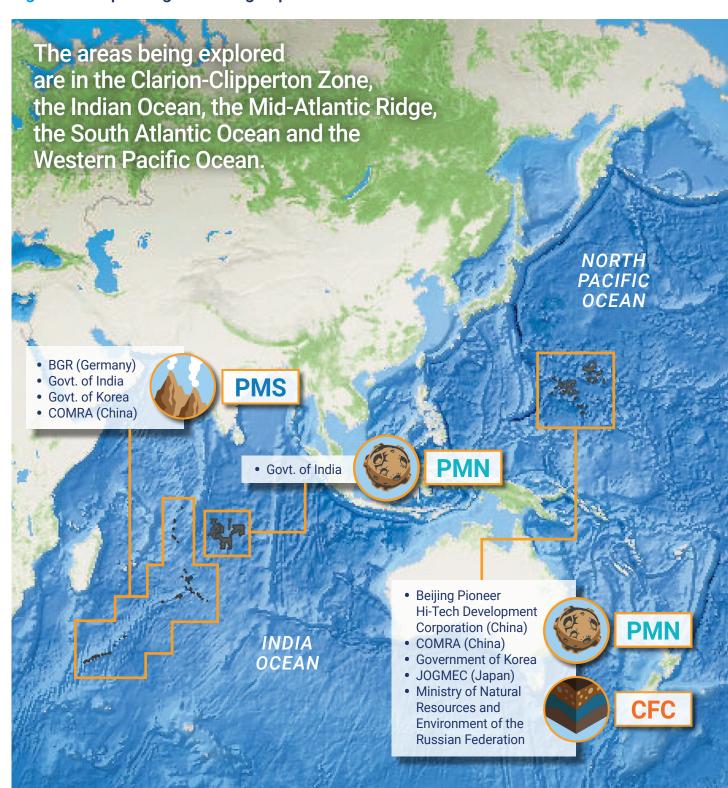




Who is exploring where for which resources?

Figure 9. Map of regions being explored for mineral resources in the Area





Polymetallic nodules (PMN) 19 contracts

Polymetallic sulphides (PMS) 7 contracts



Cobalt-rich ferromanganese crusts (CFC)

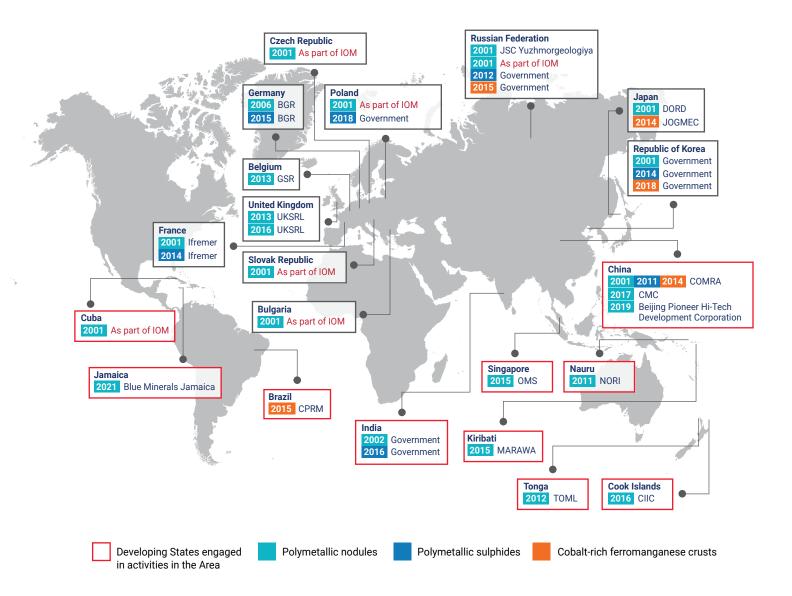
5 contracts



ISA has issued 31 contracts to 22 contractors for exploration for three types of mineral resources in the Area: polymetallic nodules, polymetallic sulphides and cobalt-rich ferromanganese crusts (Figure 9). Contracts are granted for an initial period of 15 years (Figure 11). States sponsoring these contracts include 10 developing States and six small island developing States

(Cook Islands, Jamaica, Kiribati, Nauru, Singapore and Tonga) (Figure 10). Exploration activities consist primarily of geological studies, mineral resources assessment and environmental surveys and sampling, and have very limited or no environmental impact. Other activities include development and testing of mining technology and mineral processing techniques.

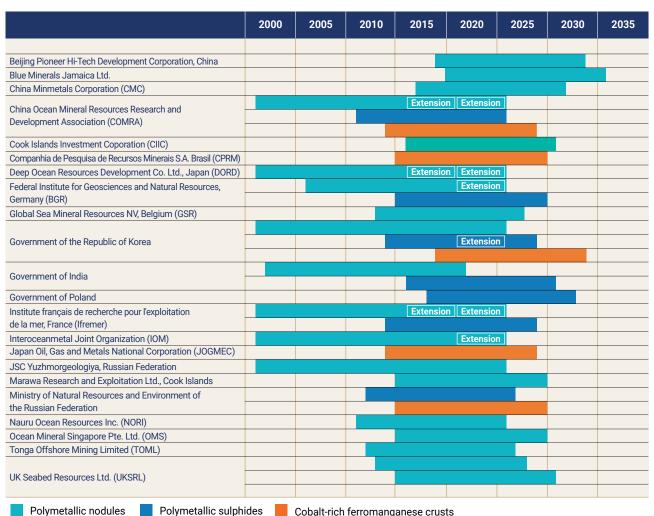
Figure 10. ISA exploration contractors and sponsoring States



The most recent contract was issued to Blue Minerals Jamaica Ltd. (sponsored by the Government of Jamaica) in April 2021 to explore for polymetallic nodules in the CCZ. The geographical area available for exploration by

Blue Minerals Jamaica Ltd. covers almost 75,000 km², made of parts of reserved areas contributed by UK Seabed Resources Ltd, the government of the Republic of Korea and the Interoceanmetal Joint Organization.

Figure 11. Exploration contracts with ISA and exploration cruises in the Area



Polymetallic nodules (PMN)	Polymetallic sulphides Cobalt-rich ferromanganese (PMS) (CFC)		
103 cruises in 20 Years	34 cruises in 9 Years	22 cruises in 7 Years	
2001	2001	2001	
2002	2002	2002	
2003	2003	2003	
2004	2004	2004	
2005	2005	2005	
2006 🐸	2006	2006	
2007	2007	2007	
2008	2008	2008	
2009	2009	2009	
2010	2010	2010	
2011	2011	2011	
2012	2012 🚈	2012	
2013	2013	2013	
2014	2014	2014	
2015	2015	2015	
2016	2016	2016	
2017	2017	2017	
2018	2018 א א א א א א א א א א א א א א א א א א א	2018	
2019 אה ביות	2019	2019 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
2020 No. No. No. No. No. No.	2020 *** ***	2020	
Abyssal plains	Mid-ocean ridges	Seamounts	

Compliance assurance and regulatory management

The Compliance Assurance and Regulatory Management Unit (CARMU) is the Secretariat's main point of entry for the deep-sea exploration community with regards to compliance assurance and regulatory management. It acts as the central administrative point of contact between contractors, sponsoring States and the organs of ISA, and promotes communication, coordination and collaboration among them. For administrative reporting purposes, CARMU is currently part of the Executive Office of the Secretary-General and the Head of the Unit reports directly to the Secretary-General.

CARMU's responsibilities include:

- Managing the process of reviewing applications for the approval of plans of work for exploration or exploitation, preparing subsequent contracts, evaluating annual reports, identifying possible non-compliance issues and reporting them to the relevant organs of ISA, and conducting periodic reviews of plans of work for exploration.
- Supporting, at the technical level, the continued development of the regulations on exploitation of mineral resources in the Area, including required standards and guidelines.
- Supporting the necessary administrative and technological infrastructure to support inspection, compliance and enforcement related to activities in the Area.
- Enhancing the processing and management of annual reports and periodic review (five yearly) reports from contractors.
- Developing and maintaining the Seabed Mining Register, including the safe custody of documents, data and information submitted in connection with applications for approval of plans of work and contracts for exploration.
- Implementing in a timely and effective manner the functions of the Secretary-General concerning the submission by contractors of environmental impact statements for designated activities, as outlined in the relevant recommendations of the Legal and Technical Commission.

The overall objective is, under high-level action 9.3.2, to develop clear, open and cost-effective working practices and procedures to ensure that the chain of responsibility and accountability is properly managed in the development, implementation and enforcement of technical, environmental, operational, scientific and safety regulations and standards for the Area. CARMU represents a substantial body of knowledge through the team's expertise and through findings from supervisory activities. Communicating this knowledge to stakeholders contributes to further developing a robust risk management framework for the industry,

with a vigilant focus on both operational and environmental challenges.

Throughout 2022 CARMU will further strengthen the execution of its scope of work by performing a risk-based review of the unit's work processes. The aim is to optimise workflow, roles and responsibilities within the Secretariat. The development and implementation of the Seabed Mining Register is a high priority for CARMU in 2022. The Register will include relevant information for both the Secretariat and the deep-sea mining stakeholder community. Some of the information will be publicly available, including visualisation of contract areas, audit reports, scientific reports, workshop memos, lessons learned and experience transfer documents. It is envisioned that the Register will closely interact with ISA's DeepData database. This will contribute to enhancing internal work processes as well as to improving information sharing with stakeholders.

Monitoring of exploration activities

Pursuant to the exploration regulations, contractors are required to submit annual reports to the Secretary-General in which they report on progress of exploration activities carried out against the approved plan of work for exploration.

Annual reporting also provides ISA with data and information which may be used, for example, to evaluate, analyse and assess the environmental effects of exploration activities, and to help ISA with the formulation of relevant rules, regulations and procedures concerning safety and the protection of the marine environment. Non-confidential information provided by contractors including all environmental data, is made available to the public in the DeepData database.

The LTC reviews and evaluates the annual reports and provides feedback and the results of their evaluation to each contractor through the Secretary-General.

The exploration regulations also require each contractor and the Secretary-General to jointly undertake a periodic review of the implementation of the plan of work for exploration at intervals of five years. Among others, the review process produces an agreement between the Secretary-General and the contractor on a programme of activities to be implemented over the next five-year period of the contract, consistent with the overall plan of work for exploration. Five periodic reviews were conducted in 2021: the Ministry of Natural Resources and Environment of the Russian Federation (CFC), Minerais S.A. Companhia de Pesquisa de Recursos Minerais S.A. (CFC), UK Seabed Resources Ltd. (second contract, PMN), Nauru Ocean Resources Inc. (PMN) and the Government of India (PMN).

Extension of exploration contracts

Acting on the recommendation of the LTC, the Council approved the applications for the extension of six contracts for exploration during its meetings in December 2021 as well as a seventh application in March 2022. Six of the contracts were extended for the second time for a five-year period and one was extended for the first time for a five-year period (Figure 10).

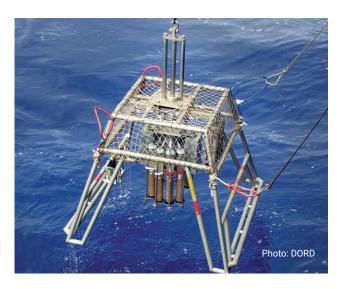
Relinquishment

Contractors have obligations to relinquish part of the original contract area for polymetallic sulphides and cobalt-rich ferromanganese crusts. The obligations are stated in regulation 27 of the regulations on prospecting and exploration for polymetallic sulphides in the Area (ISBA/16/A/12/Rev.1, annex) and regulation 27 of the regulations on prospecting and exploration for cobalt-rich ferromanganese crusts in the Area (ISBA/18/A/11, annex). To date the following relinquishments have been conducted under these regulations:

Table 2. Relinquished parts of contract areas for PMS and CFC that have returned to the Area

Contractor	Mineral	Date reliquished	Area relinquished
COMRA ⁵⁹	Polymetallic sulphides	18 Nov 2019	50%
Ministry of Natural Resources and Environment of the Russian Federation ⁶⁰	Polymetallic sulphides	29 Oct 2020	50%
COMRA	Polymetallic sulphides	17 Nov 2021	75%
JOGMEC ⁶¹	Cobalt-rich ferromanganese crusts	27 Jan 2022	30%

In March 2022, due to "unforeseen exceptional circumstances arising in connection with the operational activities of the contractor," the Council, on the recommendation by the LTC, decided to approve a request by BGR to defer its relinquishment schedule by one year.



Informal meeting of contractors

Since 2017, the Secretary-General holds annual meetings with contractors to discuss issues of common interest and share best practice in deep-sea exploration. These meetings also provide an opportunity to discuss the role of ISA in a global context, considering the commitment to transparency in the execution of activities in the deep-sea sector.

Because of the COVID-19 pandemic, the 2021 meeting was held virtually from 19 to 22 April 2021. All contractors attended. Participants exchanged views on the status of development of regulations on exploitation in the Area and associated standards and guidelines, implementation of the Contractors' Training Programme, implementation of ISA's data management strategy and the review and ongoing development of regional environmental management plans, among other issues. The meeting also discussed the contribution of contractors to improved mapping of the ocean floor within the context of the AREA2030 initiative.

The 2022 contractors meeting will take place in St. Petersburg, Florida, USA, from 29 September to 1 October. The Secretariat will provide an update on the ongoing work to strengthen the regulatory framework for activities in the Area, share results of recent marine scientific research and discuss capacity-building for developing States. External industry experts will present relevant technology transfer opportunities and CARMU will update meeting participants on internal developments to improve the organizational performance of ISA.

⁵⁹ ISBA/26/C/24

⁶⁰ ISBA/26/C/41

⁶¹ ISBA/26/C/24