

Mining of Mineral Deposits: Regulations Discussed

Summary

The eighth session of the International Seabed Authority (ISA) met from 5–15 August 2002 in Kingston, Jamaica. The work of the session was devoted mainly to issues surrounding polymetallic sulphides and crusts and on possible approaches to the drafting of regulations for polymetallic massive sulphides and cobalt-rich ferromanganese crusts.

These two recently discovered deep-ocean mineral deposits are rich sources of economically valuable minerals such as manganese, iron, copper, lead, nickel, zinc, gold, silver and other metals as well as rare-earth elements.

During the session the Assembly adopted a \$10.5 million budget to finance the Authority's work in 2003–2004. Much of this work, as outlined by the Authority's Secretary-General, Satya N. Nandan, involves the promotion of marine scientific research relating to seabed resources, and the collection and dissemination of information on deep-sea deposits.

For the first time, the Legal and Technical Commission, a 24-member body of experts that reports to the Council,

examined annual reports submitted by contractors authorised by the Authority to prospect and explore for polymetallic nodules in specified areas of the international seabed. These nodules have been subject to the Authority's regulation since 2000, under contracts signed in 2001 with seven entities interested in potential mining sites in the Central Pacific and Indian Oceans.

As it does every second year, the Assembly renewed the membership of the Council – the executive body of the Authority – by electing half of its members for a term from 2003 – 2006.¹ The Assembly also authorised the Authority's emblem and flag (see below).

All decisions during the session were taken by consensus.

Of the Authority's 138 members, 62 were recorded as attending the session. The membership of the Authority consists of all parties to the UN Law of the Sea Convention. Seven non-member States recorded their presence as observers: Azerbaijan, Colombia, Dominican Republic, Holy See, Peru, the USA and Venezuela. Observers may take part in all deliberations, but do not have the right to vote.

Sulphides and Crusts

Before the Council discussion on this topic, the Legal and Technical Commission had spent two days in a preliminary consideration of some of the issues involved in regulating exploration for these resources. The workshop, consisting of scientists, contractors' representatives, and members of the Legal and Technical Commission, identified four priority topics for future research pertaining to the deep-seabed environment and the potential effects of mining its resources. The research is to be pursued by interested scientists, scientific bodies and contractors, with encouragement from the Authority.

In its report to the Council, the Commission urged caution in the development of regulations and, given the uncertainties surrounding the topic, it suggested that any scheme be subject to review after an initial period. It stressed the need to encourage exploration by providing prospectors with rights over particular areas and priority in applying for contracts, as well as to ensure that the Authority received adequate information, particularly with regard to environmental protection.

During its debate, the Council considered two documents: one prepared last year by the secretariat containing suggested model clauses (ISBA/7/C/2) and the said report of the Legal and Technical Commission (ISBA/8/C/6). The dialogue brought out divergent approaches to the issues surrounding this subject.

The topic had been placed before the Authority by the Russian Federation in 1998, with a request that it develop rules, regulations and procedures relating to these resources. The Council agreed in July 2001 to begin consideration of the subject this year, making use of a partial set of model clauses prepared by the secretariat in 2001.

Several delegations stressed the differences between these resources and polymetallic nodules, for which the Authority devised regulations in 2000, as well as between the two types of resources themselves. It was explained that while nodules are scattered loosely over the sea floor, crusts² are fused to the underlying rock and sulphides occur around hydrothermal vents sprouting from volcanic areas of the seabed. Thus, different techniques will be needed to explore for and mine the deposits. Consequently, the drafters of regulations would have to decide whether to begin by modifying the nodule rules or, alternatively, to start from scratch. To avoid this problem, some speakers argued that the Authority should devise a general scheme applicable to all kinds of seabed resources, while others favoured a separate set of rules for each category.

Some speakers doubted that the parallel system devised in the UN Law of the Sea Convention could be applied to the new resources in the same way that it was used for nodules. This system calls for dividing areas of equal commercial value between contractors and the Authority, but it would be difficult to split up the much smaller patches around hydrothermal vents – a factor that would

also affect the size of the areas allocated to prospectors. The idea of forming joint ventures between the Authority and contractors was discussed as an alternative.

Many delegates urged that action should be taken, possibly through interim measures, in order to safeguard the marine environment – in particular, around hydrothermal vents, with their fragile and unique ecosystems. Others, however, in the light of little scientific knowledge, urged a cautious approach to the development of regulations.

Summarising the Council's discussion on this topic, its President, Fernanda Pardo Huerta (Chile) noted the need for a flexible approach when formulating regulations for prospecting and exploration for these minerals, particularly in view of the lack of scientific knowledge relating to deep-sea ecosystems. Moreover, sulphides and crusts were different from one another as well as from the polymetallic nodules whose exploration is already subject to the Authority's oversight. In addition, particular ecological considerations arose with respect to sulphides located at active hydrothermal vents, from which superheated seawater containing minerals in solution wells up from hot magma beneath the sea floor.

The President said the debate had illustrated the need to make any new regulations consistent with the scheme for deep-sea minerals set out in the 1982 United Nations Convention on the Law of the Sea (UNCLOS); the 1994 Agreement relating to the implementation of Part XI (seabed provisions) of the Convention; and the existing regulations for polymetallic nodules. For potential investors, the most difficult issue would be how to determine the size of the area to be licensed for exploration so as to make exploration commercially viable while avoiding monopolies. The system also had to be competitive with those established for areas within national jurisdiction.

The Council agreed to continue its work on a scheme to regulate prospecting and exploration for these deposits next year.

Legal and Technical Commission

The Commission asked the secretariat for a report in 2003 on the potential environmental consequences of mining polymetallic sulphides and cobalt-rich crusts. It also asked it to prepare a revised set of draft regulations. It identified three issues in particular that it would take up next year. These concern (1) a progressive fee system in place of the existing system for polymetallic nodules whereby half of the area initially assigned to a contractor would be relinquished to the Authority; (2) a geographical grid system for licensing; and (3) continued development of the parallel system (which provides for a division of resources between a contractor and the Authority).

The Commission agreed to meet for two weeks in 2003, with the first week to be devoted to four working groups on the following topics:

- environmental impacts of exploration activities



- the size of exploration areas and a system for relinquishing parts of them to the Authority
- the form of applicants' work plans, detailing their intentions
- the type of arrangements between contractors and the Authority (whether a parallel system, joint ventures between contractors and the Authority, or some other formula).

The Commission also endorsed the Secretary-General's plan to hold a workshop in 2003 on the development of a geologic model for the nodule-bearing zone in the Central Pacific Ocean. Stressing the importance of the central data repository on marine resources being developed by the Authority, it requested a report and demonstration on the subject.

Budget

As well as adopting a \$10,509,700 budget to finance the work of the Authority in 2003-2004, under decision ISBA/8/A/11, the Assembly authorised a scale of assessments payable by member States, based as customary on the United Nations scale with adjustments for differences in membership.

The main tasks for the secretariat, remaining at the current level of 37 posts, will continue to be monitoring activities by contractors exploring the deep seabed for polymetallic nodules, building a database on seabed minerals and promoting international cooperation in marine scientific research relating to the seabed.

In its budget consensus, the Council resolved in informal negotiations two contentious financial issues relating to the scale of assessments and the financing of developing country participation in the Authority's two subsidiary bodies – the Finance Committee and the Legal and Technical Commission.

Japan, to which the maximum rate would apply as the Authority's largest budgetary contributor, expressed the view that its rate should have already been reduced for 2002, in line with the decision taken by the UN General Assembly in 2000, to lower that Organisation's maximum rate (applicable to the USA) from 25 to 22 per cent. However, spokesmen for the African Group and the Group of Latin American and Caribbean States objected to any decision that would raise the rates of their members, as would happen when the 3 per cent cut from the ceiling rate would be distributed among other members.

Regarding assessments, it left intact the Finance Committee's recommendation that the Authority's scale be based on the UN scale, taking into account a maximum rate of 22 per cent. However, the Council added a call to review the scale in 2004 when considering the 2005-06 budget.

Another aspect of the negotiated consensus related to a call for the creation, 'as an interim measure' of an extra-budgetary trust fund, to be financed on a voluntary basis by member States and others, to defray the travel and subsistence expenses of expert members from developing countries attending the annual meetings of the Finance Committee and the Legal and Technical Commission. The

Assembly decided to review ways of financing such participation, including the possibility of using the Authority's budget, and it asked the Finance Committee to consider the matter further next year.

The Assembly asked that the budget be adjusted to take account of any agreement reached between the Authority and the Government of Jamaica regarding expenses for the use of the Authority's headquarters office space in Kingston. For three years, the two sides have been negotiating the share that the Authority should pay for maintenance costs, and Secretary-General Nandan informed the Assembly that considerable progress had recently been made in the talks.

The Assembly approved the budget on the recommendation of the Council.

Emblem and Flag

The Assembly approved by consensus an official design for the emblem and flag of the Authority (see previous page), and recommended that member States act to protect the design and name of the Authority from unauthorised use for commercial or other purposes.

The design consists of an oval within which stylised scales of justice surmount a pattern of waves representing the sea, bracketed between the twin olive branches used in the emblems of the United Nations and many related intergovernmental organisations. The words 'International Seabed Authority' encircle the central oval. The flag incorporates the design in yellow on a dark blue background. Variants of this configuration, which was adapted from a design originally used for the Third United Nations Conference on the Law of the Sea, have been used on the Authority's flag and documents since its inception, without formal sanction. However, endorsement by the Assembly had been requested by the Secretary-General.

Elections

The Assembly elected 17 members to the Council for a four-year term from 2003-06. Council membership is drawn from five groups of States members of the Authority. Four of these have special interests in aspects of seabed mining and the fifth is a group chosen to ensure equitable geographical balance in the Council as a whole.³

Report of the Secretary-General

Secretary-General Nandan introduced his annual report on the work of the Authority (ISBA/8/A/5). While some delegates felt that the Authority needed to strengthen its ability to gather information on the marine environment, others expressed concern that it might be exceeding the mandate given it under the 1982 UN Convention on the Law of the Sea, which limited it to activities in the international seabed area.

Several delegations underlined the importance of encouraging marine scientific research and the collection and dissemination of information relating to the seabed area.

Delegates welcomed the reported progress in negotiations on a supplementary agreement between the Authority and the Government of Jamaica on arrangements for the Authority's premises in Kingston. Some delegates

expressed concern at the time the negotiations have taken (over three years!). In his report, Satya Nandan said that only a few issues concerning the maintenance costs of the premises remained unresolved.

Many members saw the need for the Legal and Technical Commission to meet more often, or for longer sessions, to fulfil its mandate of reporting and monitoring in the new phase of the Authority's work.

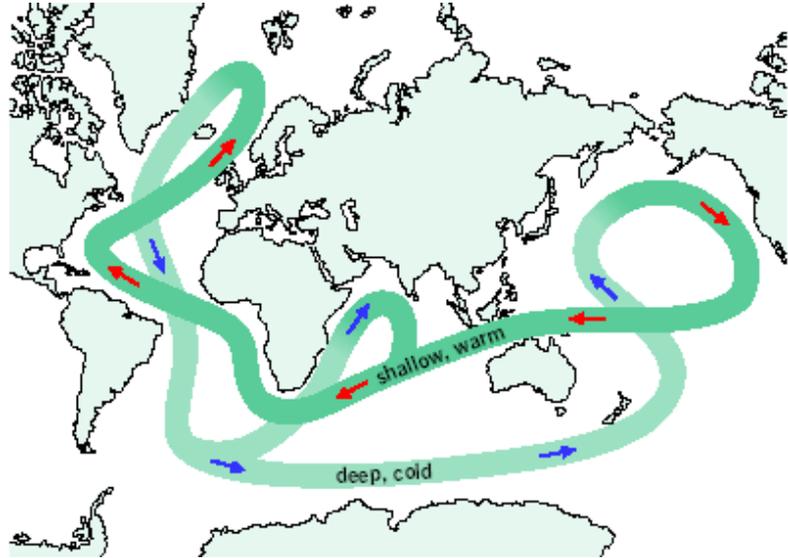
ing to the implementation of Part XI of the Convention. Its task, as set out in the Convention, is to organise and control all resource-related activities in the seabed area beyond the jurisdiction of any State, an area underlying most of the world's oceans. The Convention defines this deep seabed area and its resources as 'the common heritage of mankind'. In existence since 1994, the Authority is an autonomous international agency having a relationship agreement with the United Nations.

² Marine geologists explained to participants that cobalt crusts are oxidised deposits of cobalt-rich iron and manganese layers formed by the precipitation of minerals from cold seawater on to hard seabed surfaces. They cover the submerged

When warm, salty North Atlantic water reaches the cold Arctic, it becomes denser as it cools, and therefore sinks to deeper layers of the ocean. This process of forming deep water is slow but takes place over a huge area. Every winter, several million cubic kilometres of water sink to deeper layers, which move water slowly south along the bottom of the Atlantic Ocean

Source: AMAP 1997

The global ocean circulation



Courtesy: GEO 3

Closure

Before adjourning, the Assembly approved the report of its Credentials Committee, heard a declaration from the Latin American and Caribbean Group and received a summary of its work during the session, presented in a statement (ISBA/8/A/13) by Assembly President, Martin Belinga-Eboutou (Cameroon).

The statement on behalf of the Group of Latin American and Caribbean States, read by Argentina, made several points in reference to the report of the Secretary-General on the work of the Authority. The Group thought it premature to consider exploitation on non-living resources of the extended continental shelf – that is, the areas where the shelf extends beyond 200 miles from the coastal baseline. The Group welcomed the fact that the workshop to be held in 2004 would not deal with this issue, as originally planned.

The International Seabed Authority ended its eighth session after its Assembly set 28 July to 8 August 2003 as the date for its next session, to be held at the Authority's headquarters in Kingston. (MJ)

Notes

¹ The ISA, with a current membership of 138, was established under the 1982 UN Convention on the Law of the Sea, as modified by the 1994 Agreement relat-

flanks of inactive underwater volcanoes throughout the oceans, on ridges and other seafloor elevations where currents sweep the rock floor clear of sediments; best mining prospects are in the equatorial part of the central Pacific.

³ Following the elections, the breakdown of the Council membership will be as follows:

Group A (four States from among the largest consumers or net importers of minerals to be derived from seabed mining): Italy and the Russian Federation (re-elected) will join Japan and the United Kingdom. Repeating an understanding first reached at the last Council election in 2000, Italy will relinquish its seat to the USA if that country joins the Authority.

Group B (four States from those with the largest investment in seabed mining): France (newly elected) and Germany (re-elected) will join China and India, while the Netherlands will leave.

Group C (four States that are major land-based net exporters of the minerals also found on the deep seabed): Australia and Indonesia (re-elected) will join Portugal and Zambia. Zambia will come to the Council under a prior arrangement by which it will occupy in 2003 the seat to which South Africa was elected last time. In 2004, Gabon will replace Zambia in this group; also under a new understanding within the African Group, Gabon is to be replaced in 2005 by the election of South Africa. Group D (six developing States representing special interests, including those with large populations, the land-locked or geographically disadvantaged, islands, major mineral importers or potential producers, and the least developed): Egypt, Fiji and Jamaica (re-elected), will join Brazil, Papua New Guinea and Sudan.

Group E (18 States for geographical balance, as well as a balance between developed and developing States): Cote d'Ivoire, Honduras and Myanmar (newly elected), along with Cameroon, Chile, Nigeria, Republic of Korea and Saudi Arabia (re-elected), will join Argentina, Czech Republic, Gabon (in 2003 only, after which it shifts to Group C and is replaced in 2004 by South Africa), Guyana, Malta (which temporarily relinquished its seat during 2002), Namibia, Poland, Senegal, Spain, Trinidad and Tobago. Algeria is to relinquish its seat in 2003 and Myanmar in 2004, under an arrangement by which regional groups give up one seat each on a rotating basis for a year at a time.

