

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

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

Conference Room, Ministry of Agriculture, Apia
3rd to 5th 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 fifth of a series of workshops under the second phase was held in Apia, Samoa. The project team spent 1½ days (2nd and 3rd) training the Samoa Meteorological Service (SMS) personnel on advance statistics and SCOPIC. They also assisted the SMS personnel (including part of the weekend) with the preparation of their presentations and other relevant materials for the following 3-day workshop. About seven met staff underwent training.

The stakeholders' workshop started with a formal opening, with an address delivered by Ms Misileti Masoe-Satuala, Australian High Commission and the opening address by the Acting Assistant Chief Executive Officer of the Ministry of Natural Resources, Environment and Meteorology (MNREM), Mr Lameko Talia. Mr Dean Solofa, Head of Climate Section 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 of 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

Nineteen people registered on the first day of the workshop but the number dropped significantly from the next day. There were no more than thirteen participants during most of the workshop including about seven from the met service. The stakeholders who attended were generally from the following sectors: Samoa Water Authority (SWA), Electric Power Corporation (EPC), MNREM and Public Service Commission. It is possible that the lower than expected attendance was due, in part, to a number of workshops running back to back. This in itself was a consequence of some unplanned and unavoidable rescheduling of the project's workshop program.

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

The participants found the workshop useful. One of the participants remarked "It was the first time I have learnt some technical terms in relation to climate predictions" in his evaluation form. A number of recommendations were directed at the SMS. At this stage there is no strong recommendation to change any of the SCOPIC products.

Discussion

Unfortunately the project team could not meet the Director, Mr Ausetalia Titimaea as he was away overseas for family commitment. Mr Dean Solofa represented the Director during the workshop.

Some interesting discussions took place over the duration of the workshop. People in Samoa are weary of El Niño type conditions though it is very new to many people. Notably, drought has never been considered a disaster in Samoa, though in some events there has been drying of surface streams and water was supplied from natural springs.

There are about three hydro power dams, with six hydro-power stations in Samoa. EPC's major concern is the dam level. The hydroelectric dams generate 42% of the power while diesel generates 58%. A good rain year results in savings in diesel cost. During the group exercise session, it was interesting to note that EPC considered 6 to 12 months outlook in their planning.

There was some discussion on the increasing cost of the water. This is due to a need to improve the quality of the water (i.e. addition of chlorine). Water tanks are common but not encouraged to be used as a source for drinking water.

The SMS observing network consists of 2 climate stations and 6 rainfall stations, which are all voluntary manned. The climate stations are run by the Agricultural Department and the Forestry Department. SMS conducts an inspection of the observing sites twice a year.

The Hydrology Section, which is part of the Meteorology Department, holds about 30 to 40 years of rainfall and stream-flow data. There are 2 stream flow gauges currently operational. Most data are in hard copy and will need to be scanned. PT requested SMS for an inventory of the data. SWA does not hold any such data and relies on SMS. SWA only records water consumption data. EPC has 3 years of dam level data.

It was encouraging to know that SMS has been liaising with the local media to issue weather-related information to the public, and anticipates setting up a regular forum with the media.

Recommendations Made

- SMS to issue regular climate bulletin on climate outlooks for Samoa.
- SMS to hold regular climate meetings with the stakeholders and their contractors.
- SMS to run sessions like Forecasting and Decision Making exercise in local workshops.

Additional Comments

During the closing session, Mr Solofa stated that, although he was somewhat disappointed with the turnout, he was happy to have this new software SCOPIC and hopes to reach out to more stakeholders through follow-up local workshops. He also informed the PT of his intention to use SCOPIC at the *Samoa Training Institute on Climate and Extreme Events** workshop which was taking place the following week. Though the PT members shared the same sentiments as Mr Solofa as regards the turnout at the workshop, they were encouraged that SMS, through its own initiatives, would be able to reach out to more stakeholders in Samoa.

* The Samoa Training Institute represents the second phase of a three-year training and capacity-building project being undertaken jointly by the University of the South Pacific, the East-West Center (EWC) and the New Zealand National Institute of Water and Atmospheric Research (NIWA).

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EVALUATION REPORT

Stakeholders Workshop on Application of Climate Predictions (Samoa)

Introduction

An evaluation was done for the 3-day workshop held at the Conference Room, Ministry of Agriculture, Apia from 3rd to 5th 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

Nineteen people registered on the first day of the workshop but the number dropped significantly from the next day. Unfortunately the Met staff outnumbered the stakeholders, almost 3 to 1. The following results are summarised from 7 forms.

The average rating for each workshop session ranged from 4.1 to 4.9 (out of 5). The lowest rating was given to “*the time allocation*” for every session (as low as 3.5). The highest average rating of 5 was given to the contents of the training handout. Most participants did not rate the presenters.

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

The overall rating:

Venue: excellent (4); good (2); fair (1).
Workshop: excellent (5); very good (2).

Some notable comments/recommendations made by the participants:

- More stakeholders to provide their input on how climate impacts their development and how they deal with it.
- “It was the first time I have learnt some technical terms in relation to climate predictions”.

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.

(PI-CPP)

Stakeholders' Workshop on Application of Climate Predictions

***Venue: Ministry of Agriculture, Apia
3rd to 5th May 2005***

AGENDA

Tuesday

Formal Opening: Chaired by Dean Solofa, Samoa Meteorological Service

- 2.00pm Opening Prayer: Malaefatu Leavasa
Welcome remark: Dean Solofa
- 2.10pm Address by the local AusAID representative: Misileti Masoe-Satuala, Activity Manager, Development Cooperation
- 2.20pm Opening address by MNREM Acting Assistant Chief Executive Officer:
Mr Lameko Talia
- 2.30pm Introduction of the Project Team
PI-CPP project and the Workshop: Janita Pahalad, Australian Bureau of Meteorology (BOM)
- 2.45pm *AFTERNOON TEA*

Session Two: The Climate System, its behaviour and consequences

- 3.15pm Background on the climate system including key process (small scale/large scale variability): David Jones, BOM
- 3.30pm Local climatology of Samoa: Dean Solofa, Climate Officer, Meteorology Division, MNREM
- 4.30pm *END OF DAY 1*

Wednesday

Session Three: Seasonal Climate Forecasting

- 8.30am Seasonal climate forecasts: what makes it possible, processes, what do they tell us and their limitations: David Jones, BOM
- 9.00am Seasonal Climate Outlook for the Pacific Island Countries (SCOPIC): What user products are available?: Yahya Abawi, QDPI and Dean Solofa, Meteorology Division
- 9.45am *MORNING TEA*

Session Four: Managing Climate Risks (case studies)

- 10.15am Local case study: ENSO predictability and association with crops data: Dean Solofa, Meteorology Division

10.45am Agricultural management: Yahya Abawi, QDPI

11.30am Water management: Ross James, BOM

Session Five: THE FORECASTING AND DECISION-MAKING EXERCISE

12.15pm Regional and Local Seasonal Forecast Products: what's available regionally and locally; dynamic models: David Jones, BOM

12.45pm Briefing on F&D-M Exercise

1.00pm LUNCH

1.45pm Presentation of 1st 3-month rainfall outlook and ENSO outlook
Group session

Presentation "what actually happened"

3.15pm AFTERNOON TEA

3.45pm Brief report from each group

4.30pm END OF DAY 2

Thursday

Continue with FDM exercise

8.30am Presentation of 2nd 3-month rainfall outlook and ENSO outlook
Group session

Presentation "what actually happened"

Brief report from each group

10.00am MORNING TEA

10.30am Presentation of 3rd 3-month rainfall outlook and ENSO outlook
Group session

Presentation "what actually happened"

Brief report from each group

12.00pm Lessons Learned from the F&D-M Exercise

1.00pm LUNCH

2.00pm Presentation on RANET: Janita Pahalad

Session Six: CLIMATE OUTLOOK FORUM

2.15pm Presentation of the following 3-month rainfall outlook: SMS
Round-table discussion

3.00pm AFTERNOON TEA

3.30pm Recommendations and the next steps (Wrap-up): how to establish an effective communication channel/ service delivery channels; software modification specification.

4.30pm CLOSURE

THE STAKEHOLDERS WORKSHOP ON APPLICATION OF CLIMATE

PREDICTIONS
 APIA, SAMOA
 3RD TO 5TH MAY 2005

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