



Contractors for Seabed Exploration

As of 2008, the Authority has entered into contracts for exploration of polymetallic nodules in the international seabed area with eight entities. The first of these contracts were signed in 2001, with others following in 2002 and 2006. The current contractors are:

- *Pioneer Investors*

- *Polymetallic Nodules*

- *Exploration Area Map*



China Ocean Mineral Resources Research and Development Association (COMRA) (signed 22 May 2001 in Beijing). COMRA has undertaken many research cruises in its exploration area and collected large datasets of different parameters. COMRA is also engaged in an environmental study, launched in 1996, called NaVaBa, for Natural Variability of Baseline, and in developing nodule mining technology.



Deep Ocean Resources Development Company (DORD), of Japan (signed 20 June 2001 in Kingston, Jamaica). No exploratory work is under way but data gathered earlier is being analyzed to study the appropriateness of continuation of investment and proceeding to the next phase of exploration.



Government of India (signed 25 March 2002 in Kingston). Exploration and environmental studies are in progress. A first generation mine-site has been identified for detailed studies. India is also engaged in developing and testing mining system. A pilot plant with 500kg/day capacity for processing of nodules has been established.



Government of the Republic of Korea (signed on 29 March 2001 in Kingston by the Secretary-General and on 27 April 2001 in Seoul by the Minister for Maritime Affairs and Fisheries of the Republic of Korea). Research vessels are regularly collecting nodule samples and underway geophysical data from the area as part of the exploration work. They are also conducting environmental studies, as part of the Korean Deep Ocean Study (KODOS). KORDI is also engaged in technology development for nodule mining and processing.



Institut français de recherche pour l'exploitation de la mer (IFREMER), of France (signed 20 June 2001 in Kingston). At present, the emphasis is on environmental studies.



Interoceanmetal Joint Organization (IOM), a consortium formed by Bulgaria, Cuba, Czech Republic, Poland, Russian Federation and Slovakia (signed 29 March 2001 in Kingston). Detailed exploration is being carried out and areas with high grade and abundance of nodules are identified. A systematic programme on environmental studies is in progress. IOM is initiating work on nodule mining technology development.



Yuzhmorgeologiya, a State enterprise of the Russian Federation under the Ministry of Natural Resources (signed 29 March 2001 in Kingston). Detailed exploration by conducting Bathymetric survey, sampling and photography has recently been undertaken, along with environmental studies. The R & D activities at Yuzhmorgeologiya involve design and construction of instrumentation for polymetallic nodule exploration and for in-situ measurement of geotechnical properties of sediments.



Federal Institute for Geosciences and Natural Resources of the Federal Republic of Germany (signed 19 July 2006). Germany, in the first year of its contract, archived and sorted large amounts of data collected over the years. They are also planning a cruise to conduct bathymetric surveys, sampling, microbial and abiotic process investigation paleo-oceanographic studies and benthic community studies in the area.

The conclusion of contracts allow contractors to explore for polymetallic nodules in specified parts of the deep oceans outside national jurisdiction.

The groundwork for the signings was laid in 2000 with the adoption of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area. The regulations set out the duties and obligations of the Authority and contractors regarding their seabed activities. The contracts following a standard formula and valid for 15 years, require signatories to abide by the provisions of the 1982 United Nations Convention on the Law of the Sea and the 1994 Agreement relating to the Implementation of Part XI (seabed provisions) of the Convention, as well as the regulations.

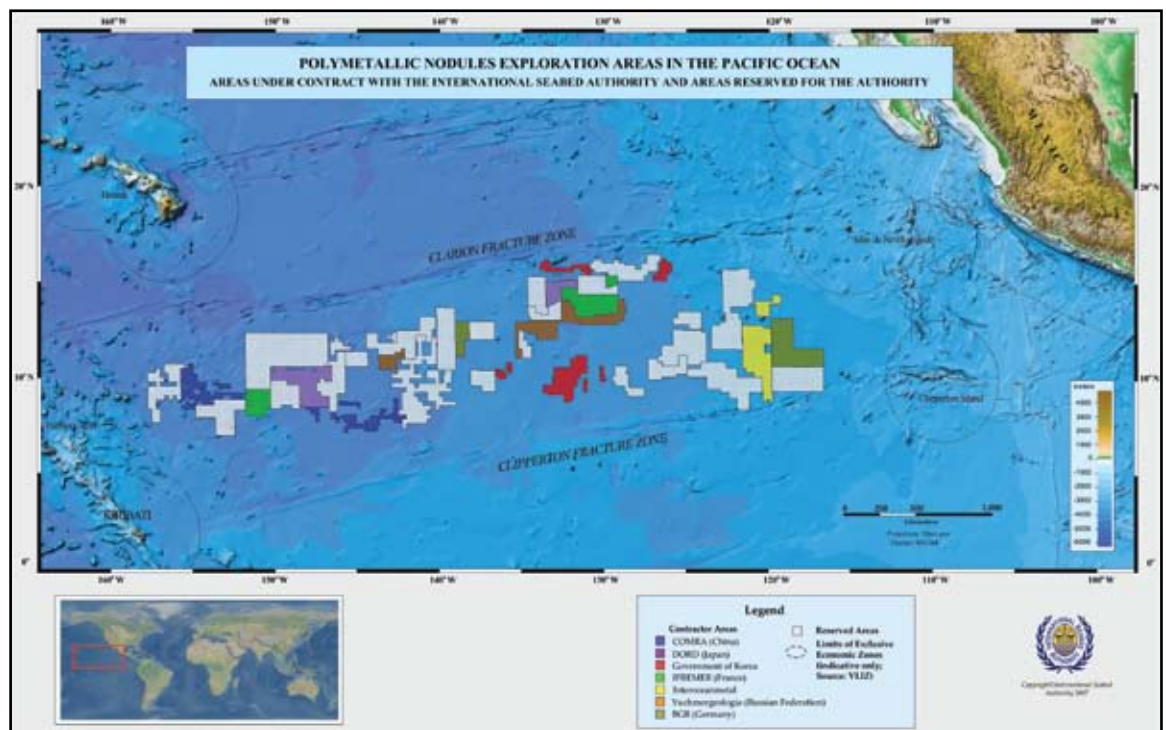
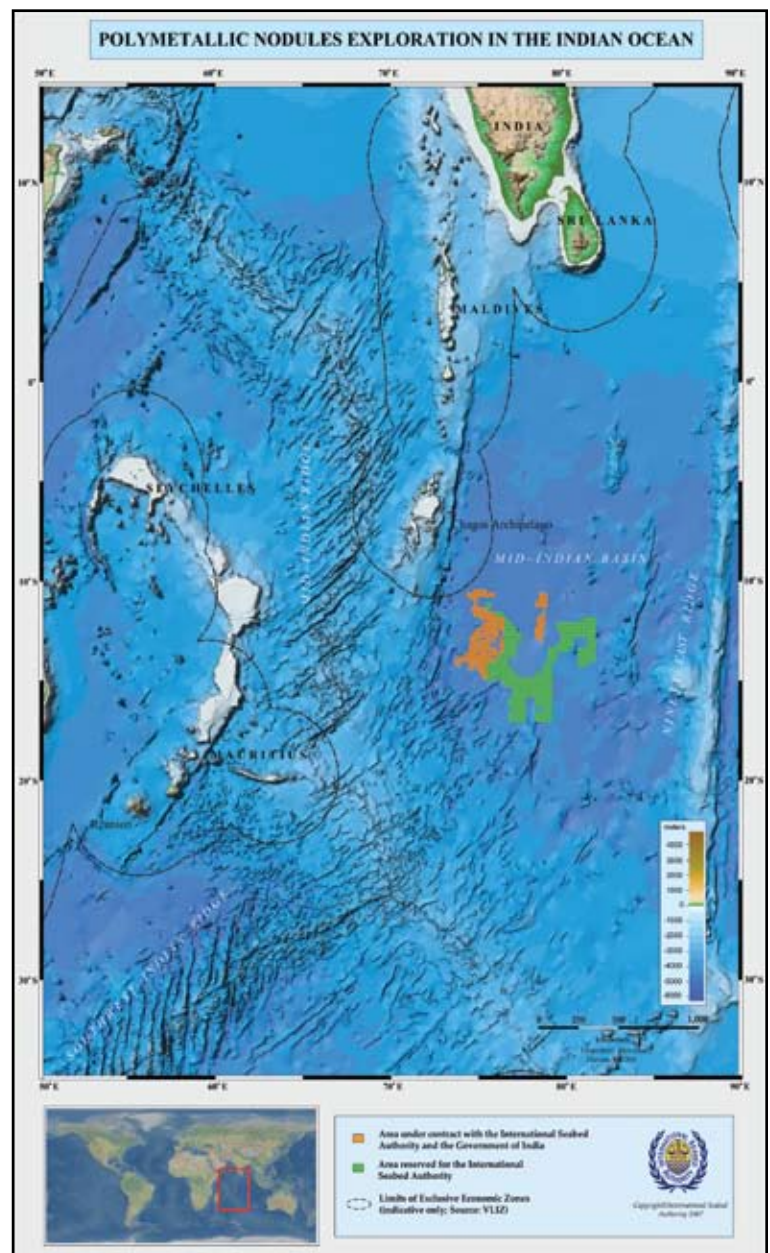
In signing the contracts, the contractors committed themselves to reporting annually to the Authority on their activities in the area. These reports are monitored by the Authority through its Legal and Technical Commission, which evaluates the annual reports of contractors and reports its conclusions to the Council of the Authority. The evaluations cover exploration work, environmental studies, the development of mining technology, and legal and financial issues.

Under the regulations, each contractor has the exclusive right to explore an initial area of up to 150,000 square kilometres. Over the first eight years of the contract, half of this area is to be relinquished. Seven of the exploration areas are in the central Pacific Ocean south and southeast of Hawaii, with the eighth in the Central Indian Ocean Basin. These eight contractors are the only entities now active in this area, and their interest, currently confined largely to exploration, research and development, long-term environmental studies and the collection of baseline data.

As they explore their segment of the seabed, contractors are bound “to prevent, reduce and control pollution and other hazards to the marine environment” arising from their activities. This requires them not only to monitor activities as they progress but also to collect baseline data establishing the natural conditions of the local environment before any human intervention takes place. Contractors must also organize training programmes for personnel of the Authority and developing States.

As all future applicants must also do, each of the contractors came to the Authority with the sponsorship of a State and provided information enabling the Council to determine that they are financially and technically capable of carrying out the activities they propose to undertake. These activities are set out in a plan of work covering the period of their contract, to be updated every five years.

A number of consortia that were actively exploring the seabed during the 1970s and 1980s, mostly from developed States, have suspended their efforts in light of the economic and technical factors that have dampened commercial interest in these resources. These factors include the high cost and technological challenges of lifting nodules from great depths, as well as the ability of land-based mines to meet current market needs for these minerals at a lower cost.



Polymetallic nodules, contract and reserved areas in the Indian Ocean (above) and the Pacific Ocean (right).