INDEPENDENT STATE OF PAPUA NEW GUINEA

A GREEN PAPER ON OFFSHORE MINING POLICY

(REVISED at the Madang Workshop, February 1999)

DEPARTMENT OF MINERAL RESOURCES
PRIVATE MAIL BAG
PORT MORESBY POST OFFICE
NATIONAL CAPITAL DISTRICT
FACSIMILE: (675) 321 3701

A: INTRODUCTION

1. The present *Mining Act 1992* is the principal policy and regulatory document governing the regulation and management of the mining industry in Papua New Guinea. However, this legislation is heavily biased towards onshore exploration and exploitation of mineral resources. As to the offshore, the legislation seems to extend only to the outer edge of PNG's territorial sea. In this sense there is a policy and regulatory vacuum so far as exploration and exploitation of mineral resources in the offshore is concerned.

2. It is the intention of government to develop a policy for the promotion of exploration and exploitation of offshore mineral resources

3. Therefore, there is a need for the development of a comprehensive offshore mining policy. This policy is also intended to accommodate relevant interests of varying stakeholders in the offshore.

B: CONSULTATION

4. Offshore mineral exploration and mining are relatively new areas of interest. There are numerous stakeholders with varying interests that ought to be recognised and accommodated where feasible. As there are different government agencies responsible for managing such stakeholder interests and issues it was essential that a team approach be taken on the development of a comprehensive and workable offshore mining policy.

5. An inter-agency committee was initiated by the Department of Mineral Resources in March 1998 to recommend an offshore mining policy frame for consideration and approval by the government. Prior to this approval, it is anticipated that a green paper would be ready for circulation to relevant agencies and industry participants for their input before the policy is finalised and submitted for approval as a white paper.

6. Membership of the committee comprises representatives from relevant government agencies such as the Departments of, Prime Minister & National Executive Council, Attorney General, Foreign Affairs, Provincial Affairs, Treasury & Corporate Affairs, Petroleum & Energy, and Transport. Statutory bodies and others include National Fisheries Authority, PNG Harbours Board, Office of National Planning & Implementation, Office of Environment & Conservation, Internal Revenue Commission and University of Papua New Guinea Law Faculty.

7. Apart from the many meetings the committee had, it also convened an Internal Workshop on Seabed Mining from August 31- 02 September 1998 in Port Moresby. A few Provincial Administrations were invited to participate at this workshop but none actually attended the workshop. The intention of the workshop was to develop this draft policy on offshore mining that would be circulated to both the government agencies and the mining industry for their inputs or comments. The "green paper" was also reviewed by independent experts.

8. Subsequently, during the period February 22-26, 1999 an international workshop, sponsored by SOPAC, MMAJ, the Forum Secretariat and the Department of Mining of Papua New Guinea, was held in Madang, Papua New Guinea. This workshop reviewed the draft "green paper" prepared by the government and, as a result of deliberations, prepared an expanded and revised "green paper".

C: ISSUES AND PERSPECTIVES

9. The mining sector is an important contributor to the national economy. At present all mining activities are undertaken onshore. There are a number of large mines and several medium and small-scale mines. At least three major prospects are in their advanced stages for development.

10. PNG has an even larger offshore area. The Offshore Seas Proclamation under the National Seas Act 1977 establishes an interim baseline for determining the outer limits of the territorial sea, exclusive economic zone, and the continental shelf. The final outer limits of its national jurisdiction is yet to be delimited in accordance with the relevant provisions of the *United Nations Convention on the Law of the Sea 1982*. Nevertheless, PNG is an archipelagic State that has a very large ocean space including the seabed underlying such ocean space within its national jurisdiction. As a result, mineral occurrences in the seabed may even exceed those found onshore. These resources must be found and developed so that their economic potential can be unleashed for the collective benefit of all citizens and in a manner that safeguards the environment for the enjoyment by future generations.

D: OFFSHORE RESOURCES

11. The developed and potential mineral deposits of the offshore are:

    1. Diverse, including sand, gravel, diamonds, black sands, oil, gas, gas hydrates, manganese nodules, manganese crusts and polymetallic massive sulfides;
    2. are poorly explored and
    3. have a wide range of associated issues which impact on their development including:
        - inadequate governing policy and legislation
        - a need for new and improved technology for exploitation
        - a lack of assured economic potential
        - numerous environmental impacts
        - and other, as yet unquantified, stakeholder interests

12. Within the broader subset of offshore mineral resources the deep ocean manganese nodules are by far the most studied by researchers and the private sector while the polymetallic massive sulfides, which occur within several nation's Exclusive Economic Zone (EEZ), are rapidly assuming equal importance in terms of research and private sector interest. Polymetallic massive sulfides are characterized by being:

        1. Widely distributed
        2. Highly variable in mode of occurrence and in mineralogy

3. Often high in copper, zinc, gold and silver content
4. Often high in deleterious metals such as cadmium, thallium, lead and arsenic.

13. Overall, it is the high gold content of the polymetallic massive sulfides which has made them the focus of recent research and to the private sector as possible economic mineral deposits.

14. Past and recent studies have shown that both the manganese nodules of the deep ocean and the polymetallic massive sulfides of intermediate depth have associated with them a relatively diverse biota which is of primary concern in terms of areas of environmental impact. The environmental impact of manganese nodule mining has been reasonably well evaluated, most recently in the work of the Japanese, whereas, that of possible exploitation of polymetallic sulfide deposits is largely unknown. As such assessing the environmental impact of possible mining on the associated biota of polymetallic massive sulfides remains an area requiring extensive research.

15. The present interest in PNG is in Polly metallic sulphides is exemplified by the two exploration licences that were issued by the government in November 1997. Literature review and recent studies reveal substantial hydrocarbon and mineral deposit in the offshore region all found within PNG territorial waters that may be commercially extracted

16. Aggressive research within the Bismarck Sea lead to the discovery of PACMANUS Hydrothermal fields. Base and precious metal massive sulphide deposit in the Manus and New Ireland Basins are at relatively shallow depth. For instance manganese nodules occur in water depths of between 4 000 – 6 000 metres. Current available information shows that the grades of minerals contained in the seafloor massive sulphide deposit are comparatively high. For instance, the samples analyzed show an average of 26% zinc, 10% copper, 200g of silver per tonne, and 15g of gold.

17. Some of the offshore resources may be located on or under the seabed underlying shallow waters whilst others may be in deep waters. The type of technology available, the cost of acquiring them, and mining methods employed may be similar or different to those employed onshore. Certainly, different oceanographic and environmental conditions in the offshore provide challenges for the development and adaptation of technically feasible and environmentally acceptable exploration and mining technology and techniques. Relevant licensing regime, fiscal terms, environmental regulation and so forth would be devised to take account of the similarities or differences as the case may be.

18. It is recognised that the biodiversity and genetic resources associated with certain areas of marine minerals may have significant economic value. Therefore, means must be sought to ensure that the state receives adequate compensation from any utilisation of these resources.

19. Whilst the policy is aimed at encouraging exploration and exploitation of minerals in the offshore, the State will also ensure that it also benefits from the exploitation of these resources. And the State will also ensure that environmental damage to the marine ecosystems is minimised. Of course the risk taker (project developer) will be allowed appropriate return on investment commensurate with the risks taken.

E: OFFSHORE LEGAL REGIME

20. Under the 1982 Convention (UNCLOS), every coastal State is entitled to claim a 200 nautical mile continental shelf, regardless of its geographical configuration. The coastal State has sovereign rights over the continental shelf for the purpose of exploiting the non-living resources, including minerals. Coastal States may charge fees, royalties and taxes at their discretion and there is no obligation to allow any other State to make use of the non-living resources.

21. A coastal state may extend its continental shelf beyond 200 nautical miles in certain circumstances depending on the geomorphological configuration of the continental shelf. Claims for such extension must be submitted to the Commission for the Limits of the Continental Shelf within 10 years of the entry into force of the Convention for that state. In the case of the continental shelf beyond the 200 nautical mile limit, Article 82 of the Convention contains provisions for the sharing of revenues through the International Seabed Authority.

22. In Papua New Guinea the Mining Act of 1992 applies to internal waters, archipelagic waters and the territorial sea, however, within the Exclusive Economic Zone (EEZ) and continental shelf, additional legislation will be required to give effect to the sovereign rights provided for under the convention.

E.1 Constitutional Mandate

23. The *Constitution* of PNG is the source law or grundnorm. It not only provides for the system of government but also it sets out the development vision for the country. Whilst the constitution recognises the importance of developing its natural resources for the collective benefit of all citizens, it also obligates the State to ensure that its natural environment is protected for the benefit of future generations.

E.2 UNCLOS and its Implications

24. The UNCLOS is an important international law instrument governing all ocean uses and Papua New Guinea having ratified the Convention should ensure that it complies as required by way of domestic legislation.

E.3 Ownership of Mineral Resources

25. Under the Mining Act 1992 the State owns all mineral resources in, on or under any land in PNG. Under the Mining Act of 1992 the State's ownership rights to mineral resources in any land in PNG also extend to such minerals in or on the seabed under the archipelagic waters and territorial sea (territorial sea in this context is used in the wider context but excludes the Exclusive Economic Zone and the Continental Shelf).

26. The application of the Mining Act 1992 may only extend to the edge of the territorial sea. However, the State of PNG has the right to regulate any mineral exploration and mining activities in the legal continental shelf pursuant to the United Nations Convention on the Law of Sea 1982.

F: LICENCES AND LICENSING

27. The current licences and licensing regime under the Mining Act 1992 comprise Exploration Licence, Special Mining Lease, Mining Lease, Alluvial Mining Lease, Mining Easement and Lease for Mining purposes. Requirements for application include boundary description, work proposal/ programme, evidence of technical expertise, evidence of financial resources, and fees. For the offshore, licensing regime will be modified to take account of different oceanographic and environmental conditions.

28. Based on the application of known terrestrial licensing procedures and their effectiveness, it is proposed that there be 5 different types of tenements to be issued for offshore mining. These are: Prospector Licence, Exploration Licence, Mining Lease, Lease for Mining Purpose (LMP) and Mining Easement. In addition, it is proposed that a prospectors right licence be granted under special circumstances of offshore mining:

F.1 Prospector's Right

29. In addition to the above, the state may issue a Prospector's Right, which allows a prospector to enter areas for prospecting purposes that are not covered by either an Exploration Licence, Mining Lease, Lease for Mining Purpose or Mining Easement, and to proceed in identifying such areas for the application of an Exploration Licence. A key justification of the use of Prospector's Rights is with regards to Marine Scientific Researchers working in prospective areas that have been identified by mineral exploration/development companies, or when such researchers form a strategic alliance with mineral exploration and/or development companies. The Prospector's right then allows the state to demarcate MSR activities from prospecting/exploration activities and who should perform them under licence. Marine scientific researchers who have a strategic alliance with private companies may be required to obtain a prospectors right to carry out their activities. Those under subcontract to companies will be covered under the contractors licence.

30. The duration of a prospectors licence shall be for a period of three years and shall be renewable for 3 years.

F.1: Exploration Licence

31. Exploration licence will be granted by the Minister responsible for mineral resources will be for five years initially. In the terrestrial environment, the area covered is not more than 750 sub-blocks and is subject to acreage reduction upon renewal or extension.

32. Exploration licences for the offshore will cover a maximum area of 1,000 sub-blocks, which equates to 3410 square kilometres, with a renewal period of 5 years. The term may be extended in additional tranches of five years each thus according the licencee a good number of years to undertake mineral exploration. The Minister may place additional conditions which relate to safeguarding national interest, the environment and other relevant issues under the UNCLOS.

33. Twenty percent (20%) of the area covered by the licence will be automatically relinquished on the anniversary of each renewal. The licencee may request a waiver to the reduction in size based on relevant information.

34. A key requirement of an Exploration Licencee is to ensure that it carries out its agreed or approved work programme. This entails a clear demonstration by the applicant of technical skills and financial resources available to effectively undertake exploration in accordance with the approved work programme. For offshore exploration licence, such information may include demonstration of available vessel to carry out exploration or the financial ability available to hire such services and so forth.

35. At this juncture it is essential to note that some of the conventional exploration methods employed onshore may not be applicable in the offshore. As a result, it is necessary to define exploration in the offshore to include some aspects of the marine scientific research where applicable and only if related to the fulfillment of approved work obligations under the Exploration Licence. In particular seabed survey could be categorised as exploration if undertaken by the Exploration Licencee.

F.3: Pilot Mining Test

36. The licensing procedure recognises that Pilot or Trial mining is an important element in the development of offshore minerals: given the unknown factors involved and the impact of rapid technological changes. Thus, with special permitting requirements under the Exploration Licence, a company may apply to undertake Trial or Pilot Mining. Trial or Pilot Mining approvals may be granted, dependent on the type of mineral deposit to be mined, the technology to be used, and the sensitivity of the marine environment concerned, when deemed necessary to allow the company to firm up a viable and full scale mining project. In this regard, the state may grant several Trial or Pilot Mining approvals prior to the granting of a Mining Lease. The other added advantage is that regulators can regulate on pertinent issues that have been highlighted during the Pilot or Trial mining stage.

37. A Pilot Mining Test may be undertaken by an EL holder upon approval by the State prior to actual mining phase and will be effected through variation of approved work programme for the exploration phase.

F.4: Offshore Mining Lease

38. In the offshore there will be only one production licence for all mineral resources known as the Offshore Mining Lease.

39. Development contracts will be negotiated and will distinguish resources to be mined, mining technology and methods to be used, period such a licence is granted for, methods to be employed to decommission property and rehabilitate the sites and how costs for same will be met etc.

40. Further or alternatively regulations may be made for specific resources to be mined taking into account all relevant issues and stakeholder interests under the UNCLOS. Any variations to the approved proposals for development will be considered on a case by case basis.

F.5: Lease for Mining Purposes

41. At the mining phase the project proponent may require other areas to install facilities. These facilities may be onshore or offshore. In such situations the project proponent may apply for leases for mining purposes for such period as is required. In appropriate cases compensation will be payable to owners or occupiers of land that would be taken up for such purposes.

F.6 Mining Easement

42. Since offshore mining may entail the use of structures above or below the water line such as pipes and other similar devices, or even special access ways, this provides justification for the use of easements in conjunction with the Mining Lease.
43. Activities undertaken under a mining easement will be coordinated with other responsible agencies and undertaken with regard to other government instruments such as notification of routes and issues related to marine safety.

G: OFFSHORE FISCAL REGIME

44. A basket of fiscal measures will comprise the offshore fiscal regime. Some measures will have limited application whilst others may be generic. In the final analysis the appropriate mix will be dependent on *inter alia* cost of exploration and mining in the offshore. And this cost will in turn be functions of available mining technology and method of mining employed in the offshore.

45. As a general principle the fiscal package attempts to be flexible, simple, transparent and applicable to the issues involved in offshore mining. It is accepted that certain unique aspects of deep ocean resources warrant a deviation from the onshore fiscal package. These include the anticipated long period of time required for exploration and technology development, the unique environment under which mining takes place, high risks associated with a pioneering endeavor and the uncertainty surrounding the economic viability of deposits. With this in mind flexibility may mean that overall lower front end rates with respect to royalty and income tax may be balanced by an Additional Profits Tax that comes into place at a lower profit threshold rate than onshore.

G.1: Mineral Royalty

46. The state owns all minerals within its territorial waters and will charge a royalty as an economic rent for the exploitation of these resources. Due to the complexity and unknown costs and benefits to the exploiter of an offshore resource the state may consider a reduced royalty figure, less than the 2% Ad Valorem rate charged onshore.

G.2: Mining Income Tax

47. The current rate of income tax may apply although due to the high risks involved in offshore mining the government may grant concessions that would initially reduce the amount of income tax paid. A key consideration here is the use of the fiscal tool to encourage mineral exploration and exploitation in the offshore. Amortisation and depreciation provisions under the *Income Tax Act 1959* as amended may be reviewed on needs basis to accommodate any potential or actual difficulties encountered by the taxpayer.

G.3: Dividends Withholding Tax

48. Currently, dividend withholding tax is payable by foreign shareholders in mining companies operating in PNG. However, in order to encourage foreign investment, dividends withholding tax if applicable may be removed. If there are double taxation treaties with relevant countries their provisions will be given effect with view to maximising the nation's tax position.

G.4: Duties

49. If it is found that import and export duties contradict the stipulations of the WTO for member countries, in terms of the liberalisation of trade and the removal of barriers, they may be removed where possible.

G.5: Additional Profits Tax

50. The fiscal package reduces the tax burden at the front end of a mining project as a response to the risks involved in offshore mining. However, an Additional Profits Tax will be introduced at a lower threshold rate than onshore to capture the windfall gains should the deposit mined result in bonanza profit.

G.6: Equity Participation

51. The current State equity participation policy is that the State has an option to take up 30% at cost in a major mining project. This excludes mineral projects undertaken under Mining Leases and other tenements. As a result, the State has taken up interest in all projects that are developed pursuant to Special Mining Leases except Mt Kare. The State may continue to retain this option for mineral resource project development in the offshore irrespective of the size of the project.

52. It is recognized that the private sector regards such participation as a disincentive and an indirect tax on a venture. A particular concern with respect to offshore mining is that in this high risk environment the State does not bear a proportional share of the risk.

53. In the offshore areas beyond 3 nautical miles from the coastline, the current state equity policy with respect to landholder participation will not apply as the offshore waters are a national heritage and benefits should derive to the State.

G.7 Other Taxes

54. The mining levy and interest withholding tax provisions recently implemented should not apply to offshore mineral resource developments.

H: OFFSHORE ENVIRONMENTAL REGIME

55. Mining projects including offshore mineral resource developments will have environment impacts that are physically unavoidable. In addition, the offshore areas do contain living organisms unique to the marine environments that may be of industrial and medicinal significance. Consequently, proponents of such ventures will need to obtain and show evidence of necessary environmental approvals prior to granting of exploration or mining tenements. Furthermore, mineral exploration and mining companies will be required to undertake their activities consistent with the requirements of the environment related laws and regulations operating in PNG.

56. Environmental impacts will need to be assessed within the context of complete industrial systems and should consider the implication of the proposed activities as well as the activities themselves. In general, exploration licence holders (licencees) should be fully committed to environmental protection and clearly accountable for their activities related to the development of their licence and to any significant pollution caused by their activities.

57. Cost/benefit considerations should include environmental costs for every major development decision, including actions related to mine-site rehabilitation and facility decommissioning. Licencees should maintain adequate environmental and quality management systems to ensure compliance with environmental requirements. Because of the unprecedented nature of the deep seabed mining activities contemplated, the State will adopt a precautionary approach in all significant decision-making activities.

58. There should be an early and open process, including public hearings, information exchanges, and fact-finding efforts, to identify the environmental impact issues of concern. Priority ranking for impact assessment efforts should be related directly to the relative importance of the issues raised and to the time frame within which the issues must be addressed to accommodate the decision-making schedule.

59. Licencees should be prepared to collect relevant baseline data during their exploration activities. These data will be necessary to address identified and likely impact issues related to commercial mining. For any particular exploration area, the level of effort for such collection activities should be approximately proportional to the level of effort of the exploration activities in the area. At the conclusion of the exploration phase these collection activities should be sufficient to support the completion of an adequate environmental assessment for commercial mining.

60. Testing of pilot mining systems will be allowed under the permitted activities of the exploration licence. Prior to such testing activities, the licencee will submit to the State an environmental assessment report for the planned activities and monitoring plan designed to obtain data to facilitate completion of an environmental assessment for commercial mining. Testing will be permitted only after the State has accepted as adequate the assessment report and monitoring plan.

61. The activities associated with the marine mineral resource exploration and exploitation should be undertaken within the context of broader Coastal Zone Management and Ocean Policy activities of the government; in particular, with respect to such issues as fisheries and coastal zone stakeholders.

I: BENEFITS DISTRIBUTION MECHANISMS

62. Benefits distribution is important in the light of PNG enacting the new provincial and local governments reform law and the ratification of the UNCLOS. Under the former the State is not only required to consult with affected provinces and local communities but also it is required to share some of the benefits derived from mineral projects. As to the latter, the International Seabed Authority established under the UNCLOS it will be entitled to share with a coastal state revenues derived from resource exploitation within the additional continental shelf area i.e., additional 150 nautical miles from the usual 200 nautical miles limit.

63. This responsibility is specific to the 3 nautical mile zone from the coast line and responsive to the provisions of the organic act.

I.1: Provinces and Local Communities

64. Where mining takes place within the territorial sea including the archipelagic waters, appropriate benefits packages will be designed to assist relevant provinces and local coastal or island communities. In general, the packages will reflect impact of mining activities. In the case of local coastal or island communities, benefits to be derived by them will be dependent on mining being undertaken on seabed underlying traditional fishing "grounds" or other recognised activity within those areas.

65. Benefits derived from exploitation of minerals on or under land underlying exclusive economic zone and the continental shelf should be reserved to the State for the collective benefit of all its citizens.

I.2: International Seabed Authority

66. As noted above International Seabed Authority has exclusive jurisdiction to regulate the exploration and mining of minerals in the area outside the national jurisdiction of a coastal state. However, the international community, through the ISA, also has the right to benefit from revenues derived from minerals exploited within the area beyond the exclusive economic zone but that is within the maximum legal continental shelf.

J: OTHER ISSUES (MISCELLANEOUS)

J.1: Technology/ Technology Transfer

67. Offshore mineral exploration and mining is relatively new compared to fisheries and petroleum exploration and development. New technologies as well as innovations to existing technology would be required to explore and develop mineral resources on or under the seabed.

68. The State will encourage mineral companies, which demonstrate the best available technology with a willingness to transfer it to PNG. Such technology must have been tested and proven to withstand some of the unique oceanographic and marine environmental conditions. In other words such technology ought to be technically feasible and environmentally friendly.

J.2: Onshore Sourcing

69. Offshore mineral activities would be undertaken away from the shores. Specialised equipment and infrastructure may enable companies to undertake these activities without the need to visit ports. However, in principle, the State will encourage developments that demonstrate the willingness to source materials and other necessities from a PNG port.

J.3: Decommissioning and Rehabilitation

70. Under the UNCLOS, offshore structures are to be removed completely though there is provision for partial removal in certain cases. The State will encourage companies to submit a decommissioning and rehabilitation plan at an early stage preferably together with the development proposals. As a general rule investors in mineral exploration and development projects will be responsible and liable for decommissioning and rehabilitation. A time frame for purposes of residual liability of companies may be agreed to with the State on a case by case basis. In addition, fiscal relief for decommissioning costs may be considered by the State as an incentive for companies that plan and implement a decommissioning and rehabilitation programme. Further or alternatively regulation may be drawn up to obligate proponents of the project to establish and maintain a mine decommissioning and rehabilitation fund.

J.4: Marine Scientific Research

71. Marine Scientific Research (MSR) is a key component of the development of offshore minerals, and this has also been recognised under the stipulations of UNCLOS (Articles 246-257). This is also based on the fact that terrestrial licensing procedures do not deal with this issue in a way that is cognisant of MSR's impact on offshore licensing procedures, and especially with regards to exclusive rights of access to these offshore mineral occurrences.

72. Marine Scientific Research (MSR) is an important component of maritime activities. Under Part XIII of the Convention coastal States are obliged to allow other States and international organizations to conduct marine scientific research (MSR) in the EEZ and continental shelf under reasonable terms and conditions. The coastal state may withhold consent to MSR where the project is of direct significance to exploration for or exploitation of natural resources. Within its internal waters, archipelagic waters and territorial sea, the State has absolute discretion over the conduct of MSR. The State may impose such conditions on MSR as it sees fit, including provisions relating to the disclosure and publication of data.

73. The country should be mindful of the needs of a tenement holder under the *Mining Act* or such other legislation that may be developed to regulate offshore mineral exploration and development.

74. The State will require all information derived from MSR within its sovereignty and maritime jurisdiction be provided by the MSR group. This data or information received after the granting of exploration licence may be made available to the EL holder upon payment of appropriate fees to the State as owner of such data and information.

J.5: Other Stakeholder Interests

75. Offshore mining may also affect other stakeholders in the offshore. Major stakeholders in the offshore include the coastal subsistent, artisinal and commercial/industrial fisheries as well as navigators, the tourist industry and so on. Any exploration or mining activity that is proposed or undertaken in the offshore ought to take account of these stakeholder interests. Where necessary appropriate compensation may be paid to these stakeholders who may not be able to have access to the previously accessible offshore areas.

J.6: Dispute Settlement Mechanisms

76. Any dispute regarding offshore activity may be referred to arbitration. In respect of activity within PNG's territorial sea such dispute shall be dealt with under the *Arbitration Act*. However, the State and holder of a mineral exploration/exploitation licence or other relevant tenement may agree on a dispute settlement mechanism that is independent of the *Arbitration Act*.

77. Should the State or the International Seabed Authority dispute any aspect of the offshore activity where their respective interests are affected such dispute may be referred to the dispute settlement mechanism established under the UNCLOS.

I: CONCLUSION

78. The Government of Papua New Guinea recognises that there is a tremendous potential for the development of its offshore mineral resources. The development of these resources will require the reconciliation of key policy issues within a dynamic framework that requires the collaboration of all stakeholders. The policy being developed has attempted to be as flexible as possible, given the unique characteristics of offshore mineral exploration and development and the relative unknown factors involved. Given time, and with the collaboration of all stakeholders, it is envisaged that this document will develop into a succinct and pragmatic policy document for the optimal development of PNG's offshore mineral resources.

79. This Policy document recognises the conventions of UNCLOS with regards to the development of a legislative framework for the development of its offshore minerals, and also the key aspects of offshore mineral exploration and development. These include the impact of technological progress and technology transfer; the possible impact of offshore mining on the nation's fishing industry; the possible impacts of offshore mining to the community and the environment; the impact of Marine Scientific Research in offshore mining; and its impact on the biota that exist on the seafloor around mineralised areas.

80. It is the belief of the PNG Government that this document demonstrates the need for comprehensive and integrated legislation that is specific to the responsible management and development of offshore mineral resources. These objective would appear to be best met by the development of an Offshore Mining Law under which these resources can be explored and exploited for the benefit of the peoples of Papua New Guinea.