

**AUSAID PROJECT  
PACIFIC ISLANDS – CLIMATE PREDICTION PROJECT  
(PI-CPP)**

***Minutes for  
Second Project Coordinating Committee Meeting***

NIWA, Auckland, New Zealand  
10<sup>th</sup> – 11<sup>th</sup> July 2008

**Introduction**

The Australian Bureau of Meteorology is currently implementing the Phase 2 of the AusAID-funded Pacific Island - Climate Prediction Project (PI-CPP) which involves increasing the understanding of the inter-linkages between climate variability (including on intra-seasonal, seasonal and interannual timescales), regional climate change and local scale aspects. The purpose of the project is to improve productivity through appropriate adaptive responses to climate variations.

The project is guided by a Project Coordinating Committee (PCC) which consists of a senior delegate (Director of National Meteorological Service or equivalent) from each participating Pacific Island Country, a representative from the Australian Agency for International Development (AusAID), the Bureau Project Coordinator, and the Project Team Leader. The role of the PCC is to review progress, to set strategic directions for the project in each year, and to endorse the implementation of pilot activities chosen to achieve the specified outputs.

In order to maximise the attendance by the National Meteorological Service (NMS) Directors or representatives who were passing through Auckland en route to the Tropical Cyclone Committee meeting in Niue from 11<sup>th</sup> to 18<sup>th</sup> July, attended the second PCC meeting which was held in Auckland.

**Workshop Arrangements**

The meeting was hosted by the National Institute of Water and Atmospheric Research Ltd (NIWA) on 10<sup>th</sup> and 11<sup>th</sup> July. PCC members included Jonathan Mitchell (AusAID representative), Michael Coughlan (Project Coordinator and Meeting Chair), Janita Pahalad (Project Team Leader) and representatives from seven NMSs: Rajendra Prasad (Director, Fiji), Mulipola A Titimaea (Director, Samoa), Moreti Tibiriano (Director, Kiribati), David Gibson (Vanuatu), Moleni Tu'uholoaki (Tonga) and Jimmy Gomoga (Assistant Director, Papua New Guinea).

Following personnel from NIWA also attended parts of the meeting: Ken Becker (Regional Manager, NIWA Auckland), Barry Biggs, Darren King, Apanui Skipper, Davina Hosking, Andrew Lorrey, Jim Salinger, Marina Baldi and Ashmita Gosai. Pene Lefale (NZ MetService) and Mike Bergin (Bureau of Meteorology), chair for the WMO RAV Tropical Cyclone Committee also attended the meeting.

The meeting opened with a Māori welcome ceremony conducted by Darren King and Apanui Skipper, followed by a Māori prayer sung by the NIWA representatives.

Ken Becker, on behalf of NIWA, welcomed the Committee and other participants, and Mike Coughlan followed with a brief overview of the meeting. In his introductory

remarks on behalf of AusAID, Jonathan Mitchell noted that the office in Suva, Fiji would now be responsible for the Project.

A special presentation *Understanding local weather and climate change using Māori environmental knowledge* was given by Darren King and Apanui Skipper. The full agenda and attendee list are attached.

## **Discussion**

### **Progress Report on Phase 2**

The Chair asked the PCC members to consider carefully, the following issues over the 2 day meeting after Pahalad presented the Project progress report:

- Requirements for further development of SCOPIC and ongoing support.
- Should training continue to be conducted in-country and regional training workshops focus mainly on NMS personnel?
- The importance of off-site backing-up of climate data and that it should be strongly encouraged.
- Implementation of pilot projects is a learning process; it is anticipated that most of the pilot projects will lead into further projects or routine interactions between NMSs and relevant agencies.
- Need for on-going support for Online Climate Outlook Forum.

Core activity of Phase 2 is likely to spend more time on stakeholder consultations, reaching out to the users and demonstrating applications of seasonal climate forecasting through the pilot projects.

### **In-country reports**

Several NMS Directors emphasised the importance of getting the climate information to the farmers. Climate forecasts are only useful if they are communicated to the users, and in a language and form that make them easily understood.

Prasad (Fiji) brought up the issue of data homogeneity and whether it can be applied to Fiji. Due to an increase in the number of solar panels in Rotuma (Fiji's northernmost island) it led to an increase in the surface temperature readings. This example brought to the fore the importance of meta-data, i.e. the documentation of any changes that might affect the integrity of a record.

Though SCOPIC has been performing well for Fiji with generally getting 70% correct forecasts (last 2 years, almost 90% of the forecasts have been correct), Prasad suggested it may be worth monitoring some of the climate impacts such as impacts on agriculture.

There was some discussion about how to evaluate the uptake of climate outlooks by the users. Prasad remarked that he thought maintaining a continuous relationship with the users may be difficult but it needs to be done by the NMSs.

Prasad queried how long SCOPIC will be supported and whether the Bureau will be committed in maintaining SCOPIC after the project is completed. He added that Fiji NMS was not so much a recipient as a partner in the project.

The success of training through attachment at another NMS was discussed. It was suggested that NMSs identify their particular strengths and indicate whether they could conduct on-site training for personnel from another NMS.

Gomoga (PNG) also raised the issue of data homogeneity. He highlighted that digitised climate data are limited for PNG which has limited their climate forecasting to some areas. SCOPIC is fully operational and currently issuing seasonal forecasts and experimenting with ENSO forecasts. He also added that in-house training is ongoing and SCOPIC was a statistical package, more training in basic statistics is required for the users.

Tu'uholoaki (Tonga) stated that the Project was a success in Tonga and the sense of ownership among the staff was evident. Users have started to call the Tonga NMS for climate forecast information, and the Ministry of Agriculture and the Tonga Water Board now use climate information in their operations.

He highlighted that language is still an issue as it is quite difficult to translate some of the English terminology to local language since there are often no local equivalent terms or expressions for a number of climate indicators such as pressure, probabilities, etc. Many users do not understand pie-charts. He also stated that the challenge of translating climate terminology as well as forecast information into the local language would need to be done through creative means.

Titimaea (Samoa) stated that a traditional environment indicators framework for Samoa is in place. There are traditional terminologies for weather only, in Samoa too, but there are no climate terms such as averages and probabilities. He also stated that climate forecast information is being utilised by various sectors, including, agriculture, water, tourism and power. He also emphasised the importance of integrating with other relevant projects and noted an example that outputs of PI-CPP are being utilised by the Global Environment Facility funded Integrated Climate Change Adaptation in Samoa Project. Titimaea emphasised that due to high staff turnover more training is required.

Gibson (Vanuatu) told the meeting that the Vanuatu NMS plans to re-establish its rainfall network. They are currently installing automatic gauges at several sites. VMS is aiming to enhance its climate services. There are eight climate staff, with two officers currently overseas on training. Some of the future plans for VMS are: to establish an ENSO alert bulletin; to conduct awareness workshops for different user sectors; and to establish a special climate bulletin for the farmers.

Tibiriano (Kiribati) reported that SCOPIC is now fully operational in Kiribati and monthly climate reports are distributed to their clients. There is a need for raingauges in some of the outer islands which will be provided and installed by the Pacific Islands Applied Geoscience Commission (SOPAC). He also highlighted that users welcomed the reports but find it hard to understand. He requested for training for one of his staff through attachment.

Salinger informed the meeting that a lot of PIC data have been digitised at the NIWA and he distributed an updated data holding catalogue. With the exception of the PIC data all New Zealand data are now freely available on the NIWA website. Any request that NIWA receives for PIC data is referred to the relevant PIC NMS for consideration.

During his presentation Barry Biggs (NIWA) highlighted that NIWA's research program extends out into the Pacific, and that the backbone of the Pacific activities is the Island Climate Update which has the closest linkages with the PI-CPP. Other Pacific activities include: Data Rescue, HYCOS, Flood warning system in Fiji,

## Integrated Water Resource Management Project with SOPAC and Climate Risk Assessment in Kiribati.

### Annual Plan 2008-2009

Each activity was presented separately and discussed in depth.

*Activity 1.1.2 Future-proofing of SCOPIC:* There was a consensus that SCOPIC needs to evolve further in order to include dynamic modelling products. Final products should incorporate combination of statistical and dynamical outputs. Products from dynamic models need to be downscaled as in many cases grids used by the global models are too broad for PICs. Statistical models, such as that underpinning the current SCOPIC software, are dependent on historical data and might not adequately capture climate change effects. Statistical models need at least 30 years of good quality climate data therefore outlooks cannot be made available for specific locations where insufficient or no data are available. Whereas dynamic models use real-time or near real-time observations which adequately captures climate change effects, and do not require historical data. Outlooks can be derived by downscaling method for the whole country.

A suggestion was made for one or more of the NMSs to run a comparison test between the dynamic modelling products and SCOPIC products as part of post Phase 2 activities.

Coughlan queried whether AusAID would be willing to invest money that would need to be spent in Australia to develop SCOPIC further after Phase 2 is completed. Mitchell suggested that this be discussed during the project review which will be conducted in early 2009.

*Activity 1.5 A regular online climate outlook forum (OCOF):* Coughlan queried if the NMSs were satisfied with the current arrangement of running the OCOF before the Island Climate Update (ICU) teleconference. The OCOF focuses on 1-month lead forecasts whereas ICU includes zero lead forecasts. Salinger informed the meeting that ICU incorporates OCOF outlooks in the consensus based outlooks. Meeting agreed that the OCOF should continue under the current arrangements.

*Activity 2.2 Climate observing network upgraded to meet user specified requirements:* Salinger queried why the Project did not consider purchasing solar radiation sensors, which can be used for calculating evaporation and for other applications. In response Pahalad noted that solar radiation sensors may be too expensive for most NMSs to maintain. There was some discussion on whether for the PICs evaporation values based on solar radiation would be more accurate than the traditional method.

*Activities 2.3.3 to 2.3.6 Implementation or facilitation of pilot projects:* Lefale recommended that the Project publicise successful case studies and make reports on them readily available.

*Activity 3.1 A Climate Monitoring Website for the South Pacific:* The Bureau has developed an extensive Website on Australian Climate Change and Variability, which includes trend maps, average maps and time series graphs for rainfall, temperature and sea surface temperature, and other variables. There was discussion on where a South Pacific website would reside and a recommendation was made to have both a regional focus as well as a local focus for each PIC, although it was noted that the latter could have budgetary implications. Coughlan suggested that, if this activity

cannot be fully completed under Phase 2, it be placed under consideration for any post Phase 2 activities.

Salinger queried who would supply the PIC data and ensure the quality of the data. In response Pahalad stated that most data will come from the PICs and some from the past APN-funded workshops. It was agreed that the Project would continue to liaise with NIWA in regards to the PIC data and metadata issues.

*Activity 3.3 Tropical Cyclone trends and forecasting tool:* Bergin raised his concern about the quality of the data in the Bureau's TC archive. He recommended that data prior to satellite era not be used. It was decided that the proposed tool would only focus on regions for preferred tracks and frequency for the upcoming TC season with no reference to intensities of TCs. Bergin commented that there is a high demand for the need to predict TCs on weekly to monthly time scales.

*Activity 3.4 Attendance at the 9th International Conference on Southern Hemisphere Meteorology and Oceanography:* The Project will fund a representative from each NMS to attend the conference in February 2009. Lefale informed the meeting that he will be funding some of the end-users. Pahalad and Lefale are to liaise on this matter.

*Activity 4.2.1 Establish effective project planning, coordination and communication process and systems:* Coughlan asked NMS representatives to give some consideration to the need for another round of a high level discussion with the participating PIC Government in order to reinforce their commitments.

### Responses

*AusAID:* Mitchell informed the meeting that the Project will be reviewed in early 2009. The progress on Phase 2 will be reviewed and the possibility of extending to Phase 3 may be considered. The need to also continue to capture and document intended and unintended outcomes (both in the short and long term) as a result of the implementation of PI-CPP for NMSs and end users was emphasised.

Prasad questioned the sustainability of climate networks. There are very few voluntary observers and in order to maintain some of the observing sites, Fiji NMS will soon need to pay the observers. This point led on to a discussion on project-funded infrastructure or equipment. It was noted that most projects usually run 3 to 5 years with no ongoing maintenance factored into project design. It was also noted that for long-term sustainability, maintenance of project-funded infrastructure needs to be built into some organisations' basic structure.

Prasad was concerned that the Bureau may not be able to provide assistance (such as training and technical support) on goodwill basis in the future.

There was some discussion on various climate change initiatives. World Bank funded a review of 7 PICs on climate variability and adaptation, a study done by John Morton, New Zealand. It was noted that the climate change adaptation in reality focuses on adapting to extreme events and impacts. It is important to mainstream climate change adaptation into disaster reduction.

Lefale informed the meeting that, since PI-CPP was implemented in response to the review done by the SPREP in 2000, the project will be discussed at the Pacific Islands Forum in Niue in August 2008. PI-CPP was developed in order to address a need for a seasonal climate forecasting service in the PIC NMSs. NMS representatives were requested to brief their respective governments on the Project's progress.

During his response statement, Biggs highlighted the following; need for a new model for funding long-term data collection particularly environmental data; the importance of integrating long-term data e.g. linking climate to hydrology; importance of traditional knowledge; linking risk reduction to weather extremes, which requires much finer scale models and therefore data collection systems that are integrated and are of fine resolution.

Lefale gave an overview of the New Zealand Meteorological Service (NZMet). Under the International Cooperation Development, funded through contracts, NZMet provides support to Niue, Cook Islands, Tokelau, Samoa, Kiribati and Tuvalu, focussing mainly on data collection. Through NZMet specified funding, funds are channelled to NMSs in Kiribati and Tuvalu for GUAN (GCOS\* Upper Air Network) stations. It was pointed out that such support mainly caters for NZMet's need. This led to a lengthy discussion on lack of support for non-GSN (GCOS Surface Network)/GUAN stations. In order to get support for their climate network, NMSs are required to submit funding proposals to donor agencies.

It was noted that the maintenance of long term observing/monitoring networks in PICs through short-term funding proposals is probably not sustainable. To a degree New Zealand and Australian support GSN/GUAN stations because they meet their own needs or are seen as necessary for meeting global needs. Unfortunately long-term support for GSN/GUAN stations alone will be inadequate to meet the more detailed requirements for climate data collection infrastructure within PICs.

During Salinger's presentation on World Meteorological Organisation (WMO) Perspectives, he highlighted a need for donor assistance to sponsor PICs attendance at several upcoming agrometeorological workshops and seminars. There are 50 planned agromet roving seminars for 2008 and a regional workshop in 2009.

As WMO recognises PI-CPP is a major component of the implementation of the CLIPS programme in the region, it was important for there to be more explicit recognition given to identifying the links between PI-CPP, CLIPS and other regional programmes such those implemented by SPREP and SOPAC. Pahalad informed the meeting that the project team continuously liaises with the regional partners and has included them in several regional or in-country workshops. SCOPIC has also been distributed to PI-GCOS office and HYCOS team.

Prasad agreed that CLIPS activities have not been implemented by the WMO in the Pacific region because of the recognition of the role being played by PI-CPP. It was important therefore that the Project continue to keep the WMO Secretariat informed on PI-CPP activities and progress.

The chairman highlighted the following points:

- Each pilot project needs to be documented, and it is important to publicise success stories (for example sugarcane in Fiji).

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\* The **Global Climate Observing System** was established in 1992 to ensure that the observations necessary to address climate-related issues are defined, obtained and made available to all potential users. GCOS is co-sponsored by the World Meteorological Organization (WMO), the Intergovernmental Oceanographic Commission (IOC) of UNESCO, the United Nations Environment Programme (UNEP) and the International Council for Science (ICSU). It is intended to be a long-term, user-driven, integrated operational system capable of providing the comprehensive observations required for monitoring the climate system, for detecting and attributing climate change, for assessing the impacts of climate variability and change, and for supporting research toward improved understanding, modeling and prediction of climate.

- Data proprietary issues need to be respected.
- It is important to demonstrate the value of user/application data with the climate indicators.

In her summary Pahalad commented that the dialogue between the NMSs and the users has been initiated but it is important to maintain and to build on these new relationships through further demonstration climate information applications in their respective sectors. In order to reach out to the grassroots level, there is a need to link climate information with traditional knowledge. She requested NMSs to regularly liaise with their users and to send feedback to the project team.

During his closing remarks, Mitchell expressed his satisfaction with project progress and thanked the Bureau team, NMSs representatives and NIWA. The chairman also thanked everyone with a special mention to NIWA staff for their support in hosting the meeting.

# AGENDA

## Thursday, 10 July

- 8:30 - 9.00 Arrival and registration of the participants
- 9:00 - 9.15 Welcome Ceremony: Darren King and Apanui Skipper, NIWA  
Welcome Remark: Ken Becker, Regional Manager, NIWA-  
Auckland
- 9.15 - 9.30 Brief overview of the meeting: Dr Michael Coughlan  
Introductory remark from the AusAID rep: Jonathan Mitchell
- 9.30 - 9.45 Self introduction of the participants
- 9.45 - 10.00 Environmental knowledge: NIWA
- 10.15 - 10.45 MORNING TEA**
- 10.45 - 11.15 Progress Report and current status of Phase 2: J Pahalad
- 11.15 - 12.45 Brief in-country report on the outcomes of project activities: NMS  
reps
- 12.45 - 1pm NIWA activities in the Pacific Region: Barry Biggs, General  
Manager, Operations
- 1pm to 2pm LUNCH**
- 2pm - 3pm Annual Plan for 2008-2009
- 3pm - 3.30 AFTERNOON TEA**
- 3.30 - 4.30pm Annual Plan continued (discussion and endorsement)

## Friday, 11 July

- 8.30 - 10.00 Beyond Phase 2 (sustainability issues, support required, etc)
- 10.00 -10.30 MORNING TEA
- 10.30 - 1pm Responses from regional partners  
NIWA - Barry Biggs  
NZMet - Pene Lefale  
WMO perspective - Jim Salinger  
Future directions....Beyond PI-CPP: Jonathan Mitchell
- Closer**

## ATTENDEES

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