOC and key actors from the mining and technology industry is scheduled to take place in the last quarter of 2022. It will present progress and identify necessary advancements in intelligent technologies as well as mutual interests and benefits between land- and seabed-based industries.

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

Under the Women in Deep-Sea Research (WIDSR) project, strategic partnerships have been established with over 20 entities from governments, international and regional organizations, academia and contractors to implement activities in the project's four areas of action policy development and advocacy, capacity development, sustainability and partnerships and communication and outreach.

In October 2021, the ISA Secretariat partnered with MABIK under the Global women's Leadership Training Programme in marine biological resources information systems organized for Fiji and delivered a presentation on the different avenues offered by ISA to build the capacity of women scientists from developing States.

In June 2022, the WIDSR project released an important report⁴⁷ on "Empowering Women from LDCs, LLDCs and SIDS in Deep-Sea Research". The report provides a detailed gender mapping of deep-sea research and related disciplines, including careers in different sectors, and identifies the critical barriers faced by women from LDCs, LLDCs and SIDS in participating and accessing leadership roles in fields relating to marine scientific research.⁴⁸

As of June 2022, eight contractors⁴⁹ have positively contributed to the implementation of the WIDSR project by pledging to reserve half of their training opportunities to qualified women applicants whenever possible.

Trainings and mentorship programmes are currently under development in partnership with key stakeholders and are expected to start in the last quarter of 2022.



WIDSR strategic partners:



UN-OHRLS

Governments:



Research institutions:



International and regional organizations:



ISA contractors:



⁴⁷ <https://isa.org.jm/node/21207>

⁴⁸ The report builds on a foundational dataset of primary and secondary data from 23 LDCs, LLDCs and SIDS (Bangladesh, Belize, Botswana, Cook Islands, Fiji, Jamaica, Kiribati, Lesotho, Madagascar, Malawi, Maldives, Mauritius, Mongolia, Mozambique, Myanmar, Nauru, Nepal, Seychelles, Singapore, St. Kitts and Nevis, Tonga, Trinidad and Tobago, Vanuatu) and information collected at national, institutional and individual levels on the status of women in deep-sea research and related careers.

⁴⁹ BGR, DORD, GSR, Ifremer, Marawa, TOML, NORI and CPRM

SD 5

Build capacity for developing States

One of the dimensions of ISA's mandate under UNCLOS relates to the design and implementation of mechanisms to build capacity for 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. Between 2020 and 2021, more than 600 individuals have benefited

from at least one of the capacity-building/development activities implemented by ISA, including participation in workshops that it has organized.

All programmes and activities aimed at addressing the priority capacity development needs identified by developing States Members of ISA through the survey carried out by the ISA Secretariat in 2020.⁵⁰



Photo: GEOMAR

⁵⁰ <https://bit.ly/3yqinDf>

Capacity development strategy

Pursuant to the high-level action plan and in line with the decision⁵¹ of the Assembly relating to the implementation of a programmatic approach to capacity development, the Secretariat has developed a dedicated strategy to operationalise the work undertaken to address the needs identified by Members. A draft was shared for public consultation in April 2022 and a revised version is planned to be presented to the Assembly for its consideration and approval at the 27th session.

Strategic partnerships in support of capacity development and transfer of technology

As of May 2022, 52 national focal points for capacity development (NAFOP-CD) had been appointed.

Two meetings of the NAFOP-CD network have been held to date (latest one on 18 May 2022). A survey carried out in 2021 with NAFOP-CD led to the identification of 70 national institutions from the public domain, private industry and academia with which the Secretariat could cooperate to design and implement specific activities under its programmatic approach to capacity development. The identification of engagement options and, consequently, concrete actions in support of ISA's capacity development strategy and programmatic approach to capacity development have been identified and are under discussion with interested Members and relevant entities.

Monitoring, evaluation and outreach

Work is currently 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 on the website of ISA presenting all the data related to the

implementation of ISA's capacity development activities by country, region, gender, type of training and year.⁵² It also contacted each Member State whose citizens had benefited from capacity development activities implemented by ISA and provided them with a list of beneficiaries by gender, discipline and type of training received in order to enable them to progressively develop a pool of national experts to support their respective efforts and decision-making processes.

The Secretariat is also making progress towards the establishment of an alumni network of former ISA trainees which is expected to become active by the end of 2022.

Contractors' Training Programme

All contractors of ISA have a contractual obligation to provide and fund training opportunities for personnel from developing States and those of ISA. More than 200 professionals have benefitted from the Contractors' Training Programme (CTP) so far.

Between June 2021 and April 2022, 35 individuals (including 9 women and an ISA staff member) completed training under the CTP (Box 8). Five of the placements went to trainees from geographically disadvantaged States (three LDCs, one SIDS and one LDC/SIDS). At the end of the reporting period, 13 training opportunities were in progress while a further 47 placements were pending implementation.

On 31 March 2022, the Secretariat of ISA hosted the first virtual end-of-training certificate presentation ceremony with beneficiaries of the CTP. Certificates were presented to 29 trainees from 21 developing States including 13 women and three nationals from LDCs.

Owing to the challenges faced by contractors in relation to the restrictions imposed by the COVID-19 pandemic, some flexibility was granted to either postpone practical training or, in some cases, provide e-learning opportunities instead.

⁵¹ ISBA/26/A/18

⁵² <http://ec2-100-26-58-69.compute-1.amazonaws.com:801/>

Box 8. CTP placements during the reporting period

Contractor	Mineral	Number of placements	Modality	WIDSR pledge
BGR	PMS	1	At-sea	✓
COMRA	PMN	10	Online	
Ifremer	PMN	4 2	Online internship In-person internship	✓
Marawa	PMN	2	At-sea	
Ministry of Earth Sciences of the Government of India	PMN	12	Online	
NORI	PMN	1	At-sea	✓
TOML	PMN	3 (including 1 ISA staff)	At-sea	✓

Deep-DiplomaSea

In 2021, the Secretariat launched a new initiative called “Deep-DiplomaSea”. The webinar series focuses on the role, mandate and work of ISA and is aimed at personnel of Permanent Missions to ISA and the United Nations and senior representatives of United Nations’ agencies. The first two Deep-DiplomaSea webinars of 2022 took place in March and May and gathered about 140 participants. The discussions covered the mandate and work of ISA, its governance structure and decision-making processes, the development of the draft exploitation regulations, the effective protection of the marine environment, equitable sharing of financial and other economic benefits and the management of exploration contracts.

Endowment Fund for Marine Scientific Research

The Endowment Fund for Marine Scientific Research in the Area (EFMSR) supports the participation of qualified scientists and technical personnel from developing States in marine scientific research programmes through the provision of grants and resources. Pursuant to the decision of the Assembly relating to the implementation of a programmatic approach to capacity development (ISBA/26/A/18), the Secretary-General undertook a review of the terms of reference of the EFMSR to address the challenges identified in its implementation, in particular to allow the use of the capital of the Fund to support training and technical assistance activities and submitted proposals for consideration by the Finance Committee (ISBA/27/FC/3).

Internship Programme

ISA 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 in order 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 current requirements of the different offices. Selection and recruitment are therefore on an ongoing basis. Each intern is supervised by a designated staff member of the Secretariat. During the reporting period 4 individuals undertook an internship at the Secretariat (two with EOSG, one with OLA and one with OEMMR).

The Secretariat has received financial support from the National Oceanography Centre of the UK to support the participation of two interns in the work of OEMMR in support of some activities implemented under the ISA MSR Action Plan. Both interns will work with experts of the Secretariat on developing technical capabilities on taxonomic identification and standardization as well as data collection and processing. After a thorough process, the two selected candidates are two women from China and the Cook Islands. Both are expected to join the Secretariat between August and December 2022.



Dr. Kirsty McQuaid,
South Africa, recipient
of the Third Edition of the
Secretary-General Award
for Excellence in Deep-Sea
Research

Secretary-General Award for Excellence in Deep-Sea Research

The Secretary-General of ISA presented the Third Edition of his Award for Excellence in Deep-Sea Research to Dr. Kirsty McQuaid from South Africa during the 26th session of the Assembly. Dr. McQuaid is a marine

scientist working at the interface between environmental management and marine conservation. Her work was recognized for the design of networks of marine protected areas around South Africa and the use of habitat classification to assess the representativity of the network of areas of particular environmental interest in the Clarion-Clipperton Zone (CCZ).



Africa Deep Seabed Resources (ADSR) project



The ADSR project is being implemented by ISA in partnership with the African Union and the Norwegian Agency for Development Cooperation (NORAD) to bring to life the joint voluntary commitment (#OceanAction 16374) registered at the 2017 UN Ocean Conference and renewed at the 2022 UN Ocean Conference.

The project aims to foster international and regional cooperation in support of the sustainable development of Africa's blue economy. It foresees the organization of five workshops, one in each African sub-region. A first workshop was organized in Côte d'Ivoire in October 2018 and a second in South Africa in May 2019. The third ADSR workshop took place virtually in June 2021. It was hosted jointly by ISA and the government of Mauritius with the support of the African Union and NORAD. It brought together over 170 participants including government representatives from Comoros, Kenya, Mauritius, Madagascar, Rwanda, Tanzania, Seychelles and Somalia as well as internationally renowned experts and senior representatives from industry, civil society and academia. The workshop identified

policy recommendations and capacity-building strategies that were compiled in a workshop report published in March 2022.⁵³ The last regional workshops of the project are expected to take place in the last quarter of 2022 in Abuja (Nigeria), Rabat (Morocco) and Dakar (Senegal).

The project also commissioned a socio-economic and environmental cost-benefit assessment to understand the relevance for African States to engage in activities related to the sustainable development of deep-seabed resources in the international seabed area in support of their blue economy. Consultations on the draft report are scheduled for the last quarter of 2022 with Member States and stakeholders of the African region. The report is expected to be published in November 2022.

The project also foresees the deployment of 10 African experts to the ISA Secretariat. Although all deployments were originally scheduled in 2020, the project was disrupted by the COVID-19 pandemic and two experts were deployed in 2020, three were deployed in 2021 and five were deployed in 2022 (Box 9).

⁵³ <https://isa.org.jm/node/20975>

Box 9. Introducing ADSR national experts

2020



Ms. Judith A. Owusu
Geochemist, National Petroleum Corporation, Ghana



Ms. Tini Guitoba
Legal Assistant, Directorate of Maritime Affairs, Togo

2021



Mr. Gerald Mwila
Chief Geologist, Economic Geology Government of Zambia



Mr. Samuel Popoola
Principal Research Officer, Nigerian Institute for Oceanography and Marine Research, Nigeria



Mr. Godwin Dimike
Geologist, National Boundary Commission, Nigeria

2022



Ms. Linda Ansu-Kyeremeh
Senior Health, Safety and Environment Officer, Petroleum Commission, Ghana



Mr. John Mataro
Inspector of Mines and Environment, Mining Commission, Tanzania



Ms. Lucy Njue
Senior Geologist, Geothermal Development Company, Kenya



Mr. Feuwo Nicodeme Noel
Engineer of Mines and Geology, National Mining Corporation, Cameroon



Mr. Michel Djimgou Djomeni
Head of the Sub-Department in charge of Central African Affairs, Ministry of External Relations, Cameroon

Marine scientific research webinar information series for Africa

Building on the activities of the ADSR project and the identification of specific capacity-building and development needs by African Member States, the ISA Secretariat has created a webinar series on marine scientific research specifically for its African Member States and interested stakeholders in the region. The first webinar in the series took place in September 2021 and focused on deep-sea mineral resources and technologies. The webinar was

chaired by Ambassador Harold Adlai Agyeman, Permanent Representative of Ghana to the United Nations and was attended by over 40 participants from 17 African countries, including government representatives, diplomats, researchers, mining experts and former ISA trainees. The webinar highlighted the complementarity between exploration for mineral resources and scientific research activities in the Area and demonstrated how both contribute towards enhancing the global knowledge base necessary to ensure the sustainable development of the ocean.

Following the successful results of the first webinar, the Secretariat convened a second webinar in June 2022 on the topic of data management. This webinar presented ISA's data management strategy and the role of its DeepData database, including various data flows from sources to users. It also discussed different types of data analytics and their use for marine scientific research in the Area and identified Africa's priorities, challenges and future areas of collaboration for facilitating access to and sharing of data on the marine environment in the Area and for advancing the development of DeepData.



Abyssal Initiative for Blue Growth



Norad



Pacific Community
Communauté du Pacifique

The Abyssal Initiative for Blue Growth is being implemented by ISA in partnership with UN DESA under the joint voluntary commitment #OceanAction16538 registered at the 2017 UN Ocean Conference.

The project 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 2022, ISA counts 15 Pacific SIDS amongst its Members, four of which are sponsoring contracts for mineral exploration in the Area: the Cook Islands, Kiribati, Nauru and the Kingdom of Tonga. The project held its first workshop in Tonga in February 2019, which consisted in a broad consultation of Pacific SIDS and representatives from 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 subsequently organized in August 2019 in Nauru and Kiribati to further discuss marine scientific research and the role and responsibilities of sponsoring States.

The project initially aimed at holding its final workshop in April 2022 in partnership with the Kingdom of Tonga to address issues pertaining to benefit sharing. However, due to the volcanic eruption in Tonga in December 2021, the workshop was rescheduled and will take place in the last quarter of 2022.

The Abyssal Initiative also made significant progress on the development of a toolkit on the role and responsibilities of sponsoring States and guidance for negotiators, which is expected to be released in July 2022 after consultation with key regional stakeholders.

ISA-China Joint Training and Research Centre

In October 2019, ISA signed a memorandum of understanding with China for the establishment of the Joint Training and Research Centre (JTRC) in Qingdao, China.

The first workshop hosted by the JTRC took place in May 2022 in a virtual format. It focused on the survey and assessment of mineral resources in the Area, the characteristics of deep-sea ecosystems and environmental management and the global repository of data from exploration activities in the Area. A total of 55 individuals from 20 countries participated in the workshop. Twenty-five participants were women and twenty-four were from LDCs, LLDCs and SIDS.

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 through the development of a joint project to provide targeted assistance on technical aspects of the sustainable development of deep-seabed mineral resources. The project is implemented by SPC 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 undertake research on deep-seabed related topics
- organising at-sea training for students
- enabling two-month placements within the ISA Secretariat for selected students.

ISA-Ifremer deep-sea taxonomy postdoctoral fellowship

In cooperation with Ifremer and with the financial support of the Government of France, the Secretariat established a deep-sea taxonomy postdoctoral fellowship for candidates from developing States Members of ISA. The 18-month fellowship will focus on developing and testing new methods and technologies for deep-sea species identification and is expected to begin in September 2022.

The fellowship will be part of the Ifremer Blue Revolution project and will involve work on the development and testing of three-dimensional imaging techniques for the identification of meiofauna organisms of deep-sea ecosystems found in areas currently being explored for mineral resources. The fellowship will also contribute to identifying key species that can be used as indicators for assessing potential environmental changes in the future. After a thorough selection process, the fellowship was awarded to Dr. Ranju Radhakrishnan from India.



Dr. Ranju is a marine biologist and a recipient of the Innovation in Science Pursuit for Inspired Research (INSPIRE) fellowship of the Ministry of Science and Technology of the Government of India at the Cochin University of Science and Technology in Kerala, India. She has been researching the taxonomy of invertebrates, especially protozoans; the biodiversity of various aquatic ecosystems; global warming and the influence of climate change on marine life; indigenous fauna and flora and their conservation strategies and anthropogenic influences on aquatic ecosystems.

Deep Dive: ISA's e-learning platform

ISA launched its Deep Dive platform in June 2022, with self-paced lessons beginning in September 2022.

Deep Dive is the only e-learning platform exclusively designed to address all elements of the legal regime in Part XI of UNCLOS and the 1994 Agreement, including technical and scientific aspects. It builds on the exclusive body of expertise and experience of internationally renowned experts in deep-seabed related matters.

Deep Dive was created to enhance the capacity of government officials and practitioners from Member

States, including developing States Members of ISA, young graduates, staff of partner institutions or other relevant stakeholders to understand and implement the legal regime of the Area and the different elements pertaining to the conduct of activities in the Area. Deep Dive aims to facilitate the development and implementation of national legal frameworks in compliance with international law and help strengthen national institutions as a way 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.

Box 10. Deep Dive learning pathway

Learning pathway



1. Select Dive

Choose one of the three Dives available



2. Enrol

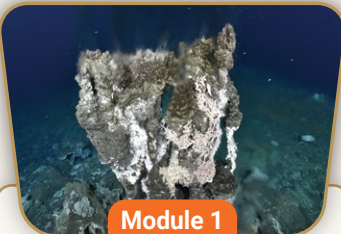
Complete and submit the Deep Dive registration form



3. Certificate

Obtain your certificate upon successful completion of the Dive

Learning contents



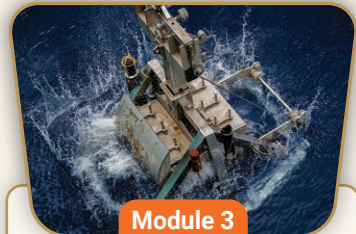
Module 1

UNCLOS and governance of the Area



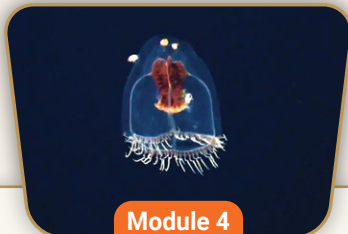
Module 2

Marine mineral resources of the Area



Module 3

Marine scientific research 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

Deep Dive experts

The lessons in Module 1 are delivered by internationally renowned experts.



Michael W. Lodge

Secretary-General,
International Seabed Authority



Tullio Treves

Professor of International Law at the University
of Milan and Judge at the International Tribunal
for the Law of the Sea



Michael Wood

Member of the UN International Law Commission,
and a Senior Fellow of the Lauterpacht Centre for
International Law, University of Cambridge



Michelle Walker

Deputy Solicitor General, International Affairs
Division at the Attorney General's Chambers
in Jamaica



Eden Charles

Special Representative of the Secretary-General
for the Enterprise, International Seabed Authority



Marie Bourrel-McKinnon

Senior Policy Officer and Special Assistant to the
Secretary-General, International Seabed Authority



Ulrich Schwarz-Schampera

Programme Management Officer
(Mining Geologist),
International Seabed Authority



Tara Davenport

Assistant Professor, Faculty of Law,
National University of Singapore



Aldo Chircop

Professor of Law and Canada Research
Chair in Maritime Law and Policy



Frida Armas

Professor of Public International Law,
Buenos Aires University, Austral University



Warwick Gullett

Professor of Law and former Dean of Law at the University
of Wollongong and a member of the Australian National
Centre for Ocean Resources and Security (ANCORS)



Dale Squires

Adjunct Professor of Economics at the
University of California San Diego

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

ISA and the Government of Antigua and Barbuda have entered into a partnership to support the development of dedicated capacity development activities in marine scientific research and technology development in relation to emerging blue economy sectors. This includes supporting a centre of excellence and fostering regional and international cooperation for the Caribbean region. The initiative will also focus on increasing participation of women in marine scientific research and related fields in the region.

Ocean governance training

The Secretariat of ISA and the World Bank, through the Environment and International Law Practice Group of its Legal Vice-Presidency, collaborated with the University of Melbourne Law School, the Division for Ocean Affairs and the Law of the Sea, the Office of Legal Affairs of the United Nations, the Food and Agriculture Organization of the United Nations and the Maritime and Oceanic Law Centre at the University of Nantes to develop and deliver a training programme on international law related to ocean governance and the legal framework for the blue economy, including relevant regional conventions, entitled “Ocean Governance Capacity Building”, drawing on each partner’s respective areas of expertise. Two sets of training have been organized. The first one took place between April and May 2021 and was targeted at the Pacific region and the second one took place between September and October 2021 and was targeted at the African region. The ISA Secretariat led the delivery of a module pertaining to “Activities in the Area”.



Photo: ISA/Jude Ofusu



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. First, that the regime would have a universal character and second, that due attention would be given to the interests and needs of developing countries. The latter expectation is reflected in Article 148 of UNCLOS, which affirms that the effective participation of developing States in activities in the Area shall be promoted, having due regard to their special interests and needs. Other provisions of Part XI provide for preferential access to developing countries (e.g., through the reserved area system) and granting of priority in the enjoyment of the proceeds of deep-seabed mining (equitable distribution).

Presently, ISA prioritises 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 and SIDS and less technologically-advanced States.

Operationalization of the Enterprise

The Enterprise is the organ of ISA conceived by UNCLOS to directly carry out activities in the Area, as well as the transporting, processing and marketing of minerals recovered from it, on behalf of all Members of ISA and subject to the directives and control of the Council. Under the 1994 Agreement, certain limited functions of the Enterprise are to be carried out by the Secretariat until such time as the Council decides that the Enterprise should function independently. Since 2019, the Secretary-General has appointed Mr. Eden Charles (Trinidad and Tobago) as the Special Representative for the Enterprise and a voluntary trust fund has been established to support his work (see Chapter 7 – Finance and resources). The Special Representative of the Secretary-General for the Enterprise has issued three reports on his work.

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 within the Secretariat. At its December 2021 meetings, the Council decided to extend the mandate of the Special Representative of the Secretary-General for the Enterprise until the end of the 27th session whilst continuing to review the recommendations of the LTC. At its meetings in March 2022, the Council took note of a further report from the Special Representative of the Secretary-General for the Enterprise which provided a brief description of managerial policy and administrative options for the administration of the Enterprise, as well as a proposed work plan for the Interim Director General during the period July 2022–December 2023. The importance of following a timely step-by-step approach for the operationalization of the Enterprise was recognized and the Council will continue to review the questions raised in the report in accordance with the relevant provisions in UNCLOS and the 1994 Agreement.

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.

Annual Ministerial Meeting of Foreign Ministers of LLDCs

In September 2021, the Secretary-General was invited to participate in the Annual Ministerial Meeting of Foreign Ministers of Landlocked Developing Countries to report on ISA's progress in the implementation of the Vienna Programme of Action.⁵⁴ The meeting provided an opportunity to focus on the specific provisions contained in UNCLOS that support and enable the active participation of LLDCs to engage in the legal regime of the Area.

⁵⁴ Vienna Programme of Action for Landlocked Developing Countries for the Decade 2014-2024, [A/CONF.225/L.1](#)

Box 11. Deliverables and activities identified in the UN Roadmap for Accelerated Implementation of the Vienna Programme of Action, through which ISA is committed to develop the capacities of LLDCs

Action areas	Implementing organizations	Deliverables and activities	Timeline
ENERGY AND ICT			
2.1. Energy efficiency and access to energy, including renewables	UNOSSC, UN ESCAP, UNDP, GGGI, ISA, WGEO	Support and provide on-demand capacity-building to the relevant national authorities of the LLDCs to scale up sustainable energy use on the path of advancing green economy transition	2021
STRUCTURAL ECONOMIC TRANSFORMATION			
3.3. Diversification and value-addition	ISA	<p>Provide assistance and support to increase awareness of potential benefits for LLDCs to ratify and implement UNCLOS and participate in activities in the international seabed area (deep-sea exploration, exploitation, marine scientific research).</p> <p>Increase awareness of the benefits of the blue economy for LLDCs, including through establishment of benefit-sharing mechanism for economic and non-financial benefits derived from activities undertaken in the international seabed area.</p>	Ongoing
3.5. Science, technology and innovation and research	ISA	Promote the development and establishment of specific mechanisms and tools to develop the necessary capacities of LLDCs in marine scientific research as well as organize and facilitate technology transfer, in line with Part XI of UNCLOS	Ongoing
MEANS OF IMPLEMENTATION AND INTERNATIONAL SUPPORT			
5.3. Assistance towards deriving benefits from relevant conventions and other legal instruments, including UNCLOS	ISA	Identify measures to increase the participation of LLDCs in the implementation of the regime of the international seabed area and in the work of the International Seabed Authority	Ongoing
OTHER AREAS			
6.4. Gender equality and the empowerment of all women and girls	ISA	Enhance the role and participation of women scientists from LLDCs in deep-sea research	Ongoing

Transfer of technology

Article 144 of UNCLOS, as modified by Section 5 of the annex to the 1994 Agreement, deals with 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 shall cooperate to initiate and promote programmes for the transfer of technology to the Enterprise and developing States with regard to activities in the Area.

The 1994 Agreement further sets out principles on which transfer of technology under Article 144 shall be based, including 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, and 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 of Article 144 of UNCLOS and modalities for its implementation based on the actual technological needs of developing States. In 2022, the Secretary-General established a group of experts to review the role of ISA with respect to technology and provide strategic guidance and recommendations on the future implementation of Article 144 and related matters.

UN Technology Bank

The ISA Secretariat and the UN Technology Bank for LDCs are developing a joint project aimed at facilitating the identification of critical technology needs of LDCs to fulfil their socio-economic objectives in support of the development of sustainable ocean-based economies. The aim is to create the enabling conditions for targeted capacity development measures in line with the provisions of UNCLOS, the 1994 Agreement and the Doha Programme of Action. The project will leverage existing capacities in LDCs in fields related to technology and data management and will provide technical assistance for the development of relevant legal frameworks. It will facilitate access to technology and tailored capacity development activities in environmental management by harnessing international and regional networks. Special emphasis will be put on gender empowerment and leadership.

Collaboration with IORA

Following approval by the Council in December 2022,⁵⁵ the Secretary-General of ISA and the Secretary-General of the Indian Ocean Rim Association (IORA) signed a memorandum of understanding on 17 March 2022.

The two organizations will work towards ensuring that their Member States can engage more actively in marine scientific research programmes and initiatives carried out in the Area and benefit fully from the sustainable development of deep-seabed minerals, two key elements identified for the development of the blue economy of the region. ISA and IORA will develop joint activities in the fields of capacity-building related to marine scientific research, seabed exploration, development of legal frameworks and policy formulation, environmental management planning, as well as for increased information dissemination and data sharing.

⁵⁵ ISBA/26/C/13/Add.1

Box 12. Booklets on the Law of the Sea: An Ocean of Opportunity for LDCs, LLDCs and SIDS



Since 2017, ISA has been actively collaborating with UN-OHRLLS to support the efforts of that office to facilitate the coordinated implementation of the programmes developed through the United Nations system to benefit the three groups of countries. In this context, the ISA Secretariat prepared and published three studies in November 2021 to inform LDCs, LLDCs and SIDS of the benefits offered to them by UNCLOS in relation to deep-sea mineral exploration, marine scientific research and the sharing of future financial and economic benefits from deep-sea minerals.

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 fundamental to the legal regime created by Part XI of UNCLOS. UNCLOS establishes the principle that all activities in the Area, including 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 Finance Committee, which has the primary responsibility to draft appropriate rules and procedures on equitable benefit sharing, has started to develop proposals for equitable sharing of financial and other economic benefits (ISBA/26/A/10/Add.1–ISBA/26/C/21/Add.1). Ultimately, equitable benefit-sharing

rules must be approved by the Assembly on the recommendation of the Council. Both the Council and the Assembly must take into account the recommendations of the Finance Committee on these matters.

In October 2021, the Secretariat published ISA Technical Study 31,⁵⁶ which summarizes two years of work on the topic under the supervision of the Finance Committee. An associated policy brief⁵⁷ was published in January 2022. A web-based distribution model⁵⁸ was designed to support the study and enable users to review and evaluate the impact of alternative formulae for fair and equitable allocation of a notional sum of royalties available for distribution.

The Council and Assembly gave preliminary consideration to the report of the Finance Committee in December 2021. This work will be continued during the period 2022-2023.



Photo: DORD

⁵⁶ Technical Study 31: Equitable sharing of financial and other economic benefits from deep-seabed mining

⁵⁷ Policy Brief 01/2022: Equitable sharing of financial and other economic benefits

⁵⁸ <http://bit.ly/dsm-distribution-model>

SD 8

Improve the organizational performance of ISA

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

Strengthening the management culture, reducing risk and introducing best practices through the planning, development and implementation of organizational reforms

The Secretariat continues 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 (BCP). The BCP aims at ensuring smooth and continuous administrative services and efficient standard operating procedures in support of a knowledge- and information-based organization.

The Secretariat further improved communication and cooperation with other UN agencies as well as host country's law enforcement entities to ensure the safety of the personnel in case of crises and any other unforeseeable circumstances. Through the security response framework, close collaboration with relevant counterparts and well-defined procedures as part of the ISA BCP, the Security and Facility Management Unit successfully provided ISA staff, delegates from ISA Members, observers and dignitaries in visit to the ISA Headquarters with the best available services during normal operations of the different organs of ISA, including during the in-persons meetings of the Council and the Assembly in December 2021 and the meetings of the Council in March 2022.

Significant work is also taking place in relation to strengthening ISA's communications and information technology services. During the reporting period, efforts have been made to improve ISA's response to cybersecurity risks and threats. The Communications and Information

Technology Unit was able to respond to the sharp increase in demand for remote meetings and events and to deliver all required services to ISA staff, Members, observers and other stakeholders. Maintaining the excellence in service delivery will now require that adequate financial and human resources be allocated to ensure support of ISA's mandate.

During the reporting period progress was made to provide a good working environment based on a strong management culture in order to ensure excellence in the provision of administrative services by ISA, compliance with the United Nations security and safety policies and a commitment to learning and professional development. Pursuant to the learning and development policy issued in 2018 (ISBA/ST/SGB/2018/1), the Secretary-General placed a strong emphasis on creating learning and development opportunities for all staff. The objective is to provide all personnel with the possibility to enhance their skills and competences in order to meet the changing needs of the Organization in line with the evolutionary approach embedded in UNCLOS and the 1994 Agreement. During the reporting period, 26 training opportunities were granted to staff, reflecting the critical investment made in the future of ISA. This included training offered through the United Nations Staff System College (UNSSC).

At the same time, as a participant in the United Nations common system of organizations, ISA contributes to and participates in the work of the International Civil Service Commission (ICSC) and utilises UN services and tools such as Inspira, One HR, UN Department of Safety and Security and the UN Appeals Tribunal (UNAT) and UNSSC. ISA also contributes to the UN Security Management System. This ensures access to disaster evacuation arrangements and medical evacuations and enables ISA to participate in the Interagency Security Management Network (IAMSUN) and relevant Security Training Working Groups. ISA is not currently a member of the Chief Executives Board (CEB) but is considering an invitation to join three relevant CEB networks as an observer, namely Human Resources, Budget and Finance, and Information Technology.

Resources management and future financing of ISA

As the Council works towards the adoption of regulations on exploitation of mineral resources in the Area and the associated standards and guidelines, ISA needs to prepare for becoming an effective regulator of industrial activity, whilst at the same time 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 Finance Committee (ISBA/26/FC/7). The report provided indicative budget projections through to 2030 based on reasonably foreseeable scenarios. It also proposed a revised budget format intended to promote transparency by clearly separating and identifying expenditures on different aspects of ISA's work. In its decision ISBA/26/A/33 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. The budget proposals for the financial period 2023-2024 have been prepared in line with these projections.

The High-Level Action plan of ISA for 2019-2023 (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 (Finance Committee, LTC, Member representatives, partners, donors, contractors, observers and non-governmental organizations) and thorough review by the Finance Committee.



SD 9

Commit to transparency

Stakeholder engagement

ISA is committed to meaningful and informed engagement with all stakeholders in the work of its different organs and in the advancement of its mandate. This commitment has been reflected in the different stakeholder consultations organized for the development of the draft regulations on exploitation and their associated draft standards and guidelines, as well as other key strategic documents and initiatives, such as the development of regional environmental management plans.

More specifically, the Secretariat has developed a draft stakeholder engagement and communication strategy, which was shared for public consultation between December 2020 and February 2021. Its purpose is to inform and guide ISA stakeholders through a detailed presentation of the rules, mechanisms and practices in place through which they can engage in the work of ISA. An updated draft will be shared for comments in Q3 2022.

Public information and outreach

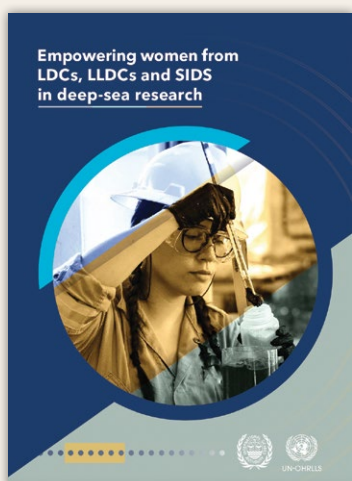
Deep-DiplomaSea

In 2021, the secretariat launched a new webinar series entitled “Deep-DiplomaSea” to increase the awareness of personnel of permanent missions to ISA and the United Nations of the role, mandate and work of ISA. Four webinars have taken place so far, in March and July 2021 and in February and May 2022, with an average participation of over 120 representatives per session.

Publications

Since July 2021, 15 new publications were released and made available on the ISA website, including six general publications, six technical studies, one policy brief and two workshop reports. The Secretariat also produce two new brochures, one on the International Seabed Authority and one of the new SSKI initiative.

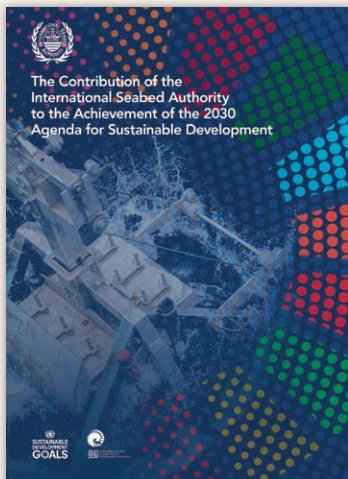
GENERAL PUBLICATIONS



Empowering women from LDCs, LLDCs and SIDS in deep-sea research

June 2022

This report summarizes the key findings of a gender mapping exercise of the deep-sea research field and related disciplines and activities in LDCs, LLDCs and SIDS. It builds on an analysis conducted to identify the critical barriers faced by women scientists from LDCs, LLDCs and SIDS in participating in and accessing leadership positions in this field of work.



The Contribution of the International Seabed Authority to the Achievement of the 2030 Agenda for Sustainable Development

November 2021

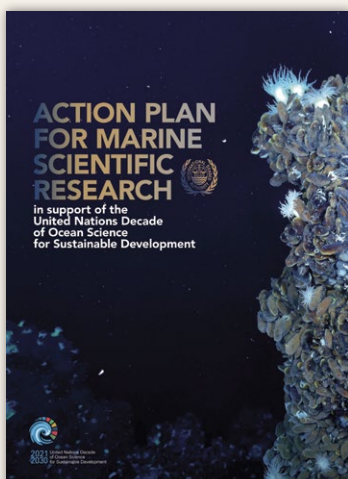
This independent report commissioned by the Secretary-General of ISA reviews the contribution of ISA to the achievement of the 2030 Agenda and its constituent SDGs. This report is based on an analysis of documentary evidence, interviews and summaries of online meetings with experts from various backgrounds. It shows how ISA contributes to 12 of the 17 SDGs.

Studies on the relevance of UNCLOS to LDCs, LLDCs and SIDS

November 2021



A set of three studies prepared by the ISA Secretariat to inform LDCs, LLDCs and SIDS of the benefits offered to them by UNCLOS in relation to deep-sea mineral exploration, marine scientific research and the sharing of future financial and economic benefits from deep-sea minerals.

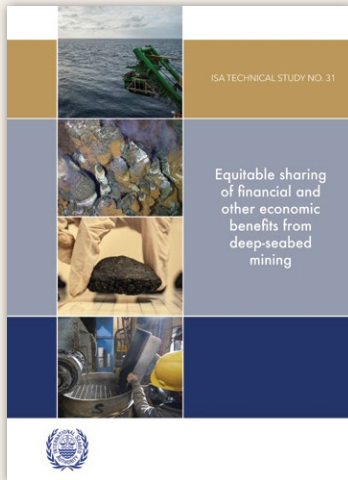


Action plan for marine scientific research in support of the UN Decade of Ocean Science for Sustainable Development

October 2021

This publication describes the Action Plan for Marine Scientific Research developed by ISA in support of the Decade. The Action Plan identifies six strategic research priorities and specific outputs that will help accelerate marine scientific research in the Area. The Plan was endorsed by ISA's 168 Members and is championed by Argentina, currently Chair of IOC-UNESCO, which is coordinating the Decade on behalf of the United Nations.

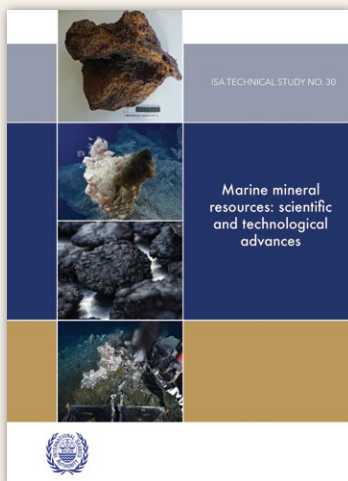
TECHNICAL STUDIES



Technical Study 31 - Equitable sharing of financial and other economic benefits from deep-seabed mining

January 2022

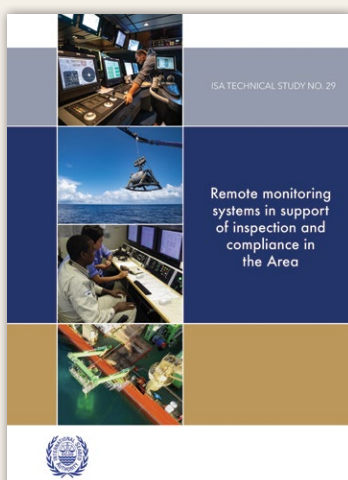
This is, without a doubt, one of the most important technical studies produced by ISA. It is the result of more than two years of work, performed under the supervision of the Finance Committee of ISA. The study sets out alternative cardinal, fair and equitable sharing rules for royalties from deep-seabed mining using different ethical principles and formulae that balance individual and State interests, including equal division among States and Aristotle's Equity Principle.



Technical Study 30 - Marine mineral resources: scientific and technological advances

March 2022

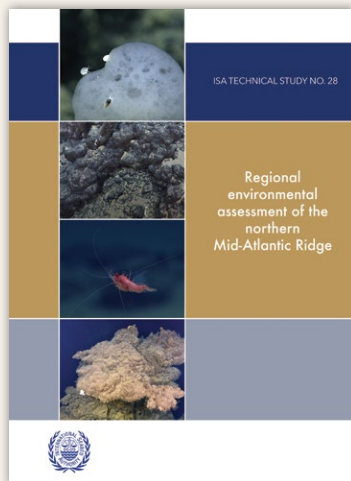
TS-30 is a reference handbook on scientific and technological advances in marine mineral resources focusing on polymetallic nodules, polymetallic sulphides, cobalt-rich ferromanganese crusts and other potential resources. Advances in the scientific understanding of marine mineral formation, deposit identification and characterization are supported by advanced remote technologies allowing for high-resolution surveys of the deep-sea which are vital to better understand the resource potential but also the potential environmental impacts of future mining activities in the Area.



Technical Study 29 - Remote monitoring systems in support of inspection and compliance in the Area

April 2022

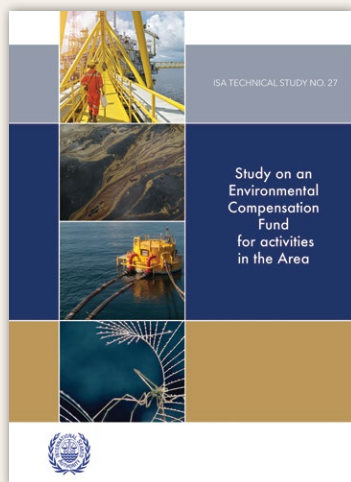
Part XI of the Draft Regulations on the exploitation of mineral resources in the Area currently being developed by ISA contains provisions relating to the powers and functions of ISA to carry out inspection for the purposes of ensuring compliance with UNCLOS, the 1994 Agreement, ISA rules, regulations and procedures, and the terms and conditions of an exploitation contract. This study provides a useful basis for further work to be undertaken by ISA and others, including the development of remote monitoring technologies and the preparation of standards and/ or guidelines to assist contractors in complying with their obligations under the Draft Regulations.



Technical Study 28 - Regional environmental assessment of the northern Mid-Atlantic Ridge

May 2022

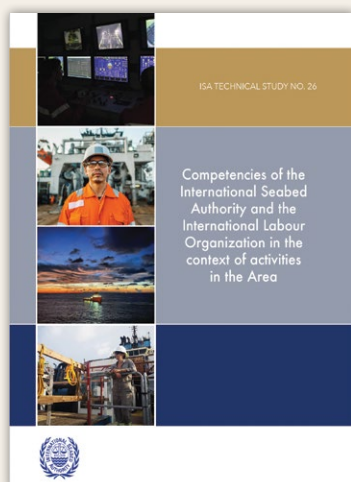
TS-28 was prepared to support the development of a regional environmental management plan for the area of the northern Mid-Atlantic Ridge (MAR) with a focus on polymetallic sulphide deposits. This study provides aggregation and synthesis of existing scientific and technical information relating to the northern MAR, including geomorphology, physical characteristics, geology and biological communities, and a description of the current exploration activities and future mining processes.



Technical Study 27 - Study on an Environmental Compensation Fund for activities in the Area

August 2021

The idea of a compensation fund to cover uncompensated damage to the marine environment was raised by the Seabed Disputes Chamber of ITLOS in its 2011 Advisory opinion on the responsibilities and obligations of sponsoring States. This study outlines the legal and practical issues relating to the establishment of a compensation fund. It carefully delineates the precise scope of the proposed fund and discusses critical issues that will need to be considered.



Technical Study 26 - Competencies of the International Seabed Authority and the International Labour Organization in the context of activities in the Area

June 2021

This study reviews the potential interface between ISA's competencies and those of the International Labour Organization (ILO) with respect to activities in the Area. Pursuant to Article 146 of UNCLOS, necessary measures need to be taken to ensure the effective protection of human life with respect to activities in the Area. ISA is, therefore, mandated to adopt appropriate rules, regulations and procedures to supplement existing international law as embodied in relevant treaties. The study points to the complementary competency of ILO under Article 146 of UNCLOS in connection with occupational safety and health (OSH) for personnel involved in activities in the Area.

POLICY BRIEFS



Equitable sharing of financial and other economic benefits from deep-sea mining

January 2022

This policy brief complements TS-31 on equitable sharing of financial and other economic benefits from deep-seabed mining and summarizes the work carried out under the supervision of the Finance Committee since 2018.

WORKSHOP REPORTS



Africa's Deep Seabed Resources Project: Third Workshop Report - Mauritius

March 2022

The Mauritius workshop is the third of five workshops organized under the ADSR project. It was held in partnership with the Government of Mauritius and directed at the Indian Ocean region. The workshop was designed to address the needs of Comoros, Kenya, Madagascar, Mauritius, Rwanda, Tanzania, Seychelles and Somalia. It involved 160 participants from governments, academia, civil society, the private sector and former trainees of ISA.



Report of the workshop on enhancing image-based biodiversity assessments to advance deep-sea taxonomy

February 2022

The workshop took place virtually from 12 to 14 October 2021. The objective was to identify technical means and key elements for a standardized model necessary to facilitate effective sharing and use of image data within the context of ISA, enhance deep-sea species identification and quantification and increase capacity and literacy in deep-sea taxonomy. The workshop was convened by ISA in collaboration with the Ministry of Oceans and Fisheries of the Republic of Korea (MOMAF) and the National Marine Biodiversity Institute of Korea (MABIK).

BROCHURES



ISA brochure



Sustainable Seabed Knowledge Initiative (SSKI) brochure

ONLINE PRESENCE



<https://isa-conversations.captivate.fm/>

The Secretariat works on the continuous improvement of the ISA website to enable in particular swift access to information and enhance user experience on mobile devices.

The Secretariat currently publishes three electronic bulletins⁶ which are shared with all its stakeholders on a monthly or quarterly basis.

- ISA newsletter, monthly
- WISDR bulletin, quarterly
- ISA publications digest, quarterly

In addition, since 2021, ISA publishes a daily bulletin during the sessions of the Council and the Assembly providing daily updates on the state of discussions.

Since 2021, the meetings of the Council and the Assembly are also streamed live on the ISA Web TV in the six official languages of the United Nations.⁷

In 2022, ISA launched a podcast series called "ISA Conversations". The first podcasts address the topic of women in the law of the sea and were launched in June 2022.



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⁶ <https://isa.org.jm/media-centre/newsletters>

⁷ <https://isa.org.jm/web-tv>

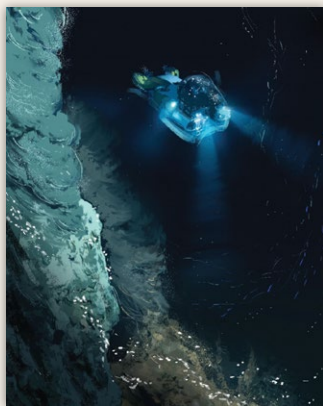
World Oceans Day

During a virtual event held on World Oceans Day on 8 June 2022 and attended by over a hundred participants, ISA highlighted the contributions of exploration contractors and the scientific community and the data and information they collect in the Area in support of the implementation of UNCLOS and the 2030 Agenda. During the first part of the event, GSR presented the results of its collaboration with BGR and MiningImpact2 project to conduct an independent scientific monitoring of the impacts of its 2021 trial of a purpose-built prototype nodule collector in the Clarion-Clipperton Zone (Pacific Ocean). The second part of the event was dedicated to the launch of the AREA2030 initiative by ISA and IHO. The event was also the opportunity to announce the winners of ISA's art competition (Box 13).

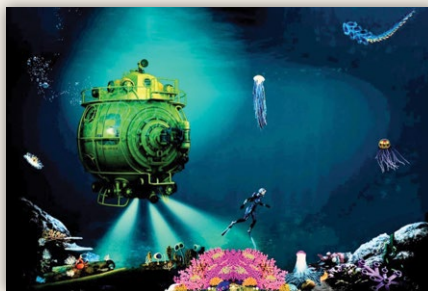


Box 13. Presenting the winners of ISA 2022 art competition: Exploring the deep sea

International competition



First prize
Richard Nattoo, 29, from Jamaica



Second prize
Wanni Arachchige Damitha Nayananjani Monarawila, 28, from Sri Lanka



Third prize
Thammy Gularte Dias, 20, from Brazil

Local competition

ISA organized two art competitions on the theme of deep-sea exploration, one for participants worldwide over the age of 16 and one for school children in Jamaica under the age of 16. The winners in the two categories were announced on World Oceans Day on 8 June 2022.



First prize
Victoria Hunter, 14



Second prize
Yannick Anderson, 10

Compendium of the work of contractors

Progress has been made on the development of a compendium highlighting the collective achievements of the contractors in advancing the state of knowledge of the deep sea for the benefit of humanity. A significant amount of information has been shared and it is expected that the publication would be released in September 2022.

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 and ISA welcomes new donations that will contribute to increasing our global knowledge of the deep sea and the deep seabed.

The Secretariat is currently developing a collaborative programme to boost outreach of the Museum collection and aims to share as broadly as possible the legacy and heritage of deep-sea exploration over the past forty years.

An online catalogue is currently being developed and should be accessible online by July 2022 whilst efforts are being made to enable virtual visits in the near future.

Satya N. Nandan Library

Named after the first Secretary-General of ISA, the Satya N. Nandan Library is 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 continued its regular acquisitions programme through subscriptions to print and electronic resources and accepted donations from a number of persons and institutions. The Secretary-General is grateful to all who supported the library in all aspects, specifically through their donations, including Prof. Hakan Karan, Berilşah Kocabıyık and Seyhan Gül Yılmaz from the Ankara University (Turkey) and Ms. Esther Salamanca Aguado from the University of Valladolid (Spain).



Nii Allotey Odunton Museum



In memoriam of

Nii Allotey Odunton

It is with great sorrow that the Secretariat learned of the passing of former ISA Secretary-General Nii Allotey Odunton on 13 February 2022 at his home in Ghana.

Nii Allotey Odunton served as Secretary-General of ISA for two consecutive terms between 2009 and 2016. He had worked continuously with ISA since it was established in 1996 and, during that time, held several positions including Deputy to the Secretary-General, Head of the Office of Resources and Environmental Monitoring and Interim Director General of the Enterprise.

Mr. Odunton first joined the United Nations Secretariat in New York in 1980. He served as an Economic Affairs Officer in the Department of International Economic and Social Affairs (1980–1983) and subsequently as Chief of the Mineral Resources Section, Ocean Economics and Technology Branch (1984–1988). He also worked in the office of the United Nations Special Representative of the Secretary-General for the Law of the Sea where he was assigned to the Preparatory Commission for ISA and ITLOS. He served as Deputy Secretary of Special Commission 3 on the mining code for polymetallic nodules and Secretary of Special Commission 2 on the Enterprise. In 1988, he became the first officer-in-charge of the United Nations Office for the Law of the Sea in Kingston, Jamaica.

Mr. Odunton earned a Master of Science degree in Mineral Economics and Mine Finance from the Henry Krumb School of Mines of Columbia University, New York (1972–1974), from where he also obtained his Bachelor of Science degree in Mining Engineering. His wife, Naa Jama Odunton predeceased him in July 2008. He leaves behind four children, Efua, Aku, Sena and Akiode.

Mr. Odunton was the first African to serve as Secretary-General of ISA. During his term of office, Mr. Odunton was particularly committed to improving the current state of knowledge of deep-sea mineral resources, standardizing data collection methodologies and promoting classification of ocean mineral reserves. The Museum of ISA, established in 2019, was named the Nii Allotey Odunton Museum in his honour in 2021 following a proposal by the Government of Ghana.

