

Upcoming event

- We will hold our FFT Conference at NARI, Lae on Wednesday 21 November and Thursday 22 November. For further information please contact our Research Network Coordinator Kila Raka. Kila.raka@canberra.edu.au

Major activities

- Our major end-line evaluation activities were conducted by Katja Mikhailovich and Rebecca Robinson from 1 September to 15 September. We were pleased to be able to contract Rebecca for this role and gained so much from her work in Tok Pisin and her terrific ability in both in-depth interviews and groupwork.
- The evaluators were assisted by project field officers, Robert Taula in New Ireland and Ian Viore and Sherdrick Nana in Buka, Autonomous Region of Bougainville. The activities were conducted in the villages of Lossuk (Ward 7) and Luapul (Ward 11), New Ireland and Hagus, Halia constituency Buka, Bougainville.
- The evaluation methodology was informed by Bennett's program evaluation hierarchy¹, focusing on assessing early impacts as measured by change. These changes can be actions (behaviours and practice); learning (knowledge, attitudes, skills and aspirations); reactions (degree of satisfaction with program) and participation (number and characteristics of participants). The evaluation also drew on an adaptation of the Most Significant Change Technique² which is based on the collection and selection of stories of reported changes from development activities.
- The evaluation included participatory group workshop methods and semi structured interviews with project participants.
 - Interviews: village community educators (VCEs), community leaders, field project staff and project partner managers
 - Evaluation workshops with VCEs
 - Evaluation workshop with farmers trained by VCEs.
- A total of 108 people participated in the evaluation workshops. This included 74 VCEs and 32 farmers who had been trained by VCEs. The age of VCEs ranged from 18 to 74 years with an average age of 43.8 years. A total of 59 VCEs were interviewed, plus three community chiefs.

Before my husband didn't really help. He'd fool me. He'd say he was coming [to work on the gardens], and I'd wait and then eventually go without him. It meant I couldn't make big gardens. I had to carry all the tools, and by myself clear the garden, hoe the garden and plant. And then when it was ready it wasn't really enough - because it was just me. But once we had been through the training, we would discuss and then go cut up the garden area and plant sweet potato, taro, banana. We would cut the bush together, then let it dry. Then come back and till the ground together. Then I plant the plots. This work I do now is alright now. My husband does his gardening work and I do mine and my work is lighter now. Not heavy as it was before. Before I would cut firewood and carry it back myself. Now we go to garden together and he carries the firewood and I'm able to carry the garden produce that women can carry. And I feel it is alright. Because of the training we are clear what is the work of the father, what is the work of the mother - part for the father part for the mother and I feel that this is alright, that it is balanced now. People say now that my husband isn't as he was before. And his mother too - she says he isn't like he was. He didn't used to help. Now he helps. Now when I talk he listens; before when I talked or wanted to point out something he would overrule me and not admit his wrongs. But now he listens. Now my husband feels pride. Before we were the kind of family that would run out of salt and go ask neighbours for salt. But now when our salt runs out we go and buy it. Now the people who didn't attend the training are the ones who come and ask us if we have any salt to spare. Because we now know how to budget. Now things are going alright. (Female Ward 11, NI)

¹ Bennett, C. (1975). Up the hierarchy. *Journal of Extension* [On-line], 13(2). Available at: <http://www.joe.org/joe/1975march/75-2-a1.pdf>

² Rick Davies and Jess Dart. 2005. The 'Most Significant Change' (MSC) Technique: A Guide to Its Use. Manila. Available: www.mande.co.uk/docs/mscguide.pdf

Workshop events

- The project team delivered four major workshops from the 22-29 September at NARI, Kerevat. The project team included Dr Shahla Hosseini-Bai, Emma Kill, Michael Farrar, Nicole McMullen (University of the Sunshine Coast), Tio Nevenimo and Matthew Poineau (NARI staff) and Kanika Singh (University of Sydney).
- The objective of the workshops was to build capacity in the knowledge of soil which leads to improved soil fertility using compost and biochar, to demonstrate compost and biochar preparations and to increase the knowledge in galip nutrition. The four workshops delivered were:
 - Workshop 1 – Compost and biochar training at NARI led by Dr Shahla Hosseini Bai
 - Workshop 2 – Capacity building to improve soil fertility and galip nutrition for WYiA led by Dr Shahla Hosseini Bai.
 - Workshop 3 and 4 – Women capacity building in value adding led by Emma Kill and Nicole McMullen.

Workshop 1

- The workshop consisted of three sessions including increasing knowledge of soil fertility and training to produce compost and biochar in home gardens. Two receipts of composts and biochar preparations were demonstrated for. The workshop was well-received and different aspects of compost and biochar productions were discussed. The workshop was highly interactive, and the participants had a hands-on experience. For example, the feedstock used to produce compost and biochar was discussed and a competition was undertaken to familiarise participants with appropriate feedstock selection to produce compost at home gardens.



Figure 1 (above): Workshop attendees at NARI station included NARI staff, Galip club members and farmers from East and West New Britain.

Photo credit: Dr Shahla Hosseini-Bai

Figure 2 (right): Kanika and Ku demonstrated soil layers to farmers and discussed why it is important to protect their soil and treat it with compost.

Photo credit: Dr Shahla Hosseini-Bai



- Mr Michael Farrar from University of the Sunshine Coast led the biochar production session of the workshop. Michael Farrar demonstrated two methods to produce biochar using simple drums. The galip shells were used to make biochar.



Figure 3: Michael Farrar demonstrating production of biochar using galip shells.

Photo credit: Dr Shahla Hosseini-Bai

Figure 4: Biochar produced from a single drum.

Photo credit: Dr Shahla Hosseini-Bai

- A hands-on workshop to produce compost was led by Dr Shahla Hosseini Bai. The feedstock that can be used in composting were discussed. Michael and Shahla demonstrated a simple method of compost piling that can be employed in home gardens. Two participants were asked to sort organic matters from materials that cannot be used for composting.



Figure 5: A hands-on workshop was undertaken in NARI station and attendees discussed to make improved compost in their garden.

Photo credit: Michael Farrar

Workshop 2

- A workshop also was delivered for over 35 cooperative members of Women Youth in Agriculture (WYiA). The 35 women and their families were representative of different regions. The workshop was delivered in collaboration with WYiA before their annual general meeting. The workshop was interactive and included capacity building to
 - Improve soil fertility.
 - Produce compost and biochar in the home gardens.
 - Improve knowledge of galip nutrition.



Figure 6: WYiA workshop attendees.
Photo credit: Dr Shahla Hosseini-Bai



Figure 7: Workshop continued by biochar, compost training and capacity building for galip nutrition.

Workshop 3 and 4

- The purpose of the workshops 3 and 4 was to empower women and their families to access greater markets with a diversity of products. To train the groups representatives so they can take their new knowledge/skills and train their wider communities.
- The workshops were delivered by project team including Emma Kill and Nicole McMullen (University of the Sunshine Coast), and Dorothy Luana of the East New Britain Galip Club.

Workshop objectives included:

- Meeting with the Women and Youth in Agriculture Co-operative Society Association (WYiACSA) Galip Club of East New Britain and University Natural Resources and Environment (UNRE) staff for co- design of materials and organise upcoming expo's.
- To train members and trainers of the Galip club and WYiACSA in baking , developing recipes, packaging that could be applied in their economic activities and communities.
- Promote health and hygiene practices in food handling and processing relevant to the home and to market activities.
- To collect local knowledge and design material for a book on healthier food choices for families and to increase knowledge in galip nutrition.



Figure 8 (left): Participants of the baking day with Emma, discussing hygienic practice and the baking process.
Image credit: Nicole McMullen.



Figure 9: Participants of the baking workshop collaborating and practicing baking skills to make a basic banana and galip nut muffin.



Figure 10: Emma Kill discussing the detail of the techniques in the recipes with a workshop participant. *Image credit: Nicole McMullen.*

Bougainville Chocolate Festival

- September was the 2018 Bougainville Chocolate Festival. This culminated four months of intense activity. The Festival has three basic elements – a chocolate competition, a cocoa field day, and cultural activities.
- Some photos are available via the Australian High Commission PNG Facebook Page:
 - Cocoa farmers' tour: <https://www.facebook.com/385208504890211/posts/1837574112986969/>
 - Festival: <https://www.facebook.com/385208504890211/posts/1838561489554898/>

Chocolate Competition and Local Chocolate Laboratory

- Preparations for the chocolate competition started in June and included pre-assessment and four days of judging. The initial 127 entrants were whittled down to a Best of Show, 6 Gold, 12 Silver, and 14 Bronze.
- Key to the success of the chocolate competition was the fact that the Bougainville Department of Primary Industries was able to use its own Chocolate Laboratory to produce the chocolate that was assessed by the six judges (4 international and 2 local). Peter Channells and Li Peng Munroe, were instrumental in helping to source equipment for the Laboratory. Similarly, the Cocoa Board and the Productive Partnership in Agriculture Project facilitated the training of the chocolate makers. The 17 participants who were trained on chocolate processing by the Cocoa Board were awarded certificates for their participation. Having its own Laboratory enabled the Project to conduct an unusual form of training by producing chocolate made from both good and bad beans.
- The Project also managed Big Pod and Big Bean competitions. The aim of these activities is to help identify more beneficial genetic material.

Cocoa Field Day

- The field day component resulted in around 100 stalls that one way or another had a connection to cocoa. Great credit is due to the Bougainville Chocolate Festival Steering Committee's Belinda- Maree Gara and John Steer from Bougainville Partners.
- During the Festival two experts trained by the Cocoa Board, Ms Julie Rereve and Ms Kathleen Linnix as well as other trainees, were able to take growers through the process of chocolate making and then taste the different chocolates made from good and bad beans. A special shed was built on the Festival grounds solely for this purpose. Growers became familiar with the need to wear special hair nets for food safety and hygiene. The Project will use this newly created capability to show growers what happened when they harvest at the wrong period, over- or under ferment their beans, and badly dry their beans. These practices were explained during the Judges Seminar- a major activity of the Festival, and a critical step in the feedback process of helping growers produce better cocoa. Surely there is no better extension-training tool than eating bad chocolate!

- The Project plans to upgrade the Laboratory into conducting pre-export assessments such as butter fat content as well as the more standardised bean count, moisture, and cut test. The Project team will analyse the data that growers submitted when they registered their samples. It is hope that this will lead to better delivery of the project's extension and training effort.



Figure 11: Kathleen Linnix explaining to growers' aspects of chocolate quality.



Figure 12: Minister Darku presenting Laboratory Manager Ms Julie Revere her special lab coat.



Figure 13: Growers showing interest at one of the +100 stalls.



Figure 14: Growers observing a fermentation trial.

Livelihood Survey

- Since the completion of the livelihood survey in December 2017, the data has been analysed and a final report on the results of the survey developed and printed. At the Ministers meeting in Buka, Professor David Guest and Professor Merrilyn Walton jointly presented the survey results. During the meeting, copies of the report were distributed to representatives from the ABG Departments of Primary Industries, Health, Education and Law and Justice and representatives from the Australian Department of Foreign Affairs and Trade. The report received positive feedback from all groups.

Key survey findings:

- Cocoa is the main source of income in South and Central Bougainville, copra in the North
- Most farmers own their land
- Wealth is not related to the size of farms, number of blocks or trees
- Majority of population do not go onto high school
- Farming families face significant health problems:
 - Limited access to safe water and sanitation
 - High rates of smoking and buai use
 - High reporting of coughs, fevers and malaria
 - High rates of unwanted pregnancies
 - Low rates of vaccination
 - Domestic violence
 - Food insecurity
 - High rates of childhood stunting

Well-educated, healthy farmers who own livestock are the wealthiest

A copy of the final report is available and can be accessed through request from the project leaders, Professor David Guest or Professor Merrilyn Walton, or downloaded from the TADEP Update – September 2018.

- During this meeting an award ceremony was also held for the Northern (Buka) and Central (Arawa) interview teams to recognise their hard work and valuable contribution in collecting the survey data from the villages. Certificates of appreciation were awarded to the 22 survey interviewers. The Southern team had already received their awards earlier in the year.



Figure 15: Prof David Guest presenting the results of the livelihood survey to ABG ministers and representatives.



Figure 16: Presentation of certificates to Interviewers of the survey by David Guest, Merrilyn Walton and Wendy Sawa, Acting Secretary for DPIMR.

Annual Planning Meeting

- The project annual planning meeting was held in Buka on 23 September with all stakeholders; Cocoa Board, UNRE, Sydney University representatives, TADEP Coordinator (Elizabeth Brennan), ACIAR Country Manager (Florence Rahiria) and Hub Coordinators. Activities under each of the four objectives were presented by each of the activity leaders, reviewed and plans put forward for the next outstanding activities to be conducted accordingly. Detailed meeting minutes was prepared and circulated to the project partners and Hub Coordinators by the project leader, Professor David Guest.

Other project milestones for September

- A shipment to three buyers was made of beans that the buyers became aware of through the 2017 Festival. Further, samples that were distributed in Canada have resulted in requests for commercial size samples for further assessment by new buyers.
- Four Cocoa Marketing Newsletters were distributed during the month.

- A compost and organic fertiliser production training was conducted in central, Manetai in September. All regions now have each got a compost shed and training conducted per region. Trainees and VEWs are encouraged to disseminate and conduct similar trainings in the respective communities
- Goats that were shipped to Bougainville from UNRE did not arrive as expected due technical problem with the ship and had to return back to Rabaul with the goats. We await the next schedule of shipping for their delivery and final home at Konga.
- We conducted cocoa rehabilitation training on senile trees at Hanahan in farmer Cletus's farm with other surrounding farmers in the north region.
- In South Bougainville Konga DPI station, a 5,000 capacity cocoa and vegetable nursery is being constructed.

APEC delegation visit to Bougainville

- The project team participated in the APEC delegation visit to Bougainville, upon requests from the ABG Department of Community Development. The project arranged for the delegation to visit Malassang 2, Paul Nnelau's cocoa farm to show cocoa husbandry management and production, Post harvest processing (fermentation, drying, and marketing). This was followed; by a showcase of chocolate products produced from local district cocoa beans including our local chocolate 'didiman chocolate' which is produced in the DPIMR chocolate laboratory.



Figures 17 and 18: Training at Hanahan on block rehabilitation



Figure 19 (above left): Our team at the Malassang farm APEC sign Board

Figure 20 (above middle): Walking through the farm

Figure 21 (above right): Explaining various cocoa management activities



Figure 22 (above left): Processing and marketing

Figure 23 (above middle): Delegation looking at fermentation and drying processes.

Figure 24 (above right): Joe Yabom and James Butubu showing chocolate types to a delegation tasting and buying.

New Ireland

- Our New Ireland Coordinator, John Joseph, and Naison Laki from the Cocoa Board continued their visits to CMFTs. Negotiations continued between Kula Daslogo, now working for the Kokonas Industri Korporasen (KIK), and the New Ireland Provincial Government on the allocation of resources at the Kopkop Research Centre, including resources provided by ACIAR Cocoa Projects.
- Trevor visited New Ireland with the PNG Cocoa Board REDS, Manager, David Yinil and Extension Manager, Anton Varvaliu, from the 31 July to 4 August (not in the August report) and held meetings with staff of the Provincial Government Cocoa Development Project and the Cocoa Board. Eleven of the 20 CMFT sites were visited to show Cocoa Board staff progress being made. David Yinil, who is Chairman of Registration Committee, talked to CMFTs of his desire to register their nurseries and bud wood gardens so they can operate commercially. He explained the change-over from CCI to Cocoa Board to all the groups met.
- About 120 copies of the PNG Cocoa Farmer's Handbook, 'Buk Bilong Kakau Fama', compiled by project staff and translated into Tok Pisin by Trevor and Alfred Nongkas, were distributed to CMFTs and farmers who were happy to receive them in support of extension information delivered verbally at each farmers meeting.
- Materials including shade cloth, planting bags, fertiliser, tools, and 20 kg galip nut seeds for planting in cocoa nurseries were ordered from Kokopo and John Joseph came to Kokopo on the 19 September to organise delivery on a speed boat to Namatanai. Pigeon pea seed will also be supplied for testing in New Ireland.

Madang Province

- Trevor visited Madang Province with David Yinil and Anton Varvaliu from 3 to 9 September. Meetings were held with Aitul Weoh, Bofeng Mebali and staff and Mr Godfried Savi, Head of Provincial DAL. Development of larger nurseries, timing of future training events and the need to spend money directly on the CMFTs instead of administration and transport were discussed.
- During the visit eight CMFT sites (Balama, Tamane, Manbenob, Rempi, Danaru, Dumpu, Korona and Nuku) were visited to inspect progress on budwood gardens and nurseries, and explain the CMFT diary and Farm record book. At each site David explained the requirements of the Cocoa Board for registration of budwood gardens and nurseries and the potential that they could become commercial suppliers of clones, thus becoming self-sufficient. Godfried Savi accompanied the team and spoke to each group, giving strong support to the project activities which he sees as mainstream DAL work. The Cocoa Farmer's Handbooks were given out to CMFTs and farmers at each site and gratefully received. Pigeon pea seed was distributed and its planting demonstrated. The pigeon pea is a fast-growing temporary cocoa shade that also provides nitrogen to the soil, mulch, and food in the form of peas. Cocoa pods were purchased from Jonah Kasi at Danaru for establishing the rootstocks in the nursery at Dumpu. Discussions were held with Steven Tipoti at Korona about the local purchase of goats to stock their goat enclosure; Godfried emphasised the need to purchase a billy goat from outside the area to prevent inbreeding. The nursery work at Korona is now spread over five separate nurseries following the initiative of farmers to establish their own facilities.
- On the last day a meeting was held at the Provincial Conference room, attended by Cocoa Board, Provincial and District DAL food crops officers and Project staff.

- The strategy of sustainability by intercropping with food crops and alternative crops such as galip nut, coconut and vanilla was explained.
- Throughout August and into September field visits were conducted by project officers, support staff, Cocoa Board officers and the assigned DAL officers. CMFT sites visited this month were Rempi (2x), Balama (4x), Dumpu (3x), Apengan and Iku(2x), Karkar (2x), Klumlang, Kaviak, Gohe (2x), Erima (1x), Mabonob (2x), Tamane (1x), Korona and Danaru (2x). At each site progress in budwood garden and nursery development, development of farmer's blocks and planting of hybrid seedlings and clones was observed. Progress in establishing farmer's blocks and planting of clones in the field included Korona (25 blocks established, 1,500 clones in farmers blocks), Balama (4 blocks established, 1,000 plus clones planted), Gohe (1,000 plus clones planted), Kaviak (1 block, 500 plus clones), Sualu (500 plus), Mabonob (2 blocks established). Work continued at the Murnass nursery, which supplied 400 clones for establishing and infilling budwood gardens at CMFT sites.

The Highlands

Simbu

- John Konam continued supervising the program of cocoa development at Karimui while waiting to receive the financial support promised by the Minister for National Planning and Development. Peter Epaina is still waiting to hear about his position with the Cocoa Board while developing plans for trialing hybrid seedlings in Western Highlands and Southern Highlands Provinces, similar to the work in Karimui.
- Over two visits to Karimui, John and Peter Bapiwai spent a day and overnight with 5 of the 7 CMFTs (wards 1, 2, 3, 4, 6) and their communities and observed good technical progress, including the development of a new method of vegetative propagation of the best trees. Norman Mondo, the CMFT in ward 5 was in Goroka, and Tony Buka, the CMFT in ward 7 was in Lae selling cocoa, but his wife Christina showed them the clonal trial growing well there. The following were noted from the night meetings - over half the population in each of the wards is now planting over 1000 trees/family with open pollinated seed from the DPI plots; trees planted in the last 24 months are now beginning to flower; farmers with trees coming into production are now fermenting their cocoa Ghanaian style in piles on banana leaves and drying on tarpaulins in the sun; access to cheap affordable driers is a concern; UV resistant plastic is in demand by farmers who are willing to buy it; and transport of dry beans to the market is going to be the major challenge seeing that Karimui is only accessible by air. Generally, all community leaders in the wards visited agreed to build the road by hand free of charge out of appreciation for the cocoa development work so far.
- Grafted 18 CCI clones planted by Peter to study their performance at different altitudes are doing well at all sites except in ward 5 where the trial has not been well managed (dead trees were not replaced as advised and clones were mixed up).
- Farmers have been identifying their 'best' trees (as shown to John and Peter - many healthy pods, over 100 ripe pods/tree, big pods with many big beans, over 42 beans/pod). The farmers are grafting these selected trees on to their poor performing trees, called 'passenger trees'. CMFTs are grafting using sharpened kitchen knives instead of expensive budding knives, and strips of plastic shopping bags as budding tape, with success rates of 50 to 90%. CMFTs Dominic Wani (ward 4), Job Korasu (wards 3) and Peter Seleka (ward 2) have become very advanced cocoa farmers. Farmers are skilling themselves in anticipation of some good clones becoming available from Peter's trial and also from their own selections. Dominic and Peter have developed their own methods of vegetative propagation using appropriate technology such as marcotting using bamboo and empty cooking oil bottles instead of polybags. They have also developed a rapid method of vegetative propagation which is now being tested further. All CMFTs except in ward 5 have constructed a solar drier as advised by Trevor. Results of solar drying of beans have been relatively good, although only small volumes could be dried during raining periods

Eastern Highlands

- Polybags and shade cloth were supplied for establishing a cocoa nursery by DPI-Eastern Highlands at Lower Bena. Open pollinated seed will be supplied from selected trees at Karimui.

Southern Highlands

- On 27 August, John and Peter Bapiwai visited the site at Apenda, Ialibu-Pangia District in the Southern Highlands where cocoa seedlings are being trialed by Alex Aiyopi, the Pangia DPI officer. New seeds were delivered, followed on 14 September by polybags and shade cloth for the nursery. Problems with maintenance of the site were evident because of lack of transport, and this is likely to be a problem until funds are provided by the provincial government to pay for maintenance of the trial.

Jiwaka

- John and Peter visited Jiwaka Province on 11 September and met with Mr Anthony Keru, the Director of Economic Services, and discussed a proposal for Jiwaka cocoa development with the provincial DPI and senior commerce staff. The proposal was fully accepted and the provincial government will submit it to National government for support. Polybags and over 1000 open-pollinated seeds from Karimui were supplied. Visits were made to Banz to see seedlings planted by Peter's wantoks, a private initiative by Peter, now showing impressive growth of seedlings.
- Beans samples sent to a chocolatier for testing
- Dry cocoa bean samples from Karimui wards 5, 7 and 3 were sent to a chocolatier in Australia for testing. Feedback was promising but the chocolate samples sent back from Australia were stolen en-route.

East Sepik

- Trevor visited project sites in East Sepik from 29 August to 1 September. A meeting was held with REDS staff and Provincial DAL staff Kevin Hawan and John Worowan, who had assisted with the transport of goats from Lae to Niumindogum. Possible sites for a new REDS/ACIAR project office were inspected in view of the proposed take-over of the current office building by FAO staff. Later a meeting was held with John Meth, our project coordinator, Joel Hori from REDS, and Chris Toli, our assistant coordinator, at the Hawain Training Centre and nursery. John is still waiting for his employment under the governor's office to be finalised.
- Trevor and staff packaged ready for distribution and testing at several trial sites the 8 kg of seed of the two hybrid varieties of pigeon pea (cultivars Pant 291 and Umas 120) that had arrived from India. It is hoped that the pigeon pea can help with the rehabilitation of grasslands by acting as a fast-growing shade for cocoa while also contributing to soil fertility and providing a nutritious addition to the diet.
- With Chris Toli, Trevor visited CMFTs and sites at Yekimbole, Niumindogum, Rainambo, Bararat, and Winge 2. They also visited the 8 ha site at Kanauke where the Cocoa Board has been planting cocoa in the grasslands; the current Gliricidia shade is too small for cocoa planting and the need for temporary shade was explained. At each site, Tok Pisin Farmer's Handbooks were presented to CMFTs and farmers and were well received, especially in light of the dearth of extension information available to the farmers. Packets of pigeon pea seed were distributed and the planting of the seed to give temporary shade for cocoa was demonstrated. The use of the CMFT diary to help keep track of activities was explained. Progress on development of budwood gardens and nurseries was observed at each site. If payments are to be made for CMFT extension to group members, the diary must record visits to the members; details of visits will be assessed by supervisors. A Farm Record book was also distributed, to record future production from clones. It was explained that in future there would be monthly visits to each site by supervisors of the CMFTs. It was observed that the solar dryer at Rainambo was virtually completed. A tractor has been organised by Yekimboli CMFTs Chris and Nola Sasingian for ploughing trials on grasslands. The tractor was visited at Winge where it is being retrieved from one of their extended family, and new parts are being installed. There have been problems with landowners at Winge 1 burning the cocoa plantings of the Cocoa Board and Richard Maru, and with threats to burn our fertiliser trial site at Winge 2.
- Niumindogum was visited to check on the goats brought in from Lae by Suri Taisa of UNRE. Two of the young weaner goats died following trauma on their journey but the others have now recovered and are healthy. Norman has been put in charge of herding and feeding the goats. John Worowan suggested amoxicillin injection and a worm drench for the goats.
- Chris Toli organised a dinner with the First Secretary to the Governor, Mr Chris Bais, at which frank discussions were held on what was needed to progress the ACIAR Cocoa Board Project and general cocoa development in East Sepik. Mr Bais said the ACIAR work in the Province had been excellent, and he thanked the Project staff.
- Planning continued for a visit to the Tenkile Conservation Alliance (TCA) in Lumi to assist their staff to establish a budwood garden and nursery to supply the latest CCI cocoa clones to farmers involved in the conservation work and to promote the use of goats in conjunction with cocoa development. Rabbit husbandry has already been successfully established at Lumi by the TCA, and rabbits could also be fed with prunings from Gliricidia shade trees.

LaTrobe University

- On 7 September Phil and Peter Sale had a one-day meeting at LaTrobe University with Kanika Singh and Damien Field, who came down from Sydney University, to discuss Peter's work on introduction of organic amendments at depth in soil to ameliorate compaction and heavy soil. It is possible such amendment will be useful in recovering the heavy Sepik grasslands soils for development of cocoa under Gliricidia shade.



Figure 25: Planting pigeon pea seed in East Sepik; the seed was imported from India by Trevor and Kanika Singh from the ACIAR Soil Fertility Project.



Figure 26: The large solar dryer loaded with cocoa beans at Yekimbole.



Figure 27: Godfried Savi, Head of DAL in Madang, presenting a Cocoa Farmer's Handbook to Agatha and Joe Igag at Rempi, Madang Province. Agatha is the leader of the women's CMFT group at Rempi.

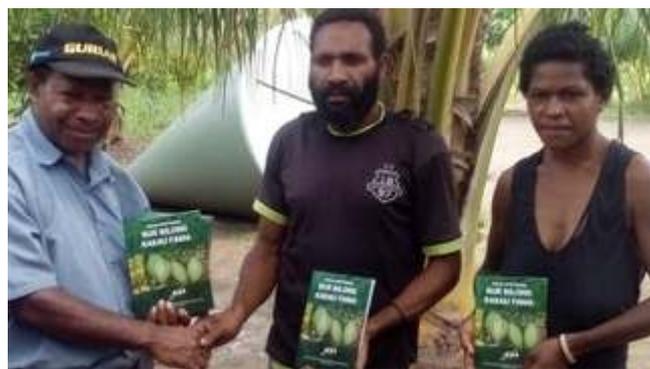


Figure 28: David Yinil presenting Cocoa Farmer's Handbooks to members of the new CMFT group at Dumpu, Madang



Figure 29: Dominic Wani, CMFT Ward 4 Karimui, and John Thomas Vano, our coordinator, checking marcotting of Dominic's selection from one of his best trees, using bamboo sections instead of polybags



Figure 30: Peter Bapiwai and John Konam enjoying breakfast after sleeping at CMFT Wanpis Alowai's home in Ward 6, Karimui

- The successful trial initiated by the project to test market acceptance of the clean kaukau product has led to further shipments of 500kg and 8000kg being delivered to a Port Moresby supermarket in September
- Community development plans have been completed for 5 community groups (3 in the Asaro Valley, 1 in Jiwaka and 1 in Western Highland Province). The ANUE team met with FPDA team members in September to plan the technical training program to address the areas of need identified by the communities
- Ten of the fourteen propagation nursery structures distributed by the project have reached full production and commercial crops in all TEAM areas have been grown using the clean planting material. Crop performance and yield data is being collected from these crops.
- Plans were finalised for a visit to Australia in October by 14 (12 men, 2 women) PNG farmers operating propagation nurseries. The visit will enable PNG farmers to examine sweetpotato production and marketing techniques used in Australia and discuss the crop with Australian Growers.
- Survey data collection from commercial sweetpotato growers and traders was completed, and analysis is being conducted to establish the key components of chain functionality at the grower/trader end of the chain
- Project PNG partners will meet in Goroka in mid-October to review progress and planned activities
- Kirt Hainzer and Mike Hughes are planning visits to PNG in early December.