

Transformative Agriculture and Enterprise Development Program

# TADEP+ Update

January + February 2020

## Take care, physically and mentally

Much of the news this past week has been consumed by updates about COVID-19 and its impact on our every day lives. There is still a lot of uncertainty surrounding it and it is advised that you follow your respective government's updates and advice, closely and calmly. We are all in this together. Whilst this Update is usually of a professional nature and relating to TADEP+, please feel free to email me [tadep.png@gmail.com](mailto:tadep.png@gmail.com) or message me via WhatsApp +61 403 292 158 to touch base. Take care, physically and mentally.

## A message from ACIAR on COVID-19

ACIAR staff travel (international and domestic) has been suspended and returned travellers are self-isolating as per the Australian Government policy. Other ACIAR staff are also working from home where they or family are directly impacted by the COVID-19 response. All our Country Office teams are functioning and contactable, although many are working from home. While the changed travel arrangements will have impact of project and project development activities ACIAR is confident that changed working arrangements should have minimal impacts on working with our projects and project partners. COVID-19 is also impacting on the delivery of our capacity building programs with most of our face-to-face training activities now being postponed.

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## Key program activities

Steering Committee Meeting

TADEP+ Project Leaders and the TADEP+ team including the PNG Country Office met in Melbourne on Monday 17 February 2020 for the biannual Steering Committee Meeting. The focus of the meeting was to plan the remainder of the program, including the showcase and other events, remaining program activities, communications, budgets and reporting. A summary of major discussion points and outcomes have been provided to key stakeholders since the meeting.

## Partners Meeting

During the aforementioned Steering Committee Meeting, it was agreed that instead of a full Annual Meeting, TADEP+ would host a smaller, more strategic Partners Meeting to explore how we can best maximise the remainder of the program, including planning for the 2021 end of program Showcase. The Partners Meeting was to take place in June 2020 in Port Moresby but in light of COVID-19, we have postponed the event. Depending on the impact of COVID-19 in the coming weeks and months, we may look to host the event later in 2020 and/or will host virtual workshops via teleconferences and webinars, where possible. Thank you for your patience and understanding on this matter.

## Collaborative Research Grant updates

One of the key activities that strengthen cross-program collaboration is the Collaborative Research Grants (CRGs). To date, there have been four CRGs funded, each with differing objectives and collaborating projects.

**Click here** to view progress updates on the following CRGs:

- Enhancing the roles of women and families in cocoa production
- Examining ways to improve nutrition and food security in 'at risk' villages in Bougainville

Three of the four CRGs have recently concluded and full reports will be uploaded to the TADEP+ website and circulated in due course.

## ACIAR Annual Review 2018-19

Each year ACIAR publishes an extensive Annual Report which details the progress and performance of the agency in the preceding financial year. A shorter snapshot, entitled the Annual Review, has also been produced which highlights key elements of the Annual Report and is circulated to a broader audience. The Annual Review features;

- Page 10: case study on the Bougainville Cocoa project, 'Cocoa - Bougainville's single malt'
- Page 18: a Regional Highlight on the Pacific
- Page 46: case study on the Galip Nut project, 'Consumers are nuts about galip'

**Click here** to view and download the Annual Review 2018-19.

## Key project activities

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The project team met in Buka on 3-12 February for an annual planning meeting to discuss each of the four component areas and respective outstanding activities.

There have been ongoing training workshops in northern Bougainville, focusing on compost production, integrated pest and disease management (IPDM), vegetable production and cocoa rehabilitation. Materials to construct nurseries and demonstration sites at Village Resource Centres (VRCs) have been distributed in central and south Bougainville.

The Bougainville DPI is in the process of taking over the collection of raw cocoa prices, transferring these into a format usable to Bougainville cocoa growers, and publishing and explaining international price trends.

A public Facebook Group, **Bougainville Cocoa and Health Project (Univ. of Sydney)**, has been established for project team members to share information and contribute to discussions.

[Click here](#) for the full Bougainville Cocoa project update

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## PNG Cocoa

Final editing of the 'Pacific Island Cocoa Book has been completed and the project is purchasing 10,000 copies for distribution through schools, provincial DALs, the Cocoa Board and didiman stores. Concept notes have been prepared for other projects to expand on the current project to other provinces and on 'Cocoa quality improvement and cost-effective processing of cocoa beans for smallholders in PNG' emphasising solar drying, training, and repair and improved design of existing wood-fired kiln driers.

ACIAR Horticulture RPM Irene Kernot and ACIAR PNG Country Manager Doreen Iga travelled with the project team in mid-February to visit multiple sites in Madang which showcased a Solomons solar drier, chupon budding and model farm that includes peanuts, betel nut, vanilla and many food crops along with rehabilitated cocoa.

The budwood gardens of the 18 CCI clones are now mature at most of the 7 CMFT sites in Karimui and budwood and open-pollinated seed from the best seedling trees are being flown out from Karimui to complete budwood gardens and establish blocks at all other highland sites (in Jiwaka, and Eastern, Western and Southern Highlands).

In early January, the project team and a Cocoa Model Farmer Trainer (CMFT) led a team of 6 budders from Bararat to travel to the 11 hours to Lumi in East Sepik for two days of budding and training in the Tenkile Conservation Alliance cocoa project.

[Click here](#) for the full PNG Cocoa project update





## Sweetpotato

Commercial sales of clean sweetpotato vines have started to grow rapidly in 2020. Two major resource company clients have purchased in excess of 6,000 vines each, with a sale price of PGK0.50 per vine.

Requests for support to construct insect proof screenhouses for multiplication of clean vines have been received from Milne Bay and Hela, along with requests for supply of clean vines from Enga, Hela and Southern Highlands Provinces.

The project Facebook Page, [Supporting Sweetpotato Production in the PNG Highlands](#), is serving as an excellent tool to generate awareness in the project and to promote sales of clean planting material by our partner farmers.

[Click here](#) for the full Sweetpotato project update

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The Transformative Agriculture and Enterprise Development Program (TADEP) is a multidisciplinary research program that aims to improve the livelihoods of rural men and women in Papua New Guinea. The program initially had five component projects, of which two have concluded. The program now comprises of the following:

- **Bougainville Cocoa** - HORT/2014/094 Developing the Cocoa value chain in Bougainville
- **PNG Cocoa** - HORT/2014/096 Enterprise-driven transformation of family Cocoa production in East Sepik, Madang, New Ireland and Chimbu Provinces of Papua New Guinea
- **Sweetpotato** - HORT/2014/097 Supporting commercial Sweetpotato production and marketing in the Papua New Guinea highlands

TADEP is co-funded by the Australian Centre for International Agricultural Research (ACIAR) and the Department of Foreign Affairs and Trade (DFAT).



Australian Government  
Australian Centre for  
International Agricultural Research



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Whilst two of the initial five TADEP projects have concluded, they have evolved into an ACIAR Small Research Activity (SRA) and another ACIAR project, respectively, and both have keenly agreed to continue to contribute to TADEP. The following updates demonstrate this continued collaboration across research disciplines, sharing useful and relevant insights.

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[Click here](#) to hear a Faculti podcast featuring Family Farm Teams project leader Barbara Pamphilon. [16m:06s]

The podcast examines the lessons learned in facilitating village-level community education workshops that sought to bring male and female heads of families together in a culturally appropriate way in order to encourage more gender equitable planning and farming practices.

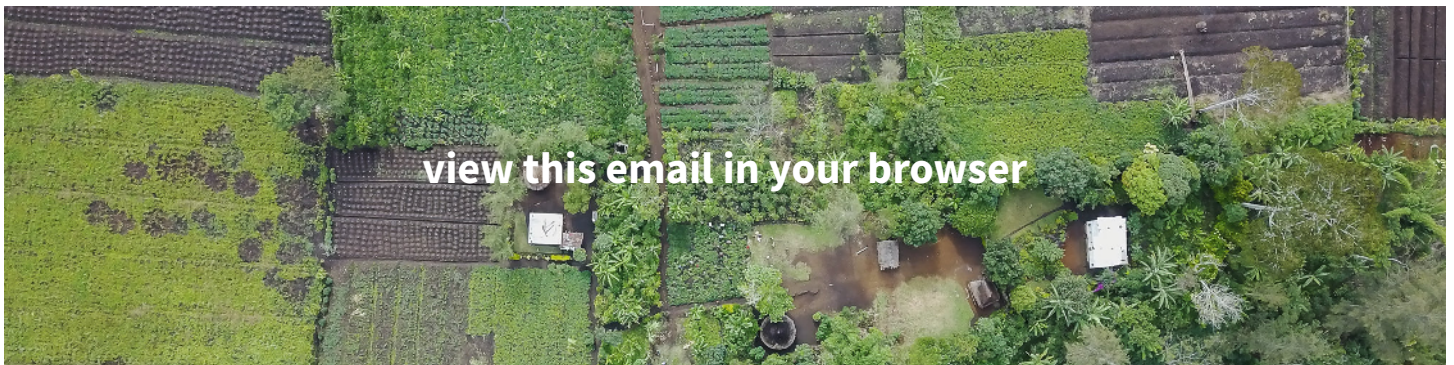


## Galip Nut

The new Galip Nut project launched with the Inception Workshop on 10-11 February 2020. The workshop was attended by representatives of NARI, the project team from Australia, FPDA, 3 local processors and several interested parties.

Whilst this next Galip Nut project won't be a formal project within TADEP, the project is eager to contribute to the program on an ongoing basis.

[Click here](#) to view the full Galip Nut project update



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### Upcoming or recent activities

- Annual planning meeting held in Buka in 3-12 February 2020. Discussions were based on the four components' progressive and outstanding activities. There were achievements highlighted and challenges faced and the way forward recommended.
- Vegetables and rice seeds were distributed to Village Extension Workers (VEWs) to implement and show case the techniques of cocoa-vegetable/food crop strip cropping and for income diversification.
- We initiated data collection on power consumption in roasting and nib grinding to assess the possibility of small-scale chocolate making and other cocoa based products.



**Figure 1:** Collecting data on power usage for roasting and grinding using our chocolate making equipment.



**Figure 2:** 10 tiny and delicious elephant chocolate each weighing 16.4g from a total of 200g cocoa nibs grinder over 3.5 hours.

- VEWs in Northern region (Novah 2, Kovanis and Tohatsi) were trained in compost production, Integrated Pest and Disease Management (IPDM), vegetable growing and cocoa rehabilitation.
- VEWs in Central region (Koianu, Panguna and others) and their Wards were given shade cloth for nursery construction of their Village Resource Centres (VRCs)
- Visiting dryer facilities of former Chocolate Festival gold winners by Cocoa Board's Joe Yabom and Hub Coordinators in Central and South Bougainville.
- Konga (South Bougainville) vegetable nursery constructed and used for vegetable production/trials and demonstrations.
- The Cocoa Curriculum is to be rolled out in schools near the three Hubs in 2020. An opportunity to support VEW involvement in building school gardens was followed up with Food Plant Solutions who have designed packages for schools in the Sepik, Solomon Islands and Vietnam.
- Currently visiting VEWs to discuss how they are to work with their communities and Hub-Coordinators to plan and support the VRCs. Not all VRCs have buildings, but 3/11 in Central, 4/11 in the South and 2/11 in the North have community-built structures that function as broad Village Resource Centres that include cocoa farmer training
- Data collection on crop growth performance under cocoa rehabilitation is continuing. Additional factor on soil nutrition is also being observed with goat manure, cocoa pod husk and NPK (nitrogen, phosphorous, potassium).
- UNRE will be urgently conducting a goat husbandry, disease and parasite treatment training.

- Grant Vinning held discussions in Melbourne with some chocolate makers as to what would they like to see as part of ACIAR's research priorities for Pacific cocoa. Most of their concerns centred on the logistic of moving cocoa from Bougainville to their facilities in Australia and New Zealand. A major issue is the cost and complications of freight. This is considered beyond the scope of an ACIAR project. One area of concern that is within the scope of ACIAR is storage. Given that ships call into Bougainville every two weeks, there is a need to store the purchased cocoa for, basically, two weeks. Voyage time to Australia, including transit time in other ports, adds at least another two weeks to the time for which the beans are stored. Pests and disease ingression invariably occurs within this time frame. Cocoa beans can be stored in different formats for varying lengths of time. The economics of such formats needs to be established.
- The Bougainville DPI is in the process of taking over the collection of raw cocoa prices, transferring these into a format usable to Bougainville cocoa growers, and publishing and explaining international price trends. This activity was previously undertaken by the project but with the reorganising of Departmental tasks and responsibilities, this activity will now be done by the department. The project is providing training in two broad areas. One is price reporting. The other is providing the tools that will enable the DPI to develop the economics of the different forms for exporting Bougainville cocoa and cocoa value-added products.

### Field visits

- Mamaro Village Assembly (VA) with 3,000 residents has established a cocoa and food crop nursery, food gardens, a waste composting facility, goats, ducks, poultry and an aquaculture setup farming Tilapia under the leadership of model farmer Joe Taro. Good income is being made, especially from cabbages.
- Buin DPI with nursery and budwood garden supporting clonal propagation and tree rehabilitation. Fifty farmers have each been supplied with 200 seedlings. Pod pilfering is a problem.
- Konga DPI and Model farm, Siwai. Planned as the major goat breeding centre for DPI it has been badly affected by goat deaths – the original population of 11 goats grew to 15 but now only 4 survive. A visit by NAQIA diagnosed the issue as internal parasites and medicine was purchased but awaits administration by UNRE. UNRE is funded to provide 3 field officers to support goat husbandry and they are urgently needed. In addition, the farm also produces vegetables, chickens and copra. Self-starting vegetable enterprises have been established by local farmers such as Katia and Brenda, who were impressed by the effects of goat manure compost.



**Figure 3:** Fish farm in Mamaro village.



**Figure 4:** Goats in Mamaro village

### Project or Program achievements

- Training of all VEWs on vegetable production, old cocoa rehabilitation and stripe cropping at Kubu and Malasang 1 in February is an achievement (see Figures 5-8 below).



**Figure 5:** Rice growing on a 2M x 36M stripe under cocoa.



**Figure 6:** Second cycle planting of round cabbages after harvesting and sales of Saladeer the previous week.



**Figures 7 and 8:** Training on Chupon grafting and field budding (grafting) used in cocoa rehabilitation to replace the old trees with new productive clones. Men and women are given equal opportunity to attend trainings and meetings.

- A team from University of Natural Resources and Environment (UNRE) with a NAQIA officer visited Goat farmers in North and South Bougainville to monitor the goat health and general growth performance then administered the necessary treatment drugs (see Figure 9 below). Following their monitoring visit they now will officially lift the current ban on goat movement in the North as there is overall satisfactory progress on the goats but the ban will still be enforced in South Bougainville.





**Figure 9:** Goat surveillance follow up trip by Bougainville Cocoa project team, UNRE and NAQIA

**Lessons learnt**

- Additional incentive for rehabilitation of old (>20 years) old cocoa trees. We are encouraged by the observation so far on half (50%) canopy rehabilitation pruning and strip cropping (see Figures 5-6) over a temporary period. Food security and nutrition can be all addressed together with cocoa farming simultaneously with this technique however more data is needed. For the old cocoa trees, there has being noticeable effect on the remaining 50% of the branches/canopy in terms of increased flowering and pod production.
- Vegetable production and sales by some farmers especially women is proving to be a viable diversification alternative with cocoa as seen from the initial high local market demand in Buka, Arawa and Buin towns.

**Resources**

- A public Facebook Group, [Bougainville Cocoa and Health Project \(Univ. of Sydney\)](#), has been established for project team members to share information and contribute to discussions.

**East New Britain**

- Following the sale of Tokiala Plantation where Trevor had built a test solar drier, he has had to transfer the drier to the plantation of Otto Koimba at Utmae in the Bainings to continue testing solar drier panels and fans. Peter Nguna, the newly recruited Cocos Quality and Processing leader at Tavilo, has assisted enthusiastically with this work.
- He completed the final editing of his 'Pacific Islands Cocoa Book', being published by KokoSiga in Fiji for delivery in March. The project is purchasing 10,000 copies for distribution through schools, provincial DALs, the Cocoa Board and didiman stores. He also prepared concept notes for projects on expansion of the current project to other provinces and on 'Cocoa quality improvement and cost-effective processing of cocoa beans for smallholders in PNG' emphasising solar drying, training, and repair and improved design of existing wood-fired kiln driers.

## Madang

- In January, Aitul and Bofeng attended the Partnership in Agriculture Commodity Development (PACD) meeting with Godfried Savi, Deputy Head, DAL at Walium to explain the World Bank Partnership. They helped prepare a submission to the Partnership which may help continue project activities.
- From 23-28 January, Delma Miriung and Wilfred Albert visited Burag village on Karkar Island to peg out a budwood garden and plant 200 polybags with treated seeds for rootstocks.
- On 10 February, Aitul, Bofeng, Steven, Phil and Delma, driven by Ronnie Siebert, drove down towards Usino and visited Amos Ligi at the Nuku CMFT site. He has established an extra 12 cluster groups as extensions from his central group. The group also visited the Balama CMFT, Lesley Dadok, on 10 February and again on 14 February with Irene Kernot and Doreen Iga to see his Solomons solar drier, chupon budding and model farm that includes peanuts, betel nut, vanilla and many food crops along with rehabilitated cocoa. The group visited the new group at Amele formed by Jakob Imalal and Christine Ball following Josie Saul and Robert Taula's Family Teams training at Alexishaven last year. Irene and Doreen also visited this group on 14 February. The group is being assisted by the well-established Tamane group led by Kokurai Omarup, whose mature budwood garden was visited on the way back to Madang on 14 February.
- On 11 February, Phil and Aitul with Stanley from CB Field Services visited Mabenob to see two farmer's blocks just beginning to bear pods. On 12 February, the mature, certified budwood garden at Rempi was visited. It was evident that there is now abundant budwood of the 18 CCI clones available at many locations in Madang Province, including Mabenob, Rempi, Tamane, Balama, Kumisanger and Suaru. Tomoli Wowomi, the DAL officer from Kumisanger, came to Madang to collect budwood for establishing new budwood gardens at extension sites on the Rai Coast.
- On 13 February, the team including Trevor, drove to Bogia District and saw a budwood garden and cocoa blocks being established on kunai grassland by the Suaru group which is working strongly, an older DAL budwood garden of the first release 10 CCI clones that has been rehabilitated by the Suaru group, and also visited the Amiten group (Ismael and Jacinta) for a large meeting with them and members of the 12 satellite groups they are helping.
- From 24-26 February, Bofeng and team conducted a two-day training at Walium in Usino-Bundi District.
- Two instances have occurred in Madang where farmers unwittingly sprayed nurseries or budwood gardens with herbicide instead of insecticide due to contamination of the knapsack sprayer. It is recommended that farmers have separate, clearly labelled sprayers for insecticide/fungicide and herbicide.
- The Family Farm Teams (FTT) training is proving very popular with women and girls and there is a high demand for it. The budding program is attracting young girls who have become proficient in budding skills.



**Figure 10 (right):** Cocoa on kunai in Suaru, Madang.

## Highlands

- The budwood gardens of the 18 CCI clones are now mature at most of the 7 CMFT sites in Karimui and budwood and open-pollinated seed from the best seedling trees are being flown out from Karimui to complete budwood gardens and establish blocks at all other highland sites (in Jiwaka, and Eastern, Western and Southern Highlands). At the peak harvest, 3 to 4 Cessna plane loads (1 tonne each) of cocoa were being flown out of Karimui.
- From 10-15 February, John Thomas Vano and Bagle Kamane visited the cocoa plantings being sponsored and overseen by Mrs. Bomaigi Wei in Gumine District near the Waghi River adjacent to Karimui to conduct awareness meetings and training sessions with 7 clan groups (see photo). John Thomas's wife, Janet, had died suddenly on Christmas Day. John Konam has employed Bagle and another coordinator to service the Gumine and Jiwaka sites that lie adjacent to Karimui. Bomaigi is the wife of the former MP for Karimui, Mogerema Wei, who attended our project launch in Tavilo and gave PGK300,000 in 2016 to promote John's work in Karimui. She has supported 5 new groups in the Karimui-Gumine border area to establish budwood gardens and is also supporting a farmer in Ward 20 of Karimui, Michael Barnabas, who has 46,000 bearing cocoa trees, to build and register a fermentary. He is in an area remote from out of our main project sites.

- On 24-26 February John Konam, Phil, John Thomas and Bagel visited the home of Bomaigi Wei at Boromil, Gumine District (a 3-hour drive from Kundiawa) and later visited the budwood garden established under the guidance of Bomaigi and her brother, Nime Abe (Boss), at Nilawal, a 3-hour drive towards Karimui from Boromil. The garden has 20 trees of each of the 18 CCI clones, planted from polybags brought from Karimui by Bomaigi. The plants are thriving and have put out new flush, about 50cm high. A councillor and group from the four Karimui wards on the Kundiawa site of the Waghi River had walked for 6 hours to a meeting house at Olegain, near the road terminus, to meet the team, present gifts of food they had carried and hear promises of support. On the journey the team saw the state of the road John Konam is proposing to repair with outside support. It is the road that approaches nearest to the Waghi River that isolates Karimui, requiring only 14.7 km of connecting road to a point where the river widens and is less dangerous to cross. The team was able to drive near to the road terminus but it was evident that within a year erosion and collapse of the road (into precipitous valleys) at several points will make it impassable and further isolate the adjacent communities. John has support to build a bridge across the Waghi, but as an interim measure is proposing to use an inflatable dingy attached to a rope as a ferry. At present people cross the river on tyre tubes and every year some drown.
- A cocoa project has begun at Rosary Senior High School, Kondiu, in Kundiawa District, and on 23 February, John Konam and Phil presented a dissector microscope to the principal and science teachers at Barengigl High School in Gembogl District.



**Figure 11:** Awareness meeting at Gumine, Simbu



**Figure 12:** Waghi River at point of proposed crossing, suitable for ferry or long bridge.

### East Sepik

- In early January, Timothy Sam (Coordinator), Douglas Kawasi and Scott Rambanare (CMFT Bararat) led a team of 6 budders from Bararat to travel to the 11 hours to Lumi for two days of budding and training in the Tenkile Conservation Alliance cocoa project. Tim visited the CMFT Paul Aru at Drekikir, an hour's drive past Maprik on the road to Lumi, to organise his planting of 3,000 rootstocks which will be budded in early March. He also visited Xavier Saria at Nongori to start his nursery and Xavier Maningembi at Kwain, in Yangoru, to convince him to build a nursery to take advantage of the demand for clones from PPAP and the new FAO/EU project. Previously the very active Kwain group had established a certified budwood garden but had concentrated on selling budwood for chupon budding. Timothy also visited Caleb Yali's site in Angoram, where the budwood garden is now complete and Caleb is rebuilding the nursery after being away for 6 months for study.
- The budwood garden at the kunai grassland site near the Sepik River at Burui, led by Moses Maka, has had to be relocated because it could not be established due to a high water table. A new nursery has been constructed near the home of Angela Gossiba (DAL officer) in Burui and will be budded with material from the certified budwood garden at Blamda nearby. Moses will attempt to grow a new budwood garden in forested land further from the village.
- From 24 January to 7 February, Timothy worked with a UNRE (Stephanie Tringin) and KIK (Jimmy Risimeri) team to develop a cocoa/coconut/food crop program at the Correctional Institution in Wewak and write a proposal for government support. John Meth had previously established a large cocoa budwood garden there. Trevor, Phil and Timothy visited again 17 February to support the agriculture staff, Inspector Zacharias Hausimbi and Corporal Bonawi Dalu, and observe the thriving goat colony. Timothy will provide on-going support as they expand to a commercial cocoa planting.

- Trevor, Phil and Timothy visited the CMFT site at Paliama. Under Jonathan Poema's leadership, it has become a showcase site on the main Sepik Highway to Angoram and Yangoru, with a certified budwood garden, large meeting house, large active nursery (7 trained budders) and a goat colony (2 males and a pregnant female) being well cared for after their transfer from Niumindogum (sold for PGK300 each). The goats were observed feeding voraciously on *Gliricidia* cut and carried to their pen and were also being allowed to roam and feed on grass and weeds, shepherded by a young woman. Salt was being provided. The team visited Passam National High School the following morning to deliver a low-power dissector microscope to the biology teacher Josephine Aisi and Head of Science, Roselyn Thomas. The principal, Sampson Patiki, showed us the large area of land on which they plan to establish a cocoa plantation to support the school. Jonathon and Timothy will provide ongoing advice. The project is supporting cocoa projects in the two main high schools in Wewak, Brandi and Passam.

**Figure 13 (right):** Goats feeding voraciously on *Gliricidia* prunings in Paliama, East Sepik

- Phil and Timothy later visited Yekimbole and watched the tractor (restored under the project) ploughing the grassland (see Figure 14 below). Timothy's mechanic friend now has the tractor fully functional. Chris Sasingian has become an expert driver and is aware of the safety requirement of ploughing only directly down-slope. The disc plough does an excellent job of completely turning the ground, allowing tufts of tall grass to be removed by hand. The site for the soil fertility trial being conducted by Kanika Singh is clear of tall grass following ploughing and *Gliricidia* appears to be establishing well as long as drainage channels are cut alongside. Pigeon pea is thriving at Yekimbole and Chris has been collecting and planting seed (see Figure 15 below). Also, *Acacia mangium* planted by Jimmy Risimeri is thriving. It is possible that it can be used to reclaim the grassland in conjunction with *Gliricidia*. After seeing the progress on the trial site, it appears possible that the Yekimbole group will be able to establish cocoa on their 100ha of grassland.



Tim had visited the group in January to arrange acquisition and repair of a trailer for the tractor. It was learned that the group had assisted the building and registration of four more Solomons solar driers (for Norman, Robert Marcus, Eldon and a group at Yekimbole 1) by buying and supplying rolls of plastic (to be repaid when they sell dry bean) and providing plans and advising on construction. Altogether they have supplied 20 rolls to farmers. Farmers have been telling Nola of the benefit they see in the pure solar driers – cheaper to construct, especially if local materials are used, labour saving on cutting and carting firewood and tending fires (no need to keep fires going through the night), better quality cocoa (not 'cooked').



**Figure 14 (above):** Ploughing kunai in Yekimbole, East Sepik; Solar driers in top left background



**Figure 15 (right):** Pigeon pea seed in Yekimbole, East Sepik

- Timothy, Douglas and Phil visited the Bararat CMFT site and talked to a farmer linked to Scott Rambanare who has been very active in chupon budding, with grafts just beginning to bear. He is also growing vanilla on the trunk of his cocoa trees. However, the large meeting house had been burned down in early January apparently by a disgruntled member of the group. They had lunch with Scott and discussed the possible cause. It appears that Scott has been slow in distributing the PGK5,000 they obtained from the sale of 1500 clones to PPAP at PGK3.50, in paying the budders who were taken to Lumi and in erecting the solar drier following delivery of the materials late last year. This provides a general lesson about the activities of CMFTs – they will be successful only if they are generous in sharing the benefits of their training, materials supplied for community use and the proceeds of the commercial operations of budwood gardens, nurseries and fermentaries.
- Phil held discussions with Deane Woruba, the recently appointed Governor’s first secretary, who informed him that they are keen to ensure that the FAO/EU project builds on the ACIAR/REDS project. He indicated that they may establish the sites under the control of the Ward councillor instead of an individual farmer; the position of CMFT would therefore be attached to the Ward Councillor position, not the person, which could avoid the problem of jealousies as seen at Bararat. They also plan to resurrect the Saramande Research Station near Angoram, which has two-storey offices, housing, a nursery, a mature budwood garden and hybrid seed garden. The Station has been abandoned for many years but has been looked after by two retired DAL staff.
- On 21 February, Phil had informal meetings with the FAO team of Pavel Burian, Rabi Rasaily, Nchinda Valentine and Gene as they supervised the preparation of their offices in the agriculture building at the commencement of the FAO/EU project ‘Support to Rural Entrepreneurship Investment and Trade’ (STREIT PNG) in East and West Sepik. They plan to rebuild the entire agriculture office complex, which is in a dreadful state of disrepair, using only the existing steel frame and concrete floor. They were keen to visit one of our nearby sites and Timothy, Phil, Jonathan Poema and Darryll Worowan (Cocoa Board Field Services) took them out to Jonathan’s Paliama site where they saw the certified budwood garden, large nursery about half full of budded clones, large meeting house with blackboard and records of buddings, and the small goat colony. They are keen to build on the ACIAR/REDS sites as immediately available sources of budwood and clones and expand the strategy to every Ward in East and West Sepik. Tim and Phil offered them full support and gave them digital copies of the CCI extension manual and handbooks, and Trevor’s ‘Pacific Islands Cocoa Book’.

- On 20 and 21 February, Suri Taisa and Limai Lam from UNRE visited the goat sites at Paliama and Niumindogum (2 goats remaining) to give training and tag the goats.
- Tim will visit all CMFT sites in late February in preparation for taking the FAO team around to assess them for their purposes and to alert the groups to the greatly increased demand for clones and budwood by PPAP and the FAO/EU project which they can take advantage of. There are 15 ACIAR/REDS sites with mature budwood gardens, nurseries and teams of experienced budders who can service the project.
- A true 'ripple effect' has been seen with the establishment of budwood gardens and nurseries, and Solomons solar driers, by farmers adjacent to CMFT sites. The presence of the FAO/EU project is opportune in being able to help these farmers. It is also opportune in being able to assist the Cocoa Board staff like Timothy in the absence of a budget from the board.

### New Ireland

- On 19 January, Kula Daslogo, the former ACIAR/CCI project coordinator who had taken up a position as KIK Coordinator for the PNG Island Region, died in a tragic boating accident along with his grand-daughter Zania as they travelled with 5 others from one of our CMFT sites in Umbukul, New Hanover, to Kula's home island of Tingwon, further west. Five survived the accident and were picked up from the drifting upturned boat. Kula had been continuing to collaborate with the cocoa project as he worked with coconuts at some of the CMFT sites.
- A solar drier (see photo) was constructed at Luapul Village (CMFT Cathy Miroi). Cathy already has a hot-air drier and a fermentary licence to buy wet bean. Several CMFTs, including Cathy, Nick Misi (Bo Village), Subul Hus (Bureau Village) and Robin Marty (Sena Village) continued selling seedlings and clones to the Provincial Government Cocoa Project. Altogether 4000 SG2 seedlings and 2000 clones were sold in Jan-Feb. Training was conducted for 15 VEWs (and attended by 6 UNRE students) from the NIPG project at Noipuas-Lavongai LLG (see photos of budding stools ready for the training).

**Figure 16 (right):** Budding stools and equipment ready for the training session at Noipuas-Lavongai, New Ireland.

**Figure 17 (below):** Solar drier built at Luapul Village (CMFT Cathy Miroi), New Ireland.



- Commercial sales of clean sweetpotato vines have started to grow rapidly in 2020. Two major resource company clients have purchased in excess of 6,000 vines each, with a sale price of PGK0.50 per vine. The farmers involved in multiplication of clean planting material are seeing the opportunity to develop clean seed supply businesses, a new enterprise for the PNG Highlands.
- Requests for support to construct insect proof screenhouses for multiplication of clean vines have been received from Milne Bay and Hela, along with requests for supply of clean vines from Enga, Hela and Southern Highlands Provinces.
- The project Facebook Page, [Supporting Sweetpotato Production in the PNG Highlands](#), is serving as an excellent tool to generate awareness in the project and to promote sales of clean planting material by our partner farmers. One contact grower who used the clean seed harvested 50 bags (5 tonne) in an area from which he had previously only been able to achieve a yield of 20 to 30 bags.
- Yield assessment trials are nearing completion in each of the 5 production regions of the project. Yield data are backed up by anecdotal evidence from farmers who have purchased clean vines to plant their crops.
- Nutrition and Food Processing training was held on 10-14 February 2020 at Meteyufa village for Hagereto and Kuka kaukau farmers. The training was well received by the women in the villages, with much excitement about new ideas on different ways to include sweetpotato in family meals.
- Editing of a *Klin Kaukau Booklet* for use in the Community Development Worker (CDW) program has been completed and a *Soil Fertility Management Booklet* is being revised.

### Family Farm Teams

- See link in the TADEP+ Update for a podcast featuring Barbara Pamphilon who shares insights from the Family Farm Teams project.

### Galip Nut



**Figure 18:** Galip Nut inception workshop at NARI, Kerevat.

- The new Galip Nut project launched with the Inception Workshop on 10-11 February 2020. The workshop was attended by representatives of NARI, the project team from Australia, FPDA, 3 local processors and several interested parties. Whilst this next Galip Nut project won't be a formal project within TADEP, the project is eager to contribute to the program on an ongoing basis.
- The emerging galip industry is set to grow in the next few years with strong interest from parties in setting up processing, and existing processors investing in new product lines and new packaging (see Figure 19 below).
- An expanded range of products is selling in Duty Free store in the Airport (see Figure 20 below). It should be an exciting 3 years ahead.



**Figure 19:** New packaging by DMS Organics, founded by Dorothy Luana.



**Figure 20:** Galip Nut project leader, Prof Helen Wallace, sourcing DMS Organic galip nut duty free at Jacksons International Airport.