

TOWARDS THE DEVELOPMENT OF A NATIONAL REGULATORY FRAMEWORK FOR DEEP SEA MINING IN THE COOK ISLANDS



Paul E. Lynch. October 2011

Cover photo- Minister of Minerals and Natural Resources The Hon. Tom Marsters handing a kete of nodules to his grandson, Tumupu	
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RESEARCH PAPER

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ABSTRACT

This Research paper sets out the Cook Islands perspective on the challenges the Cook Islands has encountered, since the 1970's, in-

- developing the rules of engagement for Deep Sea Mining (DSM) within its Exclusive Economic Zone (EEZ), relating to the passing and future implementation of the 157 page *Cook Islands Seabed Mining Act 2009*,
- the development of national regulatory, institutional and legal frameworks and mechanisms, which effectively balance the national interest with the interests of all stakeholders and potential resource developers.

PERSPECTIVE AND CONTEXT

It will be important for the reader, in trying to understand the path the Cook Islands people have taken on the DSM issue, to seek to understand and accept the distinctive Cook Islands historic, cultural context and perspective or “way of doing things”, known as *Peu Maori*. This is context is the foundation to the unique way in which the DSM regulatory framework of the Cook Islands has developed. This is the author’s prevailing perspective that is *te tutau*² or the anchor for this Research Paper, from which he will then seek to inform the reader on the development of the Cook Islands DSM regulatory regime.

PERMISSION ACKNOWLEDGEMENT

The author acknowledges the assistance he has received to undertake the work required for this Research Paper from the Government of the people of the Cook Islands, on whose behalf this Research Paper was written, and in whom the value of this Research Paper intrinsically belongs.

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² Te reo maori for “anchor”

INTRODUCTION

“*Moana Nui O Kiva i te Rangi Nui O Kiva*”

This is an ancient Cook Islands Maori statement expressing that our home is here between the ocean and the skies and the belief that everything there belongs to us, *te tangata*, the people.³

ANCIENT HISTORY AND OCEAN RIGHTS

The 15 islands of the Cook Islands have been occupied by its native maori people since the great Pacific migrations in large voyaging canoes or *Vaka Moana*, which took place from the Polynesian homeland of *Avaiki*⁴, possibly since 500-600AD. The deep and wide waters connecting these islands have always been used as highways and for the resources they contain. Our people developed a distinct Polynesian perspective, language, lifestyle and culture.

Accordingly, our Cook Islands Maori tradition and culture informs us that we are people of the sea. Our home is the wide South Pacific Ocean and is named respectfully “*Moana Nui O Kiva*”. Our alternative world-view is that we, in our islands, are not separated, but connected by the ocean. Everything in the seas was for the wise use of the brave people of the islands, in communion with nature, paying respect to the paramount spiritual authority of the time, named *Tangaroa*. He was a supreme power controlling all the affairs of mankind in the ocean.

At village and tribal level, people enjoyed shared rights of wise use of the seas which were only permitted to be exercised under and through the *mana*, or authority, of leaders in our traditional, hierarchical system of communal government that existed then⁵. There was no sense of national control as each widely separated island exercised complete dominion over its own discrete geographical jurisdiction. These shared rights of “wise use” of our ocean resources were and remain the birthright of all the people of the islands now called the Cook Islands.

This “wise use” of ocean resources is also reflected in the Cook Islands Maori principle known as “*oonu*”. This is the life force of deep, hidden things of value like the precious natural resources found in the marine environment. This includes whales, turtles, fish, shellfish and importantly it can extend to black pearls grown in the northern Cook Islands and seabed mineral resources located in the Cook Islands EEZ.⁶

RECENT HISTORY AND OCEAN RIGHTS

In 1901, these islands became a nation by an Act of the New Zealand colonial government and all control and rights to the Cook Islands and its resources became

³ From Michael Tavioni, Tumu Korero, Cook Islands cultural historian, leader and master carver

⁴ *Avaiki* is the spiritual homeland for Polynesian people, considered as both an origin and a destination.

⁵ Paramount chiefs are known as Ariki, then Mataiapo, Rangatira, Kavana etc.

⁶ Adapted from Tupe, 1999, cited in Binney, 2001a, p.158 and interpreted by Marjorie Crocombe.

vested, by consent from our traditional leaders on most islands, in the New Zealand Government, under the control of its Resident Agent. Chiefly influence and control over national resources, including in the ocean, became increasingly curtailed.

In 1965, these rights over resources were officially bestowed back to the people of the Cook Islands through its new democratic government, upon following the successful struggle to gain self-government and political independence. The national government, through Parliament, now exercises all control over ocean matters in the Cook Islands for the benefit and development of the people of the Cook Islands. The first Premier of the Cook Islands in the 1960's, Albert Henry, is known to have said when talking about national development issues "*Auraka tetai tangata i runga i te vaka kia akarukena 'ia*", that "*no one in the tribe must be left behind*". That collectivist concept and outlook continues to motivate national leaders and people today.

NATIONAL RIGHTS TO THE DEEP SEA

The Cook Islands government exercises sovereignty and jurisdiction over its EEZ according to international law and convention as a member state under UNCLOS⁷. This allows government to exercise full control over resources in its EEZ, including minerals on the seabed.

It is now a settled principle of international law⁸ that mineral resources in the high seas, being beyond the maritime jurisdiction of a states' EEZ, are the common heritage of mankind. Conversely according to international law, Article 153 of UNCLOSⁱ, within national jurisdictions, coastal states enjoy sovereign rights to the seabed and can explore, exploit, conserve and manage resources therein. They may then be called its own "national heritage". The Cook Islands governments have asserted, claimed and exercised those sovereign and jurisdictional rights to its national territory and its resources within.

This has led to the passing of the Seabed Minerals Act 2009⁹ in which the Cook Islands exercised its control over DSM resourcesⁱⁱ in its EEZ, in Section 5.

- 5. Ownership of Minerals - (1) All rights to the Seabed of the Cook Islands and its mineral resources are hereby vested in the Crown to be managed on behalf of the people of the Cook Islands.**
- (2) The regulation and management of the minerals of the Seabed of the Cook Islands shall be exercised in accordance with the provisions of this Act.**

Since the 1970's, numerous international exploratory deep sea mining surveys have taken place in the high seas and EEZ of nations in the vast ocean of the South Pacific. These surveys have determined the location of three principal types of DSM resources in the

⁷ United Nations Convention on Law of the Sea 1982

⁸ 1994 Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea

⁹ Section 5.

deep sea of the EEZ of many South Pacific nations, being Cobalt Rich Crusts (CRC), Seafloor Massive Sulphides (SMS) and Manganese Nodules.

A BRIEF HISTORY OF DSM IN THE COOK ISLANDS

Numerous surveys undertaken in the large Cook Islands maritime zone have identified a substantial DSM resource of mineral rich, Manganese nodules. The Cook Islands has a potentially significant natural resource in manganese nodules located on the ocean floor within its EEZ.

In a 1995 East-West Center economic feasibility study, 652,000 km² of the Cook Islands EEZ, where nodule abundances are greater than 5 kg/m², were estimated to contain 7,474,000,000 tons of nodules. These nodules were estimated to contain 32,541,000 tons of cobalt, 24,422,000 tons of nickel and 14,057,000 tons of copper. This DSM resource was assessed to be valued at \$US146 billion. In addition, there is the prospect of rare earth minerals being located in the mud on the seabed floor¹⁰.

A 1996 study by a US corporation named Bectal found DSM could be a profitable enterprise in the Cook Islands at a cobalt price of \$US25 per pound.

In 1998, an informative report by Stuart Kingan¹¹, a scientist resident in the Cook Islands, was prepared for the government, with the hope of attracting foreign investment in DSM exploration and mining. Since then, the progress of the developmental process in DSM in the Cook Islands has continued, but with varying degrees of activity.

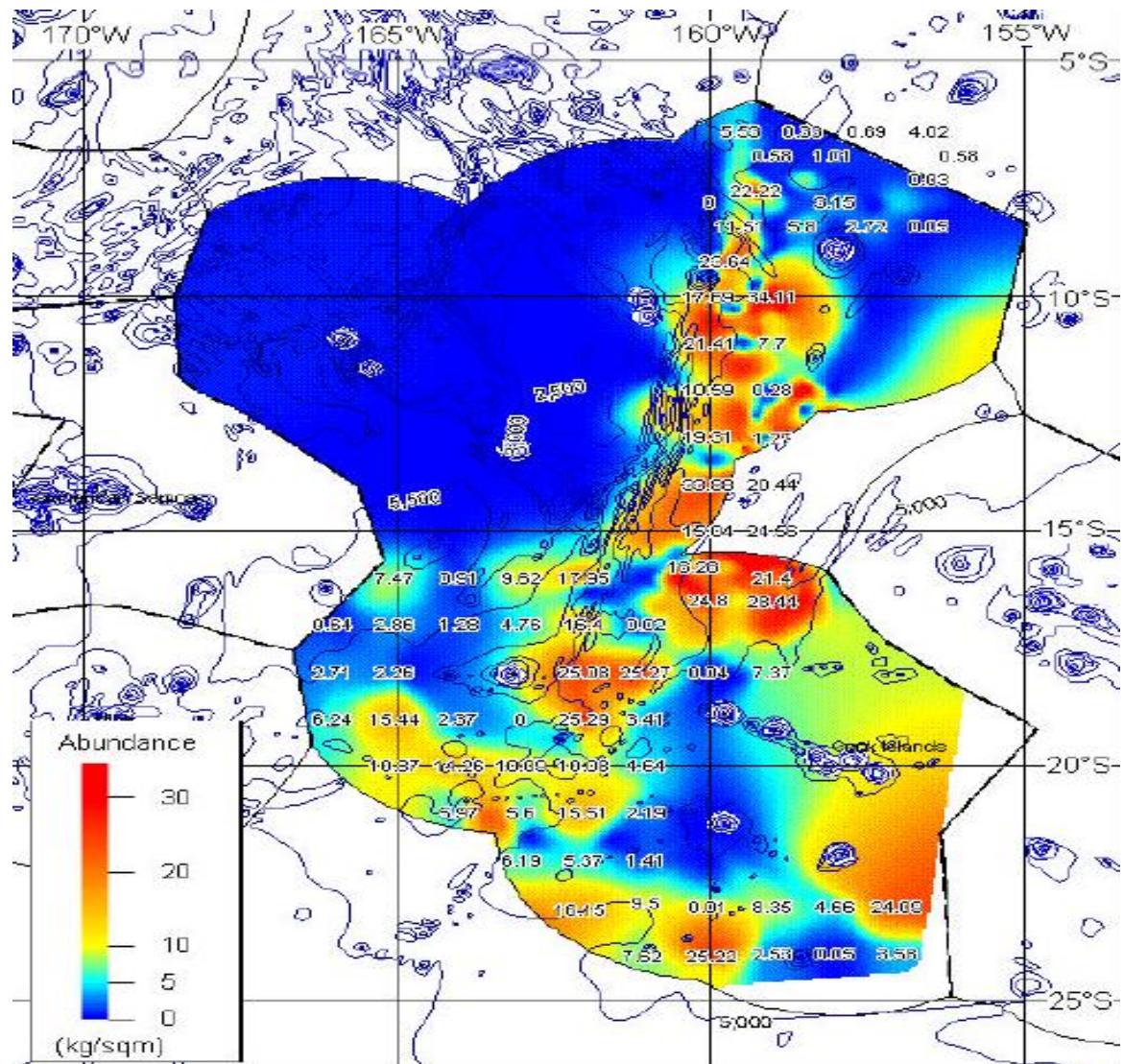
In 2000, a Norwegian study determined that the cobalt price then at \$US15 per pound made investment in any DSM venture uneconomic.

Despite that setback, successive Cook Islands governments have been proactive, with the assistance of international partners, in taking the necessary steps to develop a national framework for the regulation of its nation's future in deep sea mining within its EEZ.

¹⁰ Quoted in the Final PFTAC Report, Cook Islands on Mining Taxation. Peter Mullins. July 2011.

¹¹. Kingan. Stuart G. "Manganese Nodules of the Cook Islands". South Pacific Applied Geoscience Commission (SOPAC). September 1998

IMAGE- LOCATION OF MANGANESE NODULES IN THE COOK ISLANDS EEZ¹² ⁱⁱⁱ



It has long been anticipated that the harvesting of the potential of this national DSM resource could become a key contributor to the economic security of the Cook Islands. The development of the regulatory regime for this harvesting to take place in a fair, efficient and sustainable manner is therefore a critical national concern.

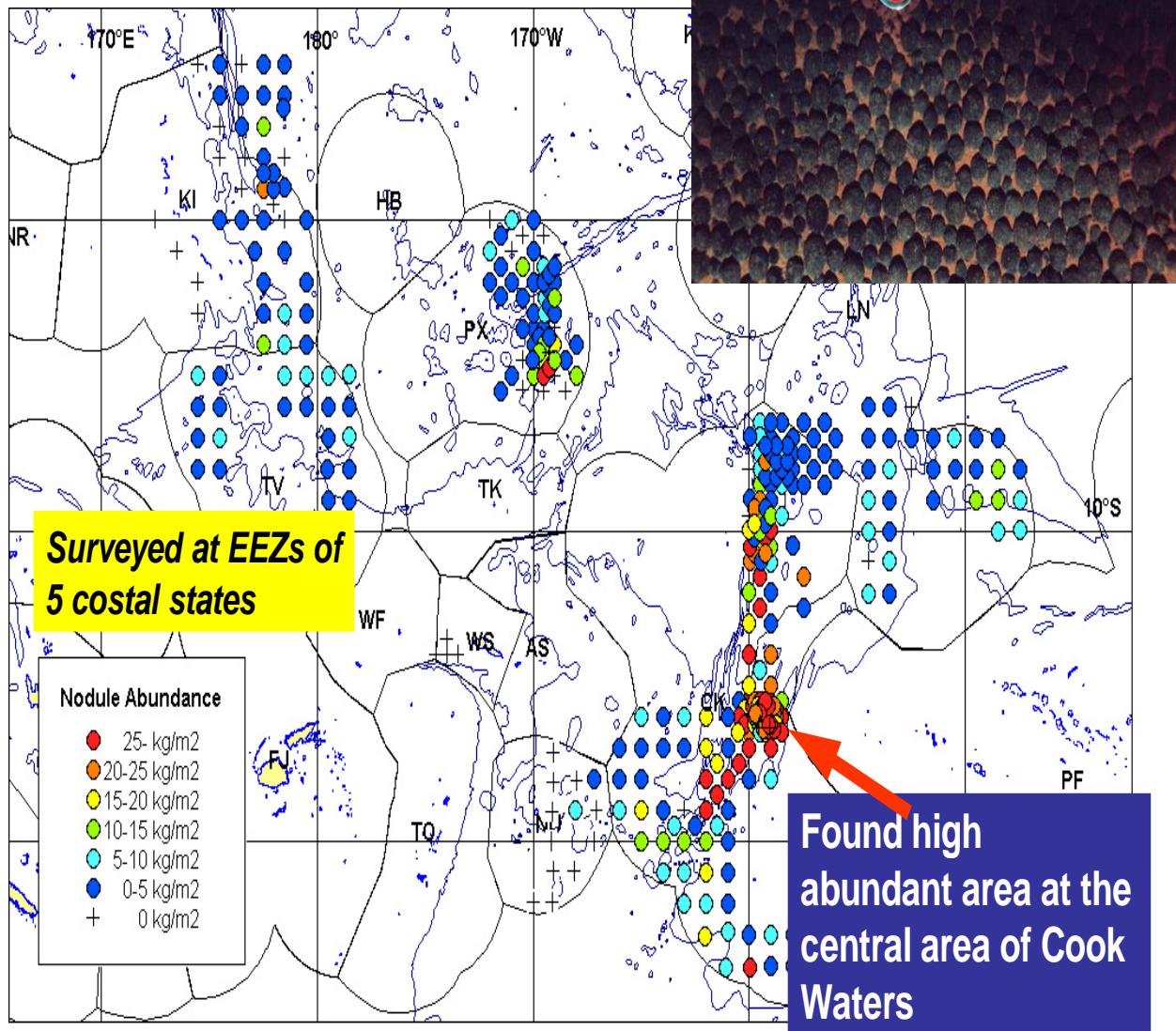
Successive governments have remained optimistic but cautious, mindful of addressing the potential dire financial and environmental concerns involved in DSM, the Cook Islands has chosen to consult widely and obtain the best international and regional advice, before it commits to receiving Applications for DSM exploration and exploitation.¹³

¹² 1985-2005 Japan-SOPAC Cooperative Study

¹³ Commonwealth Secretariat, World Bank, ADB, IMF, Korea, Norway and SPC.

The Minister has indicated that he hopes that the Cook Islands can be in a position to consider Applications for DSM Exploration in 18-36 months.

Nodule Abundance



*Image from DSM project (SOPAC/Japan data)

With international demand for metals increasing, international mining focus remains on terrestrial exploitation with its attendant high costs, in social, financial and environmental terms. But now interest is returning to the potential of accessing the untouched mineral resources of the deep sea. The ocean covers 90% of the earth, so potentially up to 90% of the undeveloped mineral reserves of the planet are in the ocean.

With DSM technology and activity advancing at pace, as shown with the granting of a seabed mining lease to Nautilus by PNG¹⁴, the Cook Islands government remains fully committed to continuing to develop a suitable regulatory framework to “set the stage” and be ready for the development of its DSM resources in a sustainable, efficient and socially beneficial manner.

In the last four years, this national process has gathered significant momentum. Government has been visited by delegations from the People’s Republic of China, South Korea, the United Kingdom, Norway, the United States of America, Singapore, Belgium, Canada, Japan and New Zealand, all of which have addressed relationship building on DSM issues. This interest has culminated in the government moving to prepare for DSM activities with the passing of the Seabed Minerals Act in 2009.

Further key steps have been undertaken since then aimed at the steady development of a regulatory regime for DSM in the Cook Islands.

¹⁴ <http://www.lloydslistdcn.com.au/archive/2011>

KEY STEPS IN THE DEVELOPMENT OF THE COOK ISLANDS REGULATORY FRAMEWORK FOR DSM

Key steps taken in the Cook Islands for the development of the regulatory framework for DSM include-

1. The undertaking of preliminary scientific marine surveys¹⁵ of DSM resources in Cook Islands EEZ by international scientific entities^{iv};
2. The development by governments of a national cooperative, “inclusive” approach to the development of DSM in the Cook Islands;
3. The obtaining of expert advice and assistance from international and regional development partners;
4. The on-going support and direction for DSM by successive national governments;
5. The appointment by Cabinet in July 2010¹⁶ of a senior government minister as Minister for Minerals and Natural Resources in charge of DSM issues;
6. The establishment of an “ad-hoc” national *Seabed Mining Taskforce*¹⁷ under that Minister, consisting of unpaid representatives of stakeholders and senior heads of relevant government ministries;
7. Stakeholder consultations in the community;
8. Formalising a draft national policy on DSM;
9. Developing and passing a national law, directed specifically at DSM, being the *Seabed Minerals Act 2009*;
10. The Cook Islands participating in the inaugural workshop of the SPC-EU EDF10 Deep Sea Minerals (the “DSM project”) in June 2011.
11. Obtaining advice and a report¹⁸ on the potential fiscal regime for DSM in 2011;
12. Financial support for DSM provided by government through a suitable allocation from the 2010/11 national budget;
13. Appointment of a Natural Resource Adviser in 2011.

Further steps being undertaken include-

14. More extensive Stakeholder consultations in the community and with industry;
15. Finalising a Policy for the fiscal regime for DSM in 2011;
16. Developing a suitable environmental regime for DSM, as required by Article 208 of UNCLOS;

¹⁵ 1970-2005-Scientific research surveys have been undertaken by Russia and Japan

¹⁶ CM (10) 297

¹⁷ CM (10) 297

¹⁸ Final PFTAC Report- *Cook Islands on Mining Taxation*. Peter Mullins. July 2011.

17. Legislating for a suitable fiscal regime for DSM;
18. Developing national regulations to support the Seabed Mining Act 2009;
19. Establishment of relevant regulatory bodies, being-
 - 19.1. The Cook Islands Seabed Minerals Authority;
 - 19.2. A DSM division under the Minister;
 - 19.3. Appointment of a Seabed Minerals Commissioner;
 - 19.4. Appointment of a Seabed Minerals Officers;
 - 19.5. Appointment of a Seabed Minerals Advisory Board.

These regulatory bodies will deal with all DSM matters and will address issues relating to Applications to explore and mine, Seabed Minerals Agreements, leases, licences, titles, reporting, standards and operations.

The background and details relating to a key number of these steps will now be outlined.

A UNIQUE, COOPERATIVE, “INCLUSIVE” APPROACH, TO THE DEVELOPMENT OF DSM IN THE COOK ISLANDS.

The Cook Islands political system consists of a one tier national Parliament of 24 seats, located on the small, main island of Rarotonga. There are two major political parties, with smaller parties and independent members having little lasting influence. However despite this divided political system, national politicians in successive Cook Islands governments have led the way in the development of the DSM regulatory regime in the Cook Islands in a remarkably, non-partisan, co-operative manner, with a single goal in mind of national progress on DSM development.

This harmony in approach would normally not exist in the Cook Islands on most political issues in the adversarial, Westminster system of governance adopted after independence in 1965. There are many factors that could contribute to the solidarity of approach or consensus.

One distinguishing feature of the Cook Islands is that is a very small nation, in population and land area. Most people live on small islands in small connected villages and are therefore closely connected physically. This closeness is exhibited many ways, in close family ties, island connections, communal land connections based on common genealogies, geographical proximity on the small main island of Rarotonga, similar political tendencies, similar educational backgrounds and aspirations and having one native tongue (the Te Reo Maori language) and religious homogeneity.

HOMOGENOUS SPIRITUAL VIEW ON NATURAL RESOURCES

Traditional views hold that *Tangaroa* is the principal *atua* of the natural environment, its resources and effects. However in 1823, the arrival of Christian missionaries from Britain brought great changes to Cook Islands cultural ways and beliefs. It has been stated in Gilson¹⁹ that the same old concepts became expressed in Christian views. The new views became based on a biblical framework as stated in Genesis²⁰, in which mankind is set as the wise custodian and steward of the garden (nature) entrusted to use the resources therein for their own benefit. A majority of Cook Islands people would still consider themselves as Christian and they would affirm and uphold a biblical view of “wise use”, being the measured control and sustainable use of all natural resources for the benefit of the people.

This high level of uniformity and closeness of the Cook Islands community on many levels affects politics, politicians and issues where *te tangata rikiriki*²¹ practically live next door to their members of Parliament and Ministers of government, who may be known to them as their “uncle” or “aunty”. This accepted degree of familiarity may be uncommon in other larger nations, even in the Pacific, and its impact cannot be underestimated.

This unity of approach in DSM matters at national level is shown by the fact that various governments in power have regularly involved senior members of the Opposition party to take part DSM visits, decisions and committees.

CABINET DECISIONS ON DSM

Important Cabinet decisions have been made collectively on the steady development of DSM by Cabinets of successive government. This approach would seem to have occurred, regardless of the political party which was in power at the time or political machinations taking place in the political national landscape of the day. Since 2007, there has been a notable increase in Cabinet involvement relating to the development of the DSM framework in the Cook Islands.

¹⁹ Gilson, Richard 1980. *The Cook Islands 1820-1950*, 1991 Victoria University Press and Institute of Pacific Studies, University of the South Pacific.

²⁰ Bible, Book of Genesis 1:28

²¹ Te reo maori term for the ordinary people at the grassroots in the community

SEABED MINING TASKFORCE

On 28th August 2007, Cabinet²² established an “ad-hoc” national Manganese Nodules Advisory Committee, to assist with advice on DSM issues for Cabinet, prior to any Act coming into force. The Seabed Minerals Act was passed in March 2009.

In July 2010, Cabinet formed a taskforce now called the **Seabed Mining Taskforce**, under the Minister for Minerals and Natural Resources, as an interim arrangement prior to the Act coming into force and the later appointment of a Commissioner and Authority under the Act. It now consists of unpaid representatives of stakeholders and senior heads of relevant government ministries. This Taskforce continues to undertake an advisory role of DSM issues for the Minister. It is likely then that Taskforce members could become Authority or Advisory Board members under the Act. Cabinet has also set the Taskforce a Work plan.²³ Any administrative needs of the Taskforce are currently handled by the Minister’s support office.

Currently the Seabed Mining Taskforce includes 9 members-

- Chairman, Secretary of Ministry of Marine Resources;
- Vice Chairman, Secretary of Foreign Affairs;
- Financial Secretary;
- Solicitor-General, for Crown Law Office;
- Public Service Commissioner;
- Prime Minister’s Office Policy Adviser;
- National Environment Service Director; and
- And now two Private Sector/stakeholder representatives.

STAKEHOLDER CONSULTATIONS IN THE COMMUNITY

In Cook Islands custom, the value of oral communication is highly significant as there was no form of written communication prior to the arrival of European missionaries in 1823. Education in Missionary schools gave way to schools operated by the colonial administration, which applied New Zealand education standards. Since independence in 1965, the Cook Islands people at all levels, have had the education, ability and passion to enjoy an active participation and involvement in national affairs.

Active community participation continues today with healthy and open public debate occurring regularly on national and community issues. National issues which affect communities that may require legislative effect are usually canvassed before the people at community, village or “Vaka” district meetings. All people- regardless of differences in family, tribe, language, gender, education and status- are encouraged and expected to stand up and “have their say” on issues that affect them.

²² CM (07) 492

²³ CM (10) 42

This public involvement and consultation has occurred with the DSM at various times with varying results. However, a large section of local people continue to hold negative views on the development of DSM in the Cook Islands. There is a history of numerous national development projects that have come and gone over the decades since national independence in 1965. The majority of the community have taken on a hopeful but cautious “wait and see” approach to their decision-makers grand ideas and promises in realising the DSM dream. Prior to the 2009 Bill coming to Parliament only limited public meetings were held in Rarotonga. Cabinet forwarded the Seabed Mining Bill to a Parliamentary Select Committee to receive public submissions for 2 weeks²⁴. Parliament passed the Bill in its 31st March 2009 session. Later in May 2009, the Act was presented in one of the 14 outer islands, namely Aitutaki. More consultations were expected.

The DSM issue has also been brought before the public at various intervals by Ministerial News releases to the media.²⁵ News releases have normally contained highlights of the latest breakthroughs in the long national path to realising the national dream of achieving national wealth from our sea floor.

Following the national election in November 2010, the experienced, senior Minister, Hon. Tom Marsters, was appointed Minister for Minerals and Natural Resources. He has taken a proactive approach to consulting widely with all levels of the community on the DSM issue. This has led to meetings with traditional leaders, environmental groups, outer islands leaders and people, schools and opposition representatives. It is anticipated that this high level of community consultation in the further development of the DSM sector will continue.

FORMALISING A NATIONAL POLICY ON DSM

From September 2008, a 26 page National Policy²⁶ on DSM (the “Policy”) was developed, as the Policy states in its introduction, as the basis for a-

“comprehensive regulatory framework to govern seabed minerals exploration and exploitation in the Cook Islands so as to ensure that present and future generations of Cook Islanders were positioned to enjoy the full range of economic and social benefits arising from seabed mining activity”.

The Policy states it’s overall “Objective” as follows-

“2.1 The key objective of the National Seabed Minerals Policy is to establish a set of operating principles and framework that will provide for the wise regulation and management of the seabed mineral resources of the Cook Islands for the benefit of present and future generations ...”

²⁴ CM(09) 154

²⁵ CINews Archives

²⁶ The National Seabed Minerals Policy (Updated in September 2010)

There has been substantial compliance and adherence with this Policy by each national government. The new Cook Islands Party government elected in November 2010 has committed itself to continuing this Policy and retained the ad-hoc Seabed Minerals Taskforce established up under the previous government. The Policy's objective for cooperative progress on DSM issues has been maintained.

DEVELOPING AND PASSING A NATIONAL LAW, DIRECTED SPECIFICALLY AT DSM, BEING THE SEABED MINERALS ACT 2009

In March 2008, the Cook Islands government sought and obtained the assistance of the Commonwealth Secretariat²⁷, based in London, to provide legislative drafting assistance in the highly specialised and frontier area of DSM, to in effect draft the first DSM specific national legislation in the Pacific region.

The current writer was Senior Crown Counsel in charge of the legislative process in the Cook Islands Crown Law Office when this draft Bill was handled by that office.

This draft Seabed Mining Bill went through various consultations and further re-drafting to make it suitable for the Cook Islands context. It was passed into law, unopposed in Parliament, in March 2009.

When certain institutional and budgetary arrangements are in place, the Act will come into force through a simple Commencement Act. In June 2011, the Minister of Minerals, Hon. Tom Marsters indicated that Government will not be in a position to consider DSM Applications under the Act for another 18-36 months²⁸.

THE SEABED MINERALS ACT 2009

The Act was passed by Parliament in 2009 and is yet to come into force. It lays down a very strong, comprehensive regime for DSM in the Cook Islands.

Section 3^v of the Act sets out the wide objectives of the government for DSM activities. The key objective is to *“establish a legal framework for the efficient management of the seabed minerals of the Cook Islands”*.

It has been acknowledged that the Act needs to be reviewed further and amended where necessary to further adapt it to the Cook Islands national context and to take into account the pace of change in DSM technology and scientific understanding of the deep sea environment. Further comments on the Seabed Act 2009, especially on the DSM environmental aspects, are attached in an endnote.^{vi}

²⁷ CM(08) 199 request to the Commonwealth Secretariat Economic and Legal Section

²⁸ New Release 23 June 2011

REGULATIONS

The government has acknowledged that it will be requiring further Legislative Drafting expertise to draft suitable regulations to support the Seabed Minerals Act 2009 and the appended Model Agreement, prior to the Act coming into force and DSM Applications being considered.

LICENCING REGIME

Chapter 2 of the Act deals with control and regulation of the activities relating to Seabed Minerals in the Cook Islands EEZ by setting a regime of licensing.

Section 46 of the Act sets out a simplified explanation of how activities are to be managed. The explanation is in itself complicated and is attached as an endnote.^{vii} There are a set of Licences which can be applied for relating to DSM activities of prospecting, exploration and mining.

ENVIRONMENTAL REGIME

ENVIRONMENTAL POLICY FOR DSM

The Cook Islands Seabed Minerals Policy states at 2.2 (and further in Part 4) that the underlying principles in environmental matters for DSM shall be-

“To ensure that the conservation, protection and management of the marine and coastal environment of the Cook Islands is not compromised by seabed mineral activity and is guaranteed by the formulation, enactment and application of environmental laws and regulations reflective of the needs of our ocean and of internationally accepted principles and standards of environmental protection, including the precautionary principle [Sections 3(2), 74, 91(3), 198(3)].

DUE DILIGENCE

This high standard of care in environmental matters stated in the Policy aligns fully with the Due Diligence obligations which will apply in the International Seabed Area (“the Area”) as stated by the Seabed Disputes Chamber (“the Chamber”) in its Advisory Opinion of 1 February 2011.

There is good reason for the Cook Islands, as a good international citizen abiding by its obligations under international law and laws of the sea, to continue to introduce further laws and regulations for DSM inside its EEZ, which accord with the “direct obligations” Due Diligence standard which will be applied to States undertaking DSM activities in the Area.

ENVIRONMENTAL REGIME UNDER THE ACT

Environmental controls are a central concern in the development of the regulatory framework for DSM in the Cook Islands.

Many people in the Cook Islands hold very strong concerns about DSM due to the potential environmental dangers which this new activity poses for the nation. The Cook Islands people are very close to and concerned about the environment which surrounds them. As is common for many indigenous people, the environment is not just seen as a resource to be plundered. To many Cook Islanders, the natural world forms the foundation and centre of their world view and has a deep cultural, spiritual significance of intrinsic value in itself. Despite the development of Cook Islanders since the 1950's as educated and proficient in a western mindset, there remains a connection to nature and our distinct Cook Islands Maori perspective that cannot be underestimated or overlooked.

Some DSM industry presentations, to the regional DSM project workshop in June this year, have indicated that there are some positives about DSM mining activities when compared with the known environmental hazards of terrestrial mining. This comparative benefit is in terms low rates of waste, impact of communities and the environment. These claims are unproven at this stage as DSM is largely and unknown frontier activity.

In the meantime, the Cook Islands are proceeding on the basis that the standards for the environmental regime for DSM in the Cook Islands need to be based on best international environmental practice.

PERMITTING CONTROLS IN ACT

Environmental controls at the prospecting stage are set under Section 91 where a permit may contain conditions-

- (f) a condition requiring the permittee to take steps to protect the environment of the permit area, including conditions relating to -*
 - (i) protecting wildlife; or,*
 - (ii) minimising the effect on the environment of the permit area, including the establishment of buffer zones.*
- (g) a condition requiring the permittee to repair any damage to the environment caused by activities in the permit area;*
- (h) a condition requiring the permittee to pay a specified penalty to the Government if the permittee does not comply with a condition.”*

Similar environmental controls are stated in-

- Section 124 (4) (i) for Applications for Exploration Licences.
- Section 198 (3) (i) for Applications for Mining Licences (up to 15 years, Section 170);

- Section 214- Suspension of rights;
- Section 215- Cancellation of rights;
- Part 6.2- Monitoring provisions;
- Part 8.2- Environmental Management provisions.

LIMITATIONS OF THE ACT- ENVIRONMENTAL CONTROLS

Chapter 8 of the Seabed Mining Act 2009 sets out the environmental regime to be implemented. It adopts the environmental standards, controls and permitting requirements of the Environment Act 2003. This will involve the requirement for Environmental Impact Assessments (EIA).

This statutory connection may have been drafted as a temporary “quick fix” in the 2009 Act. However this Chapter needs review and updating to reflect the growing scientific data on the potential environmental impacts in this new frontier area for DSM, being the deep seabed.

A technical drawback with this statutory connection is that the Environment Act 2003 has largely been administered on land-based, terrestrial projects which may impact the environment. It adopts the standard EIA system of environmental management which normally focuses on activity specific proposals in defined areas. No EIA have ever been mandated in the marine environment, let alone to unknown deep sea environment.

The standard EIA approach may become outdated and be superseded for DSM operations by the eco-system based EIA approach, that considers protection and preservation of the deep sea eco-system as a whole, rather than the current limited EIA based approach, related to one or more distinct or related DSM projects.

CAPACITY TRAINING OF ENVIRONMENT STAFF

National Environment Service compliance staff would need to undergo significant capacity training to be able to effectively undertake the roles needed to protect the environment in DSM activities.

The Cook Islands would need to strengthen its capacity to analyse and review the data on environmental impacts of DSM in our EEZ and the setting of the appropriate standard for Environmental Impact Assessment under the Act.

Prior to undertaking DSM activities in its EEZ, the Cook Islands, as a developing nation, could rely on Article 269 of UNCLOS to seek external assistance to fulfil its international obligations to preserve and protect the marine environment.

MORE SCIENTIFIC ANALYSIS NEEDED IN EEZ

In the Cook Islands context and EEZ, more exploratory surveys are required to determine the biodiversity of the deep-sea eco-systems where DSM resources are located and could take place in the Cook Islands in the future. Then an understanding of the potential environmental effects of DSM in our EEZ can be known, understood and assessed. Then mitigation options can be explored and tested. If tests do not conclusively prove that DSM can be undertaken on a sustainable basis then the government can consider the controls by which exploitation could or should take place.

Due to lack of resources, Government would be reliant on the DSM mining interests to undertake these costly and time-consuming exploratory surveys and analysis at their own cost. Government would have to develop expertise in-country or seek external assistance to review the resulting scientific data of exploratory DSM surveys. It could then make informed, data based decisions on whether DSM could be exploited in an environmentally sustainable manner within its EEZ.

COMMENT ON APPLICATION OF PRECAUTIONARY PRINCIPLE

Principle 15 of the Rio Declaration 1992 sets the definition of the Precautionary principle^{viii} and states that:

*“In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”.*²⁹

This approach has been affirmed for DSM in the international area (the “Area”) in the Advisory Opinion³⁰ of the Seabed Disputes Chamber of 1 February 2011. However the Chamber noted that that under Principle 15, States are to apply precaution “according to their abilities”, which might indicate a less strict standard for developing States³¹. This is certainly possible within for DSM in an EEZ of developing nations, such as the Cook Islands.

It has been noted that there is a difference between the precautionary **principle** and the precautionary **approach**. As Garcia (1995) pointed out, “*the wording, largely similar to that of the principle, is subtly different in that: (1) it recognizes that there may be differences in local capabilities to apply the approach, and (2) it calls for cost-effectiveness in applying the approach, e.g., taking economic and social costs into account.*” The ‘approach’ is generally considered a softening of the ‘principle’.”³²

²⁹ <http://www.unep.org/Documents>.

³⁰ <http://www.isa.org.jm/en/node/658>

³¹ Anton, D., Makgill, R. and Payne, C. 'Advisory Opinion on Responsibility and Liability for International Seabed Mining (ITLOS Case No. 17)', *Environmental Policy and Law*, 41/2 (2011)

³² <http://en.wikipedia.org/wiki/Precautionaryprinciple>

For small nations like the Cook Islands, which need to increase their economic diversification, a softening of the application of that Precautionary Principle may need to occur in order for DSM to be actively pursued. However this can and should be undertaken in a prudent, fair and sustainable manner. The Cook Islands DSM environmental regulatory regime does not mandate the strict adoption of the precautionary principle, which would not suit this early exploratory phase of DSM, which relies on frontier, expensive new technology to mine at great depth in locations which have not attempted before.

It has not been fully determined what effect DSM will have on the deep marine environment. Some recommendations to adopt the “precautionary principle” for DSM in the Clarion Clipperton Zone (CCZ) have acknowledged that such views,

“are based on a limited, albeit rapidly growing, database on biodiversity and species ranges in the CCZ, and should be applied using the precautionary principle. Specifically, where data are inadequate to exclude potential harm to the environment from a particular human activity (in this case nodule mining), the activity should be conservatively managed to ensure environmental protection.”³³

Halfar & Fujita and others, go further and have proposed that DSM should be left alone for the benefit of future generations. This strict approach would lead to a “no activity” approach based on the possible risk to the environment of DSM. This strict adoption of the precautionary approach to DSM in small island states ignores the needs of the current generation of people in developing nations with DSM resources, who wish to improve their livelihoods.

A less strict adoption of the precautionary approach would take into account small nations’ diminished abilities to enter the DSM sector at the highest level and encourage investment in DSM in developing nations. Rather than adopting a “do nothing” approach, due to the possible risks, which it is argued does a disservice to the positive potential contained in the precautionary approach, it can be proposed that it is better to adopt a range of flexible controls first and then allow exploration which can assist in the development of DSM technology and knowledge in our EEZ.

It can be viewed as an alternative that, rather than do nothing, to instead research the possible risks and impacts of DSM, anticipate the risks and then work to mitigate the expected effect of that impact due to those possible risks.

³³ Craig R. Smith “Biodiversity, species ranges, and gene flow in the abyssal Pacific nodule province: predicting and managing the impacts of deep seabed mining” Report compiled for the International Seabed Authority.2007

ENVIRONMENTAL LESSONS TO LEARN

The Cook Islands can learn from regional DSM activities as they occur in other Pacific islands such as PNG and Tonga in terms of whether there potential environmental impacts can be successfully mitigated. We can also evaluate these DSM activities in the Area by Nauru and Tonga, which have also been approved by the ISA to mine in the international zone.

In the Cook Islands, the environmental harm of DSM should be actively limited with the adoption of laws and regulations with controls and monitoring of DSM activity. Then the economic benefit of DSM can be obtained without unduly harming the marine environment.

FINANCIAL REGIME

Pacific Island countries like the Cook Islands have the clear and present need and desire to promote their national progress and have economic independence that DSM could provide. The wealth created from DSM exploitation should be safeguarded for future generations.

It is expected that the Cook Islands will receive income from Application fees and royalties, based on the minerals extracted.

In Part 2.2 of the Act sets out the system of fees and payments on DSM Applications, which is attached as an endnote^{ix}. Chapter 2 sets out the payment of fees and royalties for approved DSM activities in our EEZ. Section 180 authorises the Authority to set conditions on mining, such as payment of fees and royalties.

The Cook Islands has also requested the latest financial policy advice from the Commonwealth Secretariat and the International Monetary Fund. These reports have been received and are now being considered as part of the setting of the potential financial regulatory regime for DSM in the Cook Islands.

For comparison purposes, the Cook Islands DSM Taskforce has also gratefully obtained details of the Mining Tax regime of PNG which is likely to apply to its growing DSM activities. These are possible tax directions that the Cook Islands could take. Details are attached as an endnote^x.

FISCAL CONCERNS AND SAFEGUARDS

Many people of the Cook Islands hold deep concerns regarding the management of the financial resources that may be derived from the realisation of its deep sea mineral resources. This may be influenced by the underlying community suspicion of the motives and actions of political leaders, regardless of political affiliations. The unusual occurrence of a previous national government deducting funds, for government budgetary

use, held in deposit in the national Superannuation Fund and the Land Court Landowners Trust fund is a negative legacy embedded in the Cook Islands political psyche. The disaster of the mishandling of the phosphate mineral wealth of Nauru continues to provide a salient lesson and warning for the people of the Cook Islands. Many people in the Cook Islands still remember visitors from Nauru who were extremely cash rich. But now everyone knows that sadly Nauru relies on foreign aid, its environment is degraded and the finances from its mineral wealth have not been preserved for future generations. For this reason, the Cook Islands people expect that any funds from DSM activities will be invested for the Cook Islands people in a “safe” national fund. In the last 4 years, Cook Islands political leaders have gained advice on this type of fund, based on the Norwegian National trust fund model.

A specific fiscal policy is now being developed for DSM activities in the Cook Islands, which is expected to be entrenched by strong, supporting legislative safeguards. This policy will also seek to obtain the equitable distribution of the benefits of DSM, based on the close cultural context in the Cook Islands expressed in the statement referred to earlier as “*no one in the tribe must be left behind*”.

MARKET FORCES

An article by Halfar & Fujita article in 2001 states that interest in DSM developed “*as a result of rising metal prices in the 1970’s. Predicted metal shortages did not materialise and metal prices have remained at low levels*”.

Now in 2011, the metals market, and the rare earth metals market in particular, is buoyant again, making the capital intensive mining of the deep sea a viable economic option once more. One industry source noted that the “*metals market seems to be a permanent bull market*”. This means that due to on-going, consistent international demand for metals the unlocking the potential realisable from DSM extraction is now becoming a focus of international mining interest. DSM is seen no longer a “*just a pie in the sky*” as stated publically in 2011 by the Minister for Minerals and Natural Resources, Hon. Tom Marsters.

The market risk to manage also is to ensure that the release of DSM resources onto the metals market is managed in a sustainable manner that does not cause market failure, by spoiling the price of the metals at market, which would discourage further long term investment.

THE DSM PROJECT 2011

The concern about DSM activities in the Pacific region has led to the establishment in June 2011 of a new regional approach to the growing interest in DSM, known as the SPC-EU EDF10 Deep Sea Minerals project (the “DSM project”). The Cook Islands participated in the inaugural workshop for the DSM project.

The DSM project states that-

- **Overall objective:** to expand the economic resource base of Pacific ACP States by facilitating the development of a viable and sustainable marine minerals industry.
- **Specific objective:** to strengthen the system of governance and capacity of Pacific ACP States in the management of deep-sea minerals through the development and implementation of sound and regionally integrated legal frameworks, improved human and technical capacity and effective monitoring systems.

The DSM project takes a regional approach concept which was necessary based on the following:

- Request for assistance by Pacific Islands Countries (PICs) to SPC/SOPAC Division, Commonwealth Secretariat, and the Pacific Islands Forum Secretariat;
- Recent upsurge in offshore minerals exploration within the EEZ of PICs;
- Lack of specific policy, legislation and regulations for the governance of deep sea mineral resources;
- The need for harmonised legal and fiscal regimes for the management of offshore mineral resources in the region;
- The need for a common platform (i.e. a regional framework) from which national offshore minerals policy, legislation and regulations can be developed.

The Cook Islands has submitted its 2009 DSM national legislation and accompanying documents to the DSM project to assist other member countries review and possibly adopt a similar regulatory regime, with necessary national modifications.

A concern for Pacific Island countries will remain that if the controls in their respective EEZ are too severe that they will lose out and mining interests will retain their focus on extracting terrestrial resources and/or return to exploit DSM in the international zone.

APPOINTMENT OF NATURAL RESOURCE ADVISOR

DSM activities are expected to progress further with developments being taken as reflected with the appointment of a Natural Resource Advisor in late 2011 in the Cook Islands.

IMPACT

It is anticipated that the implementation of the Seabed Mining Act 2009 with related documents and policies will have significant and continuing impact on national processes related to political issues, legal issues, economic issues, environmental issues and social and cultural issues.

GAPS AND RECOMMENDATIONS

Briefly, there are weaknesses and areas for further improvement in DSM development in the Cook Islands-

- Lack of wider stakeholder consultation, particularly in the outer islands, closest to the potential areas of DSM activity;
- Lack of Industry consultation;
- Foreign Investment controls;
- Technology to mine at depth of 3000m+;
- High capital cost of deep sea mining
- In the continued development of DSM, it must ensure that it aids the productive diversification of our economy and not cause “dutch disease” where as one industry rises in economic importance then other industries collapse.

CONCLUSION

As deep sea mining technology advances, it is anticipated that many Pacific Islands nations can benefit from the exercise of its rights to mine the deep sea within their jurisdictional waters. There is a clear and present need for a well-managed exercise of those potential resource rights within nations’ EEZs across the Pacific region.

It is hoped that the sharing of the Cook Islands experience in dealing with the particular preparatory issues it has encountered relating to DSM, which are also grounded in its unique historical and cultural paradigm, can be of assistance to other nations in realizing this potential. Our pacific neighbours may seek to explore the Cook Islands experience in order to progress the establishment their own regulatory framework in order to successfully enter Deep Sea Mining in their respective EEZs for the benefit of their national economies and people.

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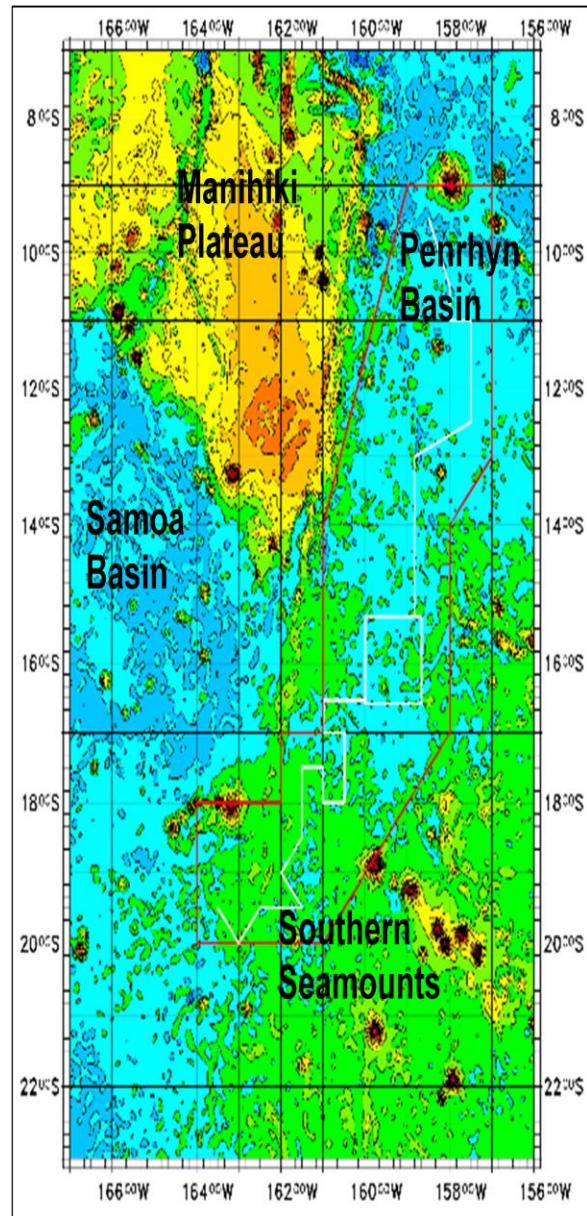
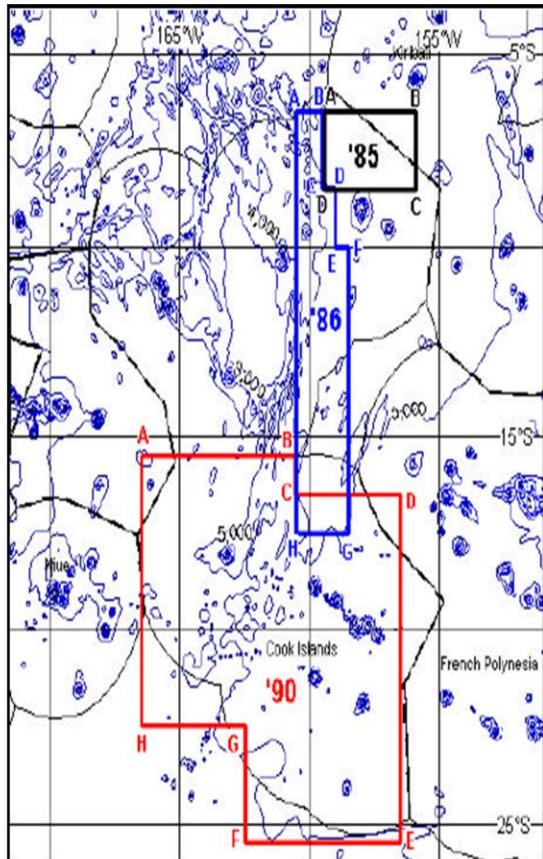
ⁱ UNCLOS -under Article 153 a legal framework for exploring and exploiting resources on and beneath the bed of the high seas was created. Nation states were responsible creating regulatory regimes to monitor and control deep sea bed mining and other forms of resource extraction. In this regard, the convention was fairly permissive of the rights of national governments to regulate in relation to deep sea bed mining within their own territories.

ⁱⁱ Also see the Territorial Sea and Exclusive Economic Zone Act 1977

6. Bed of territorial sea and internal waters vested in Crown - Subject to the grant of any estate or interest therein (whether by or pursuant to the provisions of any enactment or otherwise, and whether made before or after the commencement of this Act), the **seabed** and subsoil of submarine areas bounded on the landward side by the low-water mark along the coast of all islands of the Cook Islands and on the seaward side by the outer limits of the territorial sea of the Cook Islands shall be deemed to be and always to have been vested in the Crown.

8. The exclusive economic zone - (1) The exclusive economic zone of the Cook Islands comprises those areas of the sea, **seabed**, and subsoil that are beyond and adjacent to the territorial sea of the Cook Islands, having as their outer limits a line measured seaward from the baseline described in section 5 of this Act, every point of which line is distant 200 nautical miles from the nearest point of the baseline.

iii Further images below of Cook Islands Manganese nodules from 1985-2005 Japan-SOPAC Cooperative Study



- Stage 1: three surveys (i.e. 1985, 1986, and 1990);
- Stage 2: one survey (i.e. 2000).

3. Objects of this Act - (1) The objects of this Act are -

- (a) to establish a legal framework for the efficient management of the seabed minerals of the Cook Islands;
- (b) to provide for the management of the seabed minerals of the Cook Islands in a manner that is consistent with Government policy;
- (c) to ensure that seabed minerals activity is carried out in manner that is consistent with internationally accepted rules, standards, principles and practices;
- (d) to promote transparency in decision-making on matters concerning the management of the seabed minerals of the Cook Islands;
- (f) to implement measures to maximise the benefits of seabed mineral activity for present and future generations of Cook Islanders; and,
- (g) to promote a co-operative approach to the management of the seabed minerals of the Cook Islands involving government and island communities.

(2) In order to achieve its objects, the Act *inter alia* -

- (a) establishes a system for the allocation of titles in the form of permits, licences and leases under which title holders will be authorised to engage in seabed mineral activity under specific and enforceable conditions;
- (b) creates a register of titles and provides for the registration of dealings and interests in titles;
- (c) creates new regulatory bodies to administer the titles system established by this Act;
- (d) creates offences in respect of activities carried out in breach of the provisions of the Act;
- (e) provides for the protection of the environment through the continued application of the provisions of the Environment Act including environmental impact assessment and project permitting;
- (f) provides for the payment of royalty, fees, and rents in respect of seabed minerals activity in the Cook Islands; and,
- (g) provides for the management of information, and addresses issues relating to confidentiality and copyright.

An industry criticism of the Act has that it “sets the bar too high” for mining companies who will mine elsewhere and not enter into DSM arrangements in the Cook Islands because of its over-regulation. This risk of scaring away investors from the ISA’s international zone was raised by Halfar & Fujita^{vi}. The same may occur in the Cook Islands if the regulatory regimes in Act are viewed as oppressive and unworkable by the mining industry. The Cook Islands must balance that risk against the risk of lowering its standards.

The Policy underpinning the Act recognises that need to balance the controls of the potential risks as the Principle stated in Part 5 A is-

To establish a seabed minerals fiscal regime that is capable of providing for the Cook Islands a fair and equitable share of the economic value generated from seabed minerals activity whilst encouraging international investment and enabling investing mining companies to obtain a return commensurate with industry norms and the risk undertaken.

(Underlining added)

COMMENT ON HALFAR ARTICLE (Halfar, 5 October 2001)

In the Halfar & Fujita article, they pointed out that the strong “*regulatory environment for deep-sea mining may have also contributed to the failure of earlier attempts to exploit manganese nodules*”^{vi} in the high seas international zone (the Area). This area is under the jurisdiction of the International Seabed Authority, pursuant to Part XI of UNCLOS^{vi}.

They also indicated that there “*appears to be the redirection of prospecting and exploitation away from international waters and into areas within the limits of national jurisdiction (Continental Shelf and Exclusive economic Zones (EEZ)) where regulations may be weaker or non-existent*”^{vi}.

The concern with this “redirection” is that without an acceptable DSM regulatory regime in place for all Pacific Island countries, they will be susceptible to accepting DSM arrangements of a lower standard than would be applied internationally, which carries increased financial, social and environmental risks.

CHAPTER 2 – REGULATION OF ACTIVITIES RELATING TO SEABED MINERALS

Part 2.1 – Introduction

46. Simplified outline - The following is a simplified outline of this Chapter -

This Chapter provides for the grant of the following titles -

- (a) a prospecting permit (Division 2, Subdivision 1);
- (b) an exploration licence (Division 2, Subdivision 2);
- (c) a mining licence (Division 2, Subdivision 5);
- (d) a retention lease (Division 2, Subdivision 4);

Titles are granted by the Cook Islands Seabed Authority subject to this Part and to any conditions of the title.

A prospecting permit authorises the permittee to search for minerals in the permit area on a non-exclusive basis.

A prospecting permit is renewable.

The title holder may apply for an exploration licence.

An exploration licence authorises the title holder to engage in exploration operations in the licence area on an exclusive basis.

An exploration licence is renewable.

The exploration licensee may apply for a mining licence or a retention lease in respect of a location.

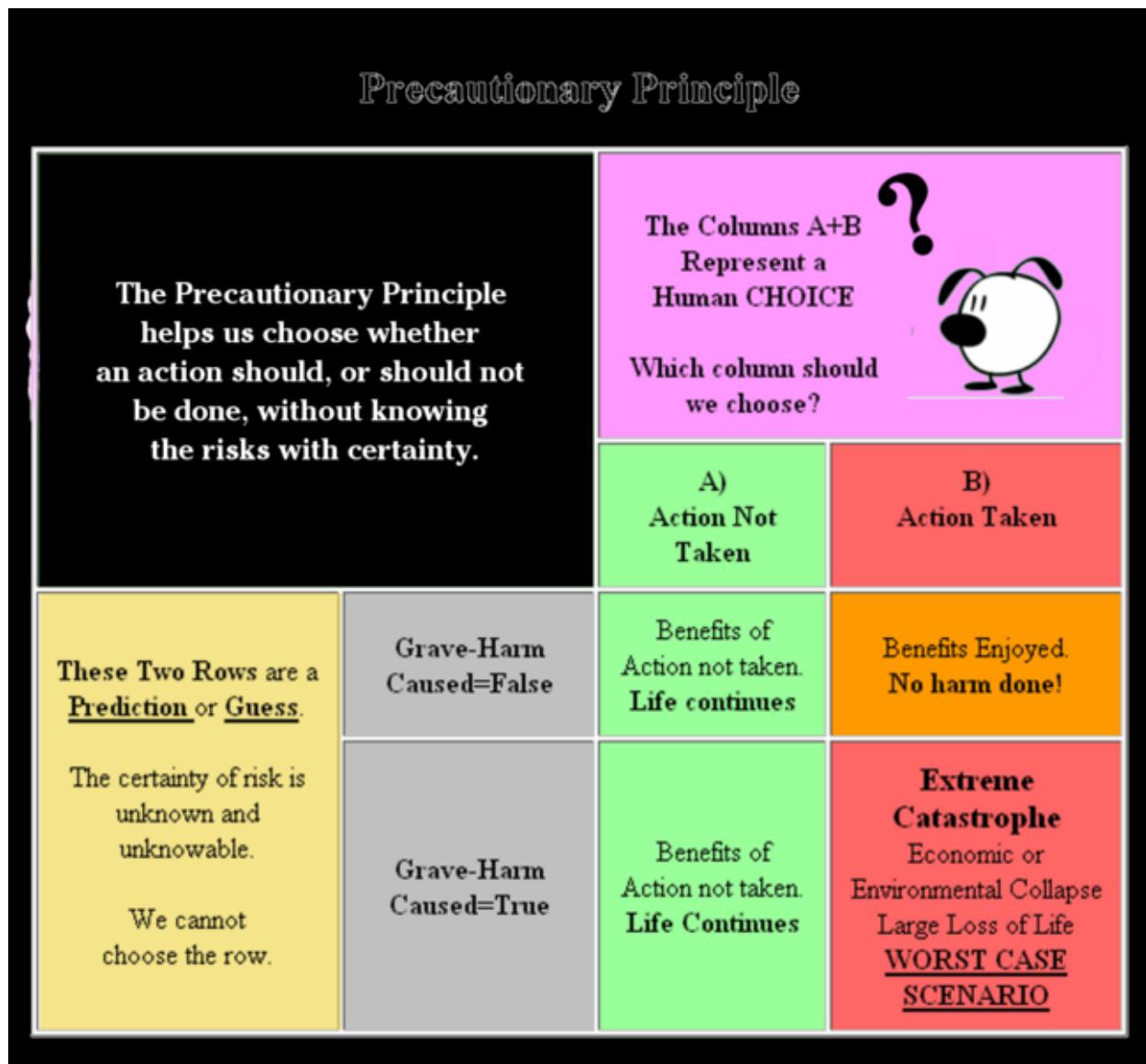
A retention lease is granted if the recovery of a mineral is not commercially viable in the short term, but is likely to become commercially viable within the long term.

The exploration licensee or a retention lessee may apply for a mining licence.

A mining licence authorises the licensee to engage in the mining and recovery of minerals in an area that has been declared a location (see Part 2.4).

A mining licence is renewable.

Precautionary Principle as a diagram



http://en.wikipedia.org/wiki/File:Precautionary_principle.png

Part 2.2 – Standard Procedures
Division 1–Applications

54. Simplified outline - The following is a simplified outline of this Part -

This Part sets out the standard procedures that apply to applications for titles under this Act, including the following matters -

- (a) the making of applications in an approved manner;
- (b) the payment of application fees; and,
- (c) requirements concerning offer documents;

The Cook Islands Seabed Authority can request further information from an applicant for the purposes of the Act.

This Part also sets out requirements for consultation that are to be applied by the Authority when it makes certain application decisions under this Act.

55. Application to be made in an approved manner - (1) This section applies to an application for the grant (including renewal) of a title under this Act.

- (2) The application must be made in an approved manner.

56. Application fee - (1) This section applies to an application for a title under this Act.

(2) The application must be accompanied by the fee (if any) prescribed by the regulations.

- (3) Different fees may be prescribed for different applications.
- (4) To avoid doubt, a fee is in addition to -
 - (a) the amount that a person specifies in an application as the amount that the person is prepared to pay for -
 - (i) a prospecting permit; or,
 - (ii) an exploration licence; or,
 - (iii) a retention lease; or,
 - (iv) a mining licence.

^x PNG Mining Tax details

Government Policies & Provisions Provisions (reviewed 2002)

- Mining Levy – phased out.
- Income Tax Rate
 - from 35% to 30%.
- Dividend Withholding Tax
 - from 17% to 10%.
- 2% royalty on net smelter returns
 - no additional profit tax & on capital gains
 - no restrictions on repatriation of profits
- Special Mining Lease Provisions
 - may enjoy tax advantages during “investment recovery period”
- Tax Credit Scheme

- Mining Levy – phased out.
- Income Tax Rate – from 35% to 30%.
- Dividend Withholding Tax – from 17% to 10%.
- Changes to treatment of Depreciation.
- Gains on Exploration deductibility.
- Additional Profits Tax – 2 tier APT with reduced accumulation rates.