

**AUSAID PROJECT  
ENHANCED APPLICATIONS OF CLIMATE PREDICTIONS IN  
PACIFIC ISLAND COUNTRIES  
(PI-CPP)**

***Report on the Stakeholders Workshop on Application of Climate  
Predictions in Tonga***

Dateline Hotel, Nuku'alofa, Tonga  
11th to 13th May 2005

**Introduction**

The second phase of the project has involved the roll-out of the revised (near-final) Seasonal Forecast System (called SCOPIC) to the local NMSs, training of local NMS personnel in statistics and forecast production and distribution, and the holding of stakeholder workshops. In addition, the visiting parties investigated possible third-phase pilot projects, for the application of climate forecast information in climate sensitive industries, most notably fisheries, agriculture and water.

The sixth of a series of workshops under the second phase was held in Nuku'alofa, Tonga. The project team spent 2 days (9<sup>th</sup> and 10<sup>th</sup>) training the Tonga Meteorological Service (TMS) personnel on advance statistics and SCOPIC. They also assisted the TMS personnel with the preparation of their presentations and other relevant materials for the following 3-day workshop. About six met staff (generally technical officers and 1 climate officer) underwent training.

The stakeholders' workshop started with a formal opening, with an opening address delivered by Mr Tevita Havea, Principal Legal Officer, Ministry of Civil Aviation. Mr Ofa Fa'anunu, the Director of TMS chaired the session.

The objectives of the workshop were as follows.

- To demonstrate available information and stress the limitations of the forecasts, the nature of probability-based predictions;
- To demonstrate to decision-makers in climate sensitive activities the availability of, and effective and prudent use of probabilistic climate predictions as an input to decision-making;
- To train decision-makers in climate sensitive activities on the usage of probabilistic climate predictions in decision making to minimize risks in their respective sectors;
- To establish effective communication delivery channels from the PIC National Meteorological Service to its clients;
- To ascertain specific information needs, provide a forum for identifying desirable software modifications
- To train the media contacts in order to ensure most effective and accurate dissemination of the climate information, including predictions to the general public; and
- To identify and/or commence one or more pilot projects in some of the PIC.

The workshop was structured into six sessions: Formal Opening; The Climate System, its behaviour and consequences; Seasonal Climate Forecasting; Managing Climate Risks (case studies); The Forecasting and Decision-Making exercise and Climate

Outlook Forum.

The Project Team (PT) was represented by Ms Janita Pahalad (Project Team Leader), Dr David Jones (National Climate Centre, Bureau of Meteorology), Dr Ross James (Hydrology Section, Bureau of Meteorology), and Dr Yahya Abawi (Queensland Department of Primary Industries).

### **Outcomes**

The turnout at the workshop was encouraging. There were about twenty participants during most of the workshop including five from the met service. The stakeholders who attended were generally from the following sectors: local radio and television services, Red Cross, Education Department, US Peace Corps, water authorities, fisheries, agriculture, environment, disaster office, and Tonga Association of NGOs.

An evaluation of the workshop was carried out (see attached summary report). The overall rating for the workshop ranged from *very good* to *excellent*. Seventeen participants evaluated the workshop.

One of the participants commented “very successful and useful workshop and would enjoy participating in similar workshops in future, if given the chance”.

### **Discussion**

There is very limited public knowledge of events like El Niño and La Niño. There should be more public awareness campaign on climate and climate-related impacts. Climate information can be useful if it delivered to the right people such as farmers. For example June/July is start of the planting season for squash therefore climate outlooks at the start of season can be very useful to the squash industry and hence to the country as whole. Usually such information is not channelled down to the community level, and people continue to use traditional method. They should be given a choice, and it is important to change people’s attitude about been more prepared for impending disasters. Workshop on risk management is needed for grassroot people.

There was some discussion on having a programme on the national television explaining phenomenon such as ENSO etc. There was a suggestion for TMS to identify someone from the local TV station to directly liaise with in order to deliver such climate information to the public. ATL emphasised that this was one of the reasons for inviting the media representatives to the workshop and hoped that TMS will be able to establish a contact in each of the organisation present at the workshop.

The representative from the PEACE CORP informed the workshop that they run disaster preparedness workshop at community level and suggested TMS to be involved in such workshops.

There was a suggestion to form a national committee to improve communication between the TMS and the stakeholders. There is no TMS office in the CBD or public library to access climate information therefore weather/climate information is not readily available to the public. Due to TMS location at the airport (which is about 40kms from the CBD), it is also difficult to visit the office. Though there is an annual career show in the CBD for the school leavers, TMS has not been involved to date.

Fa’anunu acknowledged that it will be a challenging task for TMS to raise its profile but TMS will work on it to achieve that goal.

TMS is facing some difficulties in collecting data around the country, which they hope to address through their collaboration with agriculture department to improve the climate network.

Once again the participants requested for a copy of SCOPIC for their organisation. ATL explained that SCOPIC will only be provided to TMS as they are the expert in interpreting its products and making it available in a simple format for the locals.

### **Recommendations**

- TMS should be responsible for making such climate information available to the farmers.
- ATL to send all training presentations on a CD to all participants.
- The Education Department should include climate studies in school curriculum.
- TMS to produce climate leaflets/bulletins for the farmers, which are to be in simple form, preferably in Tongan.
- TMS to be involved in local PEACE CORP disaster preparedness workshops.
- TMS to partake in the annual career show for the school leavers.

### **Additional Comments**

Generally climate observers and 1 climate officer attended the met training sessions. Considering their level of qualification, the training focussed on hands-on exercise on SCOPIC, and a number of training slides were excluded e.g. verification etc.

A CD containing all training materials was sent to the workshop participants after the workshop.

The local media (television and the newspaper) did a story on the workshop and interview ATL and Fa'anunu.

In his closing remark Fa'anunu thanked the Project Team and the AusAID. He also emphasised that it is important to have a sustainable service and acknowledged that such climate information is very important to Tonga.

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**EVALUATION REPORT**

*Stakeholders Workshop on Application of Climate Predictions (Tonga)*

Introduction

An evaluation was done for the 3-day workshop held at the Conference Room, International Dateline Hotel, Nuku'alofa from 11<sup>th</sup> to 13<sup>th</sup> May 2005. The main purpose was to ensure that the objectives of the workshop were met and to measure the success of the project.

Evaluation Form

The form consisted of eight sections with rating ranging from strongly agree (5) to strongly disagree (1). The five workshop sessions and training handout were evaluated with an overall assessment.

The workshop sessions were:

- Climate System, its Behaviour and Consequence;
- Seasonal Climate Forecasting;
- Managing Climate Risks;
- The Forecasting and Decision Making Exercise; and
- Climate Outlook Forum.

The participants were asked to rate the above sessions by its contents (its usefulness and relevance), time allocation, the structure of the presentations, and its effectiveness. The contents and the amount of materials provided in the handouts were rated.

Participants also had a chance to comment on each presenter: how well the presenter do and how could he/she improve.

Finally, there was a section on overall assessment: most valuable aspect; least valuable aspect, venue, entire workshop and any additional comments.

Results

Twenty people registered on the first day of the workshop but the number dropped slightly from the next day. The following results are summarised from 17 forms.

The average rating for each workshop session ranged from 4.3 to 4.7 (out of 5). The lowest rating was given to “*the time allocation*” for every session (as low as 3.8). The highest average rating of 4.9 was given to the usefulness of Forecasting and Decision Making exercises.

Most participants found the *Forecasting and Decision Making Exercise* as the most valuable aspect of the workshop.

One of the participants commented “very successful and useful workshop and would enjoy participating in similar workshops in future, if given the chance”.

The overall rating:

Venue: excellent (8); very good (6); good (1); poor (1).

Workshop: excellent (11); very good (5); good (1)

Some notable comments/recommendations made by the participants:

- Course materials be made available a few days before the workshop.
- The workshop should be one week.
- “It was the first time I have learnt some technical terms in relation to climate predictions”.
- More practical sessions using the software.

Further Comments

All presenters had a chance to read the evaluation forms. Once again, they noted the comments/criticism (if any). The presentations (including format and contents) and their form of delivery are continually revised. Though there are a set of generic training materials, the presentations are modified (if need be) for each Pacific Island Country.

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***Stakeholders' Workshop on Application of Climate Predictions***

***Dateline Hotel, Nuku'alofa, Tonga  
11<sup>th</sup> to 13<sup>th</sup> May 2005***

**AGENDA**

**Wednesday**

Formal Opening: Chaired by the Director of the Tonga Meteorological Service, Mr Ofa Fa'anunu

9.00            Opening Prayer

                  Welcome remark: Mr Fa'anunu

9.10            Opening address by Mr Tevita Havea

9.20            Introduction of the Project Team

                  Introduction of the PI-CPP project and the Workshop: Janita Pahalad

9.40            Brief self introduction of the participants

*10.00           MORNING TEA*

Session Two: The Climate System, its behaviour and consequences

10.30           Background on the climate system including key process (small scale/large scale variability): David Jones, BOM

11.15           Local climatology (eg seasonal variation, ENSO teleconnections including some of the past events and tropical cyclones): Seluvaia Finaulahi, TMS

Session Three: Seasonal Climate Forecasting

11.45           Seasonal climate forecasts: what makes it possible, processes, what do they tell us and their limitations: David Jones, BOM

12.15           Seasonal Climate Outlook for the Pacific Island Countries (SCOPIIC): What user products are available?: Yahya Abawi, QDPI

*13.00           LUNCH*

Session Four: Managing Climate Risks (case studies)

14.00           Local case study: water

14.30           Agricultural Management: Yahya Abawi

15.15           *AFTERNOON TEA*

15.45           Water management: Ross James

*16.30           END OF DAY*

## **Thursday**

### Session Five: THE FORECASTING AND DECISION-MAKING EXERCISE

- 8:30 Regional and Local Seasonal Forecast Products: what's available regionally and locally; dynamic models: David Jones, BOM
- 8.50 Briefing on F&D-M Exercise  
Presentation of 1<sup>st</sup> 3-month rainfall outlook and ENSO outlook  
Group session  
Presentation "what actually happened"  
Brief report from each group
- 10.30 *MORNING TEA*
- 11.00 Presentation of 2<sup>nd</sup> 3-month rainfall outlook and ENSO outlook  
Group session  
Presentation "what actually happened"  
Brief report from each group
- 12.30 *LUNCH*
- 13.30 Presentation of 3<sup>rd</sup> 3-month rainfall outlook and ENSO outlook  
Group session  
Presentation "what actually happened"  
Brief report from each group
- 15.00 *AFTERNOON TEA*
- 15.30 Lessons Learned from the F&D-M Exercise
- 16.30 *END OF DAY 2*

## **Friday**

- 8.30 Presentation on RANET: Janita Pahalad

### Session Six:

- 9.00 CLIMATE OUTLOOK FORUM  
Presentation of the following 3-month rainfall outlook: TMS  
Round-table discussion
- 10.00 *MORNING TEA*
- 10.30 Recommendations and the next steps (Wrap-up): how to establish an effective communication channel/ service delivery channels; software modification specification.
- 12.00 *CLOSURE (followed by lunch)*

THE STAKEHOLDERS WORKSHOP ON APPLICATION OF CLIMATE PREDICTIONS

NUKU'ALOFA, TONGA

11<sup>TH</sup> TO 13<sup>TH</sup> MAY 2005

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