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

STUDY ON INTERNATIONAL MACHINERY

Report of the Secretary-General

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INTRODUCTION

1. The present report is submitted in accordance with General Assembly resolution 2574 C (XXIV) of 15 December 1969. It should be read together with the report^{1/} prepared by the Secretary-General pursuant to General Assembly resolution 2467 C (XXIII) of 21 December 1968, which it supplements in various respects. Reference should be made in particular to the preliminary considerations set forth in the introduction to this previous report^{2/} which, in general, apply equally to the present study.
2. However, whereas the earlier resolution asked for a study on the establishment of machinery, the request made by the General Assembly in resolution 2574 C (XXIV) calls first for a study on various types of international machinery and secondly for a study covering in depth a specific kind of machinery. Accordingly, after a summary of the history of the resolution and the views expressed by Member States, this study deals in parts II and III with these two elements of resolution 2574 C (XXIV). Another important difference arises from the fact that whereas resolution 2467 C (XXIII) referred to "appropriate international machinery for the promotion of the exploration and exploitation of this area", resolution 2574 C (XXIV) employed the terms "various types of international machinery, particularly... the status, structure, functions and powers of an international machinery having jurisdiction over the peaceful uses of the sea-bed and the ocean floor and the subsoil thereof, beyond the limits of national jurisdiction...". The present study is not limited to exploration and exploitation of resources, but covers, in respect of the types of machinery dealt with in part III, the peaceful uses of the area.
3. It may be pointed out that the present study is in essence limited to describing the general elements of various conceivable kinds of machinery; it does not purport to deal with every combination of possible arrangements since specific provisions for machinery can only be formulated when agreement has been reached on what kind of régime will be most appropriate. Equally the study does not attempt to examine the extent to which various functions are performed by, or come within the technical competence of existing bodies within or outside the United Nations system, although examples of such activities have been mentioned.

^{1/} Official Records of the General Assembly, Twenty-fourth Session, Supplement No. 22, (A/7622), annex II.

^{2/} Ibid., paragraphs 2-6.

PART I

ADOPTION OF RESOLUTION 2574 C (XXIV) AND
VIEWS EXPRESSED BY MEMBER STATES

1. ADOPTION OF RESOLUTION 2574 C (XXIV)

4. In resolution 2574 C (XXIV) of 15 December 1969, the General Assembly, after noting the report of the Committee on the Peaceful Uses of the Sea-Bed and the Ocean Floor Beyond the Limits of National Jurisdiction, and the study on international machinery prepared by the Secretary-General annexed to that report, and referring to the recommendation of that Committee that the Secretary-General should be requested to continue the study in depth, requested:

"the Secretary-General to prepare a further study on various types of international machinery, particularly a study covering in depth the status, structure, functions and powers of an international machinery, having jurisdiction over the peaceful uses of the sea-bed and the ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction, including the power to regulate, co-ordinate, supervise and control all activities relating to the exploration and exploitation of their resources, for the benefit of mankind as a whole, irrespective of the geographical location of States, taking into account the special interests and needs of the developing countries, whether land-locked or coastal".

5. The Assembly requested the Secretary-General to submit his report to the Committee on the Peaceful Uses of the Sea-Bed and the Ocean Floor Beyond the Limits of National Jurisdiction for consideration during one of its sessions in 1970. The Committee was requested to submit a report on the question to the General Assembly at its twenty-fifth session.

6. It may be recalled that by resolution 2467 C (XXIII) of 21 December 1968, the General Assembly had requested the Secretary-General to undertake a study on the question of

"establishing in due time appropriate international machinery for the promotion of the exploration and exploitation of the resources of this area, and the use of these resources in the interests of mankind, irrespective of the geographical location of States, and taking into special consideration the interests and needs of the developing countries".

The report prepared in accordance with this resolution was submitted to the Committee prior to its summer session in 1969, and the text was annexed to the

Committee's own report to the General Assembly at its twenty-fourth session. The report of the Committee's Economic and Technical Sub-Committee (A/7622, part three) gave an account of its consideration in August 1969 of the economic and technical aspects of the Secretary-General's report. The Committee itself heard general statements on the report, but informed the Assembly that because of limited time it had been unable to finalize its study in detail of all the various aspects of that report and that it proposed to consider the question further in 1970. The suggestion had been made with approval by the Committee that

"the Secretary-General be requested to continue in depth the study of the establishment in due course of appropriate international machinery, concentrating on the following areas: (a) status of the machinery; (b) structure of the machinery; (c) powers and authority to be given to this machinery; (d) activities and function of the machinery."

7. At the twenty-fourth session of the General Assembly, the First Committee considered among other proposals a joint draft resolution (A/C.1/L.477) submitted on 6 November, and introduced in the Committee by the representative of Kuwait. On 2 December, the Committee approved this draft, as already revised by the sponsors, by a vote of 99 to 1, with 13 abstentions. (The revision had consisted in adding to the original draft the words "a further study on various types of international machinery particularly ...".) This draft resolution was adopted as resolution 2574 C (XXIV) at the 1833rd plenary meeting on 15 December 1969 by a vote of 100 to none, with 11 abstentions.

2. VIEWS EXPRESSED BY MEMBER STATES

8. This section covers the views expressed by representatives of Member States in the General Assembly and in the Sea-Bed Committee since the submission of the Secretary-General's previous report in 1969. The views have been presented analytically, roughly following the sequence of terms employed in resolution 2574 C (XXIV). No attempt has been made to set forth the position adopted by any particular delegation in its entirety, either on the subject as a whole or on individual aspects of it. The summary of views is of a general character, illustrating the range of considerations advanced, and in no way purports to indicate the degree of support which specific views may command.

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9. Certain differences in approach appeared in the General Assembly and the Sea-Bed Committee, in regard to the relationship between machinery and an international régime covering the area. It was for instance observed that machinery was to be part of the régime, that it would apply the provisions of the régime or that it should give effect to the principles and standards of the régime and regulate their practical application. It was thus suggested that the question of international machinery needed to be considered simultaneously with, and in the light of, the legal régime, and that the type of machinery would be closely related to the provisions of the régime agreed upon. However, it was also contended that an international régime would not necessarily imply machinery. It was suggested that the formation of any definitive views on the whole question of institutional machinery should logically await agreement on the general legal framework of which such machinery would be a part and within which it would operate. The present study is, as requested by the Assembly, concerned with machinery, but this account of views on machinery needs to be placed in the context of views expressed on the broader question of the régime. This applies particularly to various sets of criteria which it was proposed the régime should satisfy^{3/} as well as to the functions and powers to be allocated to the machinery.

10. As stated above, following consideration of the report of the Secretary-General in the Sea-Bed Committee in August 1969, support was expressed for the continuation of the study. It was also urged, however, that there should be further consideration by Governments of the material already prepared, which had not yet been studied exhaustively in the Committee, and it was proposed that the report of the Secretary-General should be circulated to all States so that after their remarks and observations came in, the question of the international machinery might be studied more in depth and in detail in the Sea-Bed Committee. During the consideration of the draft resolution submitted in the First Committee, various representatives stressed the view that the study should emphasize the particular type of machinery specified in that draft resolution. A further suggestion was that the study should be oriented toward the idea of licensing as that appeared

^{3/} See, for example, A/7622, Part III, paragraphs 136 to 138.

to be the type of machinery that could command general acceptance. It was also observed, however, that if an additional study was to be prepared by the Secretariat, it must in no way prejudice the views of the Committee or of the General Assembly. The expectation was voiced that the Secretary-General would be guided, in the preparation of the study, in the first instance by the discussion which had taken place in the Sea-Bed Committee and in the General Assembly and would thus clearly cover those forms of international machinery which had received significant support in those discussions.

11. On the subject of the actual establishment of machinery, as distinct from the continuation of the study, a variety of considerations was advanced. As the report of the Economic and Technical Sub-Committee in August 1969 noted, it was widely emphasized that international machinery should be established and that it should be a part of an international régime governing the exploration and exploitation of the resources of the sea-bed beyond the limits of national jurisdiction. The view was expressed that such machinery should act as a trustee for the international community. An international machinery, it was also said, must be set up to manage the heritage of mankind represented by the sea-bed and ocean floor. Reference was made in this connexion to Articles 55 and 56 of the United Nations Charter. Another view was that it would be necessary to establish some form of international machinery with powers to secure that the exploitation of the sea-bed and its subsoil is undertaken in a rational manner serving the interests of all States. Only through an international régime and machinery would it be possible to ensure for States which do not possess the technological and financial capabilities to conduct their own exploration and exploitation in these new environments that their interests are safeguarded on an equal footing with those of technologically and economically more advanced States. In the absence of an international machinery to govern activities on the sea-bed, it was held, the developing countries would be placed in a very disadvantageous position in relation to the developed ones.

12. The setting up of an international machinery, it was urged, should be envisaged at the earliest possible time. The development of international rules and regulations should take place before the inevitable clash between national interests occurred. Delay in that respect could only complicate matters. Some form of international machinery, it was said, would be a practical necessity if conflict was to be avoided and orderly development ensured.

13. In another view, while there was acceptance of the proposition that some kind of international organizational arrangements would have to be made, it was stressed that a number of complex issues still required careful study, in particular the problem of the most appropriate type of arrangements for the orderly development of the exploration and exploitation of the deep ocean floor. It was doubtful, it was said, if all the problems involved were yet sufficiently well known for decision to be taken on, for example, the nature of the international machinery. It was also urged that deliberations about an eventual international machinery to be set up were premature and speculative in view of the relatively small progress made toward the solution of fundamental questions concerning the legal régime and peaceful uses of the area.

14. Some delegates argued strongly that the establishment of an international régime did not necessarily imply the setting up of international machinery, and that pending further study of all aspects of the problem a decision on the establishment of international machinery was premature. Another consideration raised was the danger for the overwhelming majority of States if international machinery were set up which was, directly or indirectly, under the control of imperialist monopolies.

15. Another form of concern expressed was that such few countries as would have access to the deep sea through their advanced technical capabilities would be able to dominate the issuance of licences by any supranational entity.

16. A variety of views was expressed on the possible types of machinery that could be established. Attention was drawn to the point covered in the previous report of the Secretary-General on machinery to the effect that it was possible to devise a wide range of solutions involving elements and combinations of each of the three models described. This was taken as suggesting the desirability of avoiding fixed or immutable positions and of concentrating on specific elements necessary for acceptable and effective international machinery.

Attention was also drawn to the importance of careful study, since it might be difficult to modify the structure and the authority of the machinery once it had been established. The view was expressed that the machinery should be more than a mere registry of claims. It was suggested that neither a well-controlled licensing system nor the exploitation of the resources of the deep sea-bed under the direct control of an international agency should be excluded from examination by the United Nations.

17. As regards the status of the machinery, one point of view was that it should be an autonomous universal organization possessing full international legal personality within the United Nations system. It should be a duly recognized juridical entity so that it might carry out its tasks with the necessary authority. Such a status should be granted to it internationally.

18. As regards structure, according to this point of view, the machinery would consist of a governing council or board, whose members would be elected in such a way as to impart to it a universality of character and equitable geographical distribution, as well as the representation of all political, economic and social systems. Such a board would be responsible for planning, organizing, directing and controlling all the operations having to do with the exploration and exploitation of the resources of the sea-bed and the ocean floor. The board would perform its functions under a mandate issued to it at the proper time by the proper organ which, in the present instance, might be the General Assembly of the United Nations. It would be responsible to the General Assembly or some deliberative or constitutional organ formed for the sea-bed and ocean floor; such a constituent organ would then organize the necessary powers for the purpose of controlling the activities of the machinery itself.

19. Another point of view was that the form and structure of the international body would depend upon the precise nature of the functions it was to discharge. It would presumably form a part of the United Nations family. The agreement establishing the régime would need not only to specify the form of the international body, but also to lay down in particularly clear and precise provisions the rules by which it would operate and the criteria it should follow, in order to reduce to the minimum the scope for disagreement.

20. Other formulations specified an autonomous intergovernmental organization to operate within the framework of the United Nations system; a United Nations agency within the United Nations set up with a governing board that represented maritime States, developing States and land-locked States; an organ of the same type as the specialized agencies, with the proviso that its structure and powers could of course be changed in the future; an organ on the pattern of the UNDP or a specialized agency. Some delegates expressed doubts concerning an elaborate form of machinery. Further comments also stressed the importance of the

participation of all States, in some cases a reference being made to the concept of the common heritage of mankind as requiring this. The need was also stressed for the developing countries to participate to the greatest possible extent.

21. It was suggested that regional mechanisms might be established which would take into account the various geographic and economic characteristics of different areas, or that the international machinery should take due account in its practical work of the different geographic and economic characteristics of each area.

22. As to the functions and powers of the machinery in general, it was emphasized by a number of delegations that it must be efficient, as well as impartial, and that it was important to avoid a cumbersome bureaucracy and too heavy administrative costs. It was also said that the machinery ought to have a reasonably wide authority over the area, which would enable it to allay the fears of the majority of nations about what might suddenly become a source of real danger. When the world had been assured of the basic equity of the proposed régime, its operation could be fashioned in a way that would serve the best interest of the international community. The wider the powers and responsibilities allotted to the machinery, the more crucial it became to ensure, as far as was humanly possible, both efficiency of action and a decision-making process that truly took into account the interests of all. The machinery should be appropriate to the task it was to perform; it should be neither greater nor less than required. The machinery must, above all, it was stated, be equipped to promote exploration and exploitation of the sea-bed's resources. It should be designed so that it took account of such factors as the exploratory techniques necessary to find the various types of deposits, the evaluation procedures required to justify their development and the equipment and methods devised for their extraction. It should be constituted so as to be able to undertake the most diverse tasks, including functions with regard to adoption and implementation of appropriate standards and other regulatory matters. Therefore, the instruments constituting the new international machinery should establish it in such a way as to be legally, organizationally and technically equipped to perform its function as trustee or administrator of the common heritage of mankind.

23. Some delegates expressed support for the concept of international machinery covering all activities on the sea-bed and not just exploration and exploitation.

24. Support was expressed for the type of machinery specified in resolution 2574 C (XXIV) as a subject of the study by the Secretary-General. It was suggested that, pending the outcome of study of machinery for direct exploitation, there should be envisaged machinery which would co-ordinate, supervise or regulate all activities relating to the exploration and exploitation of the sea-bed resources. This view was spelled out in some detail in a working paper submitted by a number of countries in the Economic and Technical Sub-Committee in March 1970. It contained the following description of the functions and powers of international machinery:

"... It shall be responsible for ensuring the rational exploration, conservation, exploitation, and development of the resources of the sea-bed. States shall be entitled to participate on an equal footing in the management of the organization.

The organization shall have regulatory and operational functions.

Its regulatory functions shall include organizing, controlling, administering and co-ordinating all activities with respect to the sea-bed. It shall grant licences for lawful activities with respect to the sea-bed in accordance with rules and legal norms to be formulated embodying standards and criteria for the granting and termination of such licences.

It shall take appropriate measures to prevent pollution and other hazards in the marine environment.

It may undertake operations independently. This may be done either through or in association with investors (government or private) possessing the necessary technical skills, equipment and financial resources or by use of its expertise and equipment.

It shall provide for the most appropriate and equitable application of benefits obtained from the exploration, use and exploitation of the sea-bed to mankind as a whole, particular consideration being given to the special interests and needs of developing countries.

It shall regulate production of the sea-bed resources with a view to preventing fluctuation of prices of raw materials in the world market resulting from the exploitation of the resources of the sea-bed.

The organization shall arrange training programmes aimed at enabling the developing countries to increase their expertise in the techniques needed to carry out all operational activities with respect to the sea-bed.

It shall establish its own budget. It shall be financed initially out of members' subscriptions, according to an appropriate scale of assessment to be determined. Other sources of funds may include borrowing, grants, licence fees, and proceeds derived from operational activities. Conditions of exploration shall be negotiated with the organization prior to the commencement of activities.

Resources obtained from the exploitation of the sea-bed shall be made available to all countries, in accordance with their needs and in relation to their economic and social development.

A certain portion of the organization's net income shall be allocated to the developing countries in accordance with a scheme to be established and to increase the resources of the United Nations and its specialized agencies active in the field of economic development.

The organization shall have all the powers necessary for the performance of its functions."

25. It was urged that the machinery should not be precluded from direct exploitation activities. In one view, it would obviously be unable to undertake operational functions at least in the initial stages but should be so structured that it would be capable of undertaking such activities.
26. A variety of doubts was expressed about the possibility of the machinery itself carrying out exploration and exploitation. One view was that it would be preferable, for the purpose of promoting efficient development of the area for the benefit of mankind, to have a State or a private enterprise undertake such activities. A system of direct international exploitation, it was contended, would be an adventure that might turn out to be disastrous for precisely those who hoped to derive the greatest profit from it. Machinery for direct exploitation, it was also said, would have enormous ramifications and would represent something far larger than could at present be contemplated. It could prove so expensive as to drain away much of the benefit to be derived from the internationalized area. Others accepted the theoretical possibility but held that practical considerations called for conducting such tasks through States or public or private institutions.
27. An international agency empowered to explore, exploit, refine and market sea-bed resources itself or through sub-contractors would, it was stated, be harmful to the interests of developed and developing countries alike, because it would, among other things: (a) require a large initial capitalization; (b) meet, and even generate, conflicts in the marketing of its mineral products, since it
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would act as a producer and an exporter only and hence might influence prices under the pressure of the international community to return a profit, with unfavourable consequences; (c) present problems regarding the distribution of profits to investors vis-à-vis the international community; (d) present problems with respect to the use of patents and industrial or trade secrets; (e) force the international community into taking huge risks instead of allowing the risks to be taken by others and benefiting from success where it is achieved; (f) essentially deny to developing countries the benefits of service and supply industries surrounding the mining and refining activity, the technologic spill-over, social benefits coming from developing skills and knowledge, as well as manufacturing industries, while delaying at the same time their participation in sea-bed exploration.

28. As regards machinery which would have as its primary function the registration of claims, it was recognized that it would require provisions concerning the size and number of areas which could be registered by one nation or its nationals. Another view was that an international régime should include an international registry of claims governed by appropriate procedures. The registry should be neither complicated nor costly so that maximum proceeds would be available to the international community. It was also maintained that a registry system should be supplemented with criteria. In general, those endorsing a registration system envisaged a registry of requests or claims by States sponsoring the activities. Governments would be responsible for adherence by their nationals to internationally agreed criteria, and both adequate verification techniques and dispute settlement procedures would be established.

29. It was also considered that States or States grouped in ad hoc or regional organizations could submit applications on behalf of natural or juridical persons. The possibility of registration of claims by intergovernmental agencies referred to in the Secretary-General's report was felt especially important for developing countries, which could through such a procedure pool their resources in regional ventures.

30. Others advocated a licensing system. A simple registration system, it was said, would not protect the international community against an exploitation race or an occupation race, nor would it promote or guarantee world peace or the

exploitation of the area for the benefit of mankind. In view of the complexity of the problems involved, when exploration and exploitation activities had increased sufficiently, a licensing system with rather elaborate elements of authority and control would be called for. The machinery envisaged would be able to promulgate rules and regulations in order to co-ordinate, supervise and control activities on the sea-bed and ocean floor.

31. It was also suggested that licences would be issued not to individuals but to Member States who would then themselves be responsible for issuing licences to operators under their own legislation and seeing that agreed standards and safeguards were observed. In this connexion, a view was expressed that licences should not only be granted to States, but also to groups of States and to international organizations.

32. It was also considered that sea-bed resources could be divided into two categories: subsoil deposits and surficial deposits. There would, therefore, be two types of licensing which might also fall into three different stages: exploration, evaluation and exploitation. With regard to exploration, in this view, there were only two possible alternatives - either registration or licensing, or complete freedom of exploration. With regard to evaluation, mineral dredging activity would call for registration only, but in the case of drilling, licences should be issued to States by international authority. All exploitation would have to be licensed.

33. Some delegates took the view that there could be a close resemblance between a registry system with additional functions and a licensing authority, whereas others maintained that there was an essential difference.

34. It was also suggested that the system of registry be dissociated from the system of licensing so as to use the first for the exploration stage while the second would apply to the exploitation of mineral resources.

35. On the other hand, it was observed that the system of concessions practised by nationals of developed countries had so far not contributed to the development and prosperity of the countries on whose territory the concessions had been granted; on the high seas there would be even less of an opportunity to bring foreign companies to abide more closely by international standards and laws.

36. It was also suggested that the international machinery should have the right to grant or refuse a licence depending on the extent to which the application conformed to the criteria laid down.

37. A function of an international machinery, it was said, should be to ensure that the proceeds derived from activities with respect to the sea-bed would be applied in an equitable manner, taking into account the paramount need to accelerate thereby as far as possible the economic growth of the developing countries.

38. A broad range of methods of channelling benefits in the interest of the international community should be considered, e.g., this task could be entrusted either to the future international machinery itself, to some United Nations organ, or carried out through a method of direct channelling of benefits to States.

39. Another view was that the administrative machinery, with administrative and legal functions, should not be the same agency as the one operating the fund, with its economic and technical functions and specialized advisers.

40. It was also stressed that the international machinery should ensure that production of sea-bed minerals should not unduly affect the price level of minerals obtained on dry land.

41. Another opinion held that the effects of machinery which would introduce creeping international controls would run counter to the interests of both the developing and developed countries. Instead of controlling production so as to protect the markets of land producers, ways should be sought to solve the problems of fluctuating prices and demands regardless of where the minerals originate, i.e., in the context of world mineral production and trade - instead of discouraging sea-bed exploitation through additional strictures.

PART II

VARIOUS TYPES OF INTERNATIONAL MACHINERY

42. As explained in the Introduction, part II deals with the various types of international machinery which may be established, and part III with that form of international machinery which would have jurisdiction over the peaceful uses of the sea-bed. Although further distinctions and refinements, as well as combinations, could be made as regards the various types of international machinery which might be established, part II covers in summary form the following types, representing the main forms which such machinery might take:

(1) International machinery for exchange of information and preparation of studies;

(2) International machinery with intermediate powers;

(3) International machinery for registration and licensing;

(4) International machinery having comprehensive powers.

43. The last-mentioned type of machinery is merely noted in part II, in order to show the full range of possible types of international machinery, part III being devoted to an examination of this form of machinery.

1. INTERNATIONAL MACHINERY FOR EXCHANGE OF INFORMATION AND PREPARATION OF STUDIES

44. The simplest and most limited type of machinery would presumably be the kind designed merely to record and circulate to States information received from them in accordance with a General Assembly resolution or other form of decision. Since this is a common variety of Secretariat function, it would seem appropriate to consider it in conjunction with the possible preparation of relevant studies. Present arrangements for collection and dissemination of information were described in the previous report by the Secretary-General.^{4/} As was noted therein, exchange of oceanographic and other information relevant to the development of sea-bed resources is at present being carried out by a number of organizations within and

^{4/} A/7622, annex II, paras. 33-39.

outside the United Nations system. As regards specialized bodies within the United Nations system, particular reference may be made to the Intergovernmental Oceanographic Commission and the Inter-Governmental Maritime Consultative Organization, which have greatly assisted in the promotion of the exchange of oceanographic and technical information within their respective areas of special competence and interest. The United Nations itself has also given its assistance in this regard, and has prepared a series of publications and other documents based, in a number of instances, on information supplied by Member States.

45. Having regard to the growing amount of information related to sea-bed activities, and the expectation that that amount will increase rapidly as those activities are pursued, Member States may wish to consider whether, as one form of international machinery which might be established, arrangements should be made to have the Secretariat act as a focal point for the assembly and dissemination of this information and, also, to prepare studies on a more permanent and regular basis than hitherto. States might provide information (in so far as the source of information would be States, as distinct, for example, from other sources of information, such as general or technical publications, or the results of research carried out by international bodies) either on a voluntary basis, pursuant to a General Assembly resolution, or they might assume an obligation to do so under a treaty, if one were to be concluded for the purpose.

46. Under such arrangements, the Secretariat, besides collecting and disseminating information, might itself prepare, on a regular basis and in addition to what is now being done, reports, reviews, summaries and other working papers on national and international activities relating to the sea-bed, as well as on the relevant activities of the United Nations, the specialized agencies and other international bodies.

2. INTERNATIONAL MACHINERY WITH INTERMEDIATE POWERS

47. Proceeding from the premise that the tasks of the international machinery might be greater than those described in section 1 above, but less than those of registration, licensing or of the exercise of wider powers described below, it is possible to envisage a form of machinery which might perform certain intermediate tasks with respect to the promotion of international co-operation. The context in

which these tasks would be performed would be one in which States would, in principle, be at liberty to explore and exploit resources, subject only to any particular obligations assumed and to the general obligation of seeking to find ways of co-operating in the development of the resources in question and of avoiding such friction as might otherwise arise between individual States or operators. The machinery would accordingly be designed to promote international co-operation in this sphere by providing, in essence, a common meeting ground at which problems could be discussed and resolutions adopted, on a consensual basis. The tasks or functions which might be performed may be provisionally divided as follows: the preparation of resolutions of a general character (for example, as regards the principles to be observed with respect to the exploration and exploitation of the natural resources of the sea-bed; the encouragement and endorsement of scientific research; and measures to ensure respect for other users of the marine environment); the preparation of specific conventions and recommendations; the formulation of a code of international regulations, standards and recommended practices; the establishment of a complaints procedure; and, possibly, the negotiation and adoption of arrangements with respect to quotas and allocations of sea-bed resources. The machinery would not, in principle, itself have direct powers, but would provide a means whereby States could discuss the issues and adopt certain common solutions, as well as receiving assistance on some of the technical questions involved.

48. The form of machinery which would appear most suitable to perform functions of this character would be that of a United Nations subsidiary organ, on a scale similar to the United Nations Industrial Development Organization or the United Nations Conference on Trade and Development, or, possibly, that of a United Nations specialized agency. It would be for the General Assembly to decide which, in the light of the tasks performed, would be the more preferable form. As regards the method of establishment of such bodies, this matter was discussed in the Secretary-General's previous study so that detailed comment on that aspect is not necessary.^{5/} The basic distinction is that whereas subsidiary

^{5/} A/7622, annex II, paras. 90, 95-103. This report also gives information on the following aspects, which are not therefore dealt with here: membership, voting arrangements, financial arrangements and secretariat.

organs are established, pursuant to the Charter, by resolution of the principal organ in question,^{6/} the specialized agencies were set up by international treaties concluded at plenipotentiary conferences. As was previously pointed out, however, a further combination of possibilities also exists in that arrangements could be made whereby an international treaty, elaborated and adopted at a conference of States, would provide for the imposition of duties, and the granting of rights, to a subsidiary organ of the United Nations established pursuant to a resolution of the General Assembly.^{7/}

49. Institutional structure. The precise institutional structure of the machinery would necessarily have to be related to the actual functions agreed upon. It may, however, be of interest to note the cases of existing United Nations subsidiary organs of a major character. The principal organ of UNIDO is the Industrial Development Board, composed of forty-five members, which holds regular annual sessions and reports each year to the General Assembly through the Economic and Social Council.^{8/} The Board may establish such subsidiary organs as it may find necessary. UNIDO has its own secretariat, headed by an Executive Director who has over-all responsibility for administrative research and operational activities. UNCTAD has a more elaborate organization, consisting of a Conference, which meets every three years and the members of which are States Members of the United Nations or members of the specialized agencies or of the International Atomic Energy Agency, and the Trade and Development Board of fifty-five members, elected by the Conference.^{9/} The Board carries out the functions of the Conference when the latter is not in session, and reports to the Conference and, annually, to the General Assembly through the Economic and Social Council. The Board may establish subsidiary organs, and has set up committees on various major topics of concern to UNCTAD. The secretariat of UNCTAD is headed by the Secretary-General of the Conference,

^{6/} Article 7, para. 2, of the Charter provides the general authority. Articles 22 and 68 of the Charter deal with the authority of the General Assembly and of the Economic and Social Council to establish subsidiary organs.

^{7/} A/7622, annex II, paras. 87, 96-101.

^{8/} General Assembly resolution 2152 (XXI) of 17 November 1966.

^{9/} General Assembly resolution 1995 (XIX) of 30 December 1964.

who, as in the case of the Executive Director of UNIDO, is appointed by the Secretary-General of the United Nations and confirmed by the General Assembly.

50. As regards United Nations specialized agencies, these consist, broadly speaking, of a deliberative organ composed of all members, which meets at regular intervals (commonly annually or bi-annually), of an executive body which meets more frequently^{10/} and of a secretariat. The specialized agencies report to the Economic and Social Council. The International Atomic Energy Agency, however, reports directly to the General Assembly.

51. Functions. The functions which might be performed by international machinery designed to promote international co-operation with respect to sea-bed activities are briefly reviewed below, with cross-reference where appropriate to the performance of similar tasks within their particular fields of competence by existing organizations.

(a) Resolutions and recommendations of a general character. It seems unnecessary to comment at length on this most typical activity of international organs. The authority of United Nations subsidiary organs to adopt resolutions derives from that of the parent organ, and express provision for this is normally made in the establishing resolution.^{11/}

(b) Conventions and recommendations giving rise to specific obligations. The preparation within an organization of conventions or recommendations, which are then submitted to States members for acceptance, is an established and now familiar practice. The International Labour Organisation, in particular, has developed an extensive practice in this regard, based on article 19 of its Constitution, and similar procedures have been provided in the case of most of the other specialized agencies. While United Nations subsidiary organs have not usually been so equipped, UNCTAD has been concerned with the negotiation of a number of agreements falling within its competence, in particular the conclusion of commodity agreements.

^{10/} As regards the membership of such executive bodies, see A/7622, annex II, paras. 116-125.

^{11/} As regards voting arrangements in United Nations subsidiary organs and specialized agencies, see A/7622, annex II, paras. 126-140.

(c) Adoption of international regulations, standards and recommended practices. Here also, an extensive practice has been built up by a number of specialized and other agencies, including IAEA, the International Civil Aviation Organization and the World Health Organization, with respect to matters within their competence.^{12/} The need for the adoption of such regulations, standards and practices with regard to sea-bed exploration and exploitation has been widely stressed by speakers in the Sea-Bed Committee.

52. Complaints procedures. The procedure within the organization for the handling of complaints, if one were to be established, would need to be carefully considered and adjusted to various situations. At least three different contexts for possible complaints may be distinguished: complaints of non-observance of resolutions adopted by the organization; complaints of non-observance of specific treaty obligations assumed by individual States; and complaints as between States engaged in different and possibly conflicting uses of the sea-bed and water column. In so far as actual or future treaty provisions are concerned, the matter might already receive a degree of regulation under the treaty in question. In the other two instances, arrangements might be made within the organization for the receipt of complaints and for the application of various techniques for their regulation. Such means might be formalized^{13/} or stress laid on flexibility and measures to achieve conciliation between the parties.^{14/}

^{12/} See article III, paras. 5 and 6, and article XII, IAEA Statute; articles 37 and 54, Convention on International Civil Aviation, United Nations Treaty Series, vol. 15, p. 296; and articles 21 and 22, WHO Constitution.

^{13/} Article 26, paras. 1-4 of the ILO Constitution, for example, provides that complaints by a State member that another has not observed an ILO Convention to which both are parties, may be referred by the Governing Body to a commission of inquiry, which is required to make a report, including its recommendations, regarding the steps to be taken. The Governments concerned are then required to state whether they accept the recommendations and, if not, whether they wish the matter to be referred to the International Court of Justice.

^{14/} Thus, in the case of the International Convention on the Elimination of All Forms of Racial Discrimination, adopted by the General Assembly on 21 December 1965, (resolution 2106 A (XX)), complaints of non-observance may be brought to the attention of the Committee on the Elimination of Racial Discrimination; if the matter is not settled following statements by the parties, it may be referred to an ad hoc conciliation commission.

53. Arrangements with respect to quotas and allocations. It would be a matter for consideration whether the international machinery might perform functions with respect to the establishment of quotas or of allocations of specific areas or quantities of given sea-bed resources. Such functions might consist of the provision of facilities for the negotiation as between individual States of such quotas or allocations, or possibly of the adoption of regulations which would establish quotas for the exploitation of particular sea-bed resources. Such a system would be designed to prevent disputes from arising with respect to exploitation of specific areas to ensure conservation and/or to preclude depletion of resources, and to prevent undue fluctuations in world prices of the resource in question.^{15/}

54. While no existing arrangements relate to a situation identical with that envisaged, reference may be made to the work of the International Telecommunication Union Plenipotentiary and Administrative Conferences and of the ITU International Frequency Registration Board, with respect to the division of radio frequencies between States, and also to various fishing, seal and whaling conventions which provide for the division of the permissible catch amongst participating nations.^{16/}

3. INTERNATIONAL MACHINERY FOR REGISTRATION AND LICENSING^{17/}

55. The present section deals with the use of international machinery to perform registration or licensing functions with respect to the exploration and

^{15/} On the latter aspect, see also below, part III, 4 A (3).

^{16/} See e.g., International Convention for the High Seas Fisheries of the North Pacific Ocean, United Nations Treaty Series, vol. 205, p.65; Interim Convention on Conservation of North Pacific Fur Seals, ibid., vol. 314, p. 105; International Convention for the Regulation of Whaling, ibid., vol. 161, p. 72; Arrangements for the Regulation of Antarctic Pelagic Whaling, ibid., vol. 486, p. 263 and Supplementary Arrangements, ibid., vol. 486, p. 271.

^{17/} International machinery of this character was also dealt with in the previous study, see A/7622, annex II, paras. 41-69. See also part III, 4 A (1) of the present study, which examines in more detail some of the questions raised with respect to the operation of a licensing system.

exploitation of sea-bed resources.^{18/} The international machinery concerned might have functions additional to those of registration or licensing - for example, some of those referred to above with regard to the preparation of studies and the promotion of international co-operation, or the encouragement of scientific research or functions with respect to the reservation of the international area exclusively for peaceful purposes. For purposes of exposition, however, only those functions relating to registration and licensing are dealt with here.

56. Distinction between registration and licensing. The precise scope of the machinery and of the legal effects of registration and licensing would have to be determined in the course of reaching agreement on the establishment of the machinery. In principle, however, a qualitative distinction can be drawn between registration and licensing: whereas in the case of registration the authority or machinery would be passive in that it would merely note the activities undertaken by States (which, subject to such obligations as they might assume, would be at liberty to engage in the exploration and exploitation of sea-bed resources), in the case of licensing the power to authorize such activities would presumably rest with the international authority, which would (or might, according to the terms of the constituent instrument) be entitled to establish the conditions under which specific activities might be conducted. None of the speakers who have advocated a registration system appear to have endorsed, however, the adoption of a minimal registration system whereby the international machinery merely recorded and circulated to States the information it received. If registration machinery of that character is set aside, the range of possible forms of machinery extends, in a continuous spectrum, from a registration system of a "stronger" type to a "weak" or "medium" licensing system, and beyond that to a "strong" licensing system having comprehensive powers.^{19/} A "strong" registration system might come close in practice to a "weak" or "medium"

^{18/} It is possible that activities other than those related to the exploration and exploitation of mineral resources (for example, the laying of submarine cables, or the conduct of oceanographic research) might be registered or licensed. The present section, however, concentrates on the principal case involved, namely, the possible registration or licensing of activities related to mineral resources.

^{19/} With regard to licensing arrangements in conjunction with machinery having more comprehensive powers, see part III, 4.

licensing system; the matter to be determined would be the extent of powers to be granted in each case, within the conceptual framework indicated whereby registration machinery would tend in principle to be weaker than machinery entrusted with licensing functions.

57. In essence, international registration would provide evidence of non-sovereign title with respect to the exploration or exploitation of the resources of particular areas of the sea-bed and its subsoil. The registration act by itself would not presuppose a determination of rights to conduct activities in such areas. In the case of licensing, the international machinery would be the source of the rights concerning the activities to be conducted. Put in negative terms, without such grant of rights by the licensing authority, the activities could not be conducted; correspondingly, once granted, under an effective licensing system the rights granted could not be infringed by other States.

58. It is also possible that a single form of machinery might be established to perform both registration and licensing functions - for example, the registration of exploration activities and the licensing of actual exploitation. Conceivably also, there might be a recording or granting of certain intermediate rights if actual investment was made (e.g., to carry out core drilling) between the conduct of registered exploration and the undertaking of licensed exploitation, with a difference in the costs payable to the international machinery in each case (thus, registration costs might be no more than the administrative expenses involved, whilst licensing fees might be dependent on the scale of production).

59. Having regard to the area of possible convergence, the present section therefore deals with machinery to perform both registration and/or licensing functions.

60. Mandatory or non-mandatory arrangements. Acts of registration might or might not be made mandatory or, in other words, might or might not be recognized as the sole means to provide evidence of rights to sea-bed resources. Licensing arrangements, on the other hand, would be mandatory in the sense that there would be no other way to obtain rights over such resources. While the operation of a licensing system might be seriously impeded if a considerable

number of States felt themselves free to disregard it, it is at least conceivable that an optional registration system could be maintained even though not all States were observing it.

61. If it were desired to make international registration an express legal obligation or to establish licensing arrangements, it would probably be necessary to do so by treaty based on the principle of universality. It has indeed been stressed by many speakers that, as a practical matter, any system or régime with respect to future arrangements for the sea-bed could operate only on a basis of general participation.

62. If, however, registration were not to be made mandatory then recourse could be had, for example, to the adoption of a resolution by the General Assembly in facultative terms, establishing international registration and "urging" and "requesting" States to comply with the procedures thereby established. States would then be at liberty, within the bounds of the Charter, to determine whether or not to act in accordance with such arrangements and to gain the benefits, vis-à-vis others, of being able to point to international registration, as public evidence of their prior claim to the resources of a given area.

63. Forms of international machinery to perform registration or licensing functions. International machinery of a mandatory character would have a legal status laid down in the treaty, separate from that of other existing bodies or institutions, such as the United Nations. The new institution could, however, be brought into relationship with the United Nations by various supplementary acts, and attention may be called here to the existence of several organs within the United Nations system which perform functions laid down in separate treaties.^{20/}

64. In the case of a registration body of a non-mandatory character, it would be possible to proceed to its establishment by means of a General Assembly resolution, in so far as its functions and powers could be performed by a

^{20/} The main examples being the Office of the United Nations High Commissioner for Refugees, which performs functions under the Convention Relating to the Status of Refugees, and the narcotic drugs bodies. Details are given in the previous study, A/7622, annex II, paras. 98-101.

United Nations subsidiary organ.^{21/} More extensive functions and powers for such registration body would require correspondingly larger machinery, and possibly necessitate the conclusion of a special treaty. If provision was to be made, for example, for the development of international standards and regulations relating to mineral exploitation, or to procedures for the receipt and review of complaints by other States, or if conditions were to be imposed accompanying registration (for example, as regards observance of specified operational procedures, or proof of financial security against possible infliction of harm to other users of the marine environment), then consideration would have to be given to the setting up of fairly complex machinery. The details of that machinery would necessarily depend on the scope of work entrusted to it, and no categorical estimate can be given at this juncture as to the most suitable size and form of the directing and plenary bodies (presumably composed of State representatives), or of the scale of the secretariat which might be required or of the requisite disciplines (oceanographers, marine biologists, persons with experience of the various aspects of mineral exploration and exploitation, economists, and so forth) which would need to be represented. However, within the necessarily wide parameters, it would appear that a "strong" registration body, for example, could operate within the framework of a United Nations subsidiary organ, or of a separate bureau (without necessarily connoting the grant of separate legal personality) established by treaty. Such a body (which would require special arrangements with respect to its financing in either case) might accordingly consist of a plenary body (and/or a system of reporting to an existing United Nations organ, such as the General Assembly). a smaller executive body ("the Registration Board" or "the Licensing Board", as the case might be) also composed of State representatives, which would presumably meet more frequently, and a permanent secretariat of its own, which might or might not form part of an existing secretariat.

65. Further issues. No account has so far been given of the technical conditions, in the widest sense, under which a registration or licensing system might operate. Questions relating to the determination of the entities which would be entitled to register activities or to receive licences, the resources or activities to be registered or licensed, the size and duration of claims

^{21/} The previous study gives examples of United Nations subsidiary organs (such as UNCTAD, UNICEF and UNRWA) established by General Assembly resolution, see A/7622, annex II, paras. 95-97.

or licences, the possible termination or cancellation of registration or of licences, and the observance and adoption of safety standards and procedures, the scale of fees or other assessments to be paid, would all have to be decided, together (if it were so agreed) with a procedure for the settlement of any disputes as might arise.^{22/}

4. INTERNATIONAL MACHINERY HAVING COMPREHENSIVE POWERS

66. The functions previously distinguished have been limited or specific in character. They have involved machinery for the exchange of information and the preparation of studies; machinery with intermediate power for the promotion of international co-operation; or international machinery for registration and licensing of sea-bed activities. They differ therefore from the type of machinery referred to in the present heading, which would perform a much wider range of functions and have much greater powers, including regulatory powers, with respect to all peaceful uses. This particular type is merely noted here, in order to complete the range of possible types of machinery which might be established, and is described in part III below, which is devoted solely to this particular type of international machinery, to which special attention is called in resolution 2574 C (XXIV).

^{22/} These issues were dealt with to some extent in the previous study, A/7622, annex II, paras. 42-57 and 61-69.

PART III

INTERNATIONAL MACHINERY HAVING JURISDICTION OVER THE PEACEFUL USES OF THE SEA-BED AND THE OCEAN FLOOR, AND THE SUBSOIL THEREOF, BEYOND THE LIMITS OF NATIONAL JURISDICTION, INCLUDING THE POWER TO REGULATE, CO-ORDINATE SUPERVISE AND CONTROL ALL ACTIVITIES RELATING TO THE EXPLORATION AND EXPLOITATION OF THEIR RESOURCES

1. GENERAL CONSIDERATIONS

67. In calling for the preparation of a further study on various types of international machinery, resolution 2574 C (XXIV) mentions in particular international machinery having jurisdiction over the peaceful uses of the sea-bed. Machinery of this character differs from those examined under part II in that it would be endowed with "jurisdiction" over all peaceful uses of the sea-bed. No attempt will be made here to define the concept of "jurisdiction", but the scope of the powers of such machinery in respect of exploration and exploitation is illustrated in the resolution itself, which states that they include "the power to regulate, co-ordinate, supervise and control all activities relating thereto".

68. It has been said that the proposed "common heritage of mankind" is a concept which provides central direction and purpose to machinery of this type. The principles and purposes which have been mentioned by delegations as inherent in this concept also imply certain functions and powers. The most important of these functions are those relating to licensing, designed to cover a range of activities with respect to the sea-bed and would of necessity require broad regulatory powers.

69. Machinery of this nature could only be established by a treaty which, possibly with additional treaties, would establish the legal régime the machinery is designed to regulate. Regulations issued by the organization and implementing legislation which parties to the treaty or treaties may enact, would also form part of the régime. It is assumed that, in accordance with General Assembly resolution 2574 (XXIV), a comprehensive and balanced statement of principles will first be adopted as a declaration by the General Assembly. All or most of the principles in the declaration, with possible additional principles, would be incorporated in a treaty under an appropriate heading

designed to reflect the fact that they would constitute the guiding principles for the operation of the régime. These principles might follow a preamble and precede a chapter on the purposes or objectives of the régime, some of which have been discussed in the Sea-Bed Committee for inclusion in the declaration. Depending upon the degree of detail in which the functions of individual organs are provided for, this might be followed by a chapter setting out the general functions of the machinery. Subsequent chapters or articles might deal with membership; legal status; composition, functions and forms of each of the organs; rules or principles concerning particular uses of the sea-bed; measures for implementation or enforcement of regional arrangements; and settlement of disputes. Provisions setting out the stages by which the organization might gradually assume wider functions might be given consideration. The view has been expressed in this regard that the machinery might take a limited form at first and be expanded and strengthened as need and requirements dictate. Any such arrangement, if it were to be agreed upon, might entail establishing a transitional régime with clearly determined stages in which additional principles and functions might apply.

70. In accordance with the terms of resolution 2574 C (XXIV), the present part of the study will examine successively the status, structure and functions and powers of such machinery. Functions and powers relating to the exploration and exploitation of resources are dealt with separately from functions and powers concerning other peaceful uses. Finally, in view of the fact that certain standards would apply to functions and powers of both these categories, there is a section dealing with functions and powers concerning standards which would apply to all peaceful uses.

2. STATUS

71. It has been envisaged that machinery of this type should be endowed with full legal personality. In view of the extensive powers which the machinery would have, and the consequential obligations which it may have to assume, it seems that no other legal status would be possible. The relevant provision in the treaty establishing the machinery and the régime for the sea-bed could most appropriately be along the lines of the provisions in Article 104 of the

United Nations Charter and article 1 of the Convention on the Privileges and Immunities of the United Nations. Article 104 of the United Nations Charter provides that "the Organization shall enjoy in the territory of each of its Members such legal capacity as may be necessary for the exercise of its functions and the fulfilment of its purposes". Article 1, section 1, of the Convention provides that "the United Nations shall possess juridical personality. It shall have the capacity:

"(a) To contract,

"(b) To acquire and dispose of immovable and movable property,

"(c) To institute legal proceedings."

Most of the organizations within the United Nations family have in their constituent instruments provisions in this regard similar, if not identical, to those quoted above. Having regard to the range and scope of its powers, the question would need to be considered whether more detailed formulation of the machinery's legal capacity would be required.

72. It has also been suggested that the sea-bed organization be established within the United Nations system, although not necessarily on the pattern of existing specialized agencies. If it were so established, its precise relationship with the United Nations and the other organizations in the United Nations family would have to be stipulated in appropriate agreements.

73. Closely connected with the legal status of the organization is the question of what privileges and immunities it would have. Here again, provisions similar to those in the Convention on the Privileges and Immunities of the United Nations would, in all probability, provide for most of what is needed in this regard. However, were the sea-bed organization to have the power to engage directly in operational activities, it might have to have special provisions along the lines of those of financial organizations within the United Nations family (such as the International Bank for Reconstruction and Development and the International Monetary Fund) which make an important exception to the general immunity from legal process enjoyed by these organizations. Generally speaking, the purpose of such an exception is to make the organization amenable to suit as regards obligations contracted with third parties in the exercise of its powers to raise capital.

Thus, in the case of the IBRD, the Bank is subject to actions brought against it in a court of competent jurisdiction in the territories of a member in which the Bank has an office, has appointed an agent for the purposes of accepting service of notice of process, or has issued or guaranteed securities. Other similar lending agencies, such as the African Development Bank, have established as an exception "cases arising out of the exercise of its borrowing powers". Most of the lending agencies provide in their respective instruments that the full protection of immunity from a legal process applies to actions brought by members or persons acting for or deriving claims from members. This means that controversies between the organization and its members of whatever character cannot be brought before a court, but are to be settled according to a procedure for the settlement of disputes which is provided for in such cases.

3. STRUCTURE

74. The structure of the organization would largely depend upon the precise functions and powers accorded to it and the particular purposes which the organization is to fulfil. It could be said in general that the organization would have an organ in which all the members would be represented, whose purpose would be to establish policy and give direction to the organization; an organ of more restricted membership to examine, recommend or decide on questions of granting of licences and other questions requiring urgent decisions; possibly one or more technical or scientific organ of an advisory nature; and a secretariat. An organ designed to have some functions in respect of settlement of disputes might or might not be an organ only when called upon to perform functions. The actual allocation of benefits might or might not be dealt with by an organ of the organization, although it might be important for the organization to integrate this function with others linked with it.^{23/}

75. V

^{23/} Certain of the problems connected with the structure of this type of machinery, in particular membership, voting arrangements, financial arrangements and secretariat, have been considered in the previous study of the Secretary-General (A/7622), annex II, paras. 81 et seq.

75. Various private associations have made proposals^{24/} regarding the structure of machinery for the sea-bed. Some of the machinery contemplated in these proposals would be concerned not only with the sea-bed but with the marine environment as a whole.

4. FUNCTIONS AND POWERS

A. Functions and powers relating to the exploration and exploitation of resources

76. Among functions and powers relating to the exploration and exploitation of resources, the following will be examined:

- (1) Licensing;
- (2) Direct exploitation;
- (3) Role with respect to fluctuations of price;
- (4) Collection of fees and royalties;
- (5) Training programmes.

(1) Licensing

77. One of the most important functions of machinery of this type would be to license activities for the development of resources in accordance with certain standards to ensure their equitable and rational management. These standards would be of varying importance and character and would, in effect, implement the general principles governing the régime.

78. In the case of this particular type of machinery, the distinction between licensing and registration would be considerably more pronounced (see above, paras. 56-59). Registration machinery, even if endowed with far-reaching regulatory powers, would, in principle, accept or reject applications within certain narrowly defined limits, while machinery of the type dealt with here

^{24/} The Ocean Regime, Elisabeth Mann Borgese, published by the Centre for the Study of Democratic Institutions; Draft Statute for a United Nations Sea-Bed Authority. Twenty-first Report of the Commission to Study the Organization of Peace; February 1970 "An Ombudsman for the Oceans", Frank M. Potter, Jr. PIM Preparatory Conference in Kingston, Rhode Island, 30 January-1 February 1970 (unpublished).

would have greater powers in accepting or rejecting applications. Thus, an application for the exploitation of natural resources might be denied, deferred or subject to negotiation because, for instance, of the need to prevent severe fluctuation of prices of raw materials in world markets or to protect submarine pipelines or cables lying close to sea-bed resources for which application has been made, or to permit completion of scientific research carried out in the area. In view of the fact that the powers would apply not only to different resources but also to any of the other peaceful uses of the sea-bed, it would be necessary to allow for some latitude in their exercise, (see section C (4), "Conflicting uses of the sea-bed"). A further relevant factor is the interrelationship of the sea-bed with other parts of the sea, such as the water column over which the machinery would have no jurisdiction. For instance, an application for sea-bed resources lying near important fishing resources might give rise to difficulties if licensing powers were to be exercised without regard to all interests involved and without appropriate procedures for consultations and negotiations with interested parties.

79. A number of issues are likely to arise in connexion with the licensing power of the machinery. Some of these issues concern general principles or definitions to be contained in the constituent treaty, while others concern standards or operating procedures which might possibly be adopted by the machinery itself once established. The list of topics in annex I to the interim report of the Economic and Technical Sub-Committee (A/AC.138/SC.2/L.6) was intended to identify some of the topics to be considered in the context of any kind of régime and it is accordingly illustrative of the issues which the licensing powers of the machinery would raise. Therefore, in the treatment of subjects in this section, this list of topics has been taken into account.^{25/}

(a) Definition of resources

80. Some fundamental terms and concepts would have to be defined concerning the powers of the machinery as regards natural resources. As regards the

^{25/} See also Mineral Resources Development with Particular Reference to the Developing Countries - United Nations publication E.70.II.B.3.

definition of "resources" of the sea-bed, it is assumed that all mineral resources, whether metalliferous or not, will be included.

81. Mineral resources. It has been suggested that the mineral resources of the area that are likely to be exploited could be divided into two different categories: (a) deep deposits, i.e., oil, gas, sulphur, saline minerals and steam, which could be extracted through drill holes in the sub-bottom, and (b) surficial deposits, i.e., manganese nodules, phosphorites, etc., which could be collected by dredging or other methods.

82. Another division has also been suggested: (a) mineral deposits within bedrock; (b) surficial deposits lying upon or under the ocean floor, and (c) "deposits" in the form of minerals contained in solution in sea waters.^{26/} It will be noted that the machinery would have no jurisdiction over minerals in solution in sea water. However, this would not apply to special cases of concentration of minerals such as hot brines.

83. Living resources. The question arises, if the living resources of the sea-bed are included among those falling under the powers of the international machinery, how such resources are to be defined. Consideration in this regard may be had to the provision in article II, paragraph 4, of the Continental Shelf Convention.^{27/}

84. In the consideration of this question, scientific data would have to be taken into account regarding the possibility that, within the area to which the régime would apply, there could be organisms of sedentary species of economic or other value. A similar question might arise with respect to fisheries conducted by means of equipment embedded in the sea-bed. It will be recalled that

^{26/} See "Mineral resources of the sea" (ST/ECA/125).

^{27/} This provision reads as follows:

"The natural resources referred to in these articles consist of the minerals and other non-living resources of the sea-bed and subsoil together with living organisms belonging to sedentary species, that is to say organisms which, at the harvestable stage, either are immobile, on or under the sea-bed or are unable to move except in constant physical contact with the sea-bed or the subsoil."

such fisheries are dealt with under article 13 of the Convention on Fishing and Conservation of the Living Resources of the High Seas.^{28/}

85. Other resources. A further question may arise whether sunken ships, archeological relics or lost objects lying on the sea-bed might be considered as part of its resources where no clear claim of ownership by any particular person or entity exists. Perhaps these are not "resources" or at least not "natural resources". Nevertheless, they may fall under the jurisdiction of the machinery, if the recovery of such objects is regarded as another use of the sea-bed.

(b) Stages of activities

86. In the development of marine mineral resources, various stages of activities are usually distinguished: exploration, evaluation and exploitation. The system of licensing would have to take such stages into account. With regard to exploration, a distinction might be made between scientific investigation and economic exploration.

(c) Entities entitled to participate in the development of sea-bed resources

87. As pointed out in the previous study of the Secretary-General on machinery, licences might be granted to States; to States engaged in a joint enterprise; to international, State, or private bodies; and to individuals. While it might be possible to have a system whereby licences could be granted by the international machinery to all these operators, it has been argued that licences should be

^{28/} This provision reads as follows:

"1. The regulation of fisheries conducted by means of equipment embedded in the floor of the sea in areas of the high seas adjacent to the territorial sea of a State may be undertaken by that State where such fisheries have long been maintained and conducted by its nationals, provided that non-nationals are permitted to participate in such activities on an equal footing with nationals except in areas where such fisheries have by long usage been exclusively enjoyed by such nationals. Such regulations will not, however, affect the general status of the areas as high seas.

"2. In this article, the expression 'fisheries conducted by means of equipment embedded in the floor of the sea' means those fisheries using gear with supporting members embedded in the sea floor constructed on a site and left there to operate permanently or, if removed, restored each season on the same site."

granted exclusively to States, associations of States and international organizations.

88. The list of topics annexed to the interim report of the Economic and Technical Sub-Committee (A/AC.138/SC.2/L.6, annex I) mentions as possible operators authorized to participate in sea-bed resource development three elements or entities - States, State-authorized operators and international organizations. On the first of these, there appears to be no problem. With regard to State-authorized operators, the question of the role of the authorizing State has to be considered, particularly whether the authorizing States should bear responsibility for supervising actions of their licencees. A related question is whether a State could sublicense operators which are neither its nationals nor companies incorporated in its territory. Apart from the difficulty which the State might encounter in supervising such operators, it is conceivable that it would not be prepared to undertake liability for their actions. In general, this might be a matter for decision by each State concerned, provided that a solution is found for the problem of jurisdiction over vessels and installations operated under a flag different from that of the authorizing State^{29/} and that arrangements to meet liability are satisfactory. Regarding the third possibility, whether international organizations could also be eligible, account should be taken of the problems that might arise with regard to the guarantees, financial or otherwise, which are necessary for the exploration and exploitation of the sea-bed. The possibility of joint ventures should also be taken into account.

(d) Assignment of responsibility for the administration of provisions and rules

89. This topic appears in paragraph 2 of the list of topics and was dealt with in the previous study on machinery by the Secretary-General.^{30/} It was suggested that a double concession system might be established, so that the international authority would grant licences to a State which would act as a sort

^{29/} See previous study of the Secretary-General, A/7622, annex II, para. 173.

^{30/} A/7622, annex II, paras. 58 and 61.

of "administering authority" in respect of the sublicences they might in turn grant to enterprises. This double system would raise the question of the extent to which responsibility for administering provisions and rules would be assigned to States as opposed to the international machinery. It is assumed in this hypothesis that sublicences granted by the State would be granted under its laws and supervision. In this case, the conditions which such national laws should meet might be stipulated in the constituent treaty. Regulations implementing the principles of the régime might also be issued by the machinery, regulations which the administering State would be bound to incorporate in its laws. Suitable procedures for international inspection of operations might likewise have to be developed.

(e) Types of operating rights

90. Various types of rights may be granted in relation to different stages of mineral development. As pointed out in the review prepared by the Secretariat on "Government measures pertaining to the development of mineral resources on the continental shelf" (A/AC.138/21), four types of rights are representative of various practices prevailing in the development of mineral resources on the continental shelf:

- (1) A non-exclusive exploration right which may be followed by an exclusive right for evaluation;
- (2) A non-exclusive right for exploration which may be followed by an exclusive right in which evaluation and exploitation are combined;
- (3) An exclusive combined exploration and evaluation right with preferential option for exclusive exploitation;
- (4) An exclusive right in which exploration, evaluation and exploitation are combined.

An extrapolation of such rights may be envisaged as part of the basis on which instruments for use by the international machinery could be devised.

(f) Procedure for granting licences

91. While various procedures for granting licences can be envisaged, such as a first-come-first-served basis, the drawing of lots, grant on the basis of the

merits of the applicants, and competitive bidding, consideration would have to be given to the needs of developing nations, bearing in mind the exploitation of sea-bed resources for the benefit of mankind as a whole. An equitable distribution of licences might be achieved by a combination of ways rather than by adoption of a single procedure. The main issue, however, might be the extent to which the machinery would have to follow guidelines and procedures established in the constituent treaty or alternatively be empowered to exercise wide discretionary authority in allocating licences.

(g) Conditions and obligations arising from the granting of licences

92. Among these elements the question of the selection of the area and its size will have to be determined. It has been suggested that the authority of the international machinery should decide which areas are to be open to operators. In national practice, areas allocated for exploration are generally larger than those allocated for evaluation and exploitation. It has also been said that the authority might have discretionary power to prevent disproportionately large areas from being placed under the control of a single operator. The duration of rights for which a licence remains valid should be fixed, taking into account, inter alia, the nature of the resources, the distance from shore and the size of the area. Licences may be cancelled, and might or might not be transferable from one licence holder to another under provisions to be determined.

93. The granting and retention of licences could be made conditional upon various requirements (work requirements or production requirements) and could entail various obligations for the operator. In particular, these obligations could deal with the problem of safety of personnel, prevention of pollution, the protection of living resources, and liability arising from operations (see below).

(h) Financial aspects

94. It has been suggested that fees to be paid by the operators for exploration licences should be very light and designed to cover administration costs. It has also been suggested that the proceeds of production royalties should be distributed for the benefit of the international community, particularly of the developing

countries. In accordance with a request by the Economic and Technical Sub-Committee, the Secretary-General has prepared a paper on the question of possible methods and criteria for the sharing by the international community of proceeds and other benefits derived from the exploitation of the resources of the sea-bed (A/AC.138/24).

(2) Direct exploitation

95. Reference has been made earlier in this study to suggestions that the powers of international machinery should include the possibility of direct conduct of operations, or at least, that the machinery should not be precluded from conducting such activities. This issue was dealt with in the previous report on machinery by the Secretary-General, which indicated the main functions which might be performed by an international machinery and the principal issues arising in connexion with those functions. As was noted, many issues would need to be considered in relation to legal matters, financial arrangements and functions as well as operating functions.^{31/}

96. An extensive range of powers would be necessary to enable the machinery itself to engage in prospecting and exploitation activities with its own staff and facilities. A lesser range of powers would be required for the machinery to arrange for others to perform these operations on its behalf by a system of service contracts; or to undertake joint ventures with other bodies.

97. Under service contracts, the contractor would not be in the position of licensee operating under licensing regulations. He would be an agent performing specified services for a fee, although it would also be possible to have other arrangements, such as, for example, some share in the production or in the value thereof. He would not in principle acquire any rights of ownership over mineral production, which would remain with the machinery. The use of such contractual arrangements could apply to all phases of mineral development. For example, it could be extended to the marketing, etc., of mineral production.

98. In the undertaking of joint ventures, the machinery would enter into an agreement with an operator whereby, in return for a share of the production or other consideration, the operator would participate with the machinery in the

^{31/} See A/7622, annex II, paras. 70-74.

development of mineral resources. Joint participation of this nature could assume a variety of forms, whether in respect of organization, financing, operations, or marketing. It may be presumed, however, that such arrangements would not normally involve any relinquishing of the machinery's rights of supervision and control.

(3) Role with respect to fluctuation of prices

99. An effective role for the international machinery in respect of price fluctuation could be envisaged only when the production of minerals from the sea-bed and the subsoil thereof beyond the limits of national jurisdiction would reach such magnitude as to have a marked impact on world markets and, in particular, on the exports of developing countries. A note by the Secretariat presented to the Ad Hoc Committee in 1968 attempted to throw some light on this question.^{32/} The scale of possible exploitation of the sea-bed will have to be considered in relation to the growing world-wide demand for various raw materials as well as in the light of the evolution of costs and prices.

100. Assuming that, some time in the future, production of certain minerals from the area beyond national jurisdiction may become economically competitive and may affect the mineral exports of developing countries,^{33/} various means of dealing with the problems that might arise may be examined. For example, international commodity agreements for specific products could be envisaged. The international machinery could be empowered to become a party to such an agreement and, under its terms, to enforce a ceiling for production of that given mineral from the area when deemed necessary. It might also be enabled to enter into some form of compensatory arrangement with those developing countries which might feel the brunt of this new competition, particularly in the case of a country whose economy, being heavily dependent on production of a given mineral, could therefore suffer severe consequences.

^{32/} "Economic implications of the exploitation of mineral resources on and underlying the sea-bed and ocean floor and its subsoil with particular reference to world trade and prices" (A/AC.135/14).

^{33/} A table, showing the leading world producers and exporters of manganese ore and phosphate rock is contained in ibid., annex I and annex III.

101. Within the United Nations system, the United Nations Conference on Trade and Development is the organ entrusted with problems of commodity price fluctuations, and commodity agreements fall within its field of competence. Therefore, if and when the need arises for a commodity agreement in respect of mineral exploitation from the sea-bed and the subsoil thereof beyond the limits of national jurisdiction, it would be reasonable to expect that UNCTAD would take note of it and deal with this matter in co-operation with the proposed international machinery.

102. At present, the International Tin Council is the only established international body dealing with a specific type of mineral production and setting agreed production ceilings.^{34/} Some looser informal arrangements have been in existence for lead and zinc as well as copper. Of a different character is the Organization of Petroleum Exporting Countries which protects the interests of a number of major petroleum exporters. At this juncture, it is difficult to be more explicit as to what kind of agreements or arrangements may prove to be relevant for the hypothetical production from the international zone. It seems evident, however, that this aspect of the matter will require study as exploitation becomes a reality.

(4) Collection of fees and royalties^{35/}

103. The international machinery could organize and administer the collection of fees, royalties and other levies to be paid by authorized operators under the international régime to be established. This might be done through Member States which would then be responsible to the international organization for the collection of sums due from operators under their flag, or it could be direct from the operators. The method of collection, as well as the method of assessment, might be laid down in the instrument establishing the machinery. It has been suggested that a distinction should be drawn between registration fees,

^{34/} In addition, to tin, international agreements are in operation or under negotiation for the following commodities: cocoa, coffee, olive oil, sugar and wheat. See Commodity Survey, 1968, United Nations, E.69.II.D.5.

^{35/} For questions regarding the allocation of funds see "Possible methods and criteria for the sharing by the international community of proceeds and other benefits derived from the exploitation of the resources of the area" (A/AC.138/24).

fees to be paid for the right to exploit the resources, and royalties on the resources recovered. It might be that different methods of collection would be appropriate to the different types of dues. Provision would also have to be made for penalties for non-payment of dues or royalties and for arrangements for handling disputes in connexion with such penalties (for example, concerning the amount and/or quality of the material taken from the ocean floor). Some method of inspection might be envisaged.

104. While it has been emphasized that the terms of the arrangements with States and/or other operators should be precise in specifying a definite area, duration and type of product to be covered by a licence, it has also been recognized that terms would have to be such as to encourage exploitation, and the machinery might wish to take this into account in establishing financial terms for permits to exploit. Consideration might also be given to possible arrangements in connexion with unsuccessful operations.

(5) Training programmes

105. The Secretary-General, in his report "Marine science and technology: survey and proposals",^{36/} drew attention to the fact that "the scarcity of competent personnel... remained a limiting factor to the development of national efforts and of international co-operation as regards the study of the ocean and the full and rational use of its resources". In this report the Secretary-General gave an account of various training activities carried out by organizations in the United Nations system concerned with aspects of marine science. Ocean-based industries will require a variety of specialists in a wide range of basic scientific disciplines as well as in many engineering skills. There seems to be world-wide weakness in most of these fields, particularly in developing countries. The need for a sustained training effort becomes evident if these countries are to be associated with exploration and exploitation activities in the area beyond national jurisdiction, in the spirit of the General Assembly resolutions and of the discussions that have taken place in the Committee on the Peaceful Uses of the Sea-Bed and Ocean Floor beyond the Limits of National Jurisdiction. The international machinery to be established under the international régime could perform important tasks in this respect, such as:

^{36/} E/4487, para. 283. For information on existing programmes, and proposals for their expansion, see part II, C, "Education and training in marine science", and part III, E, "An expanded programme of co-operation in the fields of education and training in marine science", of this report. /...

(a) Organizing and implementing training programmes. These could be organized in various ways as, for example, in co-operation with Governments concerned, with regional organizations or groups, with authorized operators, as well as with those bodies within the United Nations system implementing projects in this field;

(b) Ensuring that operators authorized under the international régime fulfil their obligations with respect to the training of personnel;

(c) Allocating part of any funds which may become available to the international machinery from the proceeds of economic sea-bed activities to finance such training programmes when deemed feasible;

(d) Ensuring proper placement of fellows under bilateral or multilateral fellowship programmes;

(e) Organizing the widest possible dissemination of relevant information on marine science and technology.

B. Functions and powers concerning peaceful uses of the sea-bed, other than exploration and exploitation of resources

(1) Laying of submarine cables and pipelines

106. International machinery of the type envisaged in resolution 2574 C (XXIV), having jurisdiction over the peaceful uses of the sea-bed, might include amongst its activities responsibility in relation to the laying, maintenance and protection of submarine cables and pipelines. The issues which would be posed may be divided under two headings, the first concerning the existing arrangements with respect to submarine cables and the second the need to regulate possible conflicting uses of the sea-bed, such as its use for the development of mineral resources and, also, for the laying of submarine cables.

107. As regards the first aspect, the freedom of States to lay submarine cables and pipelines is amongst those expressly referred to in article 2 of the 1958 Convention of the High Seas. Special provisions on this subject are contained also in articles 26-29 of the Convention on the High Seas, in article 4 of the Convention on the Continental Shelf, and in the Convention for the Protection

of Submarine Cables of 1884.^{37/} It should also be noted that the International Telecommunication Union is presently charged with responsibility for the promotion of international co-operation with respect to telecommunications, including the use of submarine cables for telecommunication purposes.^{38/} Various other bodies are also engaged in work (for example, the activities of IMCO with respect to safety of navigation) which may have a bearing on the subject. In the event that future international machinery were endowed with power to regulate, supervise or control the laying, maintenance and use of submarine cables and pipelines, consideration would accordingly have to be given to the question of the extent to which existing legal provisions would need to be amended and, also, to the question of the co-ordination of the activities of the new machinery with those of existing bodies, such as ITU and IMCO.

108. Turning to the second aspect, the substantive functions to be performed with respect to submarine cables and pipelines, it is suggested that these might largely concern the possibility of conflicting uses of the same or closely adjacent areas of the sea-bed. Thus, if the same or adjacent area were to be used for mineral exploitation and for submarine cables, means would have to be found to ensure that the one activity did not unduly interfere with, or impede, the other, and a balancing of interests achieved. Since it may be assumed that the possibility of conflicts of this nature cannot, in any case, be entirely

^{37/} A survey of the relevant provisions is contained in the Secretariat study, "Legal aspects of the question of the reservation exclusively for peaceful purposes of the sea-bed and the ocean floor, and the subsoil thereof, underlying the high seas beyond the limits of present national jurisdiction, and the use of their resources in the interest of mankind" (A/AC.135/19/Add.1), paras. 34-41.

^{38/} Article 4, International Telecommunication Convention of 1 January 1961. Reference to activities of ITU related to submarine cables may be found in "Report to the Economic and Social Council on the activities of the International Telecommunication Union in 1968" (E/4691), chapter 6, para. 4.

ruled out if the development of sea-bed mineral production is to proceed,^{39/} the fact that both activities would be regulated within the framework of a single organization should in principle make it easier to find an acceptable solution.

109. The international machinery might also need to exercise powers to make recommendations or regulations for such purposes as, for instance, the lights or signals to be shown by ships engaged in work on submarine cables and pipelines; the marking of the location of cables and pipelines and the recording of the relevant information on charts; the avoidance of marine pollution in connexion with the laying of cables and pipelines; and the reporting of any damage caused to cables and pipelines by other installations erected on the sea-bed, or any damage which the operation and maintenance of cables or pipelines might cause to others. Certain of these matters are already subject to a measure of regulation by existing bodies or agreements.

(2) Reservation exclusively for peaceful uses

110. Throughout the discussions in the United Nations on the question of future arrangements with respect to the area of the sea-bed and the ocean floor beyond the limits of national jurisdiction, emphasis has been placed on the necessity

^{39/} It is of interest that, as regards the continental shelf, article 4 of the Convention on the Continental Shelf provides:

"Subject to its right to take reasonable measures for the exploration of the continental shelf and the exploitation of its natural resources, the coastal State may not impede the laying or maintenance of submarine cables or pipelines on the continental shelf."

In its commentary on the pertinent draft article, the International Law Commission declared:

"The coastal State is required to permit the laying of submarine cables on the sea-bed of its continental shelf, but in order to avoid unjustified interference with the exploitation of the natural resources of the sea-bed and subsoil, it may impose conditions concerning the route to be followed." Yearbook of the International Law Commission, 1956, vol. II, p. 299.

Thus, in the only area presently exploited and subject to multiple use of the kind under discussion, a degree of regulation has already been found necessary and introduced.

/...

of preserving the area exclusively for peaceful uses. For many delegations, the military use of the area is incompatible with the principle, which they accept, that the area should be used in the common interests of mankind. One of the main reasons adduced for drawing up an international régime, furthermore, has been that it is urgent to avoid an arms race on the ocean floor, which would present an obstacle to the use of the sea-bed for peaceful purposes.^{40/}

111. Certain differences of view have been expressed as to how the general desire to ensure that the area is preserved for peaceful uses may best be implemented. Proposals and suggestions on the prohibition of military activities on the sea-bed and the ocean floor and the subsoil thereof have been made and are still under consideration by the Conference of the Committee on Disarmament at Geneva. Any arrangements adopted for the sea-bed would have to take into consideration whatever agreements may be reached in these negotiations and accepted by Member States, in so far as the latter relate, either directly or indirectly, to arms control measures in the area beyond national jurisdiction.

112. The functions to be performed by possible international machinery might thus depend on the terms of any treaty adopted in relation to arms control measures in the area, resulting from the work of the CCD, as well as on the arrangements concluded as a result of the work of the Sea-Bed Committee. It is difficult to anticipate at this juncture whether the final outcome would be an international machinery whose functions and powers related both to the development of natural resources and to the reservation of the area for peaceful uses. It is possible, however, that tasks relating to observation of an arms control treaty for the area (such as procedures for registration of activities, receipt of complaints, verification and inspection) could be entrusted to, and performed by, an agreed form of international machinery.

(3) Scientific research

113. Functions relating to scientific research concerning the sea-bed might be amongst those entrusted to international machinery having jurisdiction over all peaceful uses of the international area. The existing framework within which marine scientific research is now conducted - either under national auspices or within the context of programmes of international co-operation - needs to be

briefly indicated, as well as some of the scientific issues involved, before some of the functions which future international machinery might perform are described. The freedom to conduct scientific research is amongst the freedoms of the high seas enjoyed by all States.^{41/} In so far as the grant to international machinery of exclusive powers of jurisdiction over the sea-bed might be held to entail the curtailment of States' existing powers with respect to scientific research, the conclusion of a treaty would be required. The exercise by States of scientific research might be made dependent on observance of various conditions set by the international machinery (for example, prior communication of programmes and the making available of results), or might involve the international machinery in the general co-ordination of national activities relating to the scientific research of the sea-bed.^{42/}

^{41/} See, generally, the Secretariat study "Legal aspects of the question of the reservation exclusively for peaceful purposes of the sea-bed and the ocean floor, and the subsoil thereof, underlying the high seas beyond the limits of national jurisdiction, and the use of their resources in the interests of mankind" (A/AC.135/19/Add.1), paras. 19-21, 28-33.

^{42/} A basic approach along these lines would be in conformity with the views expressed by the Legal Sub-Committee of the Sea-Bed Committee which, in paragraphs 94 and 95 of its synthesis, summarized its conclusions with respect to the principle of freedom of scientific research in the following terms:

"94. This principle was acceptable in general, as well as the notion of the promotion of international co-operation in the conduct of scientific research. The idea that freedom of scientific research in this area shall be assured to all without discrimination and that States shall promote international co-operation in the conduct of scientific research and that there shall be no interference with fundamental scientific research carried out with the intention of open publication appeared able to command agreement, on the understanding that it would be necessary to be able to distinguish clearly scientific research from commercial exploration. One element in this distinction was agreed to be the subsequent making available or communication of results.

"95. Differences still remain as to the relation between freedom of scientific research and the possible obligations regarding prior communication of programmes and subsequent communication of results, as well as differences as to whether the notions of accessibility or availability on the one hand or dissemination on the other should be employed. There is still no agreement on the inclusion of the idea that such research should not be the basis for claims for rights to exploitation. The suggestion regarding strengthening the research capabilities of the developing countries is still further considered" (underlining in original). See A/7622, part II.

/...

114. Various international bodies (such as the United Nations itself, UNESCO and its IOC, IMCO, the Food and Agriculture Organization of the United Nations and the World Meteorological Organization) are now engaged, in differing degrees, in the encouragement of activities relating to scientific research of the marine environment. IOC in particular has an interest and competence in this field, and its "Comprehensive outline of the scope of the long-term and expanded programme of oceanic exploration and research", prepared in response to General Assembly resolutions 2414 (XXIII) of 17 December 1968 and 2467 D (XXIII) of 21 December 1968, includes a special section entitled "Geology, geophysics and mineral resources beneath the sea",^{43/} dealing with the problems of scientific research on the sea-bed. In the event, therefore, that new machinery were to be established, States would have to consider the extent to which, on the one hand, the new machinery would impinge upon or supersede the activities of existing bodies and, on the other, whether scientific inquiries relating exclusively to the international area of the sea-bed could in fact be kept separate from those relating to other parts of the marine environment. Assuming that no single agency were to be established, having over-all responsibility with respect to all forms of marine science, the problem of co-ordination between different bodies would need to be borne in mind.

115. A certain range of functions might be performed by the international machinery in respect of scientific research. It might, for example, seek to promote programmes of scientific research on a co-operative basis, devoted to particular aspects or to particular regions of the sea-bed. The scientific investigation of the international area of the sea-bed would appear to be a clear instance in which it will be very difficult, if not impossible, for a single country to conduct comprehensive and exhaustive inquiries on its own and where all will stand to benefit from internationally co-ordinated activities. More specifically, besides encouraging and sponsoring international investigations, the international machinery might be empowered to license or register national research activities. In the case of registration, States might be required to give notice of the site of

^{43/} A/7750, part I, section 4.

installations and devices to be used, as well as to register the actual research to be conducted. The question of the publication of the results achieved would also have to be considered; States conducting research might be required to inform the machinery, within a specified period, of the results, which the machinery would then disseminate. The international machinery might also be called upon to rule, if any difficulty arose, whether particular inquiries or activities constituted scientific research or commercial exploration, as well as to define what exploration programmes fell under the concept of scientific research. The question of conflicting uses of areas of the sea-bed, or of the water column, involving scientific research activities, might also need to be considered and powers given to the international machinery in order to help resolve any difficulties which might arise in this connexion.^{44/}

116. Arrangements might also be made through the international machinery for the participation of nationals of different States in common research programmes and for strengthening the research capabilities of the developing countries.^{45/} The drawing up, within the framework of the organization, of comprehensive research programmes relating to the sea-bed, might assist in securing this objective.

(4) Other uses

117. Besides the functions and powers referred to above, consideration may also need to be given to functions and powers relating to other uses of the sea-bed. While it is difficult to foresee all the other possible uses of the sea-bed which technological progress might bring about, reference may be made to the use of the sea-bed for the following purposes, each of which might be accompanied by the performance of related functions and powers by international machinery:

Harvesting of sedentary species and fishing conducted by means of equipment embedded in the floor of the sea, beyond the limits of national jurisdiction;^{46/}

^{44/} On the question of possible conflicting uses, see also below, part III, 4, C(4), paras. 133-136.

^{45/} On the question of educational and training programmes, see also above, part III, 4, A(5), para. 105.

^{46/} See article 13, Convention on Fishing and Conservation of the Living Resources of the High Seas.

Ocean Data Acquisition Systems embedded in the sea floor;^{47/}

Placing of storage tanks for oil, gas, radio-active wastes, chemicals, and other substances, on the sea floor; and

Exploration and recovery of sunken ships and lost objects (both from the point of view of archaeology - with regard to which UNESCO performs a variety of functions - and as regards salvage operations).

C. Functions and powers concerning standards which would apply to all peaceful uses

(1) Prevention of pollution

118. It would follow from the concept of international machinery of the type dealt with in the present portion of the study that such machinery would include amongst its concerns measures to prevent pollution, and possibly other hazards as well.

(Various organizations in the United Nations system, including the United Nations itself, UNESCO and its IOC, IMCO, IAEA, FAO and WHO among others, are presently conducting activities in connexion with the prevention of marine pollution.)

The steps which might be taken to prevent pollution, which present certain special features, are considered below: other hazards may more conveniently be considered under headings (4) and (5) below, relating to conflicting uses of the sea-bed and of the sea-bed and superjacent waters, and liability; heading (3) safety of life and property, may also be relevant in this regard.

119. The existing provisions of international law relating to marine pollution were briefly referred to in the Secretary-General's previous study.^{48/} The only major item of note which has occurred subsequently has been the conclusion (but not yet the entry into force) of two conventions under the auspices of IMCO, in November 1969, and also the adoption by the IMCO Assembly of certain amendments to the International Convention for the Prevention of Pollution of the Sea by Oil, designed to stiffen its provisions.^{49/} The two conventions adopted in November 1969, the International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties and the International Convention on Civil Liability for Oil Pollution Damage, regulate respectively the conditions under which a coastal

^{47/} See Draft Convention on the Legal Status of ODAS, prepared by the IOC Group of Experts, document SC/IOC.EG-1/7, annex IV.

^{48/} A/7622, annex II; see also "Study on marine pollution which might arise from the exploration and exploitation of the sea-bed and the ocean floor and the subsoil thereof beyond the limits of national jurisdiction" (A/7924).

^{49/} IMCO Assembly resolution A 175 (VI) of 21 October 1969, and annex.

State may intervene to prevent the actual or threatened pollution of its shores following an accident involving the loss of oil from a tanker, and the system of financial liability to apply in respect of major oil spillages of this nature.

120. Although the existence of various legal instruments would, of course, have to be taken into consideration in determining what specific measures should be taken, it has been assumed that the present section is to be based on the supposition that international machinery of the type under discussion would, in principle, have responsibility for prevention of marine pollution arising out of activities conducted on the sea-bed. Looking at the matter from this over-all standpoint, a series of issues would need to be considered.

121. First, a definition, or a means of arriving at a definition, of pollution would have to be agreed upon. The prohibition of pollution, if defined in absolute terms as meaning the prohibition of any change whatsoever in the marine environment, would mean that the exploration and exploitation of resources (certainly of mineral resources) could not be conducted. What has to be determined therefore, is the threshold or the "base line" up to which pollution (or change) could be inflicted without damage, and beyond which pollution would need to be prohibited. Determination of this question, is, scientifically speaking, a difficult matter and might well require, to be complete, an ocean monitoring or ocean surveillance system, comprising all seas (both national areas and beyond) and all forms of pollution (i.e., pollution caused by environmental conditions, such as the action of wind and rain carrying pollutants from the land, and pollution caused by immediate human intervention - for example, that which might be caused by ocean mining). An ocean surveillance system of such a scale would be a considerable undertaking and, if established, would constitute a large portion of the machinery's work. It may be noted here that IOC has proposed that a system which might perform such functions be established,^{50/} and that the ODAS proposals which IOC has also sponsored might also contribute to a world-wide scientific system, on a co-operative basis, of this nature.

^{50/} "Long-term and expanded programme of oceanographic research" (A/7750), annex, part I, 3.

122. Over and above such a system, the machinery might also wish to concern itself with specific regulations relating to pollution dangers arising out of the exploration and exploitation of sea-bed resources. Before the possible contents of such regulations are considered, however, it should be pointed out that the role of the scientific surveillance system just mentioned would not be purely secondary. As has frequently been remarked, a great deal remains to be known about the sea, its operations and the effects of human intervention (as in the case particularly of the exploitation of mineral resources). Aside from the possibility of an accident on a major scale, comparable to the blow-out which occurred in the Santa Barbara channel in January 1969, and which, it may be presumed, would be evident more or less immediately, the danger which also exists is of a gradual deterioration in the marine environment, caused by a multiplicity of acts over a period of time. Situations of that kind are much harder to arrest or to regulate and it is more difficult to make suitable arrangements as regards compensation to other users of the seas whose interests may be affected.

123. The substantive regulations to be adopted with respect to prevention of pollution would need to be based, at least initially, on national precedents; the actual operational procedures with respect to the extraction of minerals (the main resource whose capture entails a risk of pollution) would not themselves differ, according to where the operation was proceeding, and international regulations would need to reflect the best standards of oil industry practice.^{51/} What this would mean in specific terms would have to be determined by experts competent in the field; the national legislation in this field, frequently supplemented by detailed regulations, is complex and subject to regular review.

124. This fact of itself would give reason to consider whether, in practice, the international machinery, even of the type envisaged, would wish to undertake the production of a comparable body of law, or whether it would eventually be decided that, within guidelines laid down internationally, the actual regulations to be applied would be those promulgated nationally; or, to posit a slight variation, whether the international machinery would concern itself with the adoption of

^{51/} Note should be taken here of the study "Government measures pertaining to the development of the mineral resources of the continental shelf" (A/AC.138/21), para. 57.

international standards, which individual States would then incorporate into national law and enforce. This issue is a particular application of that dealt with in section 5 below, "Enforcement of international regulations or decisions of the organization", and is not further considered here.

125. A major question, not so far examined, except by reference to the best standards of oil industry practice, is that of the stringency of the regulations to be adopted (irrespective of their final formal source). This question adjoins that of liability, which is referred to below, and, more fundamentally, the possibility of conflict of interests between different users of the sea. States with a strong and immediate economic interest in fishing in nearby areas might wish to be granted special rights with respect to those areas (for example, a right to allow or disallow mining activities there) and, in general, might wish to draft regulations designed to protect fisheries (including maintenance of the marine conditions whereby particular fish are nourished) as far as possible. As against this, other States might argue that imposition of regulations which were too stringent would discourage operators, in a context in which, as some have suggested, the problem will be to encourage operators to undertake ventures in the first place. This possible conflict of interest is noted here because of its direct importance to the subject under discussion; its resolution would be a matter of detailed negotiation at a suitable stage, in which appropriate regard to the interests of fishing States within the over-all regulatory process might provide an alternative to recourse by such States to unilateral action. The exact and final solution which may be adopted cannot, however, be forecast at this stage.

126. In summary therefore, the problem of the prevention of pollution, with respect to international machinery of the type envisaged, would involve consideration of the following issues: (1) accurate determination of the effects of the particular human activities involved on the marine environment, which would require, to be complete, the operation of a scientific surveillance system, covering all forms of pollution and all areas of the seas; (2) the adoption of suitable regulations, stating what operational procedures were to be followed to prevent pollution; (3) consideration, in the preparation of such regulations, of the interests of States (such as fishing or coastal States) which may be adversely affected by the activities concerned, and/or a right of unilateral determination, by fishing or coastal States, to decide whether such activities may be carried out, at least in

areas over which they have a special interest; (4) adoption of provisions to cover the possibility of immediate accidents, as opposed to a gradual deterioration of marine conditions over a period of time.

(2) Protection of living resources

127. There are various provisions of the Geneva conventions relating to the protection and conservation of living marine resources,^{52/} supplemented by a number of agreements dealing with the capture of particular species. The functions envisaged here for the prospective international machinery would not be to supersede these provisions and agreements, but to complement and support them by ensuring that activities conducted on the sea-bed did not result in undue damage to living organisms. Although such functions would coincide in large part with those relating to pollution, considered above, (paras. 118-126) and the regulation of conflicting uses of the seas, dealt with below (paras. 133-136), the topics dealt with under those headings do not exactly coincide with that under discussion. This fact, and the importance of the subject,^{53/} require that protection of living resources be made a major consideration in regulating the conditions under which sea-bed activities are to be conducted.

128. The exact determination of those conditions would be a matter requiring technical and scientific study and an appropriate balancing of interests. The marine food chain is complex and the extent to which the exploration and exploitation of mineral sea-bed resources might affect the productivity of marine organisms living in the water column,^{54/} is unknown, and indeed will necessarily remain unknown until such exploration and exploitation has been expanded and its effects noted. It would, however, be feasible for the machinery to seek to learn

^{52/} Articles 2, 24 and 25 of the Convention on the High Seas; articles 1-8 of the Convention on Fishing and Conservation of the Living Resources of the High Seas; and articles 3 and 5, paragraphs 1 and 7, of the Convention on the Continental Shelf.

^{53/} The growth in fishing in recent years may be emphasized, the fishing industry of developing countries showing a particularly large increase. The total world fishing catch was 33 million metric tons in 1958 and 64 million metric tons in 1968. 1968 Yearbook of Fishery Statistics (Commodities), FAO, 1970.

^{54/} This would appear to be the main issue. Special arrangements might be made by the machinery as regards the protection of living resources which adhere to the sea floor itself.

what effect mineral exploitation in areas under national jurisdiction has had on fish stocks in the superjacent waters, in order to try to forecast what the effects of mineral exploitation in the international area are likely to be, and, generally, to supervise the over-all problem in conjunction with other organizations (such as the Food and Agriculture Organization of the United Nations and regional fishery bodies) concerned with the actual harvesting of living resources.

(3) Safety of life and property

129. The functions which international machinery might perform in this connexion would need to be devised with a view to ensuring the protection both of those engaged in sea-bed activities and of those concerned with other maritime occupations, such as fishing and navigation, and of the property used.

130. As regards the safety of persons, the principle traditionally observed at sea of giving priority to distress signals would presumably be applied following an accident involving persons working on the sea-bed so that ships in the area would assist in search and rescue operations if called upon to do so. Safety would chiefly be secured, however, by various technical means concerning the specifications for the construction of installations, inspection of equipment, the provision of life-saving and fire-fighting appliances, the adequate training of personnel and the observance of proper working practices. The extent to which the international machinery would be able to determine the standards to be observed in these spheres would be dependent on the power granted to it, but there would appear to be considerable scope for the performance of a variety of functions by the machinery in this connexion.

131. It may be noted that several organizations have already concerned themselves with some of the problems concerned. The ILO Petroleum Committee has examined the safety and health of personnel working on off-shore drilling and production platforms.^{55/} In addition, the IMCO Maritime Safety Committee, acting in response to observations of the Economic and Technical Sub-Committee of the Sea-Bed

^{55/} See General Report: Recent Events and Developments in the Petroleum Industry, reports I and II, Petroleum Committee (International Labour Organisation), seventh session, 1966.

Committee,^{56/} has listed certain measures for improving the safety of personnel working on off-shore installations;^{57/} these proposals formed the basis for two resolutions^{58/} adopted by the IMCO Assembly in 1969 relating to the dissemination of information concerning the location and manning of drilling rigs and production platforms, and the adoption of safety radio-communication requirements. There is, thus, already a considerable body of material which would need to be examined by the prospective machinery before appropriate recommendations and regulations were adopted, designed to ensure the safety of persons engaged in sea-bed operations.

132. As regards the safety of installations and equipment used for sea-bed activities (whether for purposes of mineral extraction, scientific inquiries or for telecommunications), as well as the safety of other users of the marine environment, the principal need in the present connexion would be to ensure that appropriate notice was given to the international machinery of the location of sea-bed installations or equipment, so that other users of the marine environment might receive due warning.^{59/} The different applications of such a notice system (relaying of information to vessels at sea; incorporation of information in charts; establishment of signals on installations; possible devising of sea lanes through congested areas) would require to be worked out in detail in collaboration with existing organizations (such as IMCO) and others, including national authorities, also concerned with such matters.

(4) Conflicting uses of the sea-bed and of the sea-bed and superjacent waters

133. The fact that the sea and sea-bed may be used increasingly for a variety of purposes increases the possibility that conflicts may arise between different uses. The question thus arises of the functions which international machinery having jurisdiction over peaceful uses in the international zone might perform.

^{56/} A/7622, part Three, para. 97.

^{57/} "Note by the Inter-Governmental Maritime Consultative Organization" (A/AC.138/15).

^{58/} Resolutions A.180 (VI) and A.182 (VI).

^{59/} For the obligations in this respect of the coastal State in regard to its continental shelf, see article 5 of the Convention on the Continental Shelf.

134. Should a single institution be given jurisdiction over the sea-bed, that would itself constitute a means of preventing conflicts from arising, for example, between operators competing for the same mineral-rich area. However, the issue under discussion does not concern conflicts between those engaged in the same activity but between those engaged in different activities. From the point of view of international machinery of the kind envisaged, a distinction may be drawn between conflicts between different sea-bed activities over which the machinery would have direct powers and jurisdiction, and conflicts between sea-bed activities and water column activities.

135. The different sea-bed activities previously distinguished in this paper are: mineral exploration and exploitation; operation of submarine cables and pipelines; reservation of the area for peaceful purposes; scientific research; and certain other uses (such as the harvesting of sedentary species or use of the sea-bed as a storage area for wastes). The extent to which conflicts would necessarily occur between these uses is extremely hard to determine. The existence of the machinery and the requirement for its prior consent (or at least notification) before these operations could be conducted, would enable the machinery to help reduce the possibility of conflicts from arising. As regards mineral exploitation, the operation of submarine cables and pipelines, and the conduct of scientific research, the three main categories concerned, the machinery would need to devise means so that mutual interference was kept to a minimum. If the issue involved had not reached the stage of an actual dispute between States (for which special ad hoc machinery might be created), the machinery would endeavour, when the proposals were still at a planning stage, to ensure, for example, that a mineral operator did not disturb submarine cables, or that scientific research could be conducted despite the existence of mineral exploration activities in the same neighbourhood. The "planning" function of the machinery, combined with its regulatory powers, would thus be exercised so as to prevent conflicts from arising between different users.

136. This accommodation of different uses, on a basis of discussion and reasonable regard for the interests of others, might also form the main approach with respect to potential conflicts involving sea-bed activities and those conducted in the water column or on the surface (most notably, navigation and fishing), with the

exception that the international machinery would not have jurisdiction over the latter. Apart from the question of pollution, which has been previously considered, it would be necessary that, in framing regulations and in exercising powers in relation to sea-bed activities, the machinery should take due account of activities taking place in superjacent waters and make provision accordingly. States which considered themselves especially affected might seek to make special arrangements or application for a modification of sea-bed proposals which might interfere with their fishing or navigation interests.^{60/} More generally, the problem would be to ensure that, in the formulation of the authorizations given and the regulations adopted, the interests of different users of the marine environment were adequately reflected, a task which would be made easier by the fact that most States members of the machinery would have interests both as users of the water column and water surface, and as potential sea-bed operators.

(5) Liability

137. In the event that international machinery were to be established having jurisdiction over sea-bed activities, it might be deemed, in accordance with the basic conception of such machinery, to be entitled to exercise functions and authority in order to regulate questions of liability. Such questions might relate, on the one hand, to liability for damage as between different sea-bed operators and, on the other, to liability for damage as between sea-bed and non-sea-bed operators, with the machinery playing a somewhat different role in each case. The novelty and difficulty of the situation makes it impossible to give an exhaustive answer to all the issues which might be raised, or their eventual outcome. The present section therefore attempts no more than to indicate in general terms some of the main topics or questions which may need to be considered and their possible solutions so far as international machinery is concerned.

138. As regards sea-bed operators - essentially for present purposes those engaged in mineral exploitation or in the operation of submarine cables and pipelines - the machinery might be empowered to determine what compensation should

^{60/} On this issue see also above, section (1) "Prevention of pollution", paras. 118-126.

be paid or what other measures taken in the event that one operator caused or received damage as a result of the activities of another. The particular means which the machinery could use for this purpose might vary considerably, from provision of disputes settlement procedures as between individual operators, to direct adjudication and the imposition of penalties by the machinery itself. Several speakers in the Sea-Bed Committee have suggested that, having regard to the possibility of extensive damage being caused by mineral exploitation activities, provision might be made for a system of financial guarantees whereby mineral operators were required to show proof, before beginning their activities, that they had the means to meet claims which might be made against them. The establishment of a guarantee system on these lines has usually been coupled with the application of the principle of strict liability (as opposed to proof of negligence by the complainant) and the establishment of a ceiling figure with respect to the maximum amount payable for any one accident. It is not possible at the present juncture to say in any precise terms how a parallel system might operate with respect to sea-bed operations (for example, as regards the maximum figure of liability), although undoubtedly it would be feasible to develop such an arrangement.

139. If brought into operation, a system along these lines (basically of financial guarantees and agreed principles of liability) would also assist in regulation of possible disputes concerning damage which mineral operators might inflict on non-sea-bed users (such as fishing and navigation interests). Here again it is difficult, if not impossible, to spell out the precise mechanism which might be used, but, as indicated in the section above dealing with pollution, (see paras. 118-126), individual States who considered that their interests with respect to uses of the water column had been affected by sea-bed activities (such as States whose fishing interests were adversely affected by pollution caused by mineral exploitation) might seek to curtail the offending activity or possibly to submit a claim to the international machinery for compensation. There are, however, many aspects of the problem. First, States with fishing and other water-column interests might have an opportunity, along with other States, to make their views known before the mineral activity was undertaken. Secondly, it would in any case be an obligation of the machinery, as part of its

functions with respect to the regulation of conflicting uses of the sea, to ensure that, so far as possible, different activities could be conducted without serious interference with one another, and to formulate regulations with this end in view. Thirdly, the individual State whose fishing interests were affected might have considerable difficulty in determining which activities - for example, mineral exploitation (in areas which might be under either national or international jurisdiction) or the disposal of wastes from a variety of sources - had contributed, and in what degree, to a decline in fish productivity; the knowledge necessary for such a determination might rest with the machinery and with various other international bodies, such as those engaged in monitoring the condition of the oceans.

140. Separate from the above, which would concern essentially questions of liability as between individual operators and their respective States, would be the possibility of gradual deterioration of the marine environment as a whole - a matter referred to in the section dealing with pollution above (paragraph 121) and of the incurring of liability by the international machinery itself. Damage to the marine environment as a whole, possibly as the result of a series of different activities spread over the years, could only be guarded against by a system of regular scientific observations whereby warning was given of impending changes and appropriate action taken; the matters involved would transcend the activities of a machinery dealing solely with sea-bed activities in the international zone, although such machinery could no doubt contribute to regulation of the problems posed. As regards the question of the incurring by the international machinery of responsibility for damages, this would arise most obviously if the international machinery were itself to conduct operations; in such circumstances, arrangements would have to be made whereby the machinery could be held liable for the consequences of its actions. The responsibility of the organization might, however, be invoked in other ways also (see above, paragraph 93). Disputes might arise concerning, for example, the application of regulations set by the machinery in the course of which it might be said that the regulations were inadequate, or allegations made that the exercise of the organization's executive power had been improper. Disputes of this nature, however, would appear to concern the powers of the organization itself and their exercise, rather than liability as this has mostly been envisaged in the course of discussions, namely responsibility for the direct infliction of economic harm.

5. ENFORCEMENT OF INTERNATIONAL REGULATIONS OR DECISIONS
OF THE INTERNATIONAL MACHINERY

141. If international machinery were to be established with full powers to regulate, supervise, co-ordinate and control the exploration and exploitation of the natural resources or other peaceful uses of the sea-bed, two different situations may be envisaged as regards the enforcement of regulations and decisions adopted by the machinery:

(1) Enforcement with respect to States not parties to the treaty establishing the machinery; and

(2) Enforcement as regards States parties to the treaty.

142. As is clear from the Secretary-General's previous report,^{61/} it would hardly be possible from a legal standpoint to enforce decisions of the international machinery vis-à-vis third States. Even if the concept of the establishment of an "objective régime" were generally accepted, there would be practical difficulties as regards those States which did not agree to the applicability of the concept. The possibility of the use of force with respect to such States should be excluded, unless the particular violation of the machinery's decision might be deemed a threat to the peace, breach of the peace or act of aggression, when the relevant provisions of the Charter would apply. In order, therefore, to ensure fully effective functioning of international machinery of the type in question, it would be highly important to ensure universal participation in the régime to be established.

143. As regards enforcement vis-à-vis States parties to the régime, more particular issues would be raised. Before considering these, reference may be made to the prior question, mentioned briefly in part III 4 C (1) above in connexion with the prevention of pollution, of the extent to which the regulations adopted would be exclusively international and to what extent they would be national. As various speakers have pointed out in the course of discussions in the Sea-Committee, it is possible to envisage a range of alternatives combining elements of both sources: a treaty might lay down general objectives, specified in more detail in regulations issued by the agency, but even in this instance it is unlikely that the agency would wish to exercise jurisdiction over every activity - for example, with

^{61/} A/7622, annex II, paras. 181-194.

respect to criminal acts; alternatively under a "double concession" type system, each State might be responsible for the adoption of suitable regulations and their enforcement, within conditions laid down by the authority. Under such a system, conflicts might well arise between adjoining States, and the possibility of international supervision of national enforcement might be contemplated.

144. The range of variants is so great that it is scarcely possible to give an exhaustive account of the methods of enforcement which may be finally adopted. On the assumption, however, that the international authority is a main, if not in every respect the sole, source of regulations and decisions affecting the international area, there would be a number of means of enforcement which it could use. Besides a system of international inspection of activities, States or operators found acting in disregard of regulations might have any licence given suspended or revoked, or might possibly be fined, as determined by the organization. States committing whatever were regarded as serious violations might lose their voting rights within the organization. In the event that the organization had major functions with respect to non-armament measures, the consequences of refusal to accept regulations or decisions laid down by the international agency might have even more grave consequences and involve questions relating to the application of provisions of the United Nations Charter.

145. As a corollary of the grant of extensive regulatory and decision-making power to the organization, provision would have to be made for the settlement of disputes relating to any regulations or decisions adopted, or their application. Such disputes might take broadly two forms, either a dispute as to whether a regulation or decision was correctly taken by the organization, as being within its competence, or a dispute in which one State complained to the organization that another was not acting in compliance with a particular regulation or decision. Arrangements would have to be made in either case for a suitable system of review and examination of such disputes.^{62/}

^{62/} Reference may also be made in this connexion to the Secretary-General's previous study, see A/7622, paras. 79-80.