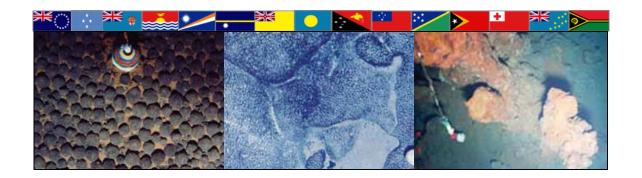




SPC-EU EDF10 Deep Sea Minerals (DSM) Project



2012 Annual Report For the period 1st January – 31st December 2012



Participants of the 1st Regional Deep Sea Minerals Training Workshop, Nadi Fiji 13^{th -} 17th August 2012.

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March 2013

IMPORTANT NOTICE

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Executive Summary

The year 2012 is the second year in which the regional SPC-EU EDF10 Deep Sea Minerals (DSM) Project was implemented in the fifteen Pacific ACP States. Significant progress in terms of implementing Project activities has been achieved in the last twelve months. In the Project's endeavour to raise awareness and share information, substantial time and effort were dedicated to country visits, and a national stakeholder consultation workshop was held in each of the twelve participating countries of the Project that were visited in 2012.

A notable achievement is the completion of the "Pacific ACP States Regional Legislative and Regulatory Framework (RLRF) for Deep Sea Minerals Exploration and Exploitation" in the second quarter of last year. After receiving the contribution and endorsement of all 15 Pacific ACP Countries, the RLRF was finalised in July and was subsequently launched during the Pacific Forum Leaders Meeting in Rarotonga Cook Islands in August 2012. The Pacific Forum Leaders have expressed their appreciation to the SPC and the European Union (EU) for this milestone achievement and have provided their support to the regional deep sea mineral initiatives that have been undertaken under the DSM Project.

Additionally, draft seabed minerals policy, legislation and regulations for the Kingdom of Tonga have been prepared with the assistance of a Legal Consultant. These three documents have been sent to the relevant government agencies in Tonga for public consultation and review. Ongoing discussions are progressing well with a number of participating countries on how the DSM Project is going to assist them in developing their national seabed minerals policy, legislation and regulations.

In regards to the capacity building component of the Project, a legal internship scheme was introduced in January of 2012 and a total of six legal interns were attached to the Project at different periods in 2012. It was unfortunate that no shipboard training took place during the reporting period due to the lack of response from the exploration company that had been expected to collaborate with the Project in this regard. However, a representative of the Government of Kiribati was supported by the Project to participate in a pre-cruise marine safety training. Further, after discussions with the Cook Islands Seabed Minerals Authority and the US Geological Survey (USGS), selected manganese nodule samples from the Cook Islands that had been stored at the SOPAC Division were sent to the USGS for chemical analysis. The Project is going to provide financial support for a scientist from the Cook Islands to participate in chemical analysis, data interpretation and reporting in respect to these samples at the USGS in early 2013.

Part of the Project's institutional strengthening component is to conduct regional short-term training workshops on various technical, policy and legislation, societal impacts, stakeholder participation, and fiscal matters relating to deep sea minerals. The first regional training workshop was on the "Geological, Technological, Biological and Environmental Aspects of Deep Sea Minerals" and it was held in Nadi Fiji in August 2012. In addition to the first regional training workshop, the DSM Project in collaboration with partners will host four training workshops on various deep sea mineral topics between 2013 and 2014. The main purpose of these regional training workshops is to develop and/or enhance the knowledge of participants on various aspects

of deep seabed minerals that will enable them to make informed decisions. The Project is responding to stakeholder needs and requests, in designing the workshops' content.

Recognising the importance of information sharing, the DSM Project has been actively sharing information related to deep sea minerals through information brochures, DSM reports and press releases with stakeholders in the region. Media releases in 2012 have been focused on Project activities and deliverables, as well as emerging deep sea mineral issues both at national and regional levels. In addition, five country specific information brochures, describing each country's deep seabed minerals potential, were prepared, finalised and distributed to in-country stakeholders. The financial support of the EU has been highlighted in all SPC sponsored press releases.

A review of the DSM Project was conducted in September 2012. The EU commissioned an interdependent Result Oriented Monitoring (ROM) expert (Mr Roberto Canessa) to review the DSM project. The review involved personnel interview with SOPAC Division management and DSM Project team members and selected stakeholders in Fiji, Tonga and the Cook Islands. A senior official of the International Seabed Authority was also consulted. Documents that were analyzed including: project documents, progress and annual reports, information brochures, the RLRF and workshop reports. The Project scored a "B" for each of the assessment criteria hence the overall ROM score of the Project is "B". A number of recommendations are given in the report for the improvement of Project deliverables and accordingly some adjustments will be implemented from 2013.

Finally, the 3rd Meeting of the DSM Project Steering Committee was held in Noumea on Monday 5th November 2012. Twelve of the fifteen participating countries of the DSM Project were represented during the meeting as well as the Officer responsible for the DSM Project at the EU Delegation Office in Suva.

1. Introduction

The end of 2012 marks the conclusion of the second year in which the SPC-EU EDF10 Deep Sea Minerals (DSM) Project was implemented in the Pacific Islands region. Notwithstanding the competing demands on Project personnel, there has been a steady progress in the implementation of Project activities in the 15 participating countries of the DSM Project. With particular interest of Pacific ACP States to participate in deep sea mineral activities within national jurisdiction as well as in the Area, SPC through the DSM Project has a duty to assist countries to ensure sound resource management and to secure appropriate national benefit from this new industry.

A lot of effort has been dedicated during the year in developing, reviewing through extensive stakeholder consultations, and finalising the RLRF. The official launching of the RLRF in the margins of the Forum Leaders meeting in Rarotonga Cook Islands in August 2012 signifies the completion of Key Result Area (KRA) 1 of the Project. While the implementation of activities under other KRAs (i.e. KRAs 2, 3 and 4) are also progressing well, some challenges have been identified that may impact on maintaining progress hence some adjustments are necessary to address those issues.

Significant time and effort have been dedicated to country visits and to hold a national deep sea minerals stakeholder consultation workshop in each country. A total of twelve countries were visited in 2012 whereby priority deep sea mineral activities have been identified for each country through stakeholder consultations. The next priority is to continue collaboration with stakeholders and implementing partners to ensure that regional and national deep sea mineral priorities are successfully implemented and/or addressed.

In September 2012, an independent expert was commissioned by the EU to review the progress of the DSM Project under the EU Result Oriented Monitoring (ROM) Mission. Many positive highlights have been reported on the delivery of Project activities given the short period in which the Project has been implemented. However, a number of shortfalls have also been identified in the ROM report, including the possibility to supplement the capacity of the Project by increasing the team's human resources.

The Project activities that were accomplished in the year 2012 will be covered in this report according to the four Key Result Areas of the DSM Project.

2. Key Result Area 1: Development of Regional Legislative and Regulatory Framework(s) (RLRF) for Deep Seabed Minerals Exploration and Exploitation.

The formulation of a regional framework for deep sea minerals is the major activity under Key Result Area 1 of the Project. This was accomplished via a consultative approach. Following the countries' agreement in 2011 to Terms of Reference for the development of the "Pacific ACP States Regional Legislative and Regulatory Framework (RLRF) for Deep Sea Minerals Exploration and Exploitation", a first draft RLRF was circulated for comments to participating countries and interest groups in January 2012. Taking into account the various comments /

suggestions received by early April 2012, the RLRF was subsequently revised and the revised draft was re-circulated in the second half of April 2012, reaching more than 300 individuals and agencies world-wide in the five month consultation period.

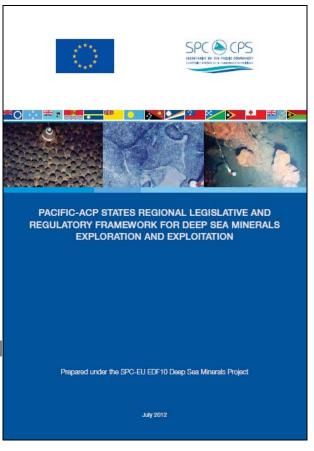


Figure 1. The front cover of the RLRF.

Representatives of relevant government agencies of all 15 Pacific ACP States were asked to review the revised draft, and the contribution and endorsement of all 15 Pacific ACP Countries were received. More than fourty additional comments were obtained from various interest groups such as deep sea minerals experts, Non-Governmental Organisations, the private sector, regional / international agencies and academia. Generally, the feedback on the document was very positive and the comments provided have been helpful in reviewing the RLRF and ensuring the document is robust, and applicable to the needs of the region's States, and reflective of diverse relevant perspectives.

The finalised RLRF (Figure 1) was officially launched during the 2012 Pacific Forum Leaders Meeting that was held in Rarotonga. Cook Islands in August. In the presence of Forum Leaders, Diplomats, and senior government officials, the Deputy Prime Minister of the Cook Islands, Mr Tom Marsters, and the Director General of the SPC, Dr Jimmie Rodgers, jointly launched the RLRF (Figure 2).

In his remarks to launch the RLRF, the Cook Islands Deputy Prime Minister, Mr Tom Marsters said: "We sit in a region that is looking to grow, develop and be part of an emerging deep sea minerals industry, both in areas of national and international jurisdiction. Indeed the opportunity these previously untapped resources may present, for improving the economic well-being of our Pacific people, was once just a dream of our past leaders and that dream, I believe, is fast becoming a reality these days.

But I must temper this regional excitement that we share, with a call also for caution. We would not want to do anything today which will ruin the lives of our children and grandchildren, in cultural, social, environmental and economic terms. As a senior Pacific leader in the region, I encourage us all to accept and work together, that we must leave a legacy we are each proud of.

We must enter this new seabed mineral frontier with common standards and upon the best advice available. And this is exactly what the SPC-EU Regional Seabed Minerals Project, administered by SOPAC, is designed and being implemented to achieve. The Framework also seeks to provide Pacific Islands with the tools necessary to make a decision about whether or not to engage with the emerging deep sea mining industry".



Figure 2. The official launch of the RLRF by the Cook Islands Deputy Prime Minister, Mr Tom Marsters (left) and the Director General of the SPC, Dr Jimmie Rodgers (middle).

In the 2012 Forum Communiqué, the Leaders expressed their appreciation to the SPC for the development of the RLRF through the SPC-EU DSM Project. In doing so, the SPC has successfully delivered against a Pacific Plan priority action. Section 5 of the Communiqué reads: "Leaders welcomed the Regional Legislative and Regulatory Framework for Deep Sea Minerals Exploration and Exploitation identified as a Pacific Plan priority action in 2009 and thanked the Secretariat of the Pacific Community (SPC) and the European Union (EU) for the assistance towards the Framework. Leaders recommended that Forum Island Countries (FICs) consider using the Framework in formulating relevant national policy noting it highlights the need for a precautionary approach and addresses economic, social and environmental aspects to ensure sustainable resource use prevails".

Hard copies of the RLRF were made available and distributed to Pacific Forum Leaders and senior government officials during the launch. In addition, both hard and soft copies of the RLRF have been shared with stakeholders and interest groups within and outside the region. The RLRF continues to receive positive feedback as an excellent, 'very comprehensive' and 'well-balanced' document.¹

The RLRF is also downloadable from the Project's website and available to be used by Pacific-ACP (or other) States as a guide to the formulation of national policy and law for the responsible regulation of seabed mineral activities.

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¹ A sample of remarks received. These were contained in feedback received from: the International Seabed Authority, UN Economic and Social Commission for Asia and the Pacific, the South Pacific Regional Environment Programme (SPREP), New Zealand Government, two seabed mineral exploration companies, and University Professors (from Hawaii, Lapland, the University of the South Pacific, and Alaska).

3. Key Result Area 2: Formulation of National Deep Seabed Minerals Policy, Legislation and Regulations

3.1 Country Visits and Consultations

A significant amount of time and effort was dedicated to country visits and in-country stakeholder consultations in 2012 due to the pressing need of visiting the remaining participating countries of the DSM Project. The following twelve countries were visited between January and October 2012: Tonga, Samoa, Fiji, Niue, Cook Islands, Tuvalu, Vanuatu, Solomon Islands, Republic of the Marshall Islands, Federated States of Micronesia, Palau and Timor Leste. The only country that is yet to be visited for the stakeholder consultation is PNG and discussions are continuing with PNG's Department of Mineral Policy and Geohazard Management (DMPGM) to hold this workshop in early 2013.

The main objectives of holding a national consultation workshop in each country are to: (1) present the DSM Project to in-country stakeholders, (2) discuss various issues and concerns relating to deep sea minerals and mining, (3) collectively identify and agree on national deep sea mineral priorities and plan for a way forward, and (4) provide the necessary guidance for the implementation of the DSM Project in-country. This visit also poses an opportune time to meet with in-country stakeholders and discuss deep sea minerals related issues with them.

Working with the national focal point and responsible Ministry the DSM Project Team and other relevant agencies provide oral presentations in the morning sessions, and participants are split into two working groups in the afternoon to discuss relevant technical and policy issues. Recommendations from the two working groups are further deliberated and refined in plenary and are recognised as the collective outcomes of the workshop.

In addition to each national consultation workshop, separate meetings with key stakeholders were organised prior to and after the workshop in an effort to make a broad range of stakeholders aware of issues related to DSM. Further, a questionnaire is routinely distributed to stakeholders and this is designed to ascertain each P-ACP State's current legal framework and relevant national policy (if any), to identify the gaps, and to establish the particular support that each country would require from the DSM Project. The proceedings of each national stakeholder consultation workshop are captured in a workshop report.

For the nine countries that were visited between January and June 2012 (i.e. Tonga, Samoa, Fiji, Niue, Cook Islands, Tuvalu, Vanuatu, Solomon Islands, and Republic of Marshall Islands), a description of the visits and the outcomes of the workshop were reported in the Project's 2012 six monthly progress report. For the purpose of this report, the highlights of the three countries (Federated States of Micronesia, Palau and Timor Leste) that were visited in the second half of 2012 are given below.

3.1.1 Federated States of Micronesia

The Federated States of Micronesia (FSM) National Stakeholder Consultation Workshop on Deep Sea Minerals ('DSM') was held in Kolonia, Pohnpei State in the FSM on 3rd July 2012 (Figure 3). It was organized by the DSM Project in collaboration with FSM's Department of

Resources and Development (DRD) in a combined effort to present the Project to in-country stakeholders and collectively discuss national deep sea mineral priorities.

The workshop was officially opened by Mr Hubert Yamada, Assistant Secretary for the DRD and the SPC responding remarks was delivered by Mr Amena Yauvoli, the Manager SPC North Pacific Office. In attendance were representatives from various government departments including Justice, Commerce, Resources and Development, and Education, as well as participants from the civil society and the media. A total of 34 participants attended the workshop.

Oral presentations were delivered by the DSM Project Team, the Deputy Director – Ocean and Islands Programme of the SOPAC Division, and the Assistant Attorney General of the FSM. The deep sea minerals study within the Exclusive Economic Zone (EEZ) of FSM was reported to have started in the early 1990s investigating the Cobalt-rich Crusts potential of selected seamounts. This was followed by the 1997, 1998 and 2005 Japan-SOPAC surveys assessing the Cobalt-rich Crust potential of a total of 16 seamounts. The EEZ of the FSM is recognised as part of the Micronesian crust zone, essentially encompassing parts of the FSM and the RMI EEZs and the adjacent international seabed area north of these two countries.



Figure 3: Participants of the FSM National DSM Stakeholder Consultation Workshop.

In summary, five major action points were identified during the workshop: (i) a DSM taskforce shall be established with members present at the workshop to further discuss with potential members from Fisheries, National Oceanic Resource Management Authority (NORMA) and other State members, (ii) DRD is the government entity responsible for DSM issues and Mr Hubert Yamada is the DSM Project technical focal point in the FSM, (iii) preparation of a model (State / company) agreement for Seabed Mineral Exploration is a priority and the DSM Project assistance is required to develop this; (iv) review existing and/or develop new legal frameworks (i.e. policy and legislation) to cover DSM within the country's EEZ, and (v) NORMA should clarify the status of the FSM maritime boundaries as FSM has not made public or clarified the precise limits of its maritime zones for the purposes of resources management or exploration.

3.1.2 Palau

In collaboration with the Ministry of Natural Resources, Environment and Tourism (MNRET), the DSM Project convened the Palau National Deep Sea Minerals Stakeholder Consultation Workshop in Koror, Palau on 10th July 2012 (Figure 4). In attendance were representatives from various government departments, as well as civil society groups, including the 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 workshop was officially opened by Honourable Dr Victor Yano, the Minister of State and the SPC responding remarks was delivered by Mr Amena Yauvoli.



Figure 4: Participants of the Palau National DSM Stakeholder Consultation Workshop.

It was reported that the USGS conducted DSM studies within the EEZ of Palau in 1990. The surveys confirmed the occurrence of both cobalt-rich crusts (CRC) and rock phosphate with some indication of seafloor-massive sulphide (SMS). Palau's EEZ is one of the least explored areas in the Pacific and given the likelihood of the country gaining substantive new seafloor areas from its Article 76 Submission it is recommended that Palau should encourage more marine scientific research and mineral exploration activities within its national jurisdiction.

The following four key action points were identified during the workshop: (i) review existing policy and legislation and remedy any gaps for regulating DSM, (ii) review Palau's recently enacted Petroleum Act and regulations to include seabed minerals, (iii) build in-country capacity in relevant aspects of deep sea minerals exploration and mining, and (iv) establish a DSM taskforce for Palau, which requires a presidential order.

3.1.3 Timor Leste

Convened in Dili on 23rd October 2012, the Timor Leste National Stakeholder Consultation Workshop on Deep Sea Minerals was organized by the DSM Project in collaboration with the office of the European Union's ('EU') National Authorising Officer (NAO) in Dili (Figure 5). In attendance were representatives from various government departments, academia, international agencies, the media and diplomats.

The workshop was opened by His Excellency Mr. Alfredo Pires, the Minister of Petroleum and Mineral Resources. Remarks followed from Ms. Ana Pesoa, the Attorney-General, and Mr. Peter Maher, the Head of Develop Cooperation at the EU Delegation in Timor-Leste. SPC responding remarks were delivered by Mr. Akuila Tawake, the DSM Project Team Leader.

Presentations were then delivered to the workshop by Mr. Tawake, Hannah Lily (the DSM Project Legal Advisor), and Ms. Elda da Silva (the Timor-Leste Extractive Industries Transparency Initiative National Co-ordinator). Topics covered included an overview of the Project, DSM in the Pacific, international legal requirements, and the operation of the Extractive Industry Transparency Initiative in Timor-Leste.



Figure 5: Participants of the Timor Leste National DSM Stakeholder Consultation Workshop.

Unlike many Pacific ACP States, there is no information available on Timor Leste's deep sea mineral potential. Efforts have been made in contacting marine geologists in the US and Australia to obtain any information on Timor-Leste's DSM potential but there is no information available. While the geological setting of Timor Leste is not conducive to seabed mineral formation, the lack of information does not necessarily mean that the country's EEZ has no seabed mineral potential. Perhaps increasing global metal prices over the years will trigger private sector interest to conduct seabed exploration within Timor-Leste's EEZ. More marine scientific research and exploration of DSM within the country's EEZ should be encouraged.

It was noted that Timor Leste already has active petroleum projects within its waters, and is currently generating large income from its oil and gas reserves (with \$10 billion already accumulated in its petroleum sovereign wealth fund). Participants expressed the view that the State should prioritise its focus on these known resources.

Four key action points were agreed to during the workshop: (i) The Director of Minerals from the Institute of Petroleum and Geology was recommended to be the DSM Project focal point in Timor Leste and clearance by the Institute's President would be required. In the meantime communications would continue between the DSM Project, the Director of Natural Resources at MPNR, and the NAO. (ii) Technical capacity-building was the key priority for Timor-Leste. Information about deep sea minerals, and all Project documents would be circulated widely to all interested stakeholders. (iii) A request would be made to the DSM Project (and the NAO) for a technical training workshop on geological, biological, environmental, and technological aspects of DSM to be held in Timor-Leste early in 2013, and to which PNG colleagues may be invited, and (iv) Timor-Leste should consider acceding to the UN Convention on the Law of the Sea², and taking full membership of the SPC.

3.2 Development of National Legal Instruments

The formulation of national deep sea mineral policy, legislation and regulations are a key component of Key Result Area 2 of the DSM Project. The RLRF is an important document that will provide much needed guidance to Pacific ACP States in the preparation of DSM legal instruments. The Project provides tailored expert legal advice or capacity-building for Project member countries on the international law framework relevant to DSM activities. The Project can further assist countries develop their legal instruments via the use of expert legal consultants.

3.2.1 Tonga

Given the recent increase in DSM activities in Tonga waters, the formulation of Tonga's legal instruments for the governance and administration of deep sea mineral have been identified as a national priority. The DSM Project was approached in late 2011 and has since been working together with the Attorney General's Office in Tonga to develop and put in place the necessary policy, legislation and regulations. In early 2012, the DSM Project provided drafting instructions for national legislation to Tonga that cover a regulatory regime for DSM activities both within national jurisdiction and for the country's sponsorship in 'the Area'.

Upon the request of the Tonga Government, the DSM Project prepared a suite of draft documents for Tonga, comprising national Seabed Minerals policy, Seabed Minerals Bill, Seabed Mineral Licensing Regulations, and a draft 'user's guide' to the Bill and Regulations. These were submitted to the Attorney General's Office between June and October, for Government review and public consultations, and the DSM Project has reiterated its willingness to assist in this process. The legislation is expected to be finalized and enacted in 2013 through the normal parliamentary process.

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² Timor Leste in fact acceded to the UN Convention on the Law of the Sea in January 2013: the 165th State to do so.

3.2.2 Federated States of Micronesia

The drafting of a government-company Contract Agreement for seabed minerals exploration was identified as one of the national priority issues during the FSM national deep sea minerals workshop that was held in Pohnpei in July 2012. In response to this request, the DSM Project had prepared a Contract Agreement template that can be modified to suit specific agreements between the government and any exploration company. The draft Agreement was sent to the Department of Resources and Development in August 2012.

3.2.3 Fiji

At the invitation of the Fiji Government, representatives of the DSM Project attended regular meetings of the Fiji Maritime Affairs Coordinating Committee (MACC) in late 2012 in order to provide legal and technical advice to MACC on issues relating the deep sea minerals. This consultative engagement was particularly important on the Government's plan to sponsor a company to explore and, if feasible, mine seabed minerals in the International Seabed Area ("the Area").

A meeting between MACC and a potential partner company occurred in December 2012. If Fiji is to proceed with sponsorship of seabed mineral activities in the Area, it will be necessary to put in place national law to regulate its sponsored party's activities in the Area, in accordance with the 2011 ITLOS (International Tribunal on the Law of the Sea) Advisory Opinion on the responsibilities of a sponsoring State. A timeline for the development of Fiji's international seabed decree was agreed during a meeting between the Fiji Government and the SOPAC Division of the SPC at the end of 2012.

The DSM Project has agreed to prepare in January 2013 a first draft decree for Fiji Government. This will be taken forward by the Ministry of Foreign Affairs and the Office of the Attorney General, in consultation with MACC and other stakeholders identified by Fiji Government, and with DSM Project's continued support in relation to relevant international law framework. The law is expected to be reviewed and decreed by the Fiji Government in the first quarter of 2013.

3.2.4 Nauru

Drafting instructions for national seabed minerals legislation were prepared and sent to the Secretary of the Nauru Ministry of Foreign Affairs in March 2012. The DSM Project has maintained regular correspondence with Nauru Government and at the end of the reporting period awaits further instructions from the Government on what further assistance the Project can offer to Nauru to proceed with the drafting of the national deep sea minerals policy and law.

3.2.5 Vanuatu

After the Vanuatu national deep sea minerals stakeholder consultation in May 2012, the DSM Project at the request of the Director of the Department of Energy, Mines and Minerals prepared a draft Council of Ministers paper to assist the Department of Geology, Mines and Water Resources (DGMWR) brief Ministers on relevant issues and to obtain mandate for the formal establishment of a national deep sea minerals committee. Upon approval this committee is

expected to liaise with the DSM Project Team for the implementation of in-country project activities.

3.2.6 Republic of the Marshall Islands

Similarly, at the request of the Government of the RMI during the June 2012 national stakeholder consultation workshop, the Project provided to the Ministry of Foreign Affairs and the Office of the Attorney General a draft Cabinet paper for the formal establishment of the Coastal Management Advisory Council (CMAC). The deep sea mineral activities will be included in the broader CMAC mandate, who will liaise with the DSM Project Team for the implementation of in-country Project activities.

3.2.7 Cook Islands

At the request of the newly established Seabed Minerals Authority (SBA) of the Cook Islands, the DSM Project provided comments on the draft Cook Islands national deep sea minerals policy. Additionally, initial drafting notes for seabed mining environmental regulations have been provided to the SBA.

4. Key Result Area 3: Strengthened and increased national capacities

4.1 Ship Board Training

The DSM Project has devised a capacity building programme under Key Result Area 3 that enables selected candidates from Pacific ACP States to participate in hands-on exploration activities. In consultation with partners and exploration companies, a shipboard training programme has been initiated and the DSM Project is providing financial support for safety training, on-the-job training on the research vessel as well as to enable sponsored candidates to participate in the post-survey data analysis and report writing.

In the first instance, Mr Tearinaki Tanielu, a Kiribati government official was financially supported to undertake a marine safety training course in Sydney Australia in March 2012. This safety training is a prerequisite for those who wish to participate in deep sea mineral exploration activities and to prepare Mr Tanielu for a shipboard training later on in 2012. Unfortunately the shipboard training did not materialise in 2012 as the identified research vessel was unable to accommodate Mr Tanielu. However, Mr Tanielu has ceased to be available, as he has accepted a 2013 fellowship with the United Nations' Division of Ocean Affairs and Law of the Sea (DOALOS) under the auspices of the Nippon Foundation of Japan.

4.2 Regional Training Workshop

In response to capacity requirements of Pacific ACP States on various issues relating to deep seabed minerals, the DSM Project has devised a training programme that is consistent with the proposed activities under Key Result Area 3. Part of this training initiative is to conduct regional short-term training workshops on various technical, policy and legislation, societal impacts, stakeholder participation, and fiscal matters relating to deep sea minerals.

4.2.1 First Regional Training Workshop

Since the commencement of the DSM Project in early 2011, representatives of all Pacific ACP States have highlighted a lack of knowledge in-country with the technical aspects of deep sea mineral activities. The Project's first training workshop was therefore organised to enhance stakeholders' knowledge on these issues and focused on the "Geological, Technological, Biological and Environmental aspects of Deep Sea Minerals". The workshop was held in Nadi, Fiji on 13th to 17th August 2012 (Figures 6A-6D).

The objective of this training workshop was to develop and/or enhance the knowledge of Pacific ACP States participants on geological, technological, biological and environmental aspects of deep sea minerals through; (1) delivery of appropriate lecture materials; (2) presentation of videos and graphics related to each topic; (3) active participation and interactive discussions during the workshop; (4) short tests or exercises to gauge the level of knowledge of each participants; and (5) provision of relevant training materials to each participant (i.e. reports, handouts, power point presentations, and video clips).



Figure 6. Activities from the 1st regional training workshop: (A) Participants listening during a session; (B) Prof Chuck Fisher making a point during one of his presentations; (C) Group discussions; and (D) Presentation of the Certificate of Completion at the end of the workshop.

The DSM Project contracted two world renowned experts on deep sea minerals in Dr Jim Hein and Prof Chuck Fisher as resource scientists during this workshop. Dr Hein is a senior scientist at the US Geological Survey with more than 35 years of work experience studying marine mineral deposits. Similarly, with more than 30 years of studying biological communities associated with

deep sea mineral deposits particularly hydrothermal vents, Prof Fisher is currently a Professor of Biology at the Pennsylvania State University.

In addition, other experts in their own fields who attended and presented were:

- Dr Malcolm Clark, a Principal Scientist with NIWA³ in New Zealand who presented on Fisheries and the likely Impacts of deep sea mining on living ocean resources,
- Mr Kris Van Nijens, the General Manager of OceanflORE ⁴ gave a talk on Marine Technology and also showcasing marine technologies that are or will be manufactured by the company, and
- Dr John Feenan, the Director Exploration Advisory Services for IHC Mining B.V.⁵, presented on IHC Mining and the Drivers for Mineral Exploration and Mining Technology Development.

Two representatives of each Pacific ACP Country, as well as representatives of civil society organisations and the private sector attended the workshop. The draft report on the workshop proceedings was sent to participants for comments and the final review is currently underway before the report is finalised.

4.2.2 Planned Training Workshops

In addition to the first regional training workshop, the DSM Project will host four training workshops in 2013 and 2014. At the DSM Project Steering Committee meeting that was held in Noumea, New Caledonia in October 2012, a number of Pacific ACP Country representatives raised their concerns about in-country capacity to negotiate seabed mineral contracts with exploration / mining companies, given limited in-country resources and knowledge on mining issues. Consequently, it was agreed during the meeting that the regional training workshop on "Deep Sea Minerals Law" would be expanded to include Contract Negotiations" and brought forward to March 2013.

Due to stakeholder concerns on environmental issues pertaining to deep sea mineral activities, discussions have commenced with the Secretariat of the Pacific Regional Environmental Programme (SPREP) in late 2012 on the two regional organizations (SPC and SPREP) cohosting a regional training workshop on the Environmental Perspective of Deep Sea Mineral Activities in the Pacific. This workshop will build on the last two environment related workshops run by the Project (the Environmental Management Needs for Exploration and Exploitation of Deep Sea Minerals Workshop that was jointly organized by the International Seabed Authority, SPC and the Fiji Government, and the SPC-EU DSM Project 1st Regional Training Workshop – see 4.2.1, above) and will focus on site assessment and Environmental Impact Assessment ('EIA'), as well as identifying national needs for implementing a proposed EIA process.

The revised schedule for planned regional training workshops is given below:

- March 2013 Legal Aspects of DSM and State-Private Sector Contract Negotiations;
- June 2013 Stakeholder Participation and Social Impacts of Deep Sea Mineral Activities

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³ NIWA – National Institute for Water and Atmospheric Research

⁴ OceanflORE, a joint venture between IHC Mining B.V. and DEME aims to develop valuable offshore contract mining solutions

⁵ IHC Mining B.V. specialises in dredging and marine mining.

- August 2013 Environmental Perspectives of Deep Sea Mineral Activities in the Pacific;
- March 2014 Fiscal Regime and Revenue Management of Deep Sea Mining.

4.3 Analysis of the Cook Islands Manganese Nodules

In consultation with Dr Jim Hein, a senior marine geologist of the US Geological Survey (USGS) and Mr Darryl Thorburn of the Seabed Minerals Authority in the Cook Islands, it was agreed that Cook Islands manganese nodule samples that had kept at that SOPAC Division storage facility in Suva should be analysed for various metallic elements including Rare Earth Elements (REE). Dr Hein was in Suva in October 2012 and personally examined and selected a total of 26 manganese nodule samples that were collected during the 1976, 1978 and 1980 surveys (i.e. 1976 – 9 samples; 1978 – 13 samples; and 1980 – 4 samples) (Figure 7). These nodule samples were packed and sent to the USGS in Santa Cruz for analysis.

The DSM Project has agreed with USGS and Cook Islands Government to provide financial support, as part of its ongoing capacity building work. This will enable a Cook Islands national in early 2013 to travel to the USGS and be trained by Dr Hein on different methods of sample analysis, data interpretation and report writing.



Figure 7. Cook Islands manganese nodules samples that are kept in the SOPAC Division storage facility: (A) Dr Jim Hein is carefully selecting the nodule samples to be analysed at the USGS; (B) and (C) exhibit different nodule sizes and shapes that were sampled.

4.4 Legal Internship

A legal internship programme has been established since early 2012 as part of the capacity building of the DSM Project. Law graduates are contracted on a short-term basis to work alongside the DSM Project Legal Advisor and be trained on the legal aspects of deep sea minerals for a period between one to three months (depending on availability). The internship programme commenced in January with a one month placement of a Tuvaluan law student. A total of six legal interns joined the DSM Project at different periods in 2012 as shown in Table 1 below.

Table 1. Interns who joined the DSM Project Legal Internship programme in 2012.

Name	Nationality	Internship Period spent at the SOPAC Division					
Ms Amelia Ponton	Tuvaluan/British	23 rd January–24 th February 2012					
Mrs Laniana Raikatalau	Ni-Vanuatu/Fijian	9 th July – 31 st August 2012					
Ms Aisiena Taumoepeau	Tongan	9 th July – 28 th September 2012					
Mr Panapasa Ratumaitavuki	Fijian	17 th September–6 th November 2012					
Ms Annie Kwan Sing	I-Kiribati/Fijian	15 th October–9 th November 2012					
Ms Alex Herman	Cook Islander	14 November–21 December 2012					

Additional placements of government law officers and law graduates from Pacific ACP States are anticipated for 2013. This capacity building initiative will be ongoing for the duration of the DSM Project, with the aim that all 15 participating countries of the Project will benefit.

4.5 Regional Marine Minerals Database

The collation of the Pacific deep sea minerals data and information and the ultimate establishment of a Regional Marine Minerals Database are a crucial component of the DSM Project. In an effort to respond effectively to countries' requests for DSM data and information, and to collate and format data in accessible and readable form, the Project has employed a Data Management Officer on short-term basis to be responsible for this. The officer has been very helpful in collating relevant DSM data and information and this activity will continue in 2013.

4.6 Information Sharing

Over the last two years, the DSM Project has been actively sharing information related to deep sea minerals with stakeholders in the region. Apart from the DSM project information brochures and press releases, information obtained from relevant experts who have been attending DSM Project organised regional meetings and workshops have greatly assisted the Project in providing relevant and up-to-date and accurate information to our stakeholders.

4.6.1 MSG Environment Ministers Meeting

At the invitation of the Melanesian Spearhead Group (MSG) Secretariat, the DSM Project in collaboration with IUCN Oceania prepared and delivered two presentations during the MSG Environment Ministers meeting in Nadi, Fiji in January 2012. The meeting was also an opportunity to share DSM information at ministerial and senior government official level of the MSG countries.

4.6.2 DSM Documentary

The production of a DSM Documentary (a short and a full version) is in progress in collaboration with the SPC Regional Media Centre. The DSM Project wishes to express its gratitude to the following organizations for the provision of relevant video footage: the International Seabed Authority, Woods Hole Oceanographic Institute (WHOI), National Science Foundation (NSF) 2000, Pennsylvania State University, and Neptune Minerals (US).

The main purpose of the documentary is to enhance the understanding of issues related to DSM at various levels, including decision and policy makers as well as local communities and the general public, ultimately to achieve informed decision making in the Pacific ACP States. With the assistance of the DSM Project Communication Specialist, the documentary is expected to be finalized in early 2013.

4.6.3 DSM Project Mini Website

In an effort to provide stakeholders in the region with relevant information on various issues relating to DSM, a mini-website for the DSM Project has been established within the SOPAC Division website. The website http://www.sopac.org/dsm/ was activated in July 2012 and has been regularly updated with information about the Project and links to its reports, brochures, and other resource materials.

4.6.4 Information Brochures

Five country-specific information brochures were prepared, reviewed and finalised in 2012 (Figure 8) in an effort to assist Pacific ACP States in promoting their respective deep seabed minerals potential: Each information brochure summarises the DSM potential of each of the following five countries: Kiribati, Tonga, Samoa, Fiji, and RMI. Hard copies of each of these information brochures have been distributed to each target country and other interest groups, and electronic copies are available at the individual countries' discretion.

Information Brochure 7: Tonga Deep Sea Minerals Potential Information Brochure 8: Samoa Deep Sea Minerals Potential Information Brochure 9: Kiribati Deep Sea Minerals Potential

Information Brochure 10: Fiji Deep Sea Minerals Potential

Information Brochure 12: Republic of Marshall Islands Deep Sea Minerals Potential

Additional country-specific information brochures will be prepared and distributed in 2013.



Figure 8: Four samples of the five country-specific DSM Project Information Brochures.

4.6.5 Donation from Partners

Through the Project's engagement with external partners, books and periodicals were donated to the SOPAC Division that significantly boosts the in-house resources of the Project. These publications can be used by staff members of the SPC as well as aspiring young professionals particularly scientists of Pacific Island Countries and Territories (PICTs) who would like to pursue a career in any deep sea minerals related field.

The Project wishes to express its appreciation to InterRidge (a global research community dedicated to interdisciplinary studies of oceanic spreading centres) for kindly donating thirty (30) deep sea minerals text books and periodicals to the SOPAC Division in 2012. Further, the Project would like to thank the ISA and Dr Chuck Fisher for donating text books as well as hard copies of workshop reports. A list of publications that have been donated to the DSM Project is given in **Annex 1** below.

4.6.6 DSM Project Communication Specialist

The EU ROM Review (see section 7 of this report), observing misinformation about the Project and seabed mineral issues in the media and NGO reporting from the region, recommended that the Project bring in additional external resources to assist develop and implement a Communications Strategy, with an aim to disseminate accurate and balanced information about deep sea mineral issues. At the end of 2012 a suitable Consultant had been identified for this position, and would commence in post on short-term assignments as DSM Project Communication Specialist from early 2013.

4.6.5 Other Initiatives

- The DSM Project Team have delivered a number of public presentations during the reporting period and have delivered lectures on deep sea minerals for the Ocean Governance, and Law of the Sea courses at the Suva and Port Vila campuses of the University of the South Pacific.
- A United Nations Environment Programme ('UNEP') publication 'Green Economy in a Blue World', was published in January 2012, and it contained a chapter co-authored by the DSM Project team: http://www.unep.org/pdf/green economy-blue.pdf
- In an attempt to engage with major deep sea mineral activities in the region, the DSM Project participated in the first Solwara 1 Project Environmental Management Plan (EMP) multi-stakeholder consultation that was held in Salt Lake City USA in February 2012.
- At the invitation of InterRidge, the DSM Project represented the Pacific Islands region at the 2012 InterRidge Steering Committee meeting in St Petersburg, Russia in June. An update on deep sea minerals related activities in the region was presented during this meeting.
- An article on deep sea minerals in the Pacific Islands region including a DSM Project update has been published in the 2012 InterRidge News: http://www.interridge.org/files/interridge/InterRidge%20News%202012-sm.pdf

4.7 Workshop Reports

4.7.1 Proceedings of the Inaugural DSM Project Regional Workshop

The Proceedings report of the Inaugural DSM Project Workshop that was held in Nadi Fiji in June 2011 was finalised and hard copies have been sent/delivered to each of the fifteen Pacific ACP States in early 2012. The workshop report is available at:

http://www.sopac.org/dsm/public/files/reports/PR024 LBDSM 20Apr2012 inaugural proceedings.pdf

4.7.2 Proceedings of the ISA-SPC-Fiji Workshop

The Proceedings report of the International Workshop on Environmental Management Needs for Exploration and Exploitation of Deep Sea Minerals that was held in Nadi Fiji between November 29th and December 3rd 2011 was finalised and published as a Technical Study of the International Seabed Authority. The SPC through the DSM Project was a sponsor and coorganiser of this workshop and an electronic copy of the report can be accessed at http://www.isa.org.jm/files/documents/EN/Pubs/TS10/TS10-Final.pdf

5. Key Result Area 4: Effective management and mechanisms for the monitoring of offshore exploration and mining operations

5.1 Ongoing Initiatives

Some activities under Key Result Area (KRA) 4 depend on the commencement of deep sea mining – which was anticipated at the time of the Project design. It is now uncertain whether mining will occur with the lifespan of the Project or not. As recommended in the ROM report (see section 7 below), this may require reorientation of Project activities to address other pressing needs of Pacific ACP States. However, some activities that are related to KRA 4 have been ongoing over the last year.

In addition to the development of the RLRF and national policy and legislation that cover environmental management and monitoring of DSM activities, the report on the ISA-SPC-Fiji International Workshop on "Environmental Management Needs for Exploration and Exploitation of Deep Sea Minerals" (the ISA Technical Study No. 10 – see sub-section 4.7.2 above) is a very useful product that Pacific ACP States can use. Of particular interest is the Environmental Impact Assessment (EIA) template that was prepared by various deep sea mineral experts representing marine scientific research groups, governments, the private sector, and regional and international organisations. This EIA template can be applied both within national jurisdiction and in "the Area".

5.2 Precautionary Approach

Due to the unknowns and uncertainties associated with deep sea mining, there are concerns



about its potential impact on marine living resources and ecosystems. Recent developments in international law have clarified that the Precautionary Approach, as described in Principle 15 of the 1992 Rio Declaration on Environment and Development, must be applied to DSM endeavours. There is however some ambiguity surrounding the meaning of the Precautionary Approach, and how it should be applied in a DSM context.

In response to this, the DSM Project in consultation with participating countries and implementing partners, prepared, published and distributed in 2012 an information brochure (number 13 in the Project's brochure series) seeking to explain the application of the Precautionary Approach on deep seabed exploration and exploitation activities (Figure 9).

Figure 9. Information Brochure on the Application of the Precautionary Approach for deep sea minerals.

5.3 UNEP/GRID-Arendal Assessment Report

The UNEP/GRID-Arendal report on the state of knowledge of marine minerals in the Pacific was due to be completed by December 2012. However, due to unexpected delays in receipt of content from chapter authors and reviewers, the report will now be finalised in 2013.

6. Communication and Visibility

In addition to the information sharing initiatives of the Project as highlighted in Section 4.6 of this report, press releases have been issued from time to time as part of the DSM Project communication and visibility. Major DSM Project events that were covered in the press releases and published in various media outlets throughout the region are: (i) Official launch of the RLRF; (ii) 1st Regional Training Workshop; and (iii) the National Deep Sea Minerals Stakeholder Consultation Workshop for a number of Pacific ACP States.

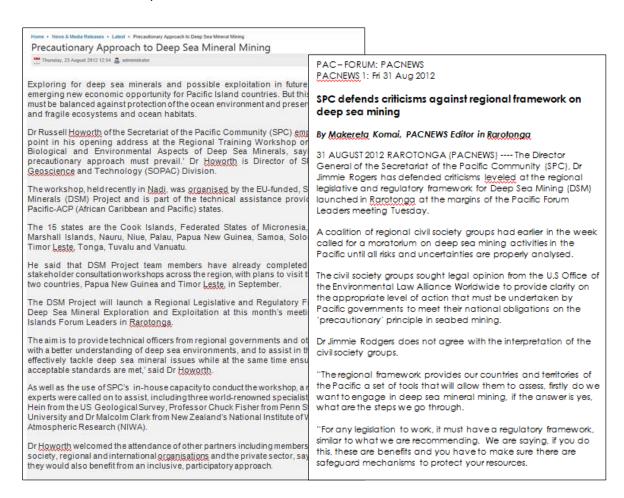


Figure 10: Samples of DSM Project press releases that were published in the second half of 2012.

In one of the press releases, Dr Jimmie Rodgers (the Director General of the SPC) in responding to criticisms levelled at the DSM Project's work in the region, said, "Our agenda is to enable countries to be knowledgeable and have the tools they require to think through the process. And if they want to engage, they should know who they want to be engaged with at the national level, with NGOS, civil societies, churches, governments and industries". An excerpt of Dr Rodgers interview with PACNEWS is given in Figure 10 above.

The financial support of the European Union had been highlighted in all SPC sponsored press releases and two examples are shown in Figure 10.

7. Result Oriented Monitoring (ROM) of the DSM Project

In September 2012, the EU commissioned an independent Result Oriented Monitoring (ROM) expert to review the progress of DSM Project. The ROM system is part of the overall quality assurance cycle of the EU and it provides external, objective and impartial feedbacks on the performance of projects / programmes funded by the EU. The objectives of the ROM are to: (i) give feedback to Project management; (ii) Provide an overview of the EC development Aid portfolio; and (iii) Contribute to lessons learned and best practices.

Mr Roberto Canessa was appointed as the ROM expert to review the DSM Project that took place between 3rd and 7th September 2012. The review involved face-to-face interviews (with SOPAC management, DSM Project team members, selected stakeholders in Fiji), phone interviews with a senior government official from Tonga and the Deputy Secretary General of the International Seabed Authority, and a country visit to the Cook Islands in which in-country stakeholders were consulted. The Project Legal Adviser accompanied Roberto to the Cook Islands (Figure 11). In addition, documents were analyzed including: project documents, progress and annual reports, information brochures, RLRF, and workshop reports.



Figure 11. Roberto Canessa (right) and Hannah Lily (middle) with the Cook Islands Deputy Prime Minister (left) in Rarotonga during the ROM mission.

The draft report was sent to the DSM Project through the EU Delegation in Suva at the end of October 2012 for comments. The Project scored a "B" for each of the assessment criteria and the overall ROM score of the Project is "B". The outcome of the ROM is tabulated in Table 2 below. It

was explained that the Project was prevented from scoring an 'A' due to the delay that occurred between the signing of the Financing Agreement between the EU and the Regional Authorising Officer (in March 2010) and the actual commencement of the Project implementation a year later-which inevitably impacted on the timeframe of the Project's deliverables.

A number of recommendations are given in the report for the improvement of Project deliverables hence some adjustments will be implemented in 2013. These recommendations include supplementing the Project's human resources with additional staff members and use of Consultants, particularly with regards environmental science, communications, and legal aspects of the Project.

Table 2. The Summary 2012 ROM of the DSM Project.

Assessment Criteria	Result
Relevance and Quality of Project Design	В
Efficiency of Implementation to date	В
Effectiveness to date	В
Impact Prospects	В
Potential Sustainability	В
Horizontal Issues	В
Overall Score	В

Note:

8. DSM Project Steering Committee

The 3rd DSM Project Steering Committee meeting was held in Noumea on Monday 5th November 2012 (Figure 12). Twelve of the fifteen participating countries of the DSM Project were represented during the meeting. Representatives of FSM, Niue and Timor Leste were unable to attend. Also in attendance was Mr Thierry Catteau, the officer in charge of the DSM Project at the EU Delegation Office in Suva. The meeting was chaired by Mr Keu Mataroa of the Cook Islands.

The Project Team Leader gave a presentation highlighting the achievements as well as challenges that have been encountered during the year. The 2012 work plan was also presented and discussed. This was followed by the Project Legal Advisor's presentation on an overview of the types of contractual arrangements that may be offered to States by companies operating in the region or in the Area.

This meeting was also used as a sounding board to direct the relative prioritisation for the content of the next DSM Project workshop. In response to strong demand from the Pacific ACP States' stakeholders who were present at the meeting, the Project agreed to postpone a planned workshop on social impacts and stakeholder participation related to DSM and brought forward a negotiations workshop to be held in March 2013.

¹⁾ Horizontal Issues include the role of QSG and ROM to project quality, review of Technical Cooperation quality criteria, and EC Visibility.

²⁾ ROM Result Grading: A – very good; B – good; C – problem; D – serious deficiencies

The minutes of the meeting (see **Annex 2** of this report) was prepared and sent to attendees for comments before it was finalised.



Figure 12. The 3rd DSM Project Steering Committee Meeting during session in Noumea New Caledonia in November 2012.

9. 2013 Work Plan

An in-house review of the DSM Project 2013 Work Plan was conducted in December this year. The revised Work is given in **Annex 3** of this report.

10. Consultants

- Mr Robert Makgill of North-South Environmental Law was contracted on a part time short consultancy basis between December 2011 and January 2012 to review a first draft of the RLRF.
- Dr Jim Hein, a Senior Scientist at the US Geological Survey, was contracted as a resource scientist for the "1st Regional Training Workshop on Geological, Technological, Biological and Environmental Aspects of Deep Sea Minerals" that was held in Nadi Fiji between 11th and 15th August 2012.
- Prof Chuck Fisher, a Biology Professor at the Pennsylvania State University, was engaged as the second resource scientist for the "1st Regional Training Workshop on Geological,

Technological, Biological and Environmental Aspects of Deep Sea Minerals" that was held in Nadi Fiji between 11th and 15th August 2012.

- Prof David Cronan was contracted on a cost sharing arrangement between the Government
 of the Cook Islands and the SOPAC Division through the DSM Project to undertake a
 resource assessment, based on previous data and information, of the manganese nodule
 resources that occur within the Cook Island Exclusive Economic Zone. This was a part time
 6 8 months contract running through to early 2013.
- Mr Paul Hibberd, a freelance Legal Expert on the Law of the Sea, was engaged as a short term Consultant to review the draft Tonga seabed minerals Bill and provide a first-draft of licensing regulations in August/September 2012.
- Ms Seruwaia Vasukiwai was contracted in late 2012 as a Data Management Officer for the Project (see paragraph 4.6, above) to collate relevant deep sea minerals data and information and format them into accessible and readable forms in preparation for the establishment of the Regional Marine Minerals Database (RMMD). This activity will continue in 2013.

11. Project Finances

An audited 2012 financial report of the DSM Project is presented in Annex 4 below:

Annex 1: List of Donated Publications

	Publication Title	Author(s)	Donated By:
1	Deep-Sea Biology , A Natural History of Organisms at the Deep-Sea Floor	Gage & Tyler	Dr Chuck Fisher
2	The Mid-Oceanic Ridge A Dynamic Global System Proceedings of a Workshop	Delaney et al	InterRidge
3	Back-Arc Spreading Systems Geological, Biological, Chemical, and Physical Interactions	David et al	InterRidge
4	The Silent Deep The Discovery, Ecology, and Conservation of the Deep Sea	Tony Koslow	Dr Chuck Fisher
5	Mid-Ocean Ridges Hydrothermal Interactions Between the Lithosphere and Oceans	German et al	InterRidge
6	Handbook of Deep-Sea Hydrothermal Vent Fauna	Editors: Desbruyeres and Others	InterRidge
7	Minerals Other Than Polymetallic Nodules of the International Seabed Area (Vol. 2) Proceedings of a Workshop held 26-30 June 2000 in Kingston, Jamaica	International Seabed Authority	ISA
8	Oceanography Vol. 25, No. 1, Supplement, March 2012 New Frontiers in Ocean Exploration. The E/V Nautilus and NOAA Ship Okeanos Explorer 2011 Filed Season	The Oceanography Society	InterRidge
9	Oceanography Vol. 25, No. 1, March 2012 Special Issue on Oceanic Spreading Center Processes Ridge 2000 Program Research	The Oceanography Society	InterRidge
10	Oceanography Vol. 25, No. 2, June 2012 Special Issue on Internal Waves	The Oceanography Society	InterRidge
11	Oceanography Vol. 24, No. 1, Supplement, March 2011 New Frontiers in Ocean Exploration. The E/V Nautilus 2012 Field Season	The Oceanography Society	InterRidge
12	Oceanography Vol. 24, No. 2, June 2011 Special Issue on Sea Level	The Oceanography Society	InterRidge
13	Oceanography Vol.23, No.1, March 2012 Special Issue on Mountains in the Sea	The Oceanography Society	InterRidge
14	Oceanography Vol.23, No. 2, June 2010 Special Issue on Marine Renewable Energy	The Oceanography Society	InterRidge
15	Oceanography Vol.23, No. 4 December 2010 Special Issue on The Future of Oceanography from Space	The Oceanography Society	InterRidge
16	Oceanography Vol. 22, No. 4, December 2009 Special Issue on The Future of Ocean Biogeochemistry in High -CO2 World	The Oceanography Society	InterRidge
17	Oceanography Vol. 21, No.4, December 2008 Special Issue on Coastal Ocean Processes	The Oceanography Society	InterRidge

Oceanography Vol.20, No.1, March 2007 Special Issue on InterRidge	The Oceanography Society	InterRidge
Oceanography Vol. 20, No.3, September 2007 Special Issue on Marine Population Connectivity	The Oceanography Society	InterRidge
Oceanography Vol. 20, No. 4, December 2007 Special Issue on Ocean Exploration	The Oceanography Society	InterRidge
Oceanography Vol.19, No,.4, December 2006 Special Issue on The Impact of the Ocean Drilling Program	The Oceanography Society	InterRidge
Oceanography Vol. 17, No. 4, December 2004 Special Issue on Strata Formation on European Margins: A Tribute to EC-NA Cooperation in Marine Geology	The Oceanography Society	InterRidge
Global Biodiversity Initiative Working towards high seas conservation	Global Ocean Biodiversity Initiative (GOBI)	InterRidge
Photographic Identification Guide To Larve at Hydrothermal Vents Woods Hole Oceanography Institution Technical Report: June 2009	Mills et al	InterRidge
First International Symposium on Deep-Sea Hydrothermal Vent Biology Hotel Baia Azul, Funchal, Madeira, Portugal 20-24 October, 1997	InterRidge	InterRidge
The Unknown Ocean The Baseline Report of the Census of Marine Life Research Program	Ronald K. O' Dor	InterRidge
First Census of Marine Life 2010 Highlights of a Decade of Discovery	Ausubel et al	InterRidge
Dive to the Deep Ocean Voyages of Exploration and Discovery	Deborah Kovacs	InterRidge
International Seabed Authority (Folder)	International Seabed Authority (ISA)	ISA
Teaching Physical Concepts in Oceanography An Inquiry- Based Approach	Karp-Boss et al	InterRidge
Too Deep To Anchor	Pradillion & Watanabe	InterRidge
Hotspot Ecosystem Research and Man's Impact on European Seas	HERMIONE	InterRidge
Environmental Management Needs for Exploration and Exploitation of Deep Sea Minerals, ISA Technical Study: No. 10	International Seabed Authority	ISA
Cahiers De Biologie Marine (CBM) Proceedings of the first international symposium on deepsea hydrothermal vent biology Vol.39: 3-4, 1998 Funchal, Madeira, Portugal 20-24 October 1997	Editor: Toulmond and Others	InterRidge
Cahiers De Biologie Marine (CBM) Proceedings of the second international symposium on deep-sea hydrothermal vent biology Vol.43: 3-4 2002 Brest, France 8-12 October 2001	Editor: Toulmond and Others	InterRidge
	Special Issue on InterRidge Oceanography Vol. 20, No. 3, September 2007 Special Issue on Marine Population Connectivity Oceanography Vol. 20, No. 4, December 2007 Special Issue on Ocean Exploration Oceanography Vol. 19, No., 4, December 2006 Special Issue on The Impact of the Ocean Drilling Program Oceanography Vol. 17, No. 4, December 2004 Special Issue on Strata Formation on European Margins: A Tribute to EC-NA Cooperation in Marine Geology Global Biodiversity Initiative Working towards high seas conservation Photographic Identification Guide To Larve at Hydrothermal Vents Woods Hole Oceanography Institution Technical Report: June 2009 First International Symposium on Deep-Sea Hydrothermal Vent Biology Hotel Baia Azul, Funchal, Madeira, Portugal 20-24 October, 1997 The Unknown Ocean The Baseline Report of the Census of Marine Life Research Program First Census of Marine Life 2010 Highlights of a Decade of Discovery Dive to the Deep Ocean Voyages of Exploration and Discovery International Seabed Authority (Folder) Teaching Physical Concepts in Oceanography An Inquiry- Based Approach Too Deep To Anchor Hotspot Ecosystem Research and Man's Impact on European Seas Environmental Management Needs for Exploration and Exploitation of Deep Sea Minerals, ISA Technical Study: No. 10 Cahiers De Biologie Marine (CBM) Proceedings of the first international symposium on deep-sea hydrothermal vent biology Vol. 39: 3-4, 1998 Funchal, Madeira, Portugal 20-24 October 1997 Cahiers De Biologie Marine (CBM) Proceedings of the second international symposium on deep-sea hydrothermal vent biology Vol. 43: 3-4 2002	Special Issue on InterRidge Oceanography Vol. 20, No.3, September 2007 Special Issue on Marine Population Connectivity Oceanography Vol. 20, No. 4, December 2007 Special Issue on Ocean Exploration Oceanography Vol. 19, No., 4, December 2006 Special Issue on The Impact of the Ocean Drilling Program Society Oceanography Vol. 17, No. 4, December 2004 Special Issue on The Impact of the Ocean Drilling Program Society Oceanography Vol. 17, No. 4, December 2004 Special Issue on Strate Formation on European Margins: A Tribute to EC-NA Cooperation in Marine Geology Global Biodiversity Initiative Working towards high seas conservation Biodiversity Initiative (GOBI) Photographic Identification Guide To Larve at Hydrothermal Vents Woods Hole Oceanography Institution Technical Report: June 2009 First International Symposium on Deep-Sea Hydrothermal Vent Biology Hotel Baia Azul, Funchal, Madeira, Portugal 20-24 October, 1997 The Unknown Ocean The Baseline Report of the Census of Marine Life Research Program First Census of Marine Life 2010 Highlights of a Decade of Discovery Dive to the Deep Ocean Voyages of Exploration and Discovery International Seabed Authority (Folder) International Seabed Authority (ISA) Teaching Physical Concepts in Oceanography An Inquiry- Based Approach Too Deep To Anchor Hermalional Exploitation of Deep Sea Minerals, ISA Technical Study: No. 10 Cahiers De Biologie Marine (CBM) Proceedings of the first international symposium on deep-sea hydrothermal vent biology Vol.43: 3-4, 1998 Funchal, Madeira, Portugal 20-24 October 1997 Cahiers De Biologie Marine (CBM) Proceedings of the second international symposium on deep-sea hydrothermal vent biology Vol.43: 3-4, 2002

Annex 2

SPC-EU Deep Sea Minerals (DSM) Project 3rd Steering Committee Meeting

Minutes of the Meeting

5th November 2012 SPC Mini-conference Room Noumea New Caledonia

A. Attendees:

Name	Country or Organisation
Keu Mataroa (Chair)	Cook Islands
Malakai Finau	Fiji
Tebete England	Kiribati
Maryanne Namakin	Kiribati
Mike Aroi	Nauru
Olai Uludong	RMI
Ngeriki Baules	Palau
Chris McKee	PNG
Lameko Talia	Samoa
Isaac Lekelalu	Solomon Islands
Taaniela Kula	Tonga
Faatasi Malologa	Tuvalu
Chris Ioan	Vanuatu
Thierry Catteau	European Union
Russell Howorth	SPC
Arthur Webb	SPC
Akuila Tawake	SPC
Hannah Lily	SPC

B. Summary of Key Issues and Outcomes:

	Summary of Issue	Outcome
1.	It has come to light that P-ACP States may be approached by purported DSM operators or investors, pressuring Governments to sign up to a deal that is described persuasively, but which in practice may be of great risk and little benefit to the State, and undermining of its sovereign interests. An imbalance of power was noted between some P-ACP Government's resources and specialist know-how, and the negotiation tactics and resources of mining companies.	The Steering Committee agreed as a high priority: a DSM negotiation skills workshop, to provide P-ACP country technical staff, law officers and foreign affairs representatives with the knowhow and skills to negotiate DSM contracts in their country's best interests. The DSM Project's availability bilaterally to assist countries in such negotiations with confidential expert legal and technical advice is also acknowledged.
2.	An unanticipated challenge to the Project's implementation over the past year has been opposition by vocal civil society movements, focussed both at the Project, and at P-ACP Governments engaging with DSM activities. Some such campaigns have been seen to disseminate inaccurate information about DSM, or to attribute a false position to the Project and its activities.	The Steering Committee support the DSM Project's engagement of an expert consultant to prepare a communication strategy, aimed directly to disseminate accurate and constructive messages about DSM, and to assist P-ACP Governments to do the same in their engagement with the public and other interest groups. P-ACP States' own public statements of support of the work of the Project, was also encouraged.
3.	The relevance and importance of the technical assistance that the DSM Project offers is reiterated by the P-ACP countries. Several activities by the Project are urgently requested by the Steering Committee. The DSM Project Team is a staff of three, and it is recognised that should requests for technical assistance increase, the Team may be at risk of being over-stretched.	The DSM Project is requested by the Steering Committee, in consultation with the EU as the donor, to use current Project funding underspend to supplement the existing Project Team resources, including through consultancies , additional staff members , and an extension to the life of the Project in order to be able to meet increasing demands on the Project by the P-ACP States.
4.	Whilst the Project's capacity-building initiatives are noted with gratitude, many P-ACP States' needs for in-country training, personnel, infrastructure, and information technology exceed what the current Project can deliver under its budget and work-plan. Additionally, while the Project's role in collating and sharing information about existing mineral resource data is acknowledged, many P-ACP States require further marine scientific research surveys (beyond the scope of the current DSM Project) to supplement existing DSM geological data.	The Steering Committee agreed to raise these points as national priority areas with their respective National Authorising Officers (NAO), in order that this be included in regional dialogue taking place between now and March 2013 between the NAOs, the Regional Authorising Officer and the EU, to ensure that DSM work, and a successor to this Project, is appropriately reflected as a continuing regional priority area in the next (11th) EDF round .
5.	As P-ACP States are engaging with DSM exploration, they are entitled to copies of the resulting data. This may be massive in size, and in a format incompatible with national IT systems.	The Steering Committee reiterated the importance of SOPAC's role as secure custodian of DSM data (past and future) on behalf of the P-ACP States, and delegates agreed that copies of vessel research data will be shared with SOPAC for archive and back-up purposes
6.	The DSM Project's information materials produced to date (including the RLRF and 12 information brochures) were commended, but it was queried to what extent this information was reaching local communities.	The DSM Project is recommended by the Steering Committee to provide funding assistance to Project countries who wish to translate Project materials into local languages, (and who consider they can identify suitable translators who will be able to manage the technical nature of some of the language involved).
7.	Some Project countries are ready to commence work on adapting existing national fiscal regimes to cover DSM, and wish to implement those at the same time as their regulatory law for DSM.	The Steering Committee suggest for the DSM Project in collaboration with implementing partners to provide preliminary advice in relation to DSM fiscal matters in 2013.

C. Full Minute of Meeting:

1. Welcome

SOPAC Division's Director, Dr. Russell Howorth ('RH'), welcomed all participants and handed to the Cook Islands' representative to Chair (in accordance with alphabetical order, and in the absence of the representative from FSM, who would otherwise have take over the Chair). The Chair, Mr. Keu Mataroa ('KM'), opened the meeting with a prayer, and on behalf of the Cook Islands' Government, civil society, and traditional leaders expressed sincere appreciation for the comradeship of the other P-ACP States and the SOPAC Division for the progress that has been seen with the DSM Project, and looked forward to constructive dialogue at the Steering Committee meeting.

2. Apologies

Apologies were made for: Dr. Jimmie Rodgers (the Director-General of SPC), Dr. Mike Petterson (the Director-Designate of the SOPAC Division, who will replace Dr. Howorth in January 2013), Deve Talagi on behalf of Niue, and representatives of Timor Leste and FSM.

3. Minutes of the last Steering Committee Meeting

The minutes of the last Steering Committee Meeting, dated 17 October 2011 were agreed as a true record of last year's meeting.

4. Update of DSM Project Activities and 2013 Work Plan

Akuila Tawake ('AT'), the DSM Project Team Leader reminded the steering Committee of the Project's Overall Objective and four Key Result Areas. He highlighted that, although the Project implementation agreement was signed between SOPAC and the EU in March 2010, intervening events (the move by SOPAC to become a Division of SPC) caused some delays in the Project's start-date. The Project commenced operation (with recruitment of the Project team) in February 2011. According to the Project's work plan it is now quarter 4 of year 2. However, due to that first year's delay, according to the official paperwork the Project is actually in quarter 4 of year 3, with just 16 months left to run. For this reason it would make sense to request from the EU to add an additional year to the Project's operation (within the existing funding).

AT presented an overview of the Project's Activities for the past 12 months. Key Result Area 1 was completed with the completion in July 2012 – after extensive consultation – of the Regional Legislative and Regulatory Framework for Deep Sea Mineral Exploration and Exploitation ('RLRF'), and its official launch in August 2012 at the Pacific Island Forum Leaders' meeting in Rarotonga, by the Cook Islands' Deputy Prime Minister and SPC's Director General. The RLRF can now be used by P-ACP States to develop national policy and legislation for DSM.

Significant progress was also made under Key Result Area 2 (development of national policy and legislation, with 12 national stakeholder consultation workshops being held in the past year (in addition to the 2 conducted in 2011). The final fifteenth national stakeholder workshop will be held next year in PNG. Within each P-ACP State, the Project encourages the establishment of a National Offshore Minerals Committee (or 'NOMC') to spearhead DSM Project activities in each country with DSM Project funding support. The NOMC should be comprised of representatives of a range of relevant stakeholders (Government, civil society groups and private sector). Some countries may elect an existing committee to take on the NOMC role.

With regards national laws, the Project at the beginning of 2012 provided drafting instructions to both Tonga and Nauru for the development of national DSM legislation. Tonga has moved ahead, and the DSM Project has assisted in developing drafts of a national Tonga DSM Policy,

Bill and Regulations. A comprehensive review of existing laws (highlighting where further DSM-specific law may be required) in Tuvalu has been completed by the Project. The same exercise is currently in progress for Kiribati. Other countries will be assisted with the formulation of DSM policy, and law – at their request.

The Project has been flexible and had provided other ad hoc bilateral assistance, such as:

- a cost-sharing agreement for an expert resources assessment of the Cook Islands' nodules:
- proposed assistance to Fiji in reviewing the current draft Mineral Exploration and Exploitation Bill (MEEB) to include DSM, and assistance in preparing terms of reference for the establishment of an official working group for offshore minerals, that sits within Fiji Ministry of Foreign Affairs;
- development of an exploration contract between FSM and a DSM exploration company (in the absence of legislation);
- preparation of a Cabinet Paper for Marshall Islands, and a Council of Ministers paper for Vanuatu, to seek a mandate for the establishment of a NOMC, to progress development of national policy and legislation.

In relation to Key Result Area 3 (capacity-building), after the last Steering Committee meeting an International Workshop for Environmental Management Needs for DSM exploration and Exploitation was held in November 2011 in Nadi, hosted jointly by the SPC (through the DSM Project), the International Seabed Authority ('ISA') and Fiji Government. At that workshop a capacity-building working group was convened, which identified that technical, human and financial capacity of P-ACPs to deal with seabed mineral activities are inadequate or lacking. The Report of that meeting (and the working group) has been published as the ISA's Technical Study 10 (available on www.isa.org.jm). The DSM Project funded P-ACP State representatives to attend that workshop, and other regional consultation and training workshops - for example candidates from the Cook Islands, Tonga, PNG and the Solomon Islands were funded by the Project to attend the Pacific Mining Conference in Noumea in November 2011.

Financial support is also available from the Project for national personnel to undertake shipboard training and post-survey data analysis in collaboration with States and exploration companies. The Project is in discussion with P-ACP countries, the ISA, the University of the Sea, and exploration companies to provide further capacity-building opportunities e.g. shipboard training. The Project will work with P-ACP States to identify appropriate national candidates to participate in these. In addition a fully-funded DSM Project legal internship scheme was commenced in January 2011 and has been a great success in training Pacific Islander lawyers and law student in legal issues relating to DSM, through placements working alongside the DSM Legal Advisor. This will be ongoing for the duration of the Project.

Collation of DSM data and information is ongoing, and the Project is on-track for the establishment of a Regional Marine Minerals Database by 2013. In August 2012 the Project's first regional technical training workshop was held in Nadi, entitled "P-ACP States Regional Training Workshop on Geological, Technological, Biological, and Environmental Aspects of DSM". Two DSM experts from the US were contracted to deliver comprehensive geological and biological training materials, and - in addition to in-house capacity within SPC - the workshop was supplemented by presentations from Dr. Malcolm Clark from NIWA (on potential impacts of DSM activities on fisheries), and Kris van Nijen and John Feenan of OceanflORE / IHC (on the latest marine technology and private sector innovation). The workshop was attended by 53 participants. The Project provided funding for two representatives from each State (although unfortunately Timor Leste and PNG did not attend), and also four civil society representatives (from national NGOs in the Cook Islands, Tonga, and Fiji, as well as a regional representative from the umbrella group PIANGO). Each participant was issued with a certificate of completion. The training workshop was also used

as a forum for the Project to give to each P-ACP State a laptop, to be used by the technical focal point for Project activities in-country. The Project intends to continue with other training workshops in 2013 and 2014. The timing and content will depend on the needs and priorities of the region (and is open to suggested changes in subject or order), but is currently proposed to be:

- Feb 2013 public participation and socio-economic aspects of DSM,
- Aug 2012 negotiation skills and legal aspects of DSM,
- Feb 2014 fiscal aspects of DSM.

Under Key Result Area 4 (environmental management and monitoring), the Project has contracted UNEP-Grid Arendal to compile a report on the state of knowledge of marine minerals in the region, which will include chapters on environmental management. World-renowned experts have been identified to contribute to this publication. It is expected to be completed in draft this month, and finally delivered by UNEP Grid-Arendal by the end of this year. An Environmental Impact Assessment template was produced as an outcome of the ISA-SPC-Fiji November 2011 workshop. A DSM Project information brochure on the Precautionary Principle has been prepared and distributed, in an effort to simplify what is meant when the Precautionary Principle is applied to DSM activities. The Project is exploring collaboration with other agencies to supplement the environmental management component of its deliverables, including SPREP and marine scientific research groups; a tripartite University of Queensland – SPC - Nautilus collaboration in PNG.

Due to recent interest shown by the Japan International Cooperation Agency (JICA) on DSM activities in the region, the SOPAC Division through the DSM Project has submitted a technical cooperation proposal in consultation with the JICA Office in Fiji to have a DSM Environmental Expert for a 2-year secondment to assist the DSM Project Team. If the proposal is accepted, the DSM Environmental Expert is expected to be in place by early 2013.

AT summarised the challenges faced by the Project in 2012, which included:

- A delayed response to the Project by some countries required some planned activities to be postponed;
- The delay in DSM activities being undertaken by exploration companies affected the Project's capacity building schedule where training initiatives rely upon surveys taking place;
- The campaign by civil society groups opposing the DSM Project was not anticipated, however this appears to have changed focus (to the Government of PNG) since the Pacific Island Forum meeting in Rarotonga in August, where the Leaders endorsed the RLRF and reiterated that the Project was operating at the countries' request;
- Prolonged in-country consultations and Parliamentary processes for developing and enacting national DSM legal instruments may also cause delays in implementation of national legislation, which are outside of the DSM Project's control.

AT also summarised some of the in-country concerns that had been raised over the year at the various national stakeholder workshops convened, which included:

- competing interests for ocean use alongside DSM (fisheries, conservation, research),
- marine pollution and the potential impacts of DSM on fisheries and marine environment,
- the unknowns associated with DSM exploitation,
- the distribution and equitable sharing of DSM benefit streams.
- national capacity to enforce national DSM legislation and regulations,
- independent monitoring of offshore mining activities and data sharing,
- lack of community and stakeholder awareness and information sharing,
- conflicting messages from NGOs, researchers, developers and Government,
- potential resource ownership conflict,
- preservation of traditional national cultural and aesthetic values of the sea, and

lack of national capacity, knowledge and technical know-how relating to DSM.

In addition to its work towards achieving the four Project Key Result Areas, the DSM Project has also undertaken as a cross-cutting activity various information-sharing initiatives, including:

- regional and national stakeholder consultation workshops and meetings,
- preparation and dissemination of Project reports,
- the UNEP-Grid Arendal Assessment Report (currently in progress),
- preparation and dissemination of twelve information brochures, including five countryspecific information brochures summarising DSM potential of each country, with seven more planned. (Unfortunately there is no DSM information held by SOPAC from previous scientific research for two of the Project member countries: Nauru or Timor-Leste),
- presentation to the Melanesian Spearhead Group Environment Ministers meeting Jan 2012, in consultation with IUCN Oceania,
- lectures by the Project team to different faculties within USP, and other interest groups,
- creation of a mini-website for the DSM Project within the SOPAC Division website contained Project materials in a downloadable form,
- the Project is in the process of producing a DSM documentary, in collaboration with NGO / academic / private sector partners,
- there has been excellent media coverage of DSM Project activities through press releases, TV and radio interviews – including nationally, as in-country media representatives were invited to each workshop, and press releases were prepared in each country.

AT finished with a slide presenting the expected project outputs and outcomes, noting that some of these are longer-term and may take 10-20 years to be achieved. The revised 2013 Project Work Plan will be circulated with these minutes.

5. ROM Report

AT and Thierry Catteau ('TC') of the European Union Delegation presented a summary of the Result Oriented Monitoring ('ROM') mission, commissioned by the EU to review the DSM Project: to assess its progress and to provide feedback for future improvement. The EU contracted an independent ROM expert to review the Project in September 2012. The expert met with the EU delegation, SOPAC Management and the DSM Project team, interviewed selected key Project stakeholders (Government and non-state actors in Tonga, Fiji and the Cook Islands), and conducted a desk review of Project documents. The ROM mission assessed the Project's relevance, efficiency (cost effectiveness), effectiveness (performance against planned activities), impact and sustainability, against objective criteria. The assessment is made from Grade 'A' (very good) to 'D' (serious deficiencies). The DSM Project was graded overall as a 'B' (good) with some sub-ratings at Grade 'A', which is rare. TC confirmed this means that it is a good project. The EU Delegation were glad to see this result: they consider the Project delivery to be strong. As donors the EU enjoys positive working relations with the SOPAC Division in relation to the supervision of the Project. The ROM reviewer had explained that he was not able to award higher than a 'B' Grade overall mainly because of the 1-year delay in the start of DSM Project. Once finalised, the ROM Report would be circulated to P-ACP countries.

Discussion of Agenda Items 4 and 5: Tebete England of Kiribati (**'TE'**) asked for a progress update on shipboard training opportunities with the University of the Sea. AT explained that it is under negotiation, but he would hope that in consultation with countries, candidates will be identified for the training next year. If a country separately has bilateral relations with the University of the Sea, the Project can also provide financial assistance for that arrangement, at the country's request.

Mike Aroi of Nauru ('MA') clarified that the lack of data held by SOPAC about Nauru's DSM potential was not due to a failure by Nauru to share information, it is simply that no studies have been carried out. For this reason Nauru is focussing its attention for DSM development in international waters, through its partnership with NORI – a company holding a DSM exploration licence issued by the International Seabed Authority in 2011. NORI completed its first exploration cruise in the Area in August 2012.

KM acknowledged the civil society opposition that had been observed in 2012, and noted that this has been attended to in part by the launch of the RLRF, with Leaders' endorsement, at the Pacific Island Forum meeting in the Cook Islands in August 2012. TC highlighted that the ROM mission had recommended further work on this issue through the Project developing a DSM communication strategy. He expressed the view that there is a positive story to tell about the momentum and good practices in-country, which can be built upon. This has unfortunately recently been eclipsed by a small number of NGOs attacking the DSM Project and associating it (and the EU) with a position that is not correct.

Dr Arthur Webb ('AW') the Deputy Director of the SOPAC Division and Manager of the Oceans and Island Directorate, highlighted that the playing field has been continually shifting. It appears that those more accurate messages have recently been effectively communicated to the NGO communities by the DSM Project. This seems to have caused them to move their campaigning from the CROP mechanism, towards national Government – which seems to be appropriate – as SPC are not resource owners or decision-makers: the Governments are. Even so, the Project will continue to engage with this work, at the countries' request, and intends to engage an expert consultant from early 2013, to embark upon some sophisticated campaigns about the subject matter of DSM in the region, and why the Project exists.

KM acknowledged the Project's significant achievements this year, as outlined by AT, and commended the Project on the successful ROM outcome. He agreed with the continued importance of communicating the Project aims to NGOs. Noting AW's comment that NGOs are increasingly focussing DSM campaigning on Government, he requested the efforts of the Project (via the proposed consultancy) also to assist P-ACP Governments in their own communications with NGOs. KM further recommended P-ACP Government members themselves to come out with language in support of what the Project is doing, so it is clear in the public domain that the Project is operating at the direction and with full endorsement of the countries.

Chris McKee of Papua New Guinea ('**CM**') shared with the Committee their experience of growing opposition to DSM within PNG, led by powerful politicians at provincial government level. He highlighted the challenge of addressing entrenched views, and concurred with a comment from RH that this arises from a legacy of the onland mining industry in PNG. Committee members acknowledged lessons that could be learned from PNG's experience and agreed that 'communication is key'. RH highlighted the importance that the precautionary approach be applied by the other countries in the region, to provide assurance as countries do move forward proactively in developing these resources.

Chris Ioan of Vanuatu ('CI') thanked PNG for sharing their experiences, to enable the other Project countries to learn from this. He supported the Committee's emphasis upon the importance of clear communication of accurate information about DSM to all stakeholders. The Project RLRF and brochures have been very useful in that regard, but cannot reach communities who do not read this level of English. He proposed that the Project should provide support to P-ACP States who would like to put those materials into the local language, so those communities can also understand DSM issues. RH endorsed the suggestion, but cautioned that this had proven a challenge to achieve in practice in the past, due to the difficulty of putting technical language into local language, and of finding an appropriate person who is able and available to do this. The Project can therefore support such a

translation process, but would need in-country colleagues to assist identify appropriate persons to do this, and to oversee that it does happen.

KM and Malakai Finau of Fiji ('MF') noted the Project's plan to provide advice and technical assistance on fiscal aspects of DSM later in the Project term, given that there would be no need for a taxation regime until DSM mining takes place, and revenue can be raised. However MF highlighted that some Project countries may, like Fiji, be ready *now* to commence work on adapting existing national fiscal regimes to cover DSM, and to implement those at the same time as their regulatory law for DSM. It was therefore requested that the DSM Project provide preliminary advice in relation to DSM fiscal matters in 2013. AT reported that the DSM project will work together with a range of partners in 2013 (including World Bank, Commonwealth Secretariat, and IMF's Pacific Financial Technical Assistance Centre) to put together next year a regional framework for fiscal models and revenue management for DSM. Bilateral advice to individual countries (via consultancies where appropriate) is also available at any time, upon request to the Project.

6. Legal Advisor Presentation

Hannah Lily, the DSM Project Legal Advisor ('HL') advised that the Project had recently become aware of approaches being made to P-ACP Governments whereby a company offers a DSM 'deal' that is described in terms that sound favourable to the P-ACP State, but which in fact bind the State to agreements that may operate greatly to the State's detriment: leading potentially to large debt, costs, risk and liability for the P-ACP State with little benefit. HL gave an example of this type of model where the State agrees to undertake all the work and costs of extracting DSM in the Area, only to sell them at a very low fixed price to the international company. HL highlighted the DSM Project's availability to assist countries in such negotiations - offering confidential expert legal and technical advice, provided in the country's best interests. Countries are urged to make use of the Project in such matters (or other independent advice) in order to ensure that these important decisions are taken with full information. It is reiterated that drawing upon the Project's technical advice in this way, does not affect the P-ACP State's absolute sovereign right to take whatever decision the Government deems best.

Discussion on Presentation: KM agreed that this is a reality, and to sign up to such agreements, which even seek to fetter the State's freedom to legislate in relation to DSM, would itself undermine the State's sovereignty. This is a very significant issue for P-ACP States, and KM as Chair noted agreement from around the table that this should be considered to be the highest-ranking issue. On behalf of the Committee, the Chair tabled an urgent request for a regional DSM negotiations skill workshop, to provide P-ACP country technical staff, law officers and foreign affairs representatives with the knowhow and skills to avoid such pitfalls, and to negotiate DSM contracts in their country's best interests. RH, speaking from his perspective as the Chair of the ISA's Legal and Technical Committee agreed that this is a fundamental sovereignty issue. The ISA does not wish to see P-ACP State entering bad partnerships, to the countries' detriment. International law is clear that the State would bear responsibility for the DSM operations (and liability for any damages caused). It was not in the country's interest to take on this burden and associated costs, only to benefit an international company. RH supported the Committee's call for a Project negotiations workshop. AW reiterated that this was not a theoretical issue, but was happening in practice, and urged P-ACP States to be vigilant in assessing any such offers carefully, and to take advantage of SOPAC's role and resources to serve each P-ACP country's interests independently and confidentially. He highlighted SOPAC's proven record of two decades of confidential handling with boundaries. As well as legal aspects, SOPAC can provide technical advice essential to P-ACP States' negotiations of DSM contracts: such as the pricing of minerals, or estimates of the costs of exploration.

Lameko Talia of Samoa ('LT') thanked the Project for conveying this important message. He highlighted that Samoa's own DSM resources have been classified as medium to low, and

therefore the country has some interest to follow its Pacific colleagues into the Area. This issue is therefore a timely one for Samoa, and further dialogue amongst P-ACP States on this issue, with SOPAC's technical advice, at a regional workshop would be most welcome to equip P-ACP States to have appropriate awareness of the risks. LT recommended the participation from the countries' Attorney General's Offices in such meetings. Faatasi Malaloga of Tuvalu ('FM') supported Samoa's comments. Small Pacific Island Government do not have sufficient resources to match mining companies negotiation teams but welcomed the opportunity to supplement these with the DSM Project. Taaniela Kula of Tonga ('TK') highlighted that Tonga has already entered into agreement with a company to explore in the Area, but may still benefit from the DSM Project's advice about these existing contracts, and agreed that a negotiation skills workshops should be a priority Project event.

Olai Uludong of Marshall Islands ('OU') compared the rushed negotiations described by HL for DSM contracts with the work of the Palau Government (in which she was previously involved) in handling oil and gas negotiations. A taskforce was established, and engaged a World Bank advisor to work with Palau over 5 years to negotiate with oil company lawyers. After a lengthy considered process, the Petroleum Act and Revenue Sharing legislation have just been passed in Palau. (The preamble to the legislation includes other mineral resources within the EEZ of Palau so in the event that DSM minerals are found, they would follow the same regime as the Petroleum Act). Palau was able in this work also to learn from Timor Leste's prior engagement with the oil and gas industry. Similar approaches and models should be considered for DSM - and P-ACP States should not feel pressured into entering agreements without first taking independent expert advice. MA agreed. Nauru entered its sponsorship agreement in 2007, but due to delays in the ISA process (beyond Nauru's control) the original agreement has lapsed, enabling a re-negotiation. Many of HL's points about unfavourable terms being offered resonated with Nauru's experience: such as being locked in to a fixed sale price for the DSM ore once it is extracted, which the purchasing company had sought to explain by saying that there is no current data about actual value, so the price must be inferred from current estimates. Fortunately Nauru Cabinet is now able to re-visit those terms.

MF noted these previously un-anticipated issues coming to light via the DSM Project: the NGO campaigns and such approaches by mining companies. He approved the DSM Project's proposed flexibility to amend the work-plan now to address these new areas via a communications strategy, and a negotiations workshop. MF emphasised that the Project's focal points are technical people – but could greatly benefit from the Project's support in these wide areas, to prepare P-ACP States for these challenges as well as the technical ones. CI agreed and stated that for Vanuatu a negotiations skill workshop was a 'must'. Excitement about the opportunities presented by the Area must be tempered with appropriate caution. This is a priority: the technical people in-country need to understand these issues and know when and where to seek expert assistance. RH seconded those comments, but cautioned that the DSM Project is a 3-person team. These new activities are important ones, but there is a limit to the capacity of HL and AT to add to their current workload in providing technical assistance regionally and bilaterally to 15 P-ACP countries. Therefore the use of consultancies within the Project must be considered. By contracting expert consultants the Project will be able to put more of these issues simultaneously on the front-burner.

TC advised that the Project, although 50% through its term is currently only at a 15% rate of expenditure. So from the EU's perspective there is room for manoeuvre in re-organising the budget – provided SOPAC does this in consultation with the EU. The EU would also support use of the Project's underspend to hire additional technical staff. TC highlighted a related point: one ROM recommendation was to extend the life of the Project beyond its current March 2014 end date – which can be done with existing funding. This recommendation has been noted and supported by the EU. A time extension request must be received 6-months before the end date. The Committee therefore agreed that the record should show agreement for the Project (i) to utilise underspend to supplement the Project's human resources beyond

the 3-person team, and (ii) to apply for an extension to the term of the existing DSM Project agreement.

7. Country Presentations from Tonga and Kiribati

Tonga: TK highlighted that he is new to this Committee, and to his role as DSM focal point for Tonga. He gave the background to Tonga's interest in DSM which has built over several years, with three companies now holding exploration tenements within Tonga's EEZ. Exploration licences for DSM were granted based on Tonga's Petroleum Act and Regulations. But with the SOPAC Project's assistance, Tonga is now developing a Seabed Minerals Bill and Regulations. First drafts of these have been submitted to Tonga Government by the Project, and are currently undergoing consultation with stakeholders, before moving to Parliamentary processes — which is likely to result in enactment next Parliamentary session. Tonga additionally requested Project assistance in preparing a national Seabed Minerals Policy. A draft Policy tailored to Tonga's requirements was quickly provided by the Project - and is also now in consultation with stakeholders in-country. There had been discussion in Tonga about putting a DSM legal framework in place since 1976, but it is only now that Tonga is achieving it. This is entirely due to the DSM Project, and TK expressed Tonga's gratitude for that. Four Tonga Ministry staff had also participated in last August's excellent workshop run by the DSM Project in Nadi, facilitated by the Project and the contracted experts.

Next steps for Tonga are to consult with stakeholders (within Government, but also NGOs and general public) to make sure there is no opposition and smooth progress as Tonga moves forward with the Seabed Mineral Policy, Bill and Regulations. The principal aim of Tonga's engagement with DSM companies is to benefit the country economically. Work is therefore also required to re-examine the fees and royalties that have been set in the past, to ensure that Tonga's revenue generation from DSM is maximised. Tonga also hope to build the capacity of the Natural Resources within Government, to add more staff and to have more training opportunities and scholarships – with the DSM Project's assistance. Finally TK explained that Tonga plans to establish a SBM rights 'cadastre' to keep track of tenement registration, and GIS database and office filing system.

The biggest challenges for Tonga are capacity gaps across the board: staff, office equipment, officer furniture, ICT facilities. The Kingdom does not itself have the financial resources to provide these items. The progress of DSM work is also limited by the small number of staff within Tonga Government. Tonga would like to look ahead, and to develop students and graduates now to work in this area in the future. This includes technical and computer skills. The DSM companies in Tonga have funded some technical training for this, but further assistance is requested from the DSM Project.

Discussion on Presentation: KM on behalf of the Committee thanked TK for his presentation and complimented Tonga on having turned a reactive situation into proactive progress. LT expressed that Samoa fully supports the point made by TK about capacity and infrastructure gaps identified. Ngerikl Baules of Palau ('**NB**') seconded this point, and asked specifically about opportunities to bolster the legal capacity in-country. Isaac Lekelalu of the Solomon Islands ('**IL**') concurred that the Solomon Islands faces similar issues, partly due to Ministry staff leaving to join the private sector.

Responding to NB, HL gave details of the legal DSM internship programme, working with HL in Suva for several weeks in order to become trained up on DSM law. More information about the placement will be circulated with the minutes, and all countries are invited to nominate representatives for this – whether this is Government lawyers, private sector lawyers used by the Government, or upcoming law graduates and students who are Pacific Island nationals. It was agreed that the nomination must come from or be endorsed by the Government to ensure appropriate candidates are afforded this opportunity.

MF highlighted that, while the Project has articulated what it can do to build capacity and to conduct in-country visits or provide consultants, this doesn't actually supplement the numbers of personnel available in-country to work on DSM and to implement the Project activities in the longer-term. This was a priority for many countries. TC and AW agreed with this point, but noted that the Project's personnel and resources are already stretched. TC however suggested to the Committee that they consider advocating for there to be a successor to this Project in the 11th EDF. Planning for the 11th EDF has commenced and discussions on priority areas will run now until March 2013. National contributions can be brought up through the correct regional consultation channels via each country's National Authorising Officer ('NAO'). TC informed the Committee that all the NAOs in the region met last month in Suva to discuss the 11th EDF Action programme with the Forum and the EU, to identify priorities. TC encouraged Committee members to take their priorities to their respective NAOs. If a request comes from the countries, via the NAOs, for a successor to the DSM Project, then this will be taken forward by EU, and can include some of the gaps that attendees had highlighted.

Kiribati: TE presented an overview of Kiribati's DSM activities between 2011 to date. In 2011, two officers had participated in the Project's June inaugural workshop; the Project country visit and national stakeholder workshop had been held in Tarawa in September; and in November a Cabinet paper was developed and endorsed to give the Minerals Unit mandate to proceed with DSM activities, including legislative reform and an application for exploration in the Area. DSM work continued into 2012. Early in the year the Minerals Unit developed a strategy paper for DSM, and provided this to the DSM Project for comments. In March, the Kiribati Government established a local DSM Company (Marawa Research and Exploration Ltd) that will conduct of DSM activities in the Area. In April, a Kiribati Government officer was provided with Project support to undertake marine safety training in Sydney, equipping him to take part in future DSM exploration cruises. A revised strategy paper was re-submitted to the Project for further input, and the Kiribati Attorney General's office provided comments to the Project for inclusion into the RLRF.

In May, Marawa submitted its application to the ISA. In June, a further DSM workshop was carried out at national level for Kiribati Government Ministries and an interested local NGO. In July, a Kiribati Minerals Unit geologist successfully presented Marawa's work-plan during the ISA annual session, obtaining the ISA's approval for an exploration contract; and two officers from the Ministry attended the DSM training in Nadi. In September, Kiribati officials had an incountry meeting with DSM Project Legal Advisor, and the Minerals Unit has since requested a review of existing legislation which HL is currently working in. In October, the Minerals Unit held a presentation on DSM based on its previous engagement with DSM Project, to raise awareness within other Ministries. It appears that more work is needed in this regard, and Kiribati will seek DSM Project advice on further information dissemination to assist ensure that at the political level statements reflect accurate information about DSM. Kiribati NOMC also held its first meeting (with ten participants), and during October's Fisheries and Marine Resources Awareness Week, DSM pamphlets and information brochures were distributed.

The outcomes of Kiribati's engagement with the DSM Project over the past year include that the RLRF is finalised and available now to guide the development of a legal framework at national level (to also cover the Area). Kiribati would like to work with DSM project on this. Kiribati also now has a national officer certified in marine safety, and from the training offered by the Project the focal point has a clear understanding of relevant DSM issues and can communicate these to in-country stakeholders. The NOMC is in place, and two national workshops and one consultation event have been held. TE thanked the DSM Project and EU for the technical and financial assistance that has enabled these achievements.

Looking forward, Kiribati echoes the same points about capacity gaps that have been highlighted by TK on behalf of Tonga, and requests further training opportunities. Kiribati also will need law and policy, and requests technical assistance from the DSM Project for drafting

this – as well as funding assistance for the NOMC, and the facilitation of other opportunities, such as the University of the Sea research cruises.

8. General Discussions

AW noted the progress made by P-ACP States. He highlighted that where countries are interacting with DSM companies on exploration activities, the State will be entitled to copies of the resulting data. This may be massive in size, and in a format incompatible with national IT systems. AW highlighted SOPAC's ability not only to hold past data, but also future data-sets, in order to act as a secure repository for this data. Committee members noted SOPAC's proven track record of acting as secure custodian to Pacific Island State's technical data (and releasing it only at the country's request), and agreed that copies of DSM vessel research data should continue to be shared with SOPAC for archive and back-up purposes.

LT noted the possibility that had been highlighted to extend the Project or to create a successor. In such circumstances, Samoa wishes to request that this would include further research into the DSM potential within Samoa's EEZ. FM strongly supported this. The current studies cover just select areas. Opportunities to fill in the gaps with further surveys should be prioritised. AT agreed that this had been raised by a number of countries during national consultations, including: Nauru, Samoa, Tuvalu, Niue, and FSM. They have expressed that, while they appreciate the effort carried out by the joint Japanese/ SOPAC 20-year survey, further work is now required to fill in the gaps. Although the Japanese survey is the most detailed and systematic to date, sampling points are 37.5km-75km apart, which is not sufficient for full mineral assessment. The gaps do need to be filled to raise geological knowledge and confidence. Nauru and Timor Leste should also be included, given the lack of previous surveys of their seabed mineral potential. It was agreed that this was an issue to raise in the EDF 11 discussions. While fully supporting SOPAC as data-holder on behalf of countries, TK highlighted that Tonga would like support to expand the Government's server capacity to enable the country to hold its marine research and bathymetry data within its own offices, despite its large size. This may be another area to include in advocacy to our NAOs in terms of prioritising DSM in the future for EU funding.

OU, reflecting on the limits of a 3-person Project team, suggested consideration be given to sub-regional meetings to progress DSM issues. The attendance of one member of the DSM Project to attend and brief the attendees at events that are already organised, such as the Micronesian Sectoral Summits or Melanesian Spearhead Group meetings, is also recommended. This would be a cost-effective method to support capacity-building and awareness.

MA advised that Nauru are now scheduling a SBM Minerals Bill and would request DSM Project assistance with that. TK emphasised to the other Committee members the quality and impact of the Seabed Minerals Bill, Policy and Regulations developed by the DSM Project for Tonga. He had been extremely impressed with how this addresses the issues that are important for the country and which the previous Petroleum Act lacked. The drafts supplied by the Project are excellent, and tailored to Tonga's particular needs.

TK also requested that future Steering Committee meetings be scheduled so as not to require Committee members to miss STAR or other relevant sessions. This was seconded by other Committee members.

KM, as Chair asked that the key points discussed be captured and presented in a strong statement to CRGA. He encouraged Committee members to continue to be champions for the Project and DSM work. The Steering Committee must ensure that the countries' interest are properly reflected at the SOPAC annual session and the CRGA meeting, in order to drive forward our priorities at the higher-level – including regional planning for future funding. AW

closed the meeting, thanking the Chair, and all Committee members for the excellent discussions.

Annex 3: Year 3 (2013) Work Plan

Result		Quarter Quarter 1 2		er	r Quarter		er	Quarter 4					
Area	Activities	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2	Provide guidance and support for the formulation of minerals policy, legislation and regulations (legal drafting and advice, workshop,												
2	consultants, etc) Review draft national policy, legislation and regulations of participating countries												
2	Support the submission of revised national policy and legislation to cabinet												
2	Finalise policy and legislation based on cabinet recommendations for enactment	_											
2	Provide ongoing support for NOMC Activities in each country (review policy and legislation, DSM activity proposals, legal drafting, consultations)												
3	Support ongoing technical training (MSR, shipboard training, fellowship support).	_			_			_			_		
3	Organise and support regional training programme (workshops and conferences)												
3	Support in-house training programme (attachments, legal internship programme)	_		_	_	_		_	_	_	-	_	_
3	Review and strengthen ongoing capacity building programme												
4	DSM Data collation and formatting and establishment of the RMMD												
4	Support monitoring program for deep seabed mining (e.g. in PNG) and support participation of government and community reps										_	_	
4	Support government and NGOs awareness initiatives at national and local levels												
4	Development of a Regional Marine Scientific Research Guidelines				_	_	L	_	_	_	-		_
4	Development of a Regional DSM Frameworks for fiscal and revenue management												
4	Develop a regional environmental management guidelines for DSM exploration and mining in collaboration with partners												
	Ongoing Project visibility (prepare press release and news article, TV interview, Project progress report)												
	Project Steering Committee meeting in conjunction with the 2013 SOPAC Division Meeting												