

## Family farm teams

ASEM/2014/095

- Because the majority of children in rural PNG will become smallholder farmers, part of our project is to develop professional development (PD) for primary school teachers to help them integrate agricultural topics in their teaching (reading, maths, social studies, environment, etc). Kym Simoncini has been working with Dr Elisapesi Manson and Joros Sawi of Pacific Adventist University (PAU) to develop videos, class activities and handouts. They have just completed the first video and are currently working on handouts based on materials already available from NARI. The PD modules will be available in electronic formats and on SD cards.
- Our PAU team of Dr Lalen Simeon and Heather Vanua (Business School) have recently trialled a combination of Family Farm Teams activities and the Financial Literacy course with farmers at Sogeri (Central Province). This was very well received and effective therefore we will now add Family Farm team activities to the financial literacy Training of Trainers (ToT) manual. We hope to complete this manual by the end of the year.
- We have completed the first of two reports for our Highlands Hub: *Building the capacity of rural farmers as peer educators and leaders*. Although there are significant cultural and agricultural difference to the Highlands, some of the lessons will inform improved capacity development in our current Islands Hub. This includes trialling new ways of supporting Village Community Educators (VCEs), leaders and field staff, extending the women's leadership training to other relevant women, and tailoring monitoring and reporting methods.
- We are developing further research activities that will enable us to understand how smallholder farmers work as peer educators in the family and community.

## Canarium

FST/2014/099

**Progress towards objectives**

*Develop an appropriate commercial model for a medium scale value adding factory for the canarium industry.*

- The new processing line is almost completed being manufactured in South Africa. It will be ready for testing next week. 10kg of nut-in-shell (NIS) have been sent from Kerevat for testing. Once tested it will be packed and freighted to NARI for installation. This is a major milestone that should be completed in the next few months and will greatly increase the capacity of the factory.

**Good news/impact stories**

- A paper on the drying system has been submitted to the **VI International Conference Postharvest Unlimited**.
- *'Construction and operation of an energy efficient, solar assisted, drying system for canarium nuts'* Kim Jones<sup>1\*</sup>, Tio Nevenimo<sup>2</sup>, Brett Hodges<sup>3</sup>, Shahla Hosseini Bai<sup>3</sup>, Godfrey Hannel<sup>2</sup>, Dalsie Hannel<sup>2</sup>, Helen M Wallace<sup>3</sup>, Bruce Randall<sup>3</sup>

**Forward plans**

- Brett and Shahla are planning to hold an intensive training day on the 2nd of August hosted by Dalsie Hannel (NARI) and Dr Shahla Hosseini (USC). The market sellers, currently being mentored in value adding processes, will be spending the day trialling and testing their own value adding ideas with guidance from the team.
- Brett will be travelling to Kerevat for twelve days from the 31st of July and will be working with the galip buying team developing a new survey on the Commcare system which will assist in providing a clearer picture of natural tree supply and smallholders whom are selling to the factory.
- Kim will be at NARI from the 24th to 29th of July to collect data on the operation of the dryer. Harvest is proceeding well at NARI and the new dryer is operating as expected. Almost 1.5 tonnes of nuts have been put through the dryer this season already.
- Shahla will also be visiting NARI early August to work with Dalsie.

### Activities

- Through Grant Vinning we have worked with 2017 Bougainville Chocolate Festival Steering Committee on issues such as organising the samples for the chocolate maker, organising the judges, and developing the judging criteria.
- Vinning is also working with a Bougainville grower group who are seeking to undertake direct marketing with a cocoa buyer in Singapore, and
- Organising shipments to two separate chocolate makers in Australia who have identified specific Bougainville cocoa growers from whom they want to purchase cocoa. The specific growers are gold medal winners from the 2016 Bougainville Chocolate Festival.
- Vinning has continued market research into the niche Australia chocolate making industries by visiting, discussing and leaving samples with them.
- Maintained contact with other potential buyers. The gap between the leaving of a sample and the potential buyer's reaction to that sample can take many months.
- Sydney University now has 50 kg of cocoa samples for analysis of flavour development under different roasting conditions using gas chromatography-mass spectrometry.
- David Guest and Thomas Soem (Head of International Research and Development at The University of Sydney) met with Peter Horne and Richard Markham in Sydney to discuss the importance of the project to Australia, PNG and Bougainville.

### Challenges

- Many field operations of the project remain suspended because of the shortfall of funds. This has particularly affected progress of the Central and Northern livelihoods and health surveys.
- There has been some disruption to progress due to the National elections in PNG.

### Relevant info to the project

- Grant Vinning is working with the editor of the book *Cocoa in the Pacific: the first fifty years*. Several aspects of the book, such as photos and lessons learned, have been found to have direct application to today's cocoa industry.
- Continued the production of several Cocoa Market Newsletters.
- We will be presenting results from our research at the Australasian Plant Pathology Conference in Brisbane in September 2017, the INCOSYS Conference in Indonesia in October, and the International Symposium on Cocoa Research to be held in Peru in November 2017.

The election has disrupted the program in all provinces during July. Delayed payment of CCI staff wages and uncertainty associated with the subsuming of CCI by the PNG Cocoa Board (CB) has also been a problem.

### East Sepik

Alfred Nongkas visited East Sepik from 3rd to 6th of July to accompany Grant Vinning to Wewak for his marketing conference with the CMFTs, and to hold a meeting with Jimmy Risimeri, our coordinator in East Sepik, and other staff to explain changes in CCI/CB, assess progress with baseline survey data, and discuss other problems. With local staff he visited 6 CMFT sites (Yekimbole, Kwaian, Blamda, Buruwi, Passam, and Gavo block) to assess progress and give advice and further training. The visits reenergised the team and pushed along the layout and planting of budwood gardens (BWGs) and building of nurseries at each site. Many farmers are waiting on hand-pollinated cocoa seed to plant in nurseries ready for budding when BWGs are mature. Staff will continue to inspect sites and will eventually order the first lot of 20,000 seeds from CCI. So far, ten plants of each of the 18 CCI clones have been distributed to 6 CMFT sites and another 5 sites have prepared areas for budwood gardens (BWG). The Bapandu site has been reallocated to Hambeli in East Yangoru. Four motor bikes have been received and allocated in Angoram and Yangoru Saussia districts. Cynthia Risimeri has completed half of the baseline data entry.

It was agreed that payment of allowances to CMFTs will commence after they receive their tools, bicycles, and chainsaws. CMFTs will draw up monthly work plans with their supervising officers (SPVO) and the monthly allowance

will be paid after the work has been completed and signed off by the SPVO or a local leader (ward councillor or pastor). It was emphasised to staff that frequent visits by SPVOs (CCI or DPI staff) to CMFT sites are needed.

The upgrade of the Hawain Training Centre has progressed with the purchase of a second water tank, plans to complete plumbing and for purchase of furniture. John Meth (Cocoa Board) has returned to take over supervision of the work and running of the nursery. It is anticipated that the centre will be ready to be used for the second CMFT training session in September. PPAP is buying clones from the Hawain nursery, making it difficult to obtain materials, although John Meth's return will boost production. There are about 10,000 SG2 hand pollinated seedlings in the nursery ready for distribution, sponsored by Jimmy Simitab, the Local MP and Minister. Purchase of clones by Outspan, a lead partner under PPAP project, will provide money for the outstanding wages of the Hawain budders and allow them to resume work to complete our Project order, which has been paid for. Yarapos nursery near Hawain is to be enlarged for the CCI program. The first 200 hybrid clones from this nursery were supplied to one of the CMFTs about 4 weeks ago. The nursery is gradually being expanded and will be certified to operate commercially within the near future.

A fermentary shelter has been constructed at Yekimbole and several batches of cocoa have been dried on the Solomons Drier built there (1.5 t in total); initial batches were over-fermented and advice has been given to correct this. Yekimbole is also hosting a field trial of new clones from the CCI Breeding Section.

The program for onsite nurseries commenced in June. Budding of rootstocks commenced at the Yuwat nursery where a total of around 10,000 out of 22,000 rootstock seedlings were budded and 100 people were trained in budding. Budding and training of budders has also commenced in a second nursery at Banak owned by CMFT Francis Wan.

The submission to the ES Provincial Govt for support to expand the cocoa project is nearing completion, ready to be presented to the new Governor after he/she takes office after the elections.

### **Presentation by Grant Vinning in Wewak**

On 3rd July Grant Vinning gave a presentation on how cocoa prices are set to a total of 30 people (4 women), including mostly CMFTs, farmers, Ruthie Paulus (Wewak Manager for the NGIP-Agmark), and Ms Baloiloi from NBC. The talk covered cocoa supply and demand and how these are affected by factors such as natural disasters, internal or external political conflicts, growth in numbers of chocolate consumers in countries like China and India, and concern by consumers about child labour, treatment of cocoa workers and producers, environmental sustainability and presence of chemicals in cocoa beans. Quality also affects cocoa pricing. For PNG, he emphasised that the industry should be pursuing the best fermentation, drying and production methods from high yielding trees. The reaction from the farmers during question time was enthusiastic and it was evident that much was learned.

### **Madang**

Alfred visited Madang from 6 to 12th July to hold a staff meeting, interview and select the new assistant coordinator (Ricky Bais), and visit five CMFT sites Madang (Karkum, Bunu, Tamane, Balama and Rempi Villages). Having only one vehicle in Madang has been a handicap. Payment to CMFTs is commencing.

PPAP has recently become the main buyer of hybrid cocoa clones from the CCI Murunas nursery. Priority is therefore not given to our Project. Therefore, Aitul Weoh, our coordinator in Madang, has received permission from CCI management to use a small part (approximately 5,000 seedlings capacity) of the nursery for the project. He has commenced budding and this should be able to support all his CMFTs. In addition, he is establishing 4 on-site temporary nurseries to raise rootstocks, which are due for budding during the next 2-4 weeks. The budding team has commenced training in these nurseries. So far they have conducted budding and associated bud grafting training sessions for farmers in Rempi, Ambenob and Galeg in Raicoast. The budding team will be visiting Erima, Aiom in Ramu and Iku in Bogia within the next 2-4 weeks. It was emphasised that post-budding management in the nursery was equally as important as the actual budding to ensure rapid growth of the young bud.

### **Simbu**

Work on Karamui station has been delayed with claims of sorcery after the death of a political candidate and public servants and staff were evacuated. CMFTs are looking after the newly imported clones from CCI that have been introduced with the necessary quarantine controls.

## New Ireland

In New Ireland 24 out of 28 CMFT sites have established BWGs (with 10 plants of each of the 18 CCI clones) and nurseries to commercial standards; 10 of these have budwood near maturity. A total of 20,000 buddings have been attempted with 15,000 successful; 2 BWG/nurseries are functioning commercially (Kiriam and Evette Muve at Kanabu Village, and Henry and Gority Aguam at Komalabuo Village); 5,000 clonal budded plants have been distributed to farmers. The aim is to have all the BWGs and nurseries inspected and certified by the Cocoa Board for commercial operation, thus helping to make the CMFTs self-sufficient. The Solomon solar driers also have to be certified by the CB. A solar drier linked to a kiln drier was built for testing in a CMFT site at Panamecho and is working well, having dried 1.5 t dry beans so far.

Progress continued on the New Ireland Cocoa Development, Extension and Liaison Project financed by the Provincial Govt, with the official launch on 2 May at a CMFT site in Sumuna Village, Djaul Island. K3.0 million funding from the Provincial Govt was deposited in a CCI Account at the end of June, and the project will start in August after the elections. The planned project activities are the same as the ACIAR project except that they will be expanded to cover all cocoa-growing wards in New Ireland (expanding from 20 to 109 CMFT sites, from 20 to 41 commercial nurseries, from 20 to 83 BWGs, from 20 to 40 solar driers linked to kiln driers, and from 500 to over 2,000 farmers).

## East New Britain

In East New Britain, plans for testing of a solar fan in the Solomons Drier installed at Tokiala are underway with the support of Agmark. At the office in Talina, Kokopo, Trevor has continued disbursing funds to the four provinces and purchasing equipment (plastic film for solar driers, motor bikes, bicycles, chainsaws, tools) for distribution to provinces. A container is being prepared for sending equipment to Wewak.

## Sweetpotato

HORT/2014/097

- July has been a quiet month with reduced travel being undertaken in the Highlands by the project team due to the election. Much of the activity has been in preparation for work scheduled to commence when the risks to project staff from post-election violence are lower.
- Rolls of insect proof mesh material have been shipped from Australia and will provide sufficient material for up to 20 commercial scale propagation nurseries to be established on grower's properties. Establishment of these field nurseries may commence in Asaro when materials are transported from Lae to Goroka but it may be delayed for Minj, Hagen Central and Mul because of election related violence.
- FPDA made available two insect proof screen houses in Tambul as backup sites for the project. Minor repairs and maintenance using the new mesh material will be undertaken to keep out insects.
- We have confirmed at least 10 commercial growers for crop performance comparison trials (Clean vs normal) of which 6 of these growers have indicated willingness to participate in pest management trials.
- FPDA staff have completed the POM market survey last week and are checking and uploading that data along with all team site surveys on Commcare. Mapping of sweetpotato value chains will be completed in the next month using the survey data.
- Chris Gard travelled to Goroka in July to review plans for training activities with new project member Bennie Atigini. Bennie is based at the FPDA offices in Goroka, and comes to the project after working on community development projects at CARE.
- Confirmation has been received from NATTB approving the following process for formalising the use of portfolio evidence for training accreditation: portfolio evidence criteria for one unit from the National Standard will be presented to the ITC (Industry Technical Committee) in September for endorsement of the portfolio approach and then final NATTB approval.
- And finally, along with Bennie Atigini joining the project team, we welcome Research Officer Kirt Hainzer to the project. Kirt will be part of the CQU group based in Bundaberg, and will be involved in the value chain research and development components of the project. He has extensive experience in agricultural development programs in Europe, Asia and South America.