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

GOVERNMENT MEASURES PERTAINING TO THE DEVELOPMENT OF MINERAL RESOURCES ON THE CONTINENTAL SHELF

Review prepared by the Secretariat

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INTRODUCTION

1. In its resolution 2574 B (XXIV) dealing with the continuation of the work of the Committee on the Peaceful Uses of the Sea-bed and the Ocean Floor, the General Assembly inter alia took note of "the suggestions contained in the report of the Economic and Technical Sub-Committee" (paragraph 5) and requested the Committee "to formulate recommendations regarding the economic and technical conditions and rules for the exploitation of this area in the context of the régime to be set up" (operative paragraph 6).

2. In this connexion, it may be recalled that, during the first session, in March 1969, of the Economic and Technical Sub-Committee, it was suggested that "experience gained in various countries in relation to the development of mineral resources under national jurisdication should be taken into account when considering the measures which might be conducive to promoting the development of the resources of the ocean floor beyond the limits of national jurisdiction" and that "an appropriate adaptation of the existing practices might be envisaged with a view to ensuring the optimum efficiency". "The identification of common denominators amongst these practices might facilitate the acceptance by the international community of an agreed procedure".[1/]

3. It was also observed that "it would seem appropriate to study procedures and practices at present used on a national level in order to assess their suitability to concessions granted beyond the limits of national jurisdiction".[2/]

4. Accordingly, the Sub-Committee decided that "the Secretariat be requested to prepare, as a follow-up to the preliminary note A/AC.138/6 and in the light of the deliberations held in the Economic and Technical Sub-Committee during its session of March 1969, a study which would include a review of the measures taken by various Governments with regard to the development of their continental shelf mineral resources, in particular oil and gas, and the denominators which are common to these measures".[3/]

1/ See Report of the Committee on the Peaceful Uses of the Sea-bed and the Ocean Floor beyond the Limits of National Jurisdiction, Official Records of the General Assembly, Twenty-fourth Session, Supplement No. 22 (A/7622), para. 68.

2/ Ibid., para. 75a.

3/ Ibid., para. 99.

5. It also may be added that, during the second session, in August 1969, "it was suggested that this Sub-Committee should identify as one of the main tasks of the next session that of devising a code regarding conditions of title arrangements (area, period of tenure, royalties, etc.) and a system of operating and supervisory procedures."[4/]

6. It is in this general context that the present review has been undertaken by the Department of Economic and Social Affairs with the assistance of Mr. I.W. Morley, I.S.O. Consultant (Minerals and Petroleum), Brisbane, Queensland, Australia.

7. The Review is based on published material and has drawn upon the practices of some ninety coastal States. It is believed that the Review gives a reasonably comprehensive coverage of the major issues involved.

8. It comprises four chapters, as follows:

I. National practices and machinery pertaining to mineral development on the continental shelf

II. Operating rights

III. Operating obligations

IV. Government share in proceeds

4/ Ibid., para. 155.

I. NATIONAL PRACTICES AND MACHINERY PERTAINING TO MINERAL DEVELOPMENT ON THE CONTINENTAL SHELF

9. For the purpose of this study, off-shore mineral resources may be divided into two broad categories: hydrocarbons and solid minerals.[5/] The former, which comprise crude oil, natural gas, gas condensates and any associated gas or substance, dominate the history of profitable mineral development in the continental shelf off the coasts of many countries: off-shore petroleum production is now obtained off twenty-two of them and exploration has expanded to the shelf areas of more than seventy-five. Other mineral development off-shore is at present confined to conventional underground mining with entry from land, or to dredging operations. Minerals within bedrock such as coal, iron ore, nickel-copper ore, tin and limestone are exploited in the former, while dredging is used for recovering such surficial material as sand, gravel and lime shells, as well as diamonds, gold, tin, iron and other heavy mineral sands. Only about twenty countries have reported so far on such activities.[6/] The technology is constantly improving, and new methods, such as in situ extraction of subsea minerals through boreholes, must be expected to find application; sulphur is already being exploited by this method.

10. To regulate the above activities, a series of measures concerning petroleum and other mineral development on the continental shelf have been adopted by many coastal States. These will be detailed in the following chapters, the present one being concerned only with more general "arrangements", namely: current legislative patterns; administrative and supervisory services; and collection and diffusion of basic information.

Current legislative patterns

11. While a number of countries have enacted specific legislation relating to off-shore mineral development, the practice sometimes is to enter into special

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5/ For details concerning the diversity of marine mineral resources and the techniques used during the various development stages, see "Mineral Resources of the Sea" (E/4680), 2 June 1969.

6/ See "Marine Science and Technology: Survey and Proposals" (E/4487), annex VII, 24 April 1968.

contracts with individual operators.[7] In most cases, the provisions concern hydrocarbons exclusively,[8] although sometimes solid minerals are also included.[9] Only a few countries appear to have established legislation exclusively for off-shore development of solid minerals.[10] Where no special legislation is provided for, existing on-shore mineral laws have been extended to cover off-shore ventures.[11]

12. Whatever the legislative arrangements and the variations in their provisions, one common purpose is to safeguard properly the various legitimate interests involved in the off-shore mineral development.

13. With respect to operators, all legal arrangements contain stipulations providing for security of tenure for a certain period of time over a delineated area under conditions offering the prospect of adequate returns.

14. With regard to third parties, most countries incorporate or refer in their legislation to the principles enunciated with article 5 of the 1958 Geneva Convention on the Continental Shelf, particularly those which relate to "unjustifiable interference with navigation, fishing or the conservation of the living resources of the sea" (paragraph 1) and to "appropriate measures for the protection of the living resources of the sea from harmful agents" (paragraph 7).

7/ Throughout the present study the term "operator" covers any country, national or multi-national agency, private person or company, or any combination of such groups which may be associated for the purpose of solely or jointly exploring, evaluating and exploiting mineral resources. In some cases an administering authority may also be an operator.

8/ Abu Dhabi, Angola, Argentina, Australia, Bahamas, Canada, Chile, Cuba, El Salvador, India, Indonesia, Iran, Italy, Ivory Coast, Kuwait, Lybia, Malaysia, Malta, Morocco, Netherlands, Nigeria, Norway, Portugal, Thailand, Trinidad, United Arab Republic, United Kingdom, Venezuela.

9/ Sweden, USSR: special enactments relating to off-shore minerals.

10/ Malaysia, outstanding example of modern legislation dealing with this matter; United Kingdom, where off-shore hard minerals such as sand, stone and gravel are dredged from the sea-bed in continental shelf waters under a special permit system.

11/ Denmark, France, Japan, New Zealand, South Africa, United States for both hard minerals and hydrocarbons; Australia, Cambodia, Canada, India, Indonesia and Thailand, for hard minerals. It may be noted, however, that several countries, including Australia, Canada, China (Taiwan) and Japan, envisage the promulgation of specific legislation for off-shore hard minerals.

Services of an administering and supervisory nature

15. Rights[12] relating to mineral resources development on the continental shelf are, in all the countries studied, negotiated and granted by an administering authority[13] which subsequently, by itself or through an associated body, exercises appropriate supervision and control over the resulting operations.

16. Of the matters which are the responsibility of the administering authority, the following are the most significant:

(a) To define the off-shore areas in which the Government wishes to promote mineral search and development;

(b) To invite tenders relating to the exploration, evaluation and/or exploitation rights over such areas;[14]

(c) To grant such rights, extend their duration when desirable and approve their transfer as may be appropriate;

(d) To provide for arbitration in cases of disagreement over matters relating to rights granted;

12/ Throughout the present study the term "right" is used regardless of its origin and may be based on general legislation, an agreement, concession, permit, licence or document of similar nature which is issued to an operator giving to the latter the right to explore, evaluate and/or exploit a specific area, for specific minerals over a specific period under previously agreed conditions.

13/ According to various countries, the "administering authority" may be a Government agency, body, department, ministry or the ruler of the country himself.

14/ The terms "exploration right", "evaluation right" and "exploitation right" are used for the three forms of rights which correspond to the three phases of mineral development. In some countries, two or three forms of rights may be granted in a single instrument. "Exploration" is the process of prospecting by reconnaissance surveys, usually geographical, geophysical, hydrological and topographical, together with certain more detailed surveys and possibly scout drilling and sampling, to determine the existence or otherwise of a mineral deposit in the area examined. "Evaluation" is the process of determining by detailed studies, sampling, drilling, testing and feasibility studies, etc., the possibilities of commercially exploiting a mineral deposit. "Exploitation" is the process and actual work of operating and producing minerals for commercial use from a mineral deposit. It may include concentration, processing, refining, separating, smelting and treating so as to produce a commercially salable element or product.

(e) To terminate, cancel or otherwise take appropriate action in respect of the rights of operators not observing the conditions and obligations contained therein.

17. Normally, the administering authority is responsible for:

(a) The maintenance of an official register of rights granted (permits, licences, concessions or mining titles), together with maps showing their location;

(b) The enforcement of the provisions of the laws relating to conduct of operations, safety of personnel and equipment, and safeguarding the interests of third parties;

(c) The maintenance of statistical records, and economic reviews of the operations, carried out under the rights granted.

Collection and diffusion of basic information

18. The manner in which systematic research and documentation is effected on matters of interest to mineral development of the continental shelves varies greatly from country to country. Only in a few cases have specialized public services been established to undertake the work of geographical, geophysical, hydrological and oceanographical surveying and mapping; the basic data resulting are usually published as official documents. More often, scientific institutions, either public or private, undertake specific research and studies which are reported in scientific periodicals available to all interested.15/

19. In addition, legal provisions relating to mineral development on the continental shelf usually include the obligation of licensed operators to communicate to the responsible national authorities basic data obtained from their operations; this information is usually confidential and not made public nor divulged without the written consent of those concerned and/or only after the expiration of an agreed number of years.

15/ See "Marine Science and Technology: Survey and Proposals" (E/4487), 24 April 1968, part II, a, 1 and 2; and annex VI.

II. OPERATING RIGHTS

20. Stipulations concerning the granting of operating rights on the continental shelf comprise a number of often closely interwoven provisions. This chapter deals with the categories of minerals covered; the types of rights granted in various phases of mineral development and the basis on which they are allocated to the operator; the size of areas to which they apply; the duration of tenure; and the provisions for relinquishment or surrender.

Minerals covered by operating rights

21. In all cases studied separate rights are granted for operations relating to hydrocarbons.

22. With respect to solid minerals, rights either cover specific minerals or all of them. The former practice, is more common. For instance, in the United Kingdom, special rights or permits are granted for the dredging of gravel. In the United States, special rights or leases are granted for mining of phosphate or manganese nodules. In Indonesia and Thailand, rights are given for off-shore tin mining. In Australia, combined exploration and evaluation rights have been granted for all solid minerals, but the few leases granted for exploitation in territorial waters are especially for minerals such as tin, rutile, zircon and ilmenite, which are included under the term "heavy mineral sands".

Types of operating rights

23. In a number of cases when operating rights are granted, two or three of the development phases are combined or associated. Although such combinations may vary greatly, including the case of complete State monopoly,[16] four types of rights are representative of the practice prevailing in a number of countries:

(a) A non-exclusive exploration right which may be followed by an exclusive right for evaluation. The latter in turn may provide a preferential option for exclusive exploitation. This is the prevailing procedure with respect to

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16/ State monopoly, as in the USSR, or a monopoly granted to an operator, as in Denmark or Chile.

hydrocarbons in, for example, Canada, the Netherlands, Nigeria, France, Italy and Morocco; and with respect to solid minerals, in France in certain instances, and in Thailand.

(b) A non-exclusive right for exploration may be followed, if desired, by an exclusive right in which evaluation and exploitation are combined. Malta, Norway, Sweden, the United Kingdom and the United States follow this practice with respect to all categories of minerals. Libya has a similar stipulation except that, in this country, exploration rights are also exclusive.

(c) An exclusive combined exploration and evaluation right with preferential option for exclusive exploitation. This process is adopted with respect to hydrocarbons in several of the world's major producing countries and also in Denmark, Malaysia, Portugal and Thailand. Malaysia and Indonesia follow the same practice with respect to solid minerals.

(d) An exclusive right in which exploration, evaluation and exploitation are combined. Such is the case in Angola, Argentina, New Zealand and the United Arab Republic with respect to hydrocarbons; and in Australia, India and New Zealand with respect to solid minerals.

24. In principle, the mechanism for assigning rights follows the norms of the country's legal system, while specific operating rights originate in individual contracts or special agreements which cover all phases of hydrocarbons development.

Allocation of rights to operators[17/]

25. Generally speaking, wide discretionary powers are given to the administering authorities for accepting or rejecting applications for operating rights.

26. In reaching their decisions, administering authorities usually take into account the work programme submitted by the applicant as well as the latter's technical capacity and financial credentials.

27. In some cases, applications are considered on a first come first served basis. In other instances, bids are invited on a proposed performance basis for some specific areas.

17/ The following considerations do not apply in countries where State monopolies exist.

28. In countries with well demonstrated off-shore petroleum and gas prospects such as the United States, the States bordering the Persian Gulf, and Indonesia, operating rights may be allocated on the basis of a bargaining process. Contracts may provide for millions of dollars as a signature bonus, subsequent cash bonuses when production reaches certain levels, and Government participation (see chapter IV). It is not unusual for side benefits, such as the undertaking of public works, the introduction of industries, the utilization of waste natural gas, the training of nationals, etc., also to be included.

Size of areas to which the rights apply

29. It is usual to define the boundaries of areas to which operating rights apply within a geodetic grid. Modern navigational methods, including the use of satellites, enable exact positioning at sea; consequently, boundaries can be accurately and readily determined without physical marking.

30. In general, rights applying to exploration cover much larger areas than those allocated for evaluation and exploitation. As already pointed out, however, operating rights are often of a combined nature; in such cases, the area may be the same for the two or three phases concerned, subject of course to any provisions regarding relinquishment or surrender rights (see below). It is impossible to speak of an average size of area which would be representative of conditions prevailing in the majority of countries. In Denmark, for instance, the operator is granted a monopoly which covers the entire country both on land and off-shore. Elsewhere, exploration rights cover areas ranging from 25 sq. km., as in Cambodia, to over 54,000 sq. km., as in Indonesia, and possibly even larger areas in other countries.

31. In major petroleum producing countries, exploitation rights normally cover the extent of the producing fields. There are exceptions, however, notably in the United States, where combined evaluation and exploitation rights are obtained by competitive bidding and the size of individual blocks is approximately 23 sq. km. In other countries, whether for hydrocarbons or for solid minerals, the average area covered by exploitation rights appears to be about 300 sq. km. It should be noted that, whatever the case, the operator may generally hold more than one evaluation and/or exploitation right.

Period of tenure

32. Most legislation provides for mineral rights of limited duration but usually includes clauses for renewal, subject to conditions laid down by the administering authorities.

33. Duration of tenure varies widely from country to country and according to the nature of the operations for which the rights have been granted, as well as whether the rights pertain to a single-phase or multi-phase operation. For these reasons, the cases reviewed below are intended to illustrate only the variety in practice presently followed in different parts of the world.

34. The usual duration of non-exclusive exploration rights is one year in Nigeria, Italy and Morocco but it may be extended on an annual basis. In Canada, duration is at the discretion of the administering authority.

35. In the case of combined exploration and evaluation rights, tenure (initial terms plus extensions) may vary from 5 years in the Bahamas to 17 years in South Africa for hydrocarbon ventures. Exceptionally, there is no limit on the life of such rights in Australia, where renewal may be obtained indefinitely subject to certain conditions. For solid minerals, the rights are valid for 4 years in India and 10 years in Indonesia.

36. Exploitation rights cover much longer periods and are usually designed to allow for the complete exploitation of the mineral deposit. For hydrocarbons a 35-year duration is the practice in Argentina and the Ivory Coast, 45 years in the Persian Gulf and Indonesia, 60 years in Libya and 63 years in New Zealand. The United States presents a special case in that the initial period for combined evaluation and exploitation is 5 years but may be extended indefinitely, subject to satisfactory drillings or continuation of production. As far as solid minerals are concerned, initial terms are determined on an individual case basis in Indonesia, but elsewhere usually range from 20 to 50 years. However, when provision for renewal exists, tenure may total 75 years (or even last indefinitely as in Australia), subject to conditions stipulated by the administering authorities.

Relinquishment and surrender

37. Provisions for relinquishment are an important feature of off-shore mineral legislation in many countries. Their effect is to reduce the size of the area

initially granted for a particular phase of off-shore development either after a certain tenure, when renewal of tenure is requested, or when rights previously obtained for a particular phase are converted into rights pertaining to a subsequent phase.

38. Relinquishments are effected in a number of different ways. Reduction of areas may range from 51 per cent to 12.5 per cent when original terms for exploration expire; further relinquishment is often required during the evaluation phase.

39. In some cases, the annual expenditure per sq. km. stipulated for the holder of exploration and/or evaluation rights increases rapidly in succeeding years and the operator may choose what part of the area should be relinquished.

40. In Indonesia, relinquishment may be postponed subject to the payment of cash compensation.

41. Usually, when an operator wishes to move from the evaluation phase to the exploitation phase, he is obliged to relinquish a substantial part of the area previously held. In some cases, the operator may retain the part which should have been relinquished, on payment of higher royalty either over the total area covered by the right up to the stipulated date or over the part that would normally have been relinquished.

42. In the United States, the holder of a combined evaluation and exploitation right or lease must relinquish all his rights if he fails to produce in a given period of time or ceases production within the first five years of his lease.

43. In some countries where the contract type of combined exploration, evaluation and exploitation right exists, there is a provision for relinquishments of up to 25 per cent every five years until the area is reduced to the size of the exploitable hydrocarbon field. Similar provisions are provided in the legislative framework of some countries, including Libya and the Netherlands, requiring that the area be reduced by some one-half or two-thirds within a decade.

44. Closely related to relinquishment is the right of the operator to voluntarily surrender parts of areas held, prior to due date. This may happen when the areas in question are less promising than had been hoped. As far as can be ascertained, there is no country which prohibits surrender provided that the conditions of the rights in question have been fulfilled to date.

45. It is noteworthy that upon relinquishment or surrender, the operator is required to submit to the administering authority the basic data obtained by him during the period he has worked in the areas concerned.

III. OPERATING OBLIGATIONS

46. By operating obligations[18] are meant those obligations imposed upon the operator in the conduct of his activities[19] during the various phases of off-shore mineral development. They may be grouped under three broad headings, namely: work performance; safety of personnel and equipment; and prevention of infringement of others' interests and damage to the marine environment.

Work performance

47. Of the commitments imposed on operators obtaining licences, a distinction is usually made between obligations agreed upon for operations prior to exploitation and those stipulated in exploitation concessions. This applies to solid minerals as well as to hydrocarbons, although obligations are less onerous in the former case.

48. Prior to the grant of an exploitation concession, the contract often requires that a specific programme of work be carried out by the operator within a certain period of time. Such a programme specifies the geological and geophysical surveys to be conducted and the drilling and completion of test wells for the purpose of assessing the prospects for production. Whether or not a precise work-plan is stipulated, a certain annual expenditure may be required and sometimes increases according to an agreed scale during successive years of the duration of the lease.

49. It is a general rule that the operator must conduct his exploitation operations in accordance with accepted methods and standards of "good oil industry practice"; develop and produce on a continuing basis any discovered field in a workmanlike manner; establish all the installations and facilities necessary for

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18/ Obligations concerning the payment of fees and taxes of various kinds are dealt with in chapter IV.

19/ It may be noted here that the technical operations relating to exploration, evaluation and exploitation are often executed by contractors on behalf of the operator. In the Government view, however, it is the licensed operator who is held responsible for the discharge of the obligations imposed by law or contract.

production, storage and transportation; and observe sound technical and engineering principles in conserving[20/] the deposits. In addition, the operator must notify the competent authority of any damage to the oilfields or installations which, under normal circumstances, may be of interest to the Government, and he must also take all reasonable measures to stop and rectify such damage.

50. Whether prior or subsequent to the grant of an exploitation concession, operators are required to submit to the competent authority, on an agreed and current basis, maps, samples, cuttings, drilling logs and other relevant data accruing from the various operations performed in accordance with the stipulations of their licences.

51. It may be added that in practically every country examined, the operator is required to set up a local office and usually establish to a local company; in other cases, a foreign company must be registered and recognized by the country that grants the licence. In a number of countries, it is mandatory that the operator be wholly or partly national or associated with national concerns.

52. Finally, in some countries, particularly in those of Africa and Asia, provisions are made for the training of nationals in the different operational aspects of the industry.

Safety of personnel and equipment

53. Most legislation and contracts concerning mineral development - both solid minerals and hydrocarbons - on the continental shelf hold the operator responsible for safety measures and insurance with respect to equipment as well as personnel employed. It may be noted in this connexion that, in a number of cases, current on-shore safety regulations have merely been extended to cover off-shore ventures.

54. Whatever the case, safety codes and regulations usually allow a certain flexibility and are normally administered in such a way that they may be applied under the conditions of the marine environment and steadily advancing technology. Inspectors supervising the enforcement of such codes and regulations have wide discretionary powers to suit changing and unforeseen circumstances.

20/ The term "conservation" is used in many ways. In this context, it essentially connotes the optimum recovery of a mineral from a deposit. It aims in particular against "highgrading" or over-rapid depletion which tends to make lower grade or more viscous minerals, both solid or fluid, unrecoverable.

Prevention of infringement of others' interests and damage to the marine environment

55. Mining operations on the continental shelf - especially production - may sometimes interfere with other activities on the sea-bed or in superjacent waters, for example, with cable communication, shipping and fishing; they may also bear upon the ecologic balance in the marine environment or bring about pollution.

56. Specific provisions relating to the prevention of harmful effects to third parties are, however, scanty. Only in some most modern instances of hydrocarbon legislation are specific requirements designed to afford protection against pollution.

57. It should be noted, however, that in every case reviewed, the countries concerned refer to the relevant stipulations of the Geneva Convention on the Continental Shelf namely paragraphs 1 and 7 of article 5 which read as follows:

> "1. The exploration of the continental shelf and the exploitation of its natural resources must not result in any unjustifiable interference with navigation, fishing or the conservation of the living resources ...".
>
> "7. The coastal State is obliged to undertake, in the safety zones, all appropriate measures for the protection of the living resources of the sea from harmful agents".21/

58. In this connexion, reference may again be made to the provision for "good oil industry practice" inserted in the legislation of many countries. From it, it may be inferred that operators are to provide for the equipment necessary to stop the flow of petroleum if a blow-out or a break in the drill pipe or pipelines should occur.

59. In general, in case of infringement of the aforementioned stipulations, the operator would be liable for the damage caused to third parties. Thus, in the recently amended Rules and Regulations governing the leases or exploitation rights granted in the United States for petroleum in the continental shelf (18 August 1969) paragraphs (a) and (b) of section 250.43 detail specific requirements to prevent pollution and action to be taken if such accidentally occurs; and

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21/ This provision seems to imply that proper measures shall be taken to prevent pollution damage.

paragraph (c) states that "the lessee's liability to third parties, other than for cleaning up the pollution in accordance with paragraph (b) of this section shall be governed by applicable law".

IV. GOVERNMENT SHARE OF THE PROCEEDS

60. Where there is no State monopoly, Government proceeds from off-shore mineral development may take the following forms: licence and concession fees, cash bonuses, rentals, royalties, profit taxes and participation in profits.

Licence and concession fees

61. Most legislation provides for a fee when rights for exploration, evaluation and exploitation (whether combined or not) are granted or renewed. This fee is mainly designed to cover administrative costs and is usually moderate.

62. For rights concerning solid minerals the levying of a moderate fee is normal. In Australia, which may be taken as a fairly representative example, the fees rarely exceed $US100 per sq. km. for exploration; however, operators applying for licences which combine exploration and evaluation rights are required to deposit up to $US5,000.

63. Moderate fees for non-exclusive exploration are also common practice where hydrocarbons potential has not been sufficiently demonstrated.

Cash bonuses

64. Cash bonuses, sometimes also called "signature bonuses", although associated with the granting of rights are by nature different from concession fees. They comprise the generally large sums of money paid when operators apply for licences in areas where development prospects are considered to be very favourable. Cash bonuses of up to many millions of United States dollars for combined evaluation and exploitation rights for hydrocarbons are not uncommon, for example in Abu Dhabi, Indonesia, Iran, Kuwait and Nigeria.[22/] In the United States where off-shore combined evaluation and exploitation rights for hydrocarbons are granted on a cash bid basis, tens or even hundreds of millions of dollars may be paid for a potential producing lease.

22/ In some cases, cash production bonuses of many million dollars are payable at regular intervals, according to a progressive scale, when cumulative or daily production reaches specified amounts.

65. As far as solid minerals are concerned, however, Indonesia appears to be the only country where a cash bonus may be required when a contract is made for the grant of a combined evaluation and exploitation right.

Rentals

66. Rentals are a form of Government taxation on an area basis. They are payable annually, and are usually moderate and designed to cover administrative costs.[23] In certain cases, however, they may rapidly increase during the latter years of evaluation and exploitation licences, to ensure that the operator is properly working the areas allocated.

67. In the case of solid minerals, rentals payable in Australia in the exploration phase are only a few dollars per sq. km. but rise to several hundred dollars per annum per sq. km. in the case of exploitation rights. In Indonesia, when contracts are made for combined exploitation, evaluation and exploration rights, annual rentals are set at a rate varying between 50 cents and $US200 per sq. km.

Royalties

68. Royalties, though different in concept, have the same effect as production taxes on off-shore minerals levied in most countries.[24] They are often assessed on the wellhead value in the case of hydrocarbons and on the minehead value of the solid mineral.

69. In a number of countries the legislation regulating hydrocarbons development contains provisions entitling the Government to take royalties in cash or in kind. The Government's right to levy royalty in kind is, however, rarely if ever exercised.[25] Usually, the operator is required to sell the amount of production which corresponds to the royalty rate at the current market price and to pay to the Government the monies thus obtained; in some instances, however, this royalty must be paid on a "posted price" basis.

23/ In a number of instances, rentals may be credited against royalty, profit taxes or government participation.

24/ In a number of cases, royalties do not appear as such, but are embodied in profit taxes or government participation (see below).

25/ One speaks then of a "dormant provision". The provision for a Government to levy royalty in kind constitutes a guaranty against selling practices which would be detrimental to its interest.

70. The average rate of royalty for hydrocarbons production is about 12 per cent but there are many variations. For instance, in Abu Dhabi, Libya and Kuwait, it is 12 1/2 per cent of the posted price, while in Nigeria the rate varies between 10 per cent and 8 per cent depending on the distance from the coast. In France, it varies from 5 per cent to 14 per cent depending on the rate of production, the distance from refining facilities and whether gas or oil is produced. In New Zealand, royalty is specified in each individual case but may not be less than 5 per cent, a percentage which has actually been used in a number of licences already issued.

71. In the case of solid minerals, royalties are always payable in cash and there is a much larger variation. In some instances, they are payable on an ad valorem or flate rate per ton, or percentage of profit basis. For instance, in Australia the royalty on heavy mineral sands (rutile, zircon and ilmenite) is set at rates varying from 4 cents to $US2.00 per ton, while in other cases the royalty is set as a percentage, in some instances up to 25 per cent of the profits. calculated in accordance with a predetermined method. In Thailand, the royalty also varies with the type of mineral produced and the current market price of the product, up to a maximum of approximately 20 per cent. In Indonesia, the royalty rate varies with each individual contract when exploitation rights are granted.

Taxes on profits

72. Except in the case of direct Government sharing or participation in the profits of undertakings, operators are usually subject to taxes on profits accruing from their production. Such taxes either conform to the ordinary practice of company taxation or are especially stipulated. There is, however, great variety in the manner profit taxes are levied, some being often designed to encourage further mineral search and development ventures.

73. Special taxation abatement (discount, rebate) and/or depletion allowances are often provided for. For hydrocarbons for instance, depletion allowances may reach 27.5 per cent in France and in the United States. In the United Kingdom the operator is subject to the usual company tax but there are various allowances for capital expenditures that may be deducted when taxes are established. In some cases, taxation is not imposed until exploration and further development expenditures have been recouped.

74. Production from new solid mineral ventures is sometimes free from profit taxes for a given period as an incentive for operators to develop new resources.

Participation in profits

75. While the fees, taxes and royalties reviewed above are of a fiscal nature, Government participation connotes a direct sharing in the profits accruing from production. Contracts which include Government participation are usually confined to hydrocarbons ventures and are negotiated between operators and large producing and exporting countries, often through the agency of a State corporation.

76. Fiscal provisions vary greatly from one country to another, reflecting the economic and fiscal policy adopted by the Government, the extent of knowledge about the mineral potential of the area, the degree of risk to the investor, conditions of access and problems of logistics. Because of this multitude of factors involved, there is hardly any uniformity in practice except for some general features that can be detected in the classification above.

TABULATION

OF

MAIN COMMON FEATURES IN NATIONAL OFF-SHORE MINERAL LEGISLATION
