



UNITED NATIONS
GENERAL
ASSEMBLY



Distr.
GENERAL

A/AC.133/6*
4 March 1969

ORIGINAL: ENGLISH

COMMITTEE ON THE PEACEFUL USES OF THE
SEA-BED AND THE OCEAN FLOOR BEYOND
THE LIMITS OF NATIONAL JURISDICTION

ECONOMIC CONSIDERATIONS CONDUCTIVE TO PROMOTING THE DEVELOPMENT OF
THE RESOURCES OF THE SEA-BED AND OCEAN FLOOR BEYOND THE LIMITS OF
NATIONAL JURISDICTION IN THE INTERESTS OF MANKIND

Preliminary note by the Secretariat

1. This note^{1/} is presented in accordance with the request made by the Committee on the Peaceful Uses of the Sea-Bed and Ocean Floor Beyond the Limits of National Jurisdiction, during its third meeting on 7 February 1969.
2. The note comprises two parts. The first recalls a short series of basic considerations which appear to have met with general agreement during the meetings of the former Ad Hoc Committee and the debates of the First Committee of the twenty-third session of the General Assembly. The second part reviews briefly policies relating to the economics of the different phases which are normally associated with the development of mineral resources - including petroleum and gas - and draws attention to some of the problems which may be raised when promotion of mineral resources of the sea-bed and ocean floor beyond the limits of national jurisdiction is under consideration.

I. SOME BASIC CONSIDERATIONS

3. Speaking in general, the promotion of the development of mineral resources requires that adequate measures be taken to ensure the optimum efficiency of all phases related to it.

* Reissued for technical reasons.

^{1/} Prepared by the Department of Economic and Social Affairs.

4. The promotion of development of marine mineral resources postulates also that appropriate incentives of a security and financial nature be guaranteed to would-be entrepreneurs at its various stages.
5. The principle that marine mineral resource development should be conducted in the interest of mankind may require inter alia that measures be devised in order that all countries, either sea-bound or land-locked, may benefit from such development; and, in particular, that needs of developing countries be taken into consideration and their interests be safeguarded.
6. Specific measures may need to be envisaged in order to solve conflicts which may arise when multiple demands concerning different valuable resources occur within the same vertical segment from the ocean floor to ocean surface. For example, mineral deposits and preferred routings for submarine cables could lie in the same area; in addition, a busy shipping line may operate directly above both. In such circumstances one may have to consider the eventuality of negotiating with appropriate bodies the re-allocation of various users' rights in order to avoid any detrimental effect of a particular use on the others.
7. Problems related to the ill-effects of pollution caused by marine mineral resources development should also be carefully taken into consideration.

II. SOME PARTICULAR PROBLEMS RELATED TO THE ECONOMICS INVOLVED IN THE DIFFERENT PHASES OF MARINE MINERAL RESOURCES DEVELOPMENT

8. When considering the measures which may be conducive to promoting the development of the resources of the sea-bed and the ocean floor beyond the limits of national jurisdiction, it may be useful to review separately the four phases or stages which are normally associated with mineral resources development, namely, the establishment of basic documents, the exploration of mineral concentrations, the feasibility studies relating to the exploitability of those concentrations, and the exploitation proper of mineral deposits.
9. In this connexion, it seems appropriate to describe, at least in broad terms, what is being done in different countries in relation to the promotion of mineral resources under their national jurisdiction. One of the reasons is that account should be taken of their experiences in this domain. Another is that a number of these countries will be called upon to co-operate when dealing

/...

with the development of the resources of the sea-bed and ocean floor beyond the limits of national jurisdiction.

10. It is to be noted, however, that there is a certain diversity among the policies followed in various states and one might need therefore to consider if, and what kind of, "common denominators" will have to be agreed upon in order to obtain optimum international co-operation.

The establishment of basic documents

11. The first phase necessary to any development of mineral resources consists in the establishment of basic documents such as topographical and geological maps covering broad regional areas. One of the main purposes of geological maps, for instance, is not only to describe the main geological feature but also to outline the mineralization zones which might occur.

12. On the continent, the related operations are generally the responsibility of special government agencies, and the maps are normally published and largely diffused for the benefit of all those who may be interested.

13. When dealing with areas of the sea-bed and the ocean floor beyond the limits of national jurisdiction, related basic documents may be established by individual operators - public or private - by regional bodies and/or by international organizations, intergovernmental or not.

14. Among the questions which may arise in this connexion are (a) whether or not certain priority could be devised in the choice of areas for which the establishment of basic documents would be promoted; (b) how, whoever established the documents, are the latter to be made available to the world community.

Exploration of mineral concentrations

15. The second series of operations which is directly connected with potential resource development is the exploration of one or several mineralization zones. Its main objective is the location of mineral concentrations or deposits which may exist within the limits of the mineralization zones and the localization of specific areas within which detailed research work may be justified.

16. Within the limits of national jurisdiction the State may decide that this kind of exploration will be left to private enterprises. It may also decide to carry out the study itself alone - and then a special state agency is

/...

constituted for the purpose - or it may decide to constitute a joint venture with private capital.

17. When a private enterprise is concerned, exploration can customarily only be carried out after a permit issued by appropriate authorities has been obtained; a major objective is to identify and assess the suitability of the applicant. The exploration permit is generally granted for a specific period of time and for a specific area. Its nature may be general or restricted to the search for particular minerals. In addition, owing to the fact that exploration of this nature is an expensive venture (involving, inter alia, the use of heavy equipment such as is necessary for drilling and coring), the entrepreneur is normally given exclusive rights for the duration of his permit and requires the guarantee that he will be entitled to take advantage of the results obtained for further operations (see below).

18. If the work is to be performed by a state agency, it is for the Government to decide whether further work will be conducted by the State alone or in association with private capital or by private capital alone.

19. If the exploration is to be carried out as a joint venture (Government plus private organization) the agreement establishing the association will have to specify in advance what is to be done with any discovered deposit.

20. It is clear that, when dealing with exploration of marine mineral concentrations beyond the limits of national jurisdiction, the whole matter has to be re-examined: especially as regards those to whom exploration operations may be entrusted, to what extent the findings resulting from such operations should be diffused, and how rights for further utilization of these findings may be allocated.

Evaluation of mineral concentrations or deposits which have been
ascertained: technical feasibility and economic exploitability

21. When a mineral concentration or deposit has been ascertained, a further step has to be taken in order to determine its economic value. Mineral concentrations or deposits are not necessarily economically exploitable: one may be so at a specific time and not at another according to a number of variables. Factors decisive in that respect are essentially of a technical and economic nature.

22. Among the technical factors are the determination of the size of the mineral deposits, their nature, the content of useful and recoverable substances, the latter's amenability to mechanical concentration when necessary, the conditions of their chemical and/or metallurgical treatment, etc. All those require the careful study of a great variety of representative samples.
23. Among the economic factors are included the magnitude of investment required, the price at which it can be hoped to sell the substances involved after adequate treatment - and whether or not it would be competitive on the market - the expense of transport and the various charges (especially the impost on consumption or export taxes) which will have to be supported. Evaluation of these elements and others can determine whether the deposits are economically exploitable or not.
24. A great variety of sophisticated equipment and specialized personnel is required to carry on these operations successfully and no operator - either private or public - will engage on this venture without having obtained an exclusive lease including rights for future exploitation if the conclusions of the evaluation are favourable.
25. The lease generally contains also stipulations regarding the limit of the area concerned and the time during which it will remain in force. In addition, provisions are usually included concerning reporting to government authorities at regular intervals in order to prevent any unjustified delay on the part of the operator; the aim being to safeguard the interests of other would-be applicants who might prove able to perform more efficiently the same kind of operations.
26. When dealing with leases which might be envisaged for the evaluation of mineral resources of the sea-bed and ocean floor beyond the limits of national jurisdiction, the question arises whether or not an adaptation of existing practices might be possible.

Exploitation of mineral deposits

27. Exploitation of mineral deposits comprises not only the operation related to extraction or mining proper but also the treatment of the substances involved and their transport to foreseeable markets.
28. What is involved here is not only the cost of initial exploitation but also all the related technical and social dependencies: plants, processing, storage

facilities, loading facilities, workshops, offices, housing, etc. It should be noted also that the funds required should include the costs which must be met until the stage of normal production has been reached.

29. Once evaluation and feasibility studies indicate the possibility of establishing a productive enterprise involving risks which are not basically different from those involved in similar ventures, the operator applies for an exploitation lease giving him exclusive rights. The lease will often include provisions concerning the type of authorized operations and output as well as special stipulations regarding the area concerned, the duration of the lease and reporting at regular intervals.

30. In addition - and although this applies to a certain extent to previous operations mentioned earlier - thorough consideration, before issuance of the lease, is specially given in our present case to economic and other interests which may be affected by exploitation operations and the damage which may result therefrom. The responsibility which may be incurred is defined as well as the kind of compensation, if any, that will actually be required.

31. Finally, most countries customarily make provision for levies to be collected (fees, and taxes on the value of mining production, on profits, etc.) and sometimes participation of the authorities concerned in profits or surplus profits.

32. On the basis of countries' practices in relation to exploitation leases, it does not appear that it would be too difficult to envisage an acceptable system for dealing with marine mineral resources beyond the limits of national jurisdiction. However, the question of levies may raise a series of problems such as their order of magnitude, who may be entitled to collect them and for what purpose.
