

AGENDA 12.3: ANNEX 4

CLIMATE AND OCEANS SUPPORT PROGRAM IN THE PACIFIC

SUMMARY PROGRESS REPORT 1 JULY 2012 TO 22 APRIL 2013

PROGRESS REPORT

COSPPac Management Unit (CMU)

The three areas of work are coordinated and supported by the COSPPac Management Unit (CMU) which consists of the COSPPac Manager and the administration staff. They manage the Program budget, Program level reporting and review and logistics of in-country implementation.

The key outcome for the CMU is a successful completion of the 'Program of works' through effective collaboration and coordination with COSPPac partners and stakeholders which have been implemented through various activities. CMU also initiates and facilitates COSPPac Management Committee (MC) meetings. The Committee's role is to ensure effective implementation and monitoring of all the projects under COSPPac. The MC comprises of the COSPPac Manager and the three team leaders.

The CMU is responsible for facilitating the internal COSPPac Program Board* (CPB), which will convene at least every three months. The secretariat consists of the COSPPac Manager and the COSPPac Senior Administrative Officer. The CMU is also responsible for facilitating and providing secretariat support to the COSPPac Steering Committee whose members are SES officers from AusAID, BoM, Geoscience Australia, SOPAC Division of the Secretariat for the Pacific Community (SOPAC/SPC), Pacific Regional Environment Programme (SPREP), DCCEE and partner PIC NMS Directors. The committee meeting is held six-monthly.

High level liaison with Pacific partner countries (including planning and environment ministries) and regional and international representation is led by the COSPPac Manager with support from the project team leaders.

Activity: COSPPac Staffing

Achievements:

- Most of the Melbourne based COSPPac positions were filled in by the end of 2012. See attached staffing structure. A number of positions will need to be re-advertised and refilled by June 2013.
- The recruitment of the COSPPac Regional Officer (CRO) at SOPAC/SPC was completed in early 2013. The successful applicant, Molly Powers, commenced her role as the CRO on 18 March 2013.
- Dr Anthony Falkland was appointed as the climate risk management specialist for 12 months to work on Climate Application Projects (CAP) in COMP. He

* This internal committee was initially titled as BoM COSPPac Steering Committee (BCSC) in the Program Design Document and its members comprise of SES officers from 5 relevant branches across the BoM.

will mainly work on water management and renewable energy projects. CAPs are implemented under the Climate and Ocean Monitoring and Prediction (COMP) component of the COSPPac.

- An epidemiologist, Dr Isabella Jeanne, has been contracted to work on malaria project implemented under COMP.
- A COSPPac Team Building workshop was held from 31 October to 2 November. The workshop was attended by all COSPPac staff including staff from NTC, Adelaide. Besides sessions on elements and the branding of COSPPac, the agenda included cross cultural communication, AusAID regional strategies, implementing OH&S in the Pacific, Respect and Corporate Challenge workshops. Presenters included Susan MacDonald (AusAID) and Australian Volunteers International.
- The COSPPac Team attended a Presentation Skills workshop on 16 January 2013.
- A training workshop on First Aid has been organised in April for COSPPac staff, including National Tidal Centre staff working on Pacific Sea Level Monitoring Project (PSLM) to ensure compliance with new Commonwealth workplace safety standards, both in Australia and on overseas missions. COSPPac officers are now obliged to ensure partner country colleagues with whom they are working also comply. A COSPPac travel pack now includes full first aid kit.

Activity: Coordination with or contribution to partners' and other programs and regional activities

Achievements:

- Janita Pahalad, Amanda Amjadali (COMP Team Leader) and Karen Bennett (CD&C Team Leader) attended a Pacific Climate Services Forum and Partners Meeting from 21 to 25 January 2013 organised by the Pacific Centre for the Environment and Sustainable Development (PACE-SD) at the University of the South Pacific in Suva. It was evident at the forum that COSPPac was the only program focusing on climate variability. A number of proposed COMP activities were discussed with Red Cross and WHO representatives.
- Rebecca McNaught, Senior Climate Advisor, Pacific Red Cross, met with the COSPPac team on 6 March in Melbourne to discuss COSPPac's assistance in drafting a climate outlook/impact matrix for their regional climate bulletin. The COMP team is now working on a special regional climate bulletin for Red Cross which will focus on addressing their need for information on seasonal rainfall outlooks
- The following organisations attended the first COSPPac Annual Planning Meeting in October 2012: SPREP, WMO, SOPAC/SPC and DCCEE.
- Janita and Amanda (COMP TL) visited Apia, Samoa from 14 to 22 July 2012. The purpose of the visit was to present information on the program to the WMO Tropical Cyclone Committee meeting and to develop and further strengthen affiliations with partner international and regional organisations, such as Samoa National Met

Service, SPREP, WMO, NOAA[†] and NIWA[‡], also contributing to the development of the Pacific Islands' climate and oceanographic services. The WMO meeting also provided a useful platform from which to meet partner representatives and coordinate strategies for effective collaboration with COSPPac over the four years.

- Janita and Amada also visited Fiji from 8 to 16 August. During the visit they met with: AusAID Suva, SOPAC/SPC, Director and Climate Manager of Fiji Meteorological Service, a number of key stakeholders from the Water authorities of Fiji in relation to the COSPPac demonstration projects; and the head of the Fiji National Disaster Management Officer to discuss COSPPac's possible contribution to the national drought plan.
- COSPPac activities contribute towards the implementation of the SPREP's Pacific Islands Meteorological Strategy 2012-2021, and WMO's Global Framework on Climate Services (GFCS) in the partner Pacific NMSs.
- Two papers were submitted to the WMO GFCS on work done under PI-CPP[§] and that will be continued under COSPPac COMP: *Informing decision-making in health using seasonal climate outlooks* and *The use of seasonal climate forecasts to inform decision-making and management in the renewable energy sector of Samoa*. Posters on both case studies were presented by BoM and Solomon Islands Meteorological Service at the User Dialogue GFCS event prior to the WMO Extraordinary Congress in October 2012.
- Janita Pahalad is a member of the PACCSAP Implementing Working Group. Karen Bennett (CD&C Team Leader) is a member of the PACCSAP Communication Working Group.

Activity: High level coordination and liaison with partner countries.

Achievements:

- While in Tuvalu, Janita met the Tuvalu Met Service (TuMS) Director and the Assistant Secretary of Ministry of Transport and Communications to discuss the funding of a climate officer position at TuMS. TuMS is unable to provide specialised climate services reliably without a dedicated officer whose skills can be developed using COSPPac training. It was agreed that COSPPac will fund this position for 3 years using Tuvalu's flexible fund allocation, since it represents TuMS's highest priority in achieving COSPPac objectives in Tuvalu. TuMS has undertaken to maintain the position after June 2016 within its operational budget. Similar assistant will be provided to Kiribati Met Service.
- Janita and Amanda have held discussions with Fiji Met Service (FMS) Director and Climate Service Manager in regards to program activities for Fiji.

Activity: Flexible funding for NMSs

Achievements:

[†]National Oceanographic and Atmospheric Administration (USA)

[‡]National Institute of Water and Atmospheric Research (New Zealand)

[§]Pacific Island Climate Prediction Project

- Guidelines and application form for NMSs to request funding from the flexible pool were finalised and circulated to all NMS Directors. Kiribati and Tuvalu NMSs have requested funding to support a climate officer position. Cook Islands, Samoa and Niue NMSs have requested funding for web development. PNG has requested funding for data digitisation and Vanuatu's funding will go toward their traditional knowledge project.
- A financial agreement template at agency level (Pacific NMS and BoM) is being drafted. This will enable the Bureau to transfer funds to PIC NMSs under flexible funding arrangements and for in-country workshop expenses. It will provide a simple format for reporting against project descriptions and budgets.

Activity: Program management, governance and reporting

Achievements:

- A Monitoring and Evaluation Framework workshop was held in Melbourne from 1 to 3 October. The workshop was the last activity under the program design phase and was separately funded by AusAID. Clear Horizon was contracted by AusAID to facilitate the workshop and draft the MEF for COSPPac. The workshop was attended by 4 PIC NMS Directors, 4 NMS Climate Officers, 4 Pacific Lands & Survey Department reps, AusAID, PACCSAP reps, SOPAC, SPREP, WMO, GA, and the Bureau.
- The First COSPPac Steering Committee was held on 4 October in Melbourne. SES officers from AusAID, BoM, GA, SOPAC, SPREP (PIGOOS** Coordinator), DCCEE and 4 PIC NMS Directors attended the meeting. The discussion mainly focussed on the Terms of Reference for the Committee, Work Plan for 2012 – 2013 and coordination with other related programs. During the meeting the members decided to include all partner PIC NMS Directors in the Committee.
- The Bureau Internal COSPPac Program Board has had meetings in July, October, January and March. The Board will meet quarterly. Progress report and traffic light reports are presented at the Board meeting.
- COSPPac was presented at the Bureau's Executive meeting on 7 March and the Executive were encouraged by its progress.
- The Program Management Committee (comprising of COSPPac manager and team leaders) meets weekly.

** Pacific Island Global Ocean Observation System

Capacity Development and Communication (CD&C)

The primary focus of CD&C is to facilitate and support the efforts of NMSs and Lands and Survey Departments to build their own capacity and to communicate effectively with their stakeholders so they can continue to increase their contribution to their countries' resilience to climate variability and vulnerability.

CD&C conducts several activities to meet these goals including:

- In country training in seasonal forecasting and related science
- In country workshops for NMS stakeholders– so they can increase their understanding of climate variability and seasonal forecasting and its potential applications
- Promoting the benefits of seasonal forecasts in country
- Training for climate staff in science communication, presentation skills and media

The capacity development component aims to support the priorities of each NMS and LSD. This will be ensured through a rigorous capacity mapping exercise undertaken at the beginning of the project.

Component 1: COSPPac Partners have the understanding and skills to use the products and information

Code: 1.1 a: Effective coordination between COSPPac partners and stakeholders to harmonise key activities.

Activity

Regular meetings with partners and key stakeholders

Achievements:

- CD&C staff attended several regular inter-agency meetings to ensure coordination of activities. These include:
 - The PACCSAP Communication Working Group (CWG) with participants from DCCEE, PACCSAP, SPREP and AusAID. These meetings serve to keep agencies up to date on relevant activities and find synergies. Held monthly, hosted by DCCEE.
 - Fortnightly meetings with the Capacity Development team in PACCSAP. This is to compare calendars and ensure there are no clashes or overlaps.
 - Monthly Online Climate Outlook Forums. Hosted by the COMP team within COSPPac, with participants from 10 Pacific countries. CD&C attends to gauge the capacity of the participants, and find out about their interactions with in country stakeholders.
- CD&C and CMU staff attend regular conferences and meetings to ensure coordination with the wider climate community operating in the region – most recently with the Pacific Climate Services Forum at University of South Pacific, Suva. These networking opportunities give COSPPac a better understanding of other similar projects in the region e.g. NIWA conducting in country stakeholder workshops or Red Cross' traditional knowledge projects etc.
- Informal, ongoing email and phone communication with international partners such as SPREP, SOPAC.

Code: 1.1 b: Effective communication with COSPPac partners and stakeholders

Activity:

- 1.1.1 Plan, develop and implement COSPPac strategy for engaging with partners and stakeholders
- 1.1.2 Communication and delivery of products, tools and services
- 1.3.3 Improve design and content of tide calendars

Achievements:

- A communication strategy has been drafted by the CD&C team and is ready for comment from the COSPPac manager and team leaders, and the COSPPac steering committees (internal and external). The strategy outlines the communication activities to be implemented over the project's lifetime including newsletters, blogs, websites etc. The strategy will begin implementation in January 2013 – thus limited communication materials have been developed to date.
- As part of the capacity mapping, CD&C is documenting the communication capacity of the NMSs – their capacity to communicate with the project and with their stakeholders. Five countries had been mapped by December 2012.
- The Bureau's publications team is currently working on a COSPPac 'look and feel' which will be applied to all COSPPac communication materials. The resulting COSPPac 'style guide' is due for completion in mid-February 2013. The design will then be applied to all COSPPac materials.
- Tide calendars have undergone a basic redesign – superficial only - with a view to further improvement as we assess the NMSs needs through capacity mapping and in-country consultation.
- All COSPPac staff underwent *Science Communication and Presentation* training in order to prepare them for their in-country communication work.

Code: 1.1

Activity:

- 1.1.4 Enable NMSs to compare climate science indicators to their traditional climate indicators.

Achievements:

- A Traditional Knowledge (TK) pilot project has been set in partnership with Vanuatu Meteorological and Geo-Hazard Department (VMGD). This will be a 3 year project involving workshops, collection of TK from 4 pilot sites and use of the data for statistical modelling. The VMGD will lead the project with some funding support from CD&C, and will implement in partnership with several other agencies including Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Red Cross and importantly the Vanuatu Cultural Centre. A formal MOU has been signed with the VMGD.

- CD&C participated in a TK workshop hosted by the VMGD in November 2012. The purpose of the workshop was to bring together all the relevant partners and decide on a way forward. This was essential as the IP and data access issue is very sensitive with some key partners such as the Cultural Centre.
- COSPPac is working to develop a Traditional Knowledge database that can be accessed by all NMSs so that they can input their local TK. The COMP team will build the database according to specifications documented by CD&C and VMGD.

Code: 1.2 NMSs and other relevant agencies understand COSPPac products and information

Activity:

1.2.1 Capacity mapping and institutional strengthening for delivery of climate and ocean services.

Achievements:

- Capacity mapping has been conducted with 5 of the 10 partner NMSs – Fiji, Vanuatu, Solomon Islands, Niue and Kiribati. This involved meeting one-on-one with each member of the Climate Services team to discuss their outputs and the skills required to deliver the outputs. For each country a “Capacity Development Strategy” is being prepared. The COSPPac workshops will target the identified priority areas for development.

Code: 1.2 NMSs and other relevant agencies understand COSPPac products and information

Activity:

1.2.2 Support NMSs, LSDs to train their stakeholders in-country

1.2.3 Regional training workshops on COSPPac products and tools

1.1.3 Enable NMSs to support media outlets to disseminate COSPPac information

Achievements:

- Formal, in-country stakeholder workshops have been completed in Solomon Islands, and Niue. Development of the training modules is underway now. The priority stakeholders for each NMS and the local media were invited to attend the workshop. The training modules were developed based on each NMS's current capacity.
- An expert in adult education has been temporarily recruited into CD&C to assist with the development of the workshop content.
- The stakeholder workshops will contain one day training in “soft skills” for NMS staff – media, presentation and communication skills. The content for these modules is being developed now with assistance from the Bureau media unit. The capacity mapping to date has proven there is great interest in soft skill development in order to better deliver climate information to their stakeholders and communities.

Code: 1.2 NMSs and other relevant agencies understand COSPPac products and information

Activity:

- 1.2.4 Supporting other relevant training and workshops to enable better delivery of COSPPac services
- 1.2.5 Training of NMSs and LSDs staff on COSPPac products and services through attachment

Achievements:

- A member of the Samoan Climate Services team was sponsored to attend the 6th CAWCR Annual Workshop: “Understanding and Prediction of Monsoon Weather and Climate” in November 2012.
- Six Pacific participants were funded to attend PACCSAP’s Advanced Climate Course (PADClm^{††}) in October 2012.

^{††} PAdClim was organised by Pacific-Australia Climate Change Science and Adaptation Planning Program (PACCSAP) in 2012. PAdClim ran from 8 to 19 Oct in Melbourne. The COMP team introduced SCOPIC v3.0 on 19 Oct to all the PICs participants.

Climate and Ocean Monitoring and Prediction (COMP)

The major objective for COMP is the continued development of atmospheric and oceanic seasonal prediction by Pacific NMSs, leading to better management of climate variability and climate change in their countries. Key to achieving this outcome is supporting existing in-country capacity (NMS Climate officers) to understand climate processes and to deliver climate and ocean services and use climate information products.

This capacity development will be delivered through a combination of support for networks; provision of tools; support for key climate data backup infrastructure; and assistance in the development and provision of climate information products.

Component 1: COSPPac products, information and data are relevant and accessible

Code: 1.1 NMSs have sustainable COMP scientific tools

Activity:

1.1.1 COMP system Architecture Review

Achievements:

- Infrastructure assessment and IT capacity mapping of PIC countries started in November 2012 and have been already been carried out in Vanuatu, Fiji, Kiribati and Tuvalu. In the next 6 months the COMP team will write a plan detailing the requirements of the infrastructure assessment and IT Capacity mapping.
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Code: 1.1 NMSs have sustainable COMP scientific tools

Activity:

1.1.2 SCOPIC maintenance and redevelopment

Achievements:

- SCOPIC v3.0 was released at the Pacific Advanced Climate Change Science Program (PAdClim^{##}) workshop on 19th October 2012.
 - Added SCOPIC seasonal forecast report in the iKiribati language.
 - SCOPIC v3.0 is the latest C# version of SCOPIC and was developed to mitigate the bugs found in previous releases of SCOPIC. There are several new features like local language seasonal forecasts in iKiribati language and improved compatibility running on Windows 7. Since its deployment there have been no issues reported by the Pacific stakeholders.
 - Statistics on user error in SCOPIC are being collected as part of the Online Climate Outlook Forum. This is to help the COMP team improve the SCOPIC software and related output.
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Code: 1.1 NMSs have sustainable COMP scientific tools

Activity:

1.1.3 Ocean Portal development and maintenance

Achievements:

- The first version of the Ocean Portal was released on the external web and feedback was sought from external stakeholders in October 2012. Some positive feedback has been received from SOPAC, SPREP, Fiji National Met Service, Samoa NMS and Vanuatu National Met Service. This was well received at the COSPPac Steering Committee meeting on 4th October.
- Subsequent to this version, two further updates with better data visualisation and updated dataset were released before the end 2012.
- Version 0.4.0 is under development and scheduled to be released by mid-April. An investigation is currently being undertaken of potential new datasets that could be included in the ocean portal. Possible new datasets include POAMA, ocean acidification, ocean colour and surface winds. In addition, current datasets such as Wave Watch III and Bluelink Reanalysis may be updated to the latest versions from CAWCR. New plotting options will also be investigated such as Sea Level Anomaly and ENSO SST Indices.

Code: 1.1 NMSs have sustainable COMP scientific tools

Activity:

1.1.4 Disaster Recovery Back-up for PICs science data

Achievements:

- Initial discussions have been conducted with the NMS Directors from Fiji, Cook Islands and Vanuatu about the possibility of setting up a centralised database on the Bureau server.
- The proposal was also presented at the WMO Tropical Cyclone Committee meeting in Apia, Samoa in July 2012, which was attended by PIC NMS Directors.
- None of the NMSs have shown great interest for this component, mainly due to the sensitivities around sharing in-country climate data.
- A supporting paper on the importance of backing up data and outlining options for centralised or in-country back-up systems will be presented at the COSPPac Planning Meeting in April/May 2013 in order to seek NMS Directors' support and feedback.

Code: 1.2 NMSs have improved data, products and information relevant to COMP

Activity:

1.2.2 Improvement of Drought monitoring products

Achievements:

- An assessment of the drought analysis tool in SCOPIC has been completed with input. An enhanced analysis has been drafted and is currently under review. The assessment was undertaken by the COMP climatologist with input from the Climate Application Project hydrologist (Dr Tony Falkland). Dr Falkland has several decades of experience in small island hydrology and drought management in the Pacific and

it is expected that any proposed changes will enhance the drought module significantly.

Code: 1.2 NMSs have improved data, products and information relevant to COMP

Activity:

1.2.3 Improvement of Ocean Portal products

Achievements:

- Work is underway to ingest and visualise sea surface height data and trends and reconstructed time series of tide gauge data.
- Work is also being done on ingesting different sea surface temperature, wave and current data sets for climate purposes.
- Different data plotting options are being developed to easily visualise and interpret the ocean data.

Code: 1.2 NMSs have improved data, products and information relevant to COMP

Activity:

1.2.4 Evaluation of SCOPIC validation study and implementation of outcomes

Achievements:

- The COMP climatologist having now reviewed the current validation study, will make the appropriate changes and disseminate the revised validation study to stakeholders next financial year.

Component 2: COSPPac partners have the understanding and skills to access and use the products and information

Code: 2.1 Effective communication of COSPPac with COSPPac partners and stakeholders

Activity:

2.1.1 Continuous dialogue with NMSs on COMP tools and related science via monthly online climate outlook forum

Achievements:

- The Online Climate Outlook Forum (OCOF) has been conducted every month since July 2012. During the past several months it has had a record highest number of participants (with preliminary calculations at approximately 54% female attendance), and a decreased running time. On average 16 climate officers participated each month.
- A survey of the OCOF procedure and effectiveness was conducted. As a result of this survey feedback, the following procedural changes were made: an alphabetical rotation system for choosing the chairperson; a discussion regarding any recent stakeholder interactions; as well as one rotation through each country's rainfall tables and outlook tables, which has proven to be more time effective than two rotations.

Code: 2.2 Climate sensitive sectors are supported by NMSs to use their COMP information in their decision-making (Climate Application Projects: CAPs)

Activity:

2.2.1 NMS supported application of climate forecasting in water resources

Achievements:

- A number of actions suggested in the pilot project review have been implemented, however some additional issues have come to light and the review of individual pilot projects is on-going. Surveys were distributed in order to determine the productivity of pilot projects requested for continuation. Projects in Kiribati, Tonga, Cook Islands and Fiji were not considered feasible for continuation. Discussions will be held with the relevant NMSs.
 - The possibility of using customised drought outputs to inform water management on South Tarawa will now be considered in place of using seasonal climate forecasts to inform pumping strategies at Bonriki.
 - An independent review into the status of the PI-CPP pilot projects was carried out by Dr. Michael Coughlan in order to help effectively incorporate the program into COSPPac.
 - Feedback and evaluation surveys were prepared and disseminated to the 6 Pacific NMSs and stakeholders involved in active water resources projects.
 - Each of the 6 Pacific Island NMSs and stakeholders involved in the water resources pilot project under PI-CPP were provided with assessment reports as a result of the independent review
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Code: 2.2 Climate sensitive sectors are supported by NMSs to use their COMP information in their decision-making

Activity:

2.2.3 NMS supported application of climate forecasting in renewable energy

Achievements:

- Further work has continued on the Afulilo Dam project with an improved analysis now completed. The Hydrologist is reviewing the latest analysis and will hand it back before the end of April.
- Significant progress has been made in redeveloping the Samoa water balance model in order to provide increased accuracy and better scope for operational use.
- The Samoa NMS and Electric Power Corporation (EPC) were provided with pilot project assessment reports as a result of the review process.
- Feedback and evaluation surveys were prepared and disseminated to the Samoa NMS and the EPC.
- Initial evaluation of the water balance model uncovered several errors and inconsistencies in the methodology and analysis used.

Code: 2.2 Climate sensitive sectors are supported by NMSs to use their COMP information in their decision-making

Activity:

2.2.4 NMS supported application of climate forecasting in health

Achievements:

- It is expected that the epidemiologist will go in-country with the COMP technical liaison to gain a better understanding of what is required for the service. They will also work on improving the analysis over the next 6 months.
 - The Solomon Islands NMS and the Solomon Islands Malaria Training and Research Institute (SIMTRI) were provided with project assessment reports as a result of the review process.
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Code: 2.2 Climate sensitive sectors are supported by NMSs to use their COMP information in their decision-making

Activity:

2.2.6 Successful Climate Application Projects Publicised by NMSs

Achievements:

- Progress on the Solomon Islands malaria control project was publicized by Lloyd Tahani, Deputy Director of the Solomon Islands NMS and Neil Plummer, Assistant Director of Climate Information Services with the Australian Bureau of Meteorology, at a World Meteorological Organization (WMO) Extraordinary Congress for the Global Framework for Climate Services (GFCS) in October 2012.
- A chapter on the Solomon Islands malaria control project, co-authored by Lloyd Tahani, was included in the WMO Climate ExChange publication. This publication details the application of climate information within the WMO GFCS framework.
- A chapter on the Samoa hydropower management project at Afulilo Dam, co-authored by Sunny Seuseu and Wairarapa Young, was also included in the WMO Climate ExChange publication.

Pacific Sea-Level Monitoring (PSLM) Project

Pacific Sea-Level Monitoring (PSLM)

The primary focus of the PSLM Project is to:

- Ensure continued operation and maintenance of the network of high-resolution sea level monitoring stations that have been in operation since the Project's inception in 1991;
- Continue the collection, analysis, storage and dissemination of data from the SEAFRAME (sea level) and Continuous Global Positioning System (CGPS-geodetic) earth monitoring stations of the network; and
- Improve tidal and related ocean information services in response to national and regional requirements.

Underpinning those activities will be the Project's contribution to the COSPPac CD&C activities and sponsorship of improved products/services through COMP activities.

Component 1: COSPPac products, information and data are relevant and accessible

Code: 1.1: Continuity of PSLM observation activities

Activity

- 1.1.1 Routine, scheduled calibration and maintenance of tide gauges and earth monitoring stations
- 1.1.2 Ongoing development and improvement of the PSLM Network following completion of the Observations Network Upgrade Project (ONUP)
- 1.1.3 Delivery of a real-time data display solution for COSPPac information stakeholders

Action officer/agency:

- Australian Bureau of Meteorology.
- Geoscience Australia

Achievements:

- Benchmarked against quality standards agreed with stakeholders, availability of data from the network has been greater than 87%, better than 'Adequate' and close to 'Very Good' (85% and 90% availability respectively).
- Routine calibration & maintenance activities of the PSLM tide gauge network gauges are proceeding according to schedule, and have smoothly transitioned from the previous Phase 4 of the South Pacific Sea-Level Climate Monitoring Project (SPSLCMP).
- Land surveying and CGPS station maintenance being performed according to schedule, and installation of ONUP CGPS upgrades completed in December 2012.
- Older and more costly data communications services are being progressively disabled across the tide gauge network.
- The performance of a new technology sensor (radar water-level sensor) is being tested by Bureau technicians for internal purposes. PSLM will be interested in

whether this low-cost, low-maintenance sensor might be suitable for climate-quality sea-level measurements.

- Data from 11 (out of 13) South Pacific tide gauges are now on the WMO Global Telecommunications System (GTS) and visible through the sea-level webpage hosted by the Intergovernmental Oceanographic Commission (IOC).

Code: 1.2 Continuity of PSLM data management and dissemination

Activity:

- 1.2.1 Best-practice data management methods, practices, procedures and analysis
Communication and delivery of products, tools and services
- 1.2.2 Data provided to user communities at international benchmark standards
- 1.2.3 Maintain and improve access systems and methods

Action officer/agency:

- Australian Bureau of Meteorology

Achievements:

- A PSLM technical workshop was held in January 2013 at National Tidal Centre (NTC) to discuss how best to address these activities and put in place a plan. This workshop was attended by Geoscience Australia, and staff from NTC involved in data analysis and tide gauge maintenance.
- NTC currently working with the JCOMM in the development of standards for sea-level data and quality management.

Code: 1.3 Tidal and related information services respond effectively to PIC priorities

Activity:

- 1.3.1 Routine tide predictions, calendars and in-country reports in line with PICs' advice
- 1.3.2 New tide gauge installed at Niue
- 1.3.3 Improved coordination with sea-level and CGPS monitoring agencies operating in the Region
- 1.3.4 Access to information about the project and related data/information
- 1.3.5 Tide prediction extension pilot project (portable tide gauges)

Achievements:

- A new series of hardcopy A3 and A4-size tide prediction calendars developed by PSLM in conjunction with CD&C for 2013, ahead of a wider upgrade for the 2014 series.
- With invaluable assistance from the Director of the Niue Meteorology Service in arranging in-country meetings, PSLM Project Leader visited the country of Niue (15 to 19 April 2013) and met with the following key Government stakeholders of the proposed tide gauge facility: the Premier of Niue; Secretary to the Niue Government; Minister of Fuel, Power, Justice, Lands & Survey and Public Works; Head of

Agriculture; Head of Fisheries; Head of Niue Power Corporation; Head of Public Works; Head of Telecommunications; and Chief Surveyor of Lands & Survey. The Premier of Niue and various departments have indicated approval of the proposal, and a suitable location on the country's main wharf at Alofi has been identified for the tide gauge facility and its various components.

- Initial scoping of project completed at a PSLM workshop with NTC and GA in January 2013, with first two portable tide gauges to be installed at locations chosen by Pacific Island Meteorology Service Directors.
 - From May to July 2013 - Discussions will commence with possible suppliers of products, and formal feasibility assessments will be undertaken by PSLM in conjunction with NTC and in-country technical staff from SOPAC.
-