

# Proceedings of the Palau National Deep Sea Minerals Stakeholder Consultation Workshop

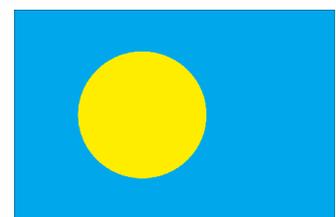
Old Congress Building  
Koror, Palau  
Tuesday 10<sup>th</sup> July 2012



October 2014

## SOPAC WORKSHOP REPORT (PR205)

Vira Atalifo & Akuila Tawake  
Geoscience for Development Programme



This report may also be referred to as SPC SOPAC Division Published Report 205

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## EXECUTIVE SUMMARY

The Palau National Stakeholder Consultation Workshop on Deep Sea Minerals (**DSM**) was hosted by the SPC-EU EDF10 Deep Sea Minerals Project (the DSM Project) in collaboration with the Palau Ministry of Natural Resources, Environment and Tourism (MNRET) at the Old Congress Building in Koror, Palau on the 10<sup>th</sup> of July 2012. In attendance were representatives from various government ministries/departments and civil society groups including: Ministry of State, Ministry of Justice, Palau Chamber of Commerce, Bureau of Oceanic Fishery Management, Bureau of Lands and Survey, Palau Automated Land and Resources Information System (PALARIS), Palau International Coral Reef Center (PICRC), Environmental Quality Protection Board (EQPB), Oceania Environment Consultants, and Palau Community Action Agency (PCAA).

The national workshop was in line with the DSM Project's aim to encourage a stakeholder participatory approach: to keep in-country stakeholders informed, promulgate sound technical and legal advice and also to provide a forum at which all voices can be heard. Copies of the six general DSM brochures, and other relevant DSM Project information were distributed to participants.

Oral presentations were delivered by the DSM Project Team as well as the Palau Attorney General, Ms Ernestine Rengii. Topics covered included an overview of the DSM Project, an overview of DSM potential in the Pacific Island region, deep sea minerals in Palau, international legal requirements, DSM Project's regional legislative and regulatory framework (RLRF), and the status of policy and legislation development in Palau.

It was agreed that the National Offshore Minerals Committee (NOMC) should be established to work with the DSM Project in spearheading the implementation of Project activities in Palau and to provide appropriate advice on DSM related issues. Additionally, the appointment of the DSM Project focal point has already been made in Ms Nannette Malsol of MNRET.

The workshop's afternoon session had the participants divided into two groups: a technical working group, and a policy working group. Each group then presented in plenary the outcomes of their discussions for consideration and further deliberations.

Four key action points were identified by participants: (i) to review Palau's existing policy and legislation and remedy any gaps for regulating DSM, (ii) review DSM into the Petroleum Act (iii) to build in-country capacity in relevant aspects of deep sea exploration and mining, and (iv) to sort a presidential order on the role of the DSM taskforce in Palau.

## **ACKNOWLEDGEMENTS**

Much gratitude is extended to the Honourable Minister Dr Victor Yano, Minister of State for delivering the keynote remarks and opening the workshop; to the Honourable Minister Harry Fritz, Minister of MNRET for his attendance and also in meeting with the DSM team prior to the national workshop. Special thanks were extended to Mr Gustav Aitaro for facilitating the proceedings of the workshop and to Ms Nannette Malsol and staff for their assistance prior to and during the workshop.

The DSM Project also wishes to acknowledge the Palau Attorney General, Ms Ernestine Rengiil for the presentation on the legal system and status of Palau in relation to DSM. Appreciation is also extended to all the participants for their active involvement throughout the workshop.

## 1. INTRODUCTION

Scientific research and exploration of DSM and associated biological communities have been ongoing for years in the Pacific region. From 1985 to 2005, the SOPAC Secretariat then collaborated with the government of Japan and conducted marine mineral assessments within the Exclusive Economic Zones (EEZ) of Pacific Island countries. These efforts led to the discovery of potential seabed mineral deposits in many of the Pacific Island countries. Palau, however was not in the list of countries that took part in these surveys.

In 1990, the United States Geological Survey conducted DSM studies within the EEZ of Palau. The surveys confirmed the occurrence of both cobalt-rich crusts (CRC) and phosphate with some indication of seafloor-massive sulphide (SMS). The Palau EEZ is one of the least unexplored areas in the Pacific therefore in order to fully comprehend the occurrence or potential of minerals within its EEZ, Palau would have to engage in more marine scientific research and seabed minerals exploration.

The SPC through the DSM Project in collaboration with the MNRET hosted the Palau National Deep Sea Minerals Stakeholder Consultation Workshop in order to bring together key in-country stakeholders to present the DSM Project; discuss various issues and concerns relating to DSM and mining; and collectively agree on how the Project will be implemented in Palau.

### 1.1 Objectives of the Workshop

The objectives of the Palau National DSM Stakeholder Consultation Workshop were to:

- Identify key in-country stakeholders and present the DSM Project.
- Discuss issues and concerns relating to DSM and mining.
- Determine the needs and priorities of Palau in terms of policy and legislation development, capacity building and other DSM related issues.
- Provide guidance for the implementation of the DSM Project in Palau.
- Discuss collaboration with key stakeholders (e.g. government agencies and NGOs), and form a national steering committee or other mechanism, to involve all interested parties in project activities in Palau.
- Identify an in-country technical focal point for the DSM Project.
- Obtain stakeholders' answers to the DSM Project's questionnaire to assist the Project staff better understand the situation in Palau.
- Disseminate DSM Project information brochures to stakeholders.



*Participants of the Palau National Deep Sea Minerals Workshop.*

## **1.2 List of Participants**

A full list of workshop attendees can be found at Attachment 3 of this report.

## **2. RECORD OF THE WORKSHOP PROCEEDINGS**

### **2.1 Workshop Opening**

The workshop opening remarks were delivered by the Honorable Minister Victor Yano, Minister of State. The Hon Minister welcomed the DSM Project team and the assistance offered by the SPC to Palau in this new development of deep sea mining. He mentioned that the governments of Papua New Guinea and Cook Islands are taking the lead on DSM in the region and it was only a matter of time before other Pacific Island countries follow in their path. The Cook Islands is a good example of a country proceeding vigilantly in DSM mining; prior to engaging in any form of offshore activity, the Cook Islands have developed the necessary legal instruments for the management of DSM within their EEZ. Palau with other Pacific Island countries have a lot to learn from the model set by the government of Cook Islands.

The Pacific Ocean is believed to be host to a significant range of mineral resources including rare earth elements (REE). Rare earth metals have become a topic of discussion recently due to China's monopoly as the only major supplier of REE in the world. Some developed countries like Japan and the United States are forced to look for alternative supply of REE deposits.

The Minister stated that oil and gas resources have been discovered within the EEZ of Palau therefore the government recently enacted a Petroleum Act to govern and administer these resources. Resource developments come with environmental impacts, and the challenge is to ensure that the environment aspects of DSM and mining are appropriately addressed to minimize potential adverse impacts.

The Minister anticipates that the national workshop will provide a forum whereby all participants can be more informed and discuss on issues that may be of future concern if deep sea mining commences in Palau. The Minister trusts that the agreed outcomes will facilitate the process of preparing Palau to fully engage in the development of DSM resources in the future.

## 2.2 Responding Remarks on behalf of SPC



*Left-Right: Hon Minister Dr Victor Yano (Minister of State) and Hon Minister Harry Fritz (Minister of MNRET).*

Mr Amena Yauvoli, Head of SPC Delegation acknowledged the contributions of the Government of Palau; he thanked the Hon Minister Dr Victor Yano for delivering the opening remarks for the workshop, and to the Hon Minister Harry Fritz and the Staff of MNRET, for collaborating with the DSM Project in organising this workshop, and the European Union for its financial assistance. He acknowledged the presence of senior government officials, representatives of the private sector and civil societies.

Mr Yauvoli highlighted that scientific research and exploration of DSM and associated biological communities have been ongoing in the Pacific Island region in the last 40 years. Since its inception in 1972, the then Committee for the Coordination of Offshore Prospecting in the South Pacific (CCOP/SOPAC) that later became the Pacific Islands Applied Geoscience Commission (SOPAC), was instrumental in the evaluation of seabed minerals that occur within the EEZs of Pacific Island countries, in collaboration with developed countries including the USA, Australia, Japan and Germany. These early efforts led to the discovery of some potential seabed mineral deposits within the EEZs of countries such as the Cook Islands, Papua New Guinea (PNG), Tonga, Republic of the Marshall Islands, Fiji and Kiribati.

Mr Yauvoli stated that recently, interests in DSM deposits have been rejuvenated in the Pacific Island region whereby a number of entities have either been granted or applied for commercial exploration licences. This new development is caused by the rise in metal prices triggered by sustained increase in global demand for metals. Additionally, new discoveries of high grade precious and base metals in PNG and Tonga in recent years coupled with the granting of a mining lease to Nautilus Minerals in PNG in early 2011 have demonstrated the global interest on DSM resources in the region.

For Palau in particular, DSM studies were reported to have been conducted by the US Geological Survey in the 1990s within the EEZ of the country. These surveys have confirmed the occurrence of cobalt and phosphate in the Palau waters, as well as indications of the presence of seafloor massive sulphide. Unlike most Pacific Island countries, the EEZ of Palau is relatively under-explored which means the true DSM potential of the country is largely unknown at this stage. Should it be in the interest of the Republic of Palau to benefit from developing its DSM resources in the future, Mr Yauvoli advised that Palau would need more marine scientific research and seabed minerals explorations within the national jurisdiction to enable a fuller knowledge of the resources within the Palau seabed.

Mr Yauvoli mentioned that mining is a tricky business and deep sea mining is no exception. While DSM will derive significant economic benefits to a nation (through employment creation, foreign exchange earnings and revenues for the country, etc); it also generates enormous challenges to the environment and its ecosystems. However, at the present time, on-going studies in the last four decades have only generated limited knowledge on deep sea ecosystems and its marine environments. He mentioned that more work is needed for this purpose. Furthermore, the application of the precautionary approach (Principle 15 of Rio) is crucial in ensuring that this new industry addresses environmental issues appropriately. Mr Yauvoli declared that should Palau decide to mine DSM in the future, then prudent decisions need to be taken to ensure environmental impacts of DSM explorations and exploitations are minimised and if possible avoided.

Mr Yauvoli said that the recently concluded Rio+20 Summit a few weeks ago resonated well with the reasons for the DSM national consultations as it acknowledged that mining offers the opportunity to catalyse broad-based economic development, reduce poverty and assist countries meet their internationally agreed development goals so as to maximise social and economic benefits. It also acknowledges that countries have the sovereign right to develop their marine mineral resources according to their national priorities and responsibility regarding the exploitation of resources described in the Rio Principles. At the same time, it recognises the importance of strong and effective legal and regulatory frameworks, policies and practices for the mining sector that deliver economic and social benefits and include effective safeguards that reduce social and environmental impacts, as well as conserve biodiversity and ecosystems, including during post-mining closure.

Mr Yauvoli stated that the decision to develop mineral resources is the sovereign right of Palau and her people and no one else. The SPC Team are there as regional civil servants to assist Palau with provision of technical and scientific information on deep sea mining. The DSM Team are also to provide the necessary TA and capacity developments in legislative issues, policy issues – including appropriate fiscal and taxation regimes, and so forth. The DSM Project will assist Palau in preparation should DSM mining be considered in its future development goals.

Mr Yauvoli hopes that interactive discussions will enable participants to collectively identify DSM issues in Palau and together prepare for a responsible way forward.



*Left-Right: Amena Yauvoli (Head of SPC Delegation) delivering the responding remarks and Mr Akuila Tawake (DSM Project Team Leader, SPC) during the discussions.*

## 2.3 Presentations and Discussions

All presentations that were delivered during the workshop are made available in the Data CD attached to the back pocket of this report. The summary of presentations together with questions and comments raised by participants after every presentation is discussed in the following paragraphs.

### **Presentation 1: Overview of the SPC-EU EDF10 Deep Sea Minerals (DSM) Project**

*Presenter: Akulla Tawake (DSM Project Team Leader)*

#### **Presentation Summary**

This presentation highlighted some of the background information on the goals of the DSM Project. The rationale behind the Project's implementation was due to requests for assistance by Pacific Islands to SPC and other agencies, in light of the recent upsurge of interest by exploration companies in offshore minerals exploration in the region. The DSM Project was conceived based on a regional approach and following the submission of a concept note by the SOPAC Division of SPC to the EU, €4.7 m funding was granted to support the implementation of the Project in 15 Pacific countries for a period of 4 years (2011-2014). There may be an extension for the Project after four years and if that occurs, the Project will continue to assist countries in DSM.

The Project's overall objective is to expand the economic resource base of Pacific Island countries by facilitating the development of a viable and sustainable marine minerals industry. The Project aims to do this by strengthening the system of governance and capacity of Pacific Island countries in the management of DSM through supporting the development and implementation of sound and regionally integrated legal frameworks, improved human and technical capacity, and effective monitoring systems.

The Project has four Key Result Areas:

1. Develop the Regional Legislative and Regulatory Framework (RLRF) for offshore minerals exploration and mining.
2. Develop national policy, legislation and regulations.
3. Building national capacities – by supporting active participation of Pacific Island nationals in the offshore mining industry.
4. Effective management and monitoring of offshore exploration and mining operations.

Project activities to date for each of the Key Result Areas have included:

- (1) An Inaugural Workshop was held in June 2011 in Nadi. It was unfortunate that Palau could not be represented at the Inaugural Workshop.
- (2) The 1<sup>st</sup> draft of the RLRF was disseminated in January 2012; based on the comments from the 1<sup>st</sup> draft, another was sent on April to a wide range of stakeholders for comments. After all comments have been amended on the second draft, the RLRF will be tabled at the Forum Ministers Meeting in Rarotonga. Mr Vic Uherbelau who was the Projects focal point at the time commended and endorsed the document on behalf of Palau.
- (3) Thirteen national stakeholder workshops have been convened and National Offshore Minerals Committees (NOMC) which will include national organizations, private sector and NGOs are being supported in these countries to take the Project forward. The whole idea of conducting national workshops is so all key stakeholders in country can attend. Countries have their own respective structures and not all relevant stakeholders can attend the DSM regional workshops therefore it is important that the DSM team visit them in-country.
- (4) A publication to provide an assessment of DSM state of knowledge is underway, with contributions from a group of leading experts world-wide. This will be published later this year by the Norway based UNEP/GRID-Arendal, with whom the Project is working in

partnership. The Project is also currently gathering data to establish a regional marine minerals database, building on the substantial data derived from previous marine scientific research and exploration in the region and ensuring that countries can easily access this information.

- (5) The Project has disseminated information to key in-country stakeholders, including 6-monthly updates, information brochures (general and country-specific brochures), and media work. A DSM Project site is now under construction to be launched shortly within the SOPAC Division's website. The Project will support national DSM committee to conduct DSM public awareness programmes.
- (6) The Project has supported and is identifying national candidates for capacity-building opportunities. A candidate from Kiribati was on a safety and awareness training course in Australia, and is expected to embark on a survey with an exploration company later in 2012; a candidate each from Cook Islands, PNG and Tonga were sponsored to attend a mining conference in Noumea in November 2011. In collaboration with partners, the production of a DSM documentary is in progress.
- (7) A meeting with legal advisors from Nauru, Tonga, Kiribati and Fiji was held during the SOPAC Annual session in Fiji to discuss the way forward in drafting national legislations for exploration in the Area. The Project has since completed drafting instruction for Tonga and is in the process of drafting Tonga's DSM legislation. Nauru and Tonga have been granted licenses from the International Seabed Authority (ISA) to sponsor mining entities to explore in the Area.
- (8) An international workshop on "environmental management needs for exploration and exploitation of deep seabed minerals" was jointly organized by the ISA and SPC through the DSM Project; more capacity building workshops is being planned for 2013 with funding to support P-ACP states.
- (9) Project activities and updates have been widely covered through the news, television, radio, and also in other websites such as InterRidge, N-S Environmental Law, Mineral Policy Institute (MPI) etc.
- (10) The Project is developing a regional environmental management and monitoring framework and guideline, in partnership with UNEP/GRID-Arendal. When the opportunities arise, the Project will collaborate with marine scientific research groups on monitoring the environmental impacts of deep sea mining over the next 2 years – identifying suitable candidates for on-the-job training in this area.

### **Discussion on Presentation 1**

Deep sea mining has not occurred anywhere in the world. If PNG commences deep sea mining in 2013 as planned then it will be the first country in the world to lead this new development. The nature of the DSM Project is to assist countries in developing the appropriate legal instruments to enable them to participate and regulate deep sea mining. Through the development of the RLRf, the Project anticipates that countries will use the framework to develop their own policy, legislation and regulations. The RLRf covers different aspects of deep sea mining including the environmental impact assessment (EIA), revenue sharing, fiscal regime etc.

Normally before companies consider investing on offshore exploration, they require data from previous marine mineral surveys that is conducted in the country (in this case Palau) to comprehend the potential within its EEZ. Exploration alone is capital intensive and entities conduct this study to avoid liquidation.

Palau Automated Land and Resources Information System (PALARIS) highlighted that the national framework should include parameters for exploration. In addition, a cost-benefit analysis should be developed for both exploration and mining and prior to both activities, a full blown EIA – taking into account that exploration is low level impact compared to actual mining. Regarding the development of the EIA, the DSM Project does not have the resources to develop or review the EIA's presented by the mining company to the host country; however, the DSM Project can

financially assist the host country by contracting the relevant individual from its pool of experts to undertake this review process.

At what depths does deep sea mining occur? The depth depends solely on the type of deposits being mined, for example, seafloor-massive sulphides in PNG are mined at depths of 1600 m or deeper. Manganese nodules exist at depth ranging from 4000 - 6000 m and cobalt-rich crusts from 400 - 4000 m.

Mr Tawake mentioned acquiring data from the United States Geological Survey (USGS) and agreed that he is willing to share the information with Palau and members of state. Minister Jackson has a comprehensive report of mineral occurrence for Palau and has also agreed to share this information.

## **Presentation 2: Deep Sea Minerals and Mining in the Pacific Island Region and Palau deep sea minerals**

*Presenter: Akuila Tawake (DSM Project Team Leader)*

### **Presentation Summary**

This presentation gave a general overview of mining issues and DSM potential in the Pacific Island region. Different types of mining in the Pacific were explained as well as the fact that deep sea mining is a new frontier in mineral development. From 1985 to 2005, the Government of Japan (through JICA) in collaboration with SOPAC conducted surveys within the EEZs of twelve Pacific Island countries. Palau however, is not included in the list of countries that participated in this survey. Even so because of its proximity to RMI, there is occurrence of CRC, phosphorite, SMS and precious corals within the EEZ of Palau; however, more exploration is needed to fully comprehend the existence of these minerals. Apart from the Kyushu-Palau ridge which was studied, other seamounts have been left unsampled; SMS deposits is expected to be of some potential at the Palau trench so it maybe an area of interest in future for offshore mineral activities. The trend for MN is such that abundance increase from the west to the east; therefore Palau is expected to be MN poor. The Micronesian countries are host for CRC, therefore they will also have potential for rare earth metals which is associated with CRC; MN is normally discovered South of the Pacific.

The presentation also highlighted the potential areas for manganese nodules (MN), sea-floor massive sulphides (SMS) and cobalt-rich crusts (CRC) in the region; the depth at which they occur and the mineral contents. The minor minerals in both MN and CRC (nickel, copper, cobalt and platinum) are the source of demand. Volcanogenic massive sulphides (VMS) occur on-land; however, SMS deposits are small in quantity but they have a better grade compared to VMS. This is reason to why there is a shift of interest from on-land mining to the deep sea. The benefits and challenges of offshore mining were also discussed together with a comparison between terrestrial and marine mining.

Seabed mineral occurrences and potential within the EEZ of PICs were summarized and explained. Mining companies that are currently involved in offshore exploration in the region were listed, including Nautilus Minerals (exploring in PNG, Solomon Islands and Tonga, and recently granted an exploration license in Fiji), KORDI (exploring in Tonga and recently granted an exploration license in Fiji), and Bluewater Metals (a subsidiary of Neptune Minerals (US), currently exploring in PNG, the Solomon Islands, Vanuatu and Tonga, and has applied for exploration license in Fiji).

The tenement holdings of companies are extensive if you compare the granted area of 1,067,062 km<sup>2</sup> to the total land area of PICs which is 550,000 km<sup>2</sup>. Some applications are still being considered by countries even though the stated figures, the granted area is at least twice larger than the Pacific region's landmasses combined. Nautilus Minerals is currently developing

technology designed for the mining of SMS at their Solwara 1 Project in PNG. In 1978, trial mining was conducted in the CCFZ; however due to the lack of technology, technical problems encountered and low costs of metal then, mining was deemed uneconomical.

## **Discussion of Presentation 2**

Palau like other developing states can apply for access to minerals in the CCFZ, deemed the common heritage of mankind. The CCFZ located between the coast of Mexico and the Line Islands of Kiribati is rich in polymetallic nodules. The ISA regulates the resources outside of the jurisdiction of countries therefore organize and control all activities in this area with a view to administer resources. Mining companies that wish to apply for exploration cannot directly apply to the ISA; they would have to be sponsored by a state. Developing countries like Tonga and Kiribati have sponsored mining entities to explore in the CCFZ. While states are not financially locked to contribute towards the exploration phase, they will however, be held responsible if mining companies breach their terms of contract or cause any major environmental hazard in the CCFZ during exploration. For this reason, the Project encourages PICs to ensure that they have the appropriate DSM legal instruments in place should they wish to participate in 'the Area' in order to regulate the activities of the mining companies.

Most impact of mining comes from poor management of mining wastes or over-burden. Only in terrestrial mining does acid rock drainage occur (a process whereby sulphide materials when exposed to oxygen and water react to produce sulphuric acid which is harmful to humans and also causes a long-term environmental impact on the environment). This process however, cannot occur in the ocean because seawater is alkaline.

## **Presentation 3: Outcomes of the DSM Project Inaugural Workshop and the ISA-SPC Workshop.**

*Presenter: Vira Atalifo (DSM Project Assistant – SPC)*

### **Presentation Summary**

The presentation covered the two main events for the DSM Project in 2011: the DSM Inaugural Workshop in June and the International Seabed Authority (ISA)-SPC Workshop in December, both held in Nadi, Fiji.

The DSM Inaugural workshop captured the importance of DSM for the region and the need for in-depth information sharing. It was a platform for experts to speak on a broad range of issues relating to DSM and mining and for stakeholders to discuss challenges, opportunities, needs and priorities and agree for a way forward for the DSM Project. The workshop was attended by government representatives (from the 15 Project Countries, interested states e.g. China, Korea), and by a range of international, regional and national agencies, the private sector, and civil society groups.

The eighteen outcomes of the workshop, which covered the following areas, were presented:

(1) Regional Approach, (2) Capacity Building, (3) Technology Development and Transfer, (4) Maritime Boundaries, (6) Data and Information, (7) Marine Scientific Research, (8) Community Concerns and Stakeholder Consultation, (9) Environmental Protection Guidelines, (10) Environment Conservation and Monitoring, (11) Information Sharing and Outreach, (12) Fisheries, (13) Resource Assessment, (14) Mining Technical Information, (15) Legal Frameworks, (16) Fiscal Regime, (17) Sustainable Economics, (18) Governance and Transparency.

Also held back-to-back:

1. DSM Project Steering Committee – representatives from participating countries, DSM Team, and EU as donor – meeting to guide Project implementation.
2. Technical Steering Committee – comprising a selected group of world-renowned experts and key stakeholders in the region, meeting to plan the Project's UNEP-Grid publication about DSM.

The ISA Workshop was held in collaboration with the SPC and the Fiji Government to increase awareness of mineral resources in the Area, the measures taken by the ISA in regards to the protection of the marine environment, and to formulate preliminary recommendations for the performance of EIA for seabed mining (both within national jurisdiction and the Area). Representatives consists of 9 member countries of SPC, international agencies, private sector and civil society groups. The outcomes of the three working groups; *Environment Impact Assessment* working group, *Legal* working group and the *Capacity Building* working group were discussed in detail.

### **Discussion of Presentation 3**

Palau unfortunately could not attend the DSM Project inaugural workshop in June 2011. For the second regional workshop which was a combined effort between the ISA and SPC, only the PICs who are currently involved in offshore activities attended. Mr Tawake highlighted that the Project is holding its first capacity building workshop in August and requested that Palau make every effort to nominate its representatives to attend the workshop. The Project will financially cover total costs involved with the participants travel.

### **Presentation 4: The Regional Legislative and Regulatory Framework (RLRF) and Legislation to Regulate Deep Sea Mining.**

*Presenter: Akulla Tawake (SPC)*

#### **Presentation Summary**

It is important that States have in place legislation and other administrative matters to regulate DSM activities within their control or jurisdiction. Not only is this required by international law, it will also promote Palau's reputation internationally, provide comfort to the people of Palau about the potential impact of DSM activities, and also provides a regulatory certainty to encourage investment.

The UN Convention on the Law of the Sea (UNCLOS) is a source of many of the important legal principles that apply to DSM. UNCLOS confers sovereign rights to coastal states over the minerals in their EEZ and extended continental shelf (eCS), and requires: the protection of the marine environment, the implementation of national legislation and administrative measures, and the application of the precautionary approach. Harmonizing national frameworks and regulations with international law principles is important in ensuring that best environmental practice is observed in deep sea mining.

The presentation also introduced the DSM Project's Regional Legislative and Regulatory Framework (RLRF), which was endorsed by Mr Victorio Uherbelau on behalf of Palau; the RLRF aimed to assist Project countries to develop national policy and legislation for DSM.

### **Discussion of Presentation 4**

Palau along with countries like Nauru and Fiji has declared their EEZ. Palau has also signed a treaty with the Federated States of Micronesia and has submitted three areas of potential eCS (approximately 1.86 million km<sup>2</sup>).

The Norwegian model of saving schemes need to be re-introduced by countries pursuing deep sea mining, the reason why some countries involved in mining become unsuccessful is because they fail to continue with the models implemented. It was recommended that a regulating authority should be setup in-country to implement legislation, assess applications and grant licenses, and monitor offshore activities.

## **Presentation 5: Palau – Status of Policy and Legislation Development (No slides involved)**

*Presenter: Ms Ernestine Rengiil (Attorney General)*

### **Presentation Summary**

Ms Rengiil was appreciative of the assistance offered by SPC through the DSM Project to assist PICs including Palau in the field of deep sea minerals. She said that the topic is new to many and therefore without expertise and assistance from outside parties, many countries would not know how to proceed vigilantly in this new development.

Palau recently in December of 2011 endorsed its Petroleum Act. Ms Rengiil suggested that the Petroleum Act along with other related national laws are great instruments in which the DSM Project can review to incorporate DSM. The review process will follow a participatory approach therefore will be conducted in consultation with related departments and stakeholders. The DSM legislation should cover issues such as revenue, taxation, environmental management to name a few; and the RLRf should be a good document to act as a guide for this development.

The Palau Environmental Quality Protection Board (EQPB) has an EIA administration process prepared for any developments in Palau. Although there may be no provisions for deep sea mining, it could be a useful document for referencing purposes. A comprehensive EIA is needed before mining proceeds although in the exploration phase, a partial environmental impact study is deemed adequate although it depends on the host country.

### **Discussion of Presentation 5**

Mr Tawake highlighted that the Project has a legal advisor, Ms Hannah Lily and she would be willing to offer legal assistance to Palau. Ms Rengiil welcomed the invitation and mentioned that their immediate need would probably be the review of their current national Acts. It was agreed that a Palau national perhaps from the Attorney General's Office will be attached with the Project during the review process and for capacity building purposes. The Project will support the candidate to complete his/her placement with the Project in Fiji.

Mr Tawake revealed that the Project does not have in its capacity the resources to conduct the EIA process. Under most mining laws, the mining proponent is tasked with the development of the EIA because the process is extensive and costly as well. Once the EIA has been completed, it is then submitted to the government whereby the state needs to vigilantly review that EIA process. The Project can offer assistance by contracting a consultant (with environmental and geological expertise) to perform the review process for the country.

It was suggested that the EIA process be quoted in the legislation for both the exploration and mining phase. For any legal or technical assistance required by Palau from the DSM Project, a formal request should be sent through the Ministry of State to the director of SOPAC Division.

## 2.4 Working Groups

Workshop participants were divided into two working groups: (i) a technical and (ii) a law and policy group, for the discussion session.

The technical working group was tasked to discuss technical DSM issues in relation to the needs and priorities of Palau, whilst the policy working group was mandated to discuss the state of national DSM legal instruments and the necessary requirements to put in place relevant to national policy, legislation and regulation. Each group then presented back in plenary on the outcomes of their discussions for consideration and further deliberations.

### 2.4.1 Outcomes of Working Group 1: Law and Policy

#### **(1) Development of Offshore Minerals Policy, Legislation, and Regulation**

Offshore minerals policy, legislation and regulation need to be solid to eliminate corruption. Gaps in offshore minerals policy, legislation and regulation include:

- The need for a policy review.
- Cost-benefit analysis.
- The absence of a DSM framework in place.
- No expertise.
- No funding.
- No political support.
- Lack of human capacity in-country; potential individuals are already wearing many hats.

Priorities include:

- The need to review existing legislation relevant to DSM.
- Integrate DSM into existing legislations.
- Raise awareness to members of the public.
- Acquire external technical and legal assistance (Lawyers, Geologists etc).
- Participate in all capacity building programs.

#### **(2) Appropriate fiscal regime policies for deep sea mining**

The Petroleum Act is a comprehensive legal document that could perhaps be referred to in regards to the fiscal regime component for DSM. Needless to say, expertise advice from legal and financial professionals is required to appropriately develop the best fiscal regime policy for deep sea mining in Palau.

#### **(3) Environmental management and monitoring frameworks/guidelines for deep sea exploration and mining**

Environmental best practices and monitoring guidelines need to be incorporated to any DSM framework constructed to ensure the protection of marine resources and the environment.

A suggestion was made to establish a separate office to manage and monitor DSM in Palau. Mr Tawake mentioned that not only will the Project be incapable to support an activity of such magnitude; it is impractical given that there is no confirmed knowledge of the mineral potential in Palau. If Palau decides to pursue deep sea mining in future, exploration will commence first and this process can prolong for years. Some countries that have already been involved in past offshore explorations need to conduct more explorations to fully comprehend their mineral potential. Palau currently with inefficient data has a long way to go in regards to mineral assessment. The best practice for Palau at the moment is to develop its legal instruments in

regards to deep sea exploration and mining and exert effort into assembling a fiscal regime that benefits Palau and attractive to investors.

There is a need to develop a database where all data relating to DSM for Palau can be stored and accurately recorded. Although Palau needs equipment and infrastructure, in future if DSM proceeds, building national capacity through Palau's attendance in regional short-term training and informative workshops is just as important.

**(4) Offshore Mining Legal Instruments in relation to existing National policies, and Regional and International Conventions (e.g. Noumea convention and UNCLOS)**

The incorporation of international and regional conventions into national policy, legislation and regulations for offshore exploration and mining is crucial. International and regional conventions that exist already should be clarified, and gaps within national policies, legislation and regulations should be identified, where bilateral treaties or regional conventions could be introduced. The DSM Project Legal Advisor will work closely with the Attorney General's Office in terms of policy, legislation and regulation development.

**(5) Development of Marine Scientific Research Policy**

An MSR policy is deemed necessary to cover all offshore activities such as deep sea mining, fisheries, petroleum and such. It will be an added bonus towards improving understanding of DSM and marine ecosystems. One of the suggestions was to develop an MSR advisory committee with the inclusion of international DSM experts. This committee can be the same taskforce that will be tasked in spearheading the activities of the Project in-country.



*Policy Working Group during discussion session focusing on the legal aspects of DSM.*

**2.4.2 Outcomes of Working Group 2: Technical Issues**

**(1) Current institutional capacity and priority areas for capacity building**

Due to the lack of knowledge and technical expertise in the area of DSM, training and additional qualification of personnel in relevant government ministries/departments is necessary to develop and build in-country capacity. Priority areas for capacity building would include the technical,

legislative, fiscal, environmental, economics, governance, management, enforcement and monitoring aspects of DSM. Better inter-agency communication, understanding and consultation between Government, NGOs and mining companies is essential to ensure successful implementation of DSM activities in Palau.

Strongly against the development of a DSM processing facility in Palau because of the storage or disposal challenges associated with the waste/over-burden from the mining project. Similar to the Petroleum Act, any legal framework developed for DSM should make provision for data retention so that Palau has access to all research data conducted within its EEZ.

## **(2) *Opportunities for capacity building***

There is lack of capacity and expertise in the areas of environmental management, DSM exploration and mining, oceanography and such. Capacity building initiatives in the form of short-term training and open forum workshops are important in building institutional capacity. Suggestions were also for the government to incorporate DSM studies into tertiary study institutions and provide scholarships for specialized training in the areas of offshore exploration, mining and oceanography. Should DSM be considered a solemn alternative in future than the government should consider the establishment of a regional training school, perhaps in the Rock Islands.

## **(3) *Environmental monitoring and management for deep sea exploration and mining***

Palau needs to acquire baseline data on the mineral occurrence at its seamounts. It is important that if offshore exploration and mining do commence in Palau, proper environmental management and monitoring guidelines and programmes are implemented to ensure that offshore activities are aligned with the best environmental practice. Monitoring should be carried out:

- during the exploration and mining phases; and
- on the impacts that mining would have on the fishery resources of Palau.

## **(4) *Technical and technological challenges and recommendations for deep sea mining***

Palau like other PICs have the disadvantage of lacking the appropriate technical and technological expertise and infrastructure to engage in activities such as deep sea exploration and mining. Areas in need of development include the environmental management sector, exploration and mining. A collaborative approach between government and other proponents is recommended to ensure that Palau gain access to environmental friendly technology and ecosystem baseline data (temperature profiles, oceanographic data – currents, measurements, depth, salinity, satellite imagery etc). Since Palau is currently not involved with any offshore activity, it is important to learn and adopt constructive results from other PICs such as Fiji, PNG as well as other developed countries.

## **(5) *Stakeholder Partnership (e.g. Government-Private sector-SPC-NGO partnership)***

It is important that Palau engage and maintain partnership with relevant agencies and key partners who have the relevant technical capabilities to assist in this new mining industry. Some of the stakeholders that need to work in collaboration on this new development include; Palau Conservation Society, PALARIS, Palau International Coral Reef Center (PICRC), The Nature Conservancy (TNC), Palau Visitors Authority (PVA), Micronesia Challenge (MC), EQPB, Governors Associations, CROP Agencies, United Nations Development Programme (UNDP), United Nations Convention to Combat Desertification (UNCCD), United Nations Framework Convention on Climate Change (UNFCCC), United Nations Convention on Biological Diversity (UNCBD).



## General Issues

### (1) *Benefits and adverse impacts of offshore exploration and mining*

Benefits	Adverse Impacts
Potential source of revenue	Potential damage to the marine ecosystem
Create more employment opportunities for the local people	Corruption
Capacity building opportunities for future generations on DSM	Cause long-term environmental impacts
Infrastructure development	Livelihoods affected in both coastal and pelagic systems
Create new business & expansion of existing business	Possible negative impacts on fisheries
Trickle down effects to the local economy	Possible impact on the tourism sector

### (2) *Formation of the National Offshore Minerals Committee (NOMC)*

The implementation of such a committee was agreed by both the working groups and the MNRET as the responsible ministry will facilitate the establishment of this committee. There are currently a few taskforces that have been developed to overlook certain activities and DSM could perhaps be incorporated to one of these taskforces to avoid replication. The taskforce would need to be formalized through a Presidential Executive Order. Suggested membership of the NOMC is listed below:

- Ministry of State

- Attorney General's Office
- PALARIS
- EQPB
- MNRET
- Representative from the Oil & Gas taskforce
- ECS/ECZ taskforce
- Chamber of Commerce
- PICRC
- Others invited on a need-by-need basis.

The taskforce would be expected to facilitate some of the activities of the Project in-country such as:

- Assist in the development and review of DSM national policy, legislation and regulations.
- Review of existing national Acts.
- Analyze policy gaps.
- Identify needs and priorities of DSM in Palau.
- Conduct stakeholder consultations and promote public awareness.
- Finalize legal frameworks developed and facilitate the transition into parliament.

### **(3) *Nomination of the DSM Project focal points***

The DSM Project technical focal point in Palau is Ms Nannette Malsol from the MNRET. Nannette will be leading the DSM taskforce and corresponding closely with the DSM Project team on the formation of the taskforce and the activities that the Project will be supporting in Palau.

### **(4) *Additional DSM Issues***

The participants were keen to have Palau host one of the Project's capacity building workshops in 2013. The list of countries interested in hosting the Project's regional workshops is increasing which shows how much interest is there in this new development. Mr Tawake will be considering the logistics and costings involved with the different options.

It was proposed that the Palau International Coral Reef Center (PICRC) be supported as the research arm for deep sea exploration and mining and the Bureau of Oceanic Fisheries as the competent authority to manage DSM.

Mr Tawake mentioned that he welcomes any requests relating to deep sea minerals exploration and mining; have a list of experts that can provide advice as well.

Ms Rengiil mentioned that the greatest challenge that face the Attorney General's Office is that there are no local lawyers. Attachees at the office are American lawyers working on short-term basis, they have to contract private sector lawyers many times. Ms Rengiil hopes that they could have a full-time lawyer next year and he/she can be attached with the DSM Project for sometime for capacity building and also to assist in legislation drafting. Another option if private practitioners are used, is to develop a mandate to ensure that after the placement with the Project, they return to share their skills with the government for a certain period. Ms Rengiil also made mention that it is better that the DSM taskforce is formed in-country first before any legislative work is conducted. It is important to have a person on the ground to be delegated specifically for DSM purposes; however, multi-candidate is a better approach so if trained nationals migrate overseas, Palau would still have the capacity in-country.

## **2.5 Conclusion of the Working Group Session**

The following outcomes were agreed during the workshop:

- Review Palau's existing policy and legislation.
- Review DSM into the Petroleum Act.
- Palau is interested in all training opportunities offered by the DSM Project.
- A ToR for the taskforce will be drafted in consultation with the DSM Project before a presidential executive order is sought. Once the taskforce is approved, the DSM Team will be consulted in order to assist in speeding the processes required to set up the taskforce.

## ATTACHMENT 1

### Workshop Programme

Time	Activity	Presenter
9:00 – 10:00 am	Official Welcome and Introduction	[Facilitator: Mr Gustav Aitaro – Director of International Corporation, Ministry of State]
	Prayer	
	Official Opening	Palau Government Official (Hon Minister Dr Victor Yano)
	Responding Remarks	Mr Amena Yauvoli (Head of Delegation, SPC)
	Overview of the SPC-EU EDF10 Deep Sea Minerals (DSM) Project	Mr. Akuila Tawake (DSM Project Team Leader, SPC)
	[Group Photo for workshop Participants]	
10:00 – 10:15 am	<b>Morning Tea</b>	
10:15 – 12:30 pm	Deep Sea Minerals and Mining in Pacific Island Region and Palau deep sea minerals	Mr. Akuila Tawake (SPC)
	Outcomes of the DSM Project Inaugural Workshop and the ISA-SPC Workshop	Ms Vira Atalifo (DSM Project Assistant – SPC)
	International law obligations and the draft Regional Legislative and Regulatory Framework.	Mr. Akuila Tawake (SPC)
	Palau: Relevant Law and Policy - gaps, requirements, needs and priorities	Ms Ernestine Rengiil - Attorney General
12:30 – 1:30 pm	<b>Lunch</b>	
1:30 – 3:00 pm	DSM Project Implementation in Palau: Formation of National Offshore Minerals Committee (NOMC) and Appointment of National Focal Point for DSM.	Ms Vira Atalifo (SPC)
	<p><b>Stakeholder Discussions</b></p> <p>Participants will be split into two working groups (policy and technical) and will be required to discuss the issues listed below and provide recommendations:</p> <p><b>Working Group 1: Policy Issues</b></p> <ul style="list-style-type: none"> <li>• Development of Offshore Minerals Policy and Legislation, and Regulation</li> <li>• Appropriate Fiscal Regime policies for deep sea mining</li> <li>• Environmental Management and Monitoring Frameworks/guidelines for deep sea exploration and mining</li> <li>• Offshore Mining Legal Instruments in relation to existing National policies, and</li> </ul>	All Participants [Facilitator: Akuila Tawake]

	<p>Regional and International Conventions (e.g. Noumea convention and UNCLOS)</p> <ul style="list-style-type: none"> <li>• Development of Marine Scientific Research Policy</li> </ul> <p><b>Working Group 2: Technical Issues</b></p> <ul style="list-style-type: none"> <li>• Technical and technological challenges of seabed mining and recommendations</li> <li>• Determine current institutional capacity and priority areas for capacity building</li> <li>• Ideas for capacity building initiatives (e.g. attachment in offshore exploration and mining, training workshops)</li> <li>• How to implement environmental monitoring and management for seabed exploration and mining</li> <li>• Stakeholder partnership (e.g. Government-Private sector-SPC-NGO partnership)</li> </ul> <p><b>General Issues</b></p> <ul style="list-style-type: none"> <li>• Benefits and adverse impacts of seabed mining</li> <li>• Formation of a National Offshore Committee (NOMC) for delivery of the DSM Project activities in Palau</li> <li>• Confirmation of the DSM Project technical focal points</li> <li>• Any additional seabed minerals and mining issues</li> </ul>	
3.00 – 3:15 pm	<b>Afternoon Tea</b>	
3:15 – 4:30 pm	Working Groups Report Back	Facilitator: Akuila Tawake
4.30 pm	Workshop close	SPC and Palau

## ATTACHMENT 2

### National Offshore Minerals Committee (NOMC)

#### Terms of Reference (TOR)

##### 1. BACKGROUND

The SPC-EU Deep Sea Minerals Project recommends the establishment of a National Offshore Mining Committee ('NOMC'); and is able to offer funding for technical and policy advisory assistance to support the NOMC in-country activities.

##### 2. MEMBERSHIP

The NOMC will be broad ranging in its composition, and inclusive of:

- potentially affected communities
- government officials
- non-state actors (NSA)
- national technical experts

Where possible the NOMC should aim to represent different genders, ages, and ethnicities or other relevant background characteristics, to reflect national demographics.

##### 3. SCOPE

The NOMC will:

- provide a forum for informed discussions about marine mineral exploration and mining;
- spearhead and assist the development of national offshore minerals policy, legislation and regulation as well as other deep sea minerals related activities that are within the scope of the DSM Project; and
- provide an accessible means for local communities and interest groups to raise concerns and queries, and to learn more about the opportunities and challenges that will be brought about by deep sea minerals exploration and mining.

##### 4. OBJECTIVE

The aim of establishing the NOMC is to facilitate decision-making in relation to the implementation of in-country deep sea minerals activities.

The creation of a cross-agency, multi-disciplinary and participatory committee like the NOMC should ensure that the Government has at its disposal all relevant information for policy and operational decisions; and should enhance public knowledge, understanding and awareness. This should increase the likelihood that policies and decisions related to deep sea minerals will be implemented with public consent and commitment. The NOMC may also serve to encourage trust and avoid conflicts, and to meet national legal, policy, and good governance requirements.

## **5. RESOURCES AVAILABLE**

Agreed costs of forming and operating the NOMC will be covered by the SPC-EU Deep Sea Minerals Project.

The NOMC will work in collaboration with the SPC-EU Deep Sea Minerals Project Technical Assistance Team (TAT) (i.e. Team Leader, Legal Advisor, Project Assistant) to ensure effective and timely implementation of Project activities. Depending on circumstances and priorities, relevant experts can be contracted to assist the NOMC.

## **6. SUGGESTED NOMC ACTIVITIES AND RESPONSIBILITIES**

- Convene quarterly meetings per year and develop an annual plan of work.
- Develop a national offshore minerals policy.
- Advise upon the drafting of national offshore minerals legislation.
- Make recommendations for other State decisions regarding deep seabed mineral exploration and exploitation.
- Identify opportunities and suitable candidates for capacity building opportunities; and assess the effectiveness of capacity-building initiatives.
- Work with the SPC-EU Deep Sea Minerals Project, identifying particular activities useful in the local context, or particular national support needs with which the Project can assist.
- Facilitate and mediate discussion and consultation between (i) key stakeholders, affected communities and the general public, and (ii) mining companies and/or relevant Government agencies.
- Raise awareness and disseminate accurate information about offshore marine minerals exploration and mining issues.
- Prepare regular (e.g. quarterly) progress reports/updates and submit them to TAT.
- Represent the country, and provide updates of NOMC activities, at national, regional and international meetings/workshops.

## **7. FINANCIAL PROCEDURES**

Reasonable and agreed costs incurred as a result of the NOMC in-country activities will be covered by the SPC-EU Deep Sea Minerals Project. The funds can be drawn down in advance from SPC, and acquitted for subsequently. Upon written confirmation of bank account details, electronic transfer of funds will be made directly to the responsible ministry and will be managed by the DSM Project technical focal point in Palau. The DSM Project contact for funding requests, and acquittals, is Vira Atalifo, on [vira@sopac.org](mailto:vira@sopac.org)/[viraa@spc.int](mailto:viraa@spc.int)

The initial transfer of funds required for the seating allowance (if required) and any other reasonable costs of holding the inaugural meeting of the NOMC will be transferred immediately upon request. At that meeting, the NOMC should prepare a provisional budget for the first year's activities of the NOMC, including invoices/quotations for its impending activities after the first meeting. Once this has been submitted to, and agreed by, the SPC-EU DSM Project, the funds for those activities can then also be drawn down.

Any expenditure over the total allocation contained in the agreed budget, or on activities that are not contained in the agreed budget and were not otherwise agreed in advance with the SPC-EU DSM Project, will not be funded by the SPC-EU DSM Project.

All expenditure made will have to be acquitted for by the focal point before the NOMC's next meeting, and before any subsequent request for funding can be approved. SOPAC will release funds based on satisfactory work done, work plan and progress report. The acquittal must demonstrate how the funds have been spent, and attach original receipts, invoices or other evidence that will meet auditing standards.

The NOMC should provide the SPC-EU DSM Project a quarterly progress report that includes the details of activities that had been carried out in the last quarter, and a work plan with budget for the next six months.

## ATTACHMENT 3

### Participants List Palau National Stakeholder Workshop on Deep Sea Minerals Date: 10<sup>th</sup> July 2012

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## **ATTACHMENT 4**

### **Record of One-on-One Meetings with Stakeholders**

#### **Introduction**

In addition to the National Stakeholder Workshop, a preliminary series of courtesy calls and consultation visits were arranged through the MNRET for the team (Mr Amena Yauvoli, Mr Akuila Tawake and Ms Vira Atalifo) to make initial correspondence with key stakeholders and formally invite them to the workshop. This section provides a sequential but brief record of these meetings.

#### **1. Ministry of Natural Resources, Environment and Tourism (MNRET)**

Date: Friday, 6<sup>th</sup> July 2012

Participants: Hon Minister Harry Fritz and Ms Nannette Malsol

#### **Comments/Discussions**

- Date and venue of the Palau national workshop was confirmed and the programme was finalized.
- Mr Yauvoli presented a brief update on the current institutional capacity, constraints and legislative challenges that PICs face. He supposes that Palau would face a similar situation and it is important that these challenges are approached through dialogue and active interaction from all relevant stakeholders.
- Palau has the absence of the applicable legal frameworks specifically for DSM; although Palau has been involved early on phosphate mining, bauxite and oil and gas.
- The Oil and Gas taskforce have five members with the Minister of Public Infrastructure leading as Chair. Ms Malsol will attempt to get a representative from Oil and Gas.
- Ms Malsol would have to confirm with the Minister of State on the list of invitations to the national workshop; Chamber of Commerce, Belau Tourism Association and Palau International Coral Reef Center represents many of the private sector and the NGOs as well.

#### **2. Attorney General's Office**

Date: Friday, 6<sup>th</sup> July 2012

Location: AG's Office

Participants: Ms Ernestine Rengiil (AG)

#### **Comments/Discussions**

- Ms Rengiil stated that due to lack of human resources, even if there is applicable legislation, implementing would be the issue.
- Ms Tawake mentioned that the DSM Project has developed the RLRf which Palau can use to develop its DSM policy, legislation and regulations. He said that the presentation to be made at the national workshop on the existing laws in Palau and the gap in regards to DSM would be essential to identify how the DSM Project can assist in terms of legislation development.
- Mr Victorio Uherbelau, Palau's former DSM Project focal point made comments on the RLRf, but it is unfortunate that he is away at the time of the national workshop.

### **3. PALARIS**

Date: Friday, 6<sup>th</sup> July 2012

Location: PALARIS Office

Participants: Ms Madelsar Ngiraighas and staff

#### **Comments/Discussions**

- Mr Yauvoli introduced the SPC team and provided a briefing on the four key result areas of the DSM Project.
- Mr Tawake mentioned that SOPAC has limited data on the marine mineral potential of Palau because Palau was not in the list of countries that were part of the SOPAC/Japan surveys from 1985-2005. The information that SOPAC has is research data from the USGS and based on their assessment, Palau has potential for SMS deposit.
- Ms Ngiraighas stated that PALARIS is under the direction of the Ministry of Public Infrastructure, Industry and Commerce and the Minister directly manages PALARIS since they do not have a Program Manager.
- Plans are underway for PALARIS to establish a National Hydrographic Office

### **4. EQPB**

Date: Friday, 6<sup>th</sup> July 2012

Location: EQPB Office

Participants: Ms Portia Franz, Ms Metiek Kimie Ngirchchol and Ms Roxanne Blesan

#### **Comments/Discussions**

- According to USGS, Palau has occurrences of SMS deposits but to fully comprehend the extent or potential of the deposits, more marine mineral surveys would need to be carried out.
- Marine minerals are generated at geological settings where subduction zones occur (far from the shore), different types of minerals occur in different geological settings of the seabed.
- China is currently limiting the trading of metals to developed countries like US and Japan hence the reason why countries are scouting for other alternative sources of minerals in which the metals are sourced from.
- Mr Tawake mentioned that in the case of SMS extraction; one option is for mining companies to grab and extract the minerals onboard the vessel and the other is to crush the minerals at the seabed and then pump them up to ship. Mr Tawake stated that since DSM mining has never occurred anywhere in the world, certain impacts can only be confirmed or measured when mining actually occurs.
- My Yauvoli said that because of the role of the EQPB as Conservator, the DSM Project appreciates EQPBs input and contribution in policy development and capacity building etc.
- Like the Cook Islands, tourism is the major economic backbone of Palau. Cook Islands are responsible in their approach towards deep sea exploration and mining, they have implemented a DSM legal framework in place and are acting to ensure that their marine mineral resources are sustainably developed and that the environment is protected; Palau could learn from the Cook Islands approach and the outcomes of the PNG.

## **5. Environment Office**

Date: Friday, 6<sup>th</sup> July 2012

Participants: Mr Sebastian Marino

### **Comments/Discussions**

- Mr Marino mentioned that Palau has existing marine laws (law against bottom-line trawling etc.) although these laws have to be reviewed against new legal frameworks to avoid replication and inconsistency.
- The North side of Palau have great potential for oil and despite companies pushing forward for these, the President was firm on his decision to implement the appropriate legal frameworks first before proceeding with the activity. Mr Tawake agreed that policy and legislations should be implemented first prior to the development in order to prevent companies from dictating their activities.
- Recommended to separate the legislations for oil and gas from DSM because they both occur in different geological settings and therefore face different environmental impacts.
- Mr Marino mentioned that the Palau system is such that when a piece of legislation is pushed from the grass root level (GRL), it holds more credit when it progresses towards national; in comparable the one that is not supported by GRL becomes questionable and is likely to be left idle on some ones desk.



**SPC**  
Secretariat  
of the Pacific  
Community

