



# PACIFIC ADAPTATION TO CLIMATE CHANGE SOLOMON ISLANDS



## FROM THE DIRECTOR

Dear readers and stakeholders,

Thank you for reading the 2013 first quarter issue of the PACC Solomon Islands Newsletter.

Our work this first quarter has been about building on the progress made by PACC over the past year in enhancing food production and increasing food security for low lying atoll community.



First and foremost on our agenda for 2013 is to extend PACC's activities to our second project site of Sikaiana.

Thanks to the endorsement by the National Steering Committee, the PACC team has gone ahead and developed our upcoming activities for Sikaiana.

First will be a vulnerability assessment report to determine the priorities for the Sikaiana communities.

"Although there are similarities to Ontong Java, the situation on the ground in Sikaiana is quite different, so we need to assess what the priorities are before we can begin work on the ground."

Looking back to our first project site at Ontong Java, the feedback was very positive and you will read about it in our story from PACC demonstration team leader Jasper Bonie.

Our work in Ontong Java in 2013 will be focused on monitoring the activities that had been put in place last year.

In Honiara we are seeing good progress in the building of a solar drier that will allow root crops to be processed and stored as food supply for times of natural disasters and food shortage. Already trials on the food processing part of the project has been completed.

As always, the strength of the PACC project lies in its partnership with SPREP development partners UNDP, AusAID, Government Ministries, Provincial Governments, churches, community groups, youth groups and communities. Without this support PACC would not be able to reach those who are very vulnerable to the felt and predicted impacts of climate change.

Yours sincerely,

**Frank Wickham**

Project Director

PACC Solomon Islands

Permanent Secretary, Ministry of Agriculture and Livestock

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## PACC 2013 FIRST QUARTER NEWSLETTER



## PACC LOOKS AT NEW APPROACH FOR SIKAIANA

The Pacific Adaptation to Climate Change project in the Solomon Islands is heading to its second project site in Sikaiana, Malaita Outer Islands following the successful start of fieldwork in neighboring Ontong Java last year.

Like in Ontong Java, the project in Sikaiana will look to improve food security by working with communities to improve farming techniques, plants varieties and managing of gardens.

Senior Research Officer Jules Damutalau says the first step will be to carry out a rapid Vulnerability and Adaptation Assessment to gauge the priorities of the communities.

"However we can not rule out community priorities identified by the people of Sikaiana.

"The situation on Sikaiana is different from Ontong Java, so we have to get data from communities on what type of help they need and want," said Damutalau.

While the vulnerability assessment for Ontong Java was conducted by a contractor, for Sikaiana, the Ministry of Agriculture and Livestock will play the lead role with the support of stakeholders.

"For the vulnerability assessment we want to involve Environment, Fisheries, Forestry and Infrastructure Ministries along with UNDP and various stakeholders to come and work with us on the ground, as we visit the communities."

The findings of the assessment will then be presented to the PACC National Steering Committee in order to get funding for project activities.

"We have developed our assessment methodology and our options to implement the project on the ground.



**Damaged food garden on Sikaiana. Photo supplied.**

"Our priority will be to brief the Sikaiana community in Honiara on our proposed interventions and programmes," said Damutalau.

The PACC project is a regional initiative aimed at promoting adaptation measures that will increase the resilience of communities against the impacts of climate change. In the Solomon Islands the project is focused on improving food security.

The project's National Steering Committee met on 10 January 2013 to review the project's work in 2012 and to endorse this year's activities.

One of the major achievements in 2012 was the start of demonstration work in the communities of Pelau and Luaniua, where farmers were trained on new farming methods. Also trials were carried out on salt-resistant plants from other parts of the country.



**Coastal erosion on Sikaiana. Photo supplied.**



**Saltwater inundation on Sikaiana. Photo supplied.**

## ONTONG JAVA REPORT

In late 2012 the PACC team spent a month on the ground in Ontong Java, building demonstration plots and working with the community of Pelau on improving farming methods to promote better food security.

With a population of 800 people and 160 households, Pelau is the second largest island in the Ontong Java atoll.

In recent years the community has found it self under threat from the impacts of climate change.

With food gardens had becoming more difficult to cultivate due to increasing soil infertility while the water table had become contaminated by salinity the PACC team looked at bringing in new farming methods and plant variety to improve food production and supply.

### COMMUNITY ENGAGEMENT

One of the key aspects of the intervention says PACC coordinator, Casper Supa, was the involvement of the community.

Prior to leaving Honiara the PACC team met with Pelau community representatives in Honiara to explain their plans and to give the community time to inform the island about the trip.

The PACC team's first port of call on arrival in Pelau was the House of Chiefs where four farmers were nominated by the chiefs, to lead the demonstration plots.

"For any intervention to be successful it had to have the support and be driven by the local community."

Following the chief's meeting the project was introduced to the public in an open meeting where four women farmers were selected to assist the lead farmers.



**Community members work with PACC to plan demonstration plots.**



**PACC demonstration team leader, Jasper Bonie.**

At the meeting the community decided that all produce harvested from the demonstration plots would be equally divided amongst the community.

"Although we were doing only four demonstration plots it was very clear that more people wanted to take part and learn how to benefit from Permaculture," said PACC demonstration team leader, Jasper Bonie.

Following the meeting a weeklong training programme was held for farmers before work on the four plots started.

"The aim of the training was to show and explain to farmers the design of the plot and crops used and the reasons for their use."

### METHODS

A number of different planting and cultivation approaches were carried out by the team in Ontong Java. The key method said Bonie, was the use of Atoll Permaculture which is a form of agro forestry.

"Atoll Permaculture uses multi-layered system of fruit and nut trees, root crops and vegetables, that makes use of limited space and resources."

Bonie says the system is ideal for low lying communities like Pelau.

"We wanted to create a farming system that was permanent, self mulching, self sustaining and self regenerating and could provide a good source of food. We wanted to create a system that would demand less time and has low maintenance cost. We can imagine a forest of food where food can be collected when required."



**Community members are involved in the planning process.**

### BACKYARD FARMING

This is where food gardens are grown at the back of homes. Kitchen scrap is used as compost to grow the fruits and vegetables.

Bonie says this type of practice is used widely in Pelau and Luanua because of the easy supply of kitchen waste for use as compost.

### INTERCROPPING UNDER COCONUT

Trials were also done using coconut plantations to plant vegetables and crops at the base of coconut trees.

Bonie says the main issue with this was to ensure that the sunlight can access the vegetables and fruits.

### PUSRAGHI (SWAMP) SYSTEMS

This involves growing as much leguminous plant species and to heavily mulch the taro swamp pits.

Mulching will provide essential nutrients for the taro.



**Pelau on Ontong Java.**



**Work on a demonstration plot.**

Bonie says this process involved the replanting of swamp taro gardens.

### INITIAL OUTCOME

Bonie says the initial outcome while the team was on the ground has been positive.

He said within two weeks of planting the islanders could clearly see the growth from demonstration plots with growth of kumara, sweet taro and peanuts,

Looking into the future Bonie says the work on the ground will need further monitoring and support from agriculture officers. The closest is from the Provincial capital, Auki. Otherwise the other option is to post an agriculture officer to Ontong Java, or the recruitment of a local officer from the community.

"On the whole, the Ontong Java Climate Change Programme was well received by the House of Chiefs and the people. The people's interest is a sign of acceptance. To maintain this we must not fail them in implementing the proposed activities for Pelau."

### QUARANTINE

Acting Director of Research Helen Tsatsia says one of the highlights of the work was the use of Quarantine Department to screen all plant materials being sent to Ontong Java in order to prevent any pests, diseases or invasive species getting on Ontong Java.

"This was the first time that Quarantine has been used for such a programme and it speaks well of the level of cooperation between the departments of MAL."

She says the demonstration work followed a Vulnerability and Adaptation Assessment report on Ontong Java which was staged in 2011.

## SOLAR DRIER TRIALS FOR ADAPTATION WORK

At the start of 2013, PACC enlisted the help of agriculture specialist Moses Pelomo and his company Agribiz Ltd to develop a solar drier that can be used by communities to dry root crops for food processing.

PACC coordinator Casper Supa says the processed cassava or root crops can be stored and used later in times of food shortage or natural disasters.

"We've been working with the Lord Howe Women's Association to build their capacity to process cassava here in Honiara and send it to communities on Ontong Java," said Supa.

In 2012 PACC enlisted Dr Richard Pauku of Marighoto Holdings to develop the technique for processing cassava and reusing it later.

With Dr Pauku's work completed, Pelomo was engaged to design and build a drier that could be powered by the sun.

"With Pauku's work we now have a formula for processing cassava. What the communities now need is the technology," says Supa.

Two solar drier prototypes have been developed by Agribiz.

"The idea is to build the driers using materials that are readily available in Solomon Islands," said Supa.

The only exception to this says Supa is the plastic covering which has to be brought in from New Zealand.

Pelomo says two designs were made one using solar drying and the second a hybrid, powered by solar and a saw dust stove.

This would enable the driers to be used in cloudy or bad



**Moses Pelomo, centre, talks to journalists about the solar drier.**

weather.

The key to making cassava or other crops last is the removal of moisture content which is done during the drying process.

The cassava is first cut, sliced or grated and then dried for one week using a solar drier and stored for cooking at a later date.

It is stored in airtight plastic bags inside a bucket. When it is ready to be used, it is soaked in water for one day before it is cooked.

Pelomo is doing similar work in the cocoa sector in developing cocoa driers for farmers.

Once the trials have been completed PACC will pass on the food processing project to the MAL's food processing unit which will work on making the technology available to everyone.

"In the long run we're looking to make the driers available to communities whose food security is threatened by climate change," said Supa.



**Moses Pelomo talks about his hybrid solar drier.**



**Regional journalists visit solar drier site.**

## AUDIT TIME FOR PACC

PACC Solomon Islands took part in a major performance audit in March 2013 to measure the effectiveness of the project in addressing the impacts of climate change on food security.

The audit was carried out by Solomon Islands' Office of the Auditor General.

PACC Coordinator Casper Supa says the PACC Project in the Solomon Islands has been selected amongst Climate Change related projects under the SI Government bilateral projects to under-take the audit exercise. This would help strengthen project's work and findings will help the project improve its performance.

Supa says the Ministry of Agriculture and Livestock opted for the OAG as the Government's main auditor to carry out the process.

The audit will look at how the project funds have been utilised, who is benefiting, what impacts the project is having on the ground and if it is delivering on its goals.

"We were very fortunate to have this audit. It has given us time to look back at what we've achieved and where we are going. It will also identify the gaps that need to be filled and help us to focus on our priorities," said Supa.

The audit covered both the Ministry of Agriculture and Livestock and the Ministry of Environment.



***Climate Change Division, Director Douglas Yee at work in the provinces with PACC's Casper Supa.***

Supa says the PACC team spent the early part of 2013 collecting and gathering materials for OAG's auditors to facilitate the audit.

The OAG says the audit covered PACC operations from 2010 to 2012 and include an assessment on whether relevant legislation and regulations pertaining to PACC were compiled and its current status. The administration and supporting procedures of the Ministries were also reviewed.

Supa says in addition to the OAG audit a regional audit is being undertaken by Fiji based KPMG.



## PACC TEAM PARTICIPATE IN MAL RESEARCH EVENT

In March PACC members in Solomon Islands took part in a weeklong intensive research training event organised by Ministry of Agriculture and Livestock's Research Department.

The training led by Dr Mark Johnston of Component Two of the Rural Development Programme reviewed a proposed set of research guidelines for the Ministry and a research manual.

"It was a good way of sharing lessons learned through PACC with the full Ministry, said Supa.

He said the training helped him to develop new ideas on research and at the same time learn what others are doing in research," said Supa. PACC Project has been given the opportunity to deliver a presentation and share PACC Project's achievements, lesson learned, future plans, opportunities and challenges with colleagues from the



***A local farmer with his demonstration plot.***



***MAL staff during the research workshop.***

provinces that has been part of the training.

Senior Research Officer, Rex Filia from the Ministry's provincial office in Malaita highlighted the need for up scaling of funds support by donors to project such as PACC for work in remote and isolated areas.

"We know accessing these remote communities to carry out demonstrations activities is difficult especially in the area of transportation."

With the PACC project sitting within MAL's Research Department Supa says it's important that same research standards and guidelines are adopted across the board.

Dr Johnston says the proposed research guidelines are aimed at ensuring that the work of the Ministry is in line with the Government's needs as well as those of farmers.

"Having a set of guidelines would ensure that our research is appropriate and accountable," Dr Johnston told attendees from Research, other MAL departments including provincial staff.

One of highlights of the training was the creation of a research slogan 'Quality Appropriate Research' for the Research Department.

The slogan was chosen by training participants.



***PACC coordinator Casper Supa with regional journalists and editors at the solar drier construction site.***

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