

**Climate Change Adaptation in Rural Communities of Fiji**  
**5<sup>th</sup> Project Advisory Committee Meeting Minutes**

2:30 pm, Thursday, 14<sup>th</sup> August, 2008

IAS Conference Room,  
USP Lower Campus.

**Members Present:**

Prof. Bill Aalbersberg IAS, USP – **Chair**  
Fine Lao – PACE-SD, USP  
Malakai Finau – Mineral Resources Department  
Sandeep Kaur – US Embassy  
Jonathan Mitchell - AusAID  
Lavenia Volavola (IAS, USP)  
Patrina Dumaru (CCA Project)  
Diana Taoba (PACE-SD)  
Aliti Koroi (PACE-SD)

**Apologies**

Ema Mario (UNDP)  
Ravin Kumar (Fiji Meteorological Service)

**1. Welcome**

Fine Lao welcomed all those who were present at the meeting and explained what the meeting was going to entail.

Prof. Bill Aalbersberg who chaired the meeting also stressed that meeting was going to center around the outlined objectives on the agenda sheet. He also that there was an add on component of the project by UNDP under Fiji Government allocation to enhance the monitoring and evaluation part of the project of which Patrina has taken over as part of her PhD project. Part of the agenda was also to hear from other Climate Change projects e.g. Climate Change and Tourism and the Dept. of Environment's SPREP initiative project so that lessons can be learnt and more collaboration made; unfortunately their representatives were not present

Therefore an action point of the meeting was to find out more of these projects.

**2. Minutes of the Last Meeting**

Since it was a small group and the last meeting was last year, the minutes of the last meeting was not discussed in details but discussion started with the first item on the agenda.

Prof Bill suggested that contact be made with the current members of the PAC committee on their membership and to also find out the actions status of other climate change related projects for more collaboration.

### **3. Update of project activities since the last PAC meeting**

Lavenia presented a power point presentation of the update of activities since the last PAC meeting.

#### **Water Scarcity Sites**

##### 3.1 Votua

After the actual measurement of the water usage in the village was done, a borehole was not sufficient to cater for the village therefore the option of improving the surface water system was a more appropriate option to take. An upgrade of the whole water system was done by constructing a main ring of pipes around the village which connected to each house to improve the distribution pressure of water. Three inch pipes were connected to two inch pipes to improve the supply and a small dam to catch silt was built above the old dam to improve the quality of the water supply. Four 10,000 liter tanks were also installed to provide some water filtration through settling to improve the water quality of the water. Water has been tested regularly and although it is not up to WHO standards, there is no presence of E.coli there has not been any water related sickness in the village.

A workshop was also conducted on the use, maintenance and repairs of the new water system. As a result of this implementation works, there is an improved water supply, distribution and quality to each household in the village of Votua. However the water usage has increased as a result of improved water pressure and nearby hotel and restaurant are also using water for free. Water usage could be measured using meters although meters are very expensive. Sandeep recommended that water could be paid for as one of the options.

Aliti asked if there were any other changes within the community since the improvement of water pressure and Prof. Bill explained the involvement of NIWA in the improvement of waste management and general health campaign and try and relate it to healthy water.

Prof. Bill also mentioned the involvement of the local engineer (Vili Jeke) who has been instrumental in designing and implementing the community water system and has been involved in the other water sites. Vili Jeke has found similar water management and design issues in communities so a simple manual or guidebook for best practices to community water systems could be developed. This should be an action point for the project.

##### 3.2 Druadrua Island

Druadrua Island seems to present a problem of water storage rather than shortage as there are many sources of water e.g. several spring sources in the village, 3 boreholes, and creek water. After the review of their management plan in June, it was decided that since the boreholes have a low yield, only a hand pump was suitable and upgrading the current dam system would provide a more sufficient supply of water. A bigger dam was therefore

built to create a larger reservoir of water and damaged pipes were replaced. Water would then be stored in central tanks to cater for both Salevukoso and Delaivadra villages.

The project also helped complete their compost toilet project with the provision of wheelie-bins to help protect their surface water sources from contamination.

Rotary Fiji has also been approached to assist with the pumps for the other 2 boreholes.

Work is expected to be completed within the next two months to see a more regular supply of water to central taps within the village.

### 3.3 Bavu

An existing borehole in the village of Bavu was upgraded by MRD and an electrical submersible pump was installed. Water from the borehole is pumped to an existing storage tank at least three times a week and distributed to each household. Water from the borehole has been contaminated by toilets built above the bore hole and so a rainwater catchment system is being explored to provide drinking water for the village.

## **Coastal Erosion Sites**

### 3.4 Buretu

Eroded patches along the river bank were filled in with soil and fenced with coconut logs supported by mangrove posts. This forms a temporary coastal structure that holds three rows of vetiver grass. Other coastal trees will be planted behind the row of vetiver grass to hold the river bank when the coconut logs eventually rot away. Vetiver grass can also be used to thatch bure roofs.

The senior river engineer LAWRM, Mr. Aung Yi assessed the coastal structure and recommended that it be reinforced with pine posts. He demonstrated a simple technique to the villagers of using a water pump to drill 3m long posts into the bank of river in a few minutes and this was completed by the youth of the village. He had also recommended making boxes filled with mangrove plants at different intervals of the coastal structure for further reinforcement.

Two speed control signboards have been erected on either end of the village to remind regular passing boats to reduce their speeds when nearing the village so wave energy created by their boats and scouring the river banks is reduced.

### 3.5 Korotasere

At least two rows of mangrove were planted along the shoreline of Korotasere and three rows of vetiver were planted along the river banks to help reduce the rate erosion. More permanent options are currently being

investigated with plans to take a technical expert like Mr. Aung Yi from LAWRM.

A workshop is planned for September in collaboration with the Department of Forestry to create awareness to the community on sustainable logging and the Fiji Code of logging Practice as it has become an activity upstream that may enhance the erosion at Korotasere. The community can also be trained to monitor the logging practices by the logging companies.

Relocation of two houses is also an option to be discussed with the community.

### 3.6 Navukailagi

Mangroves were also planted along the eroded river banks and on the coastal foreshore in front of the village. Coastal trees were also planted along the coast in front of the village. Vetiver grass has also been planted along the severely eroded sections of the coastline. Further adaptation options are yet to be investigated.

## **4. Monitoring and Evaluation**

Patrina explained the Monitoring and Evaluation program for the project. The program is divided into 2 perspectives, the project-based monitoring and the community-based monitoring. The project-based monitoring would be conducted by the USP to assess if project objectives have been met and is limited to the lifetime of the project. The community-based monitoring will be developed and conducted by the community themselves to reflect the interests of the community and it would be a long term monitoring plan. Baseline data has already been collected so data will be used in monitoring.

Two-day community workshops are planned for the months of August and September to help the different communities plan and implement their monitoring plans.

## **5. Other Matters**

Jonathan Mitchell from AusAID thanked and congratulated the project team and requested that more of the outcomes of the project be reported rather than the outputs. He also suggested that socio-economic benefits for the vetiver grass be explored for example the use of the grass for thatching Fiji bures.

The meeting ended at 4:45pm