



Transformative Agriculture and Enterprise Development Program

TADEP+ Update

January + February 2021

Key program activities

Family Farm Teams Masterclass

Given the success of the Family Farms Teams project as part of the program and the broader demand for projects to learn the methodology, the TADEP Steering Committee agreed that the program could facilitate and fund five attendees from each of the five TADEP component projects to participate in a FFT Masterclass. Given the international travel restrictions due to COVID-19 and to minimise travel within PNG, two Family Farm Teams accredited trainers based in PNG will travel to two central and mutually agreeable locations to deliver the three-day training, with Prof Barbara Pamphilon dialling in at the beginning and end of each day.

The Masterclass dates are as follows:

- **Highlands/Momase:** Week 4, March (PNG Cocoa, Sweetpotato, NARI) – at NARI Bubia, Lae
- **Islands:** Week 2 or Week 3, May (Galip Nut, UNRE) – venue TBC

Project Leaders have nominated participants for the Masterclass and their respective employers have been contacted to seek permission for their attendance.

Collaborative Research Grant

The TADEP Collaborative Research Grants (CRGs) have enabled component projects to identify new opportunities to collaborate at a program level. The final CRG entitled, *Initiating vegetable cultivation to improve nutrition in Bougainville*, has submitted a final report, noting that there are a few activities that will be ongoing in the coming months.

Feedback from the training and information sessions on nutrition and vegetable cultivation has been positive. Since the initial monitoring visits, the CRG team has recorded self-reported changes being implemented within

the communities to improve their health, nutrition and vegetable cultivation practices. Such changes have included adding gates on kitchens to keep animals out, improving preparation and storage of food, improving how drinking water is collected and stored, adding more variety into diets and building compost bins. These small but important changes could lead to improvements in health and nutrition and the overall productivity of these cocoa farming communities.

Click here to read the final report.

Evaluating ACIAR's programmatic approaches

ACIAR has been conducting a series of project level outcome evaluations on projects that were part of one of the three intentionally designed regional programs (TADEP, SDIP, Aik Saath) currently managed by ACIAR. These individual evaluations are currently being undertaken and will be compiled into a broader report on the achievement of the program as whole, that will include some investigation of the different programmatic models and lessons learned through their implementation.

Each of the five TADEP projects have contributed to the evaluation and participated in feedback sessions to discuss the preliminary findings to date. The balance will continue in the the coming months, with the evaluation being completed by June 2021.

International Women's Day

International Women's Day on 8 March is a day to celebrate the achievements of women and simultaneously a call to action for gender equality acceleration. This year's theme for International Women's Day is Women in leadership: achieving an equal future in a COVID-19 world.

Click here to read an ACIAR blog article, *Women in leadership - achieving an equal future*.

ACIAR Partners magazine 2020, Issue 4

This issue of Partners magazine is the first under ACIAR's new Commission for International Agricultural Research, which was recently selected by the Minister for Foreign Affairs, Senator the Honourable Marise Payne, and includes an introductory article on the newly appointed Commission Chair, Fiona Simson.

The final issue of Partners Magazine for 2020 explores innovation in agriculture. The diversity of examples illustrated in this issue demonstrates that innovation is not just a fancy widget or smartphone app. You can have innovation in partnership and governance models. You can also have innovation in a supply chain organisation. There's a rich diversity of innovation across the ACIAR portfolio. Sometimes there will be a commercialisation pathway, and sometimes there will be a market chain, policy or regulatory pathway.

Click here to read the most recent Partners magazine issue.

ACIAR and COVID-19

Australia is a world leader in biosecurity and ACIAR, as Australia's specialist international agricultural research agency, continues to provide research to help understand and address threats to food security from transboundary plant, forest, animal, aquatic and zoonotic pests and diseases. ACIAR has compiled the relevant research and updates relating to COVID-19 in a separate, publicly available research portal.

Click here to read about ACIAR's response to COVID-19 and the research it is leading.

Key project activities



Sweetpotato

A consumer survey in Lae and Port Moresby open markets and supermarkets has been undertaken by Raywin Ovah (NARI), with over 400 consumers interviewed on their purchasing patterns, attitudes and perceptions of kaukau.

Kaukau sales in the high value supermarket sector continue to grow, with one major supermarket chain confirming purchase of 10 tonnes per week.

Analysis of the final project benchmarking survey data has revealed an increase in the number of commercial kaukau farmers in the Highlands, and a jump in adoption of clean kaukau from 16% of commercial grower in 2017 to 90% in 2020.

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

Bougainville Cocoa

There has been a no-cost 12 month project extension granted for the project to enable to complete project activities that have been impacted by COVID-19 and other restrictions. The project will also use this additional time to identify priorities for future activities.

CARE International approached the project for training on composting and soil management for their farmer groups, which is in addition to the existing network of farmers in the project.

Monthly monitoring of Village Extension Workers (VEWs) activities including their interactions and engagement (extension) with their communities and farmers is continuing with the efforts to establish Resource Centres.

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



PNG Cocoa



additional project activities and for a comprehensive end-of-project review by independent Niuginian consultants. The review features a series of focus groups with Cocoa Model Farmer Trainers (CMFTs) and their farmer groups.

Provincially based project coordinators have made multiple site and field visits, assessing budwood gardens and nurseries, many of which belong to the EU/FAO Streit PNG Programme that has adopted the project's methodology and approach.

The Boram Correctional Institute, which has received project training, has again provided neighbouring villages with cocoa budsticks. The strong relationships and collegiality between the project coordinator and the Boram staff and inmates is testament to the strong network and intensive extension services promoted by the project.

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

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



Whilst two of the initial five TADEP projects have concluded, they have evolved into three new ACIAR projects 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.

Family Farm Teams

With COVID-19 travel restrictions still in force, new online delivery models are being trialled for the Family Farm Teams (FFT) training with the Live and Learn staff in Solomon Islands. The FFT training has historically required qualified FFT trainers to deliver intensive, face-to-face multi-day workshops but the wider utilisation of online platforms since COVID-19 lockdowns have opened up online opportunities. It is anticipated that a trial will also be undertaken in PNG soon.

As mentioned above, TADEP is facilitating two FFT Masterclasses for project team members and program partners. A hybrid model of delivery is being trialled for these events, with in person delivery being facilitated by qualified FFT Trainers in country and end-of-day discussion led virtually by Prof Barbara Pamphilon in Canberra.



Galip Nut

Work on the canarium nut project is continuing to move forward with a strong team at NARI, Kerevat. Two new staff members have been appointed on the Galip project: Research Associate Ms. Wilma-Deanna Oli a Food Technology (B.Sc.) graduate from Unitech Lae, and; Whelance Mollo a highly experienced logistics & Unitech Commerce graduate who have taken up their roles with much anticipation. The factory has been busy processing nuts and The Galip Nut Company has shipped the second order of 170 kg of value added products to CPL. The team is also working with private partners in PNG to help strengthen their business. The first season of field experiments are continuing with the current fruiting season nearing the end.

We are continuing to adapt to the impacts of COVID-19 with travel restrictions still in place. The team in Australia are conducting weekly meetings via zoom with our partners in PNG to keep up momentum. Whole team meetings also occur monthly via zoom to help maintain cohesion within the group and communicate project progressions.

[view this email in your browser](#)

Sweetpotato

HORT/2014/097

- A consumer survey in Lae and Port Moresby open markets and supermarkets has been undertaken by Raywin Ovah (NARI), with over 400 consumers interviewed on their purchasing patterns, attitudes and perceptions of kaukau. A rich data set will provide insights to assist kaukau supply chains to better match product qualities to consumer expectations.
- Kaukau sales in the high value supermarket sector continue to grow, with one major supermarket chain confirming purchase of 10 tonnes per week. While this represents a small volume relative to open market sales, the steady increase in volumes to higher value markets is providing new opportunities for farmers engaging commercial kaukau production.
- Analysis of the final project benchmarking survey data has revealed an increase in the number of commercial kaukau farmers in the Highlands, and a jump in adoption of clean kaukau from 16% of commercial grower in 2017 to 90% in 2020. When questioned about their rationale behind adoption, farmers readily pointed out the clear improvements in yield, *"I have been planting and marketing kaukau for almost 14 years but never produced such quality tubers because I was planting vines infected with so many diseases. With the help of clean kaukau, I have seen great improvement. I am mobilising my community and I have 92 contact farmers that I am currently working with."*
- Use of the Commcare app to complete the benchmarking and consumer surveys has gone very smoothly, and with COVID-19 travel restrictions preventing the Australian team members from participating in the activity in PNG the ready access to data collected in the surveys has allowed the project team to refine the research as the surveys progressed.

Bougainville Cocoa

HORT/2014/094

Upcoming or recent activities

- As international project travel remains impossible, a lot of energy recently has been put into responding to all the reviews that have sprung up.
- Jess is delighted to announce the arrival of her second son, Sebastian (Sebi) Hugh Ives. He is an absolute delight and Archer is besotted with his little brother (to the point of smothering him at times).
- Sadly, we join our colleagues from the PNG Cocoa Team in offering our condolences to John Konam and his family on their tragic loss.

Weekly WhatsApp meetings

- For several months the project leaders have held weekly meetings using WhatsApp. While not a substitute for field visits, they are a good means of maintaining regular and frequent contact when the network allows.

No-cost extension

- We have just been advised that our application to ACIAR and DFAT for a no-cost 12-month extension to our project has been approved. This means we will be able to use 2021 and 2022 to catch up on time lost due to the COVID-19 travel bans and other restrictions, as well as to identify priorities for future activities.

Approval of final report on the CRG on vegetables and nutrition

- The CRG research project has received approval to continue to complete the project and also had confirmation of the last tranche of funding to be transferred. A final report (of the work to date) was prepared and submitted to ACIAR and DFAT. Francis has been provided with a laptop to enable him to complete the diary entries for analysis.

Additional training with CARE

- CARE International approached the project for additional training on composting and soil management for their farmer groups, and we were delighted to be able to partner with them to deliver this. CARE receives funding from DFAT, separate to the TADEP program.

- The workshop was targeted at Training of Trainers (ToT) at Wakunai, Central region in February. This means this techniques will now be implemented to wider non-project farmers in Bougainville thus the spread and benefit of this technology.



Figures 1 and 2 (both above): Compost making training.
Figure 3 (right): Run down solar combination dryer.

Activity updates

- Work to rehabilitated and fix run down solar combination dryer in Buin DPI (see Figure 3) commenced already in February after procurement of klin (clean) pipes then others (polycarbonate roofing sheets) required to fully renovate the dryer. More training and demos will follow soon on bean fermentation and quality processing while collecting vital data on fermentation/drying, after the dryer renovation is completed.
- Monthly monitoring of VEWs activities including their interactions and engagement (extension) with their communities and farmers is continuing with the efforts to establish Resource Centres.



Cocoa market newsletters

- Two were compiled during the period.

Whitelum Group review of ACIAR's programmatic evaluation

- We participated in interviews and a review of the draft report of our project, reviewed as a component project of the TADEP. The draft report triggered a deeper analysis of our project through a gender lens. We have not reached many of our targets and the discussions stimulated by the draft report concluded that:
 - Women are already busy and don't have time to take on extra responsibilities
 - Women were considered inexperienced in cocoa farming
 - Land ownership in the south is patrilineal and men make most of the decisions
 - Gender-based discrimination remains entrenched
- The FFT training directly addresses many of these challenges, and we are confident that change is happening, as illustrated by our Southern Regional Hub manager, Elizabeth Pisai, our Northern Region Extension Officer, Julie Rereve, our Southern Region UNRE crops/livestock officer Constatina Kanugere, the Buin District DPI/fisheries officer Susan Pais and Thecla (our DPI Mini chocolate Lab assistant).

FAO review of food security on Bougainville

- FAO and DPI held a Bougainville Food Security Stakeholder Consultation Workshop in Buka on 12 February 2021. This is the first consultative meeting in Buka among others. Project staff presented evidence of the

incidence and causes of malnutrition based on our 2017 cocoa farmers survey, and outlined the research activities we are undertaking to address food security.

- The draft recommendations provided a series of policy recommendations but lacked specific detail on Bougainville and did not recognise the importance of export crops, and the importance of improving logistics to support trade, to income generation and food security in rural villages. It did not adequately recognise the intersection between health, nutrition and food security.
- The draft is open for comment and review. Hopefully the final report will also include suggestions and support on how to implement the recommendations.

United States Department of Agriculture (USDA) cocoa research review

- In January, Grant Vinning participated in a Zoom discussion on cocoa industry research funded by the United States Department of Agriculture (USDA). The aim was to develop a methodology that could be used for undertaking market research. A report of the Zoom discussion was circulated. Two key findings are repeated here. One, when analysing prices, the emphasis should be placed on what the buyer has pay to get the beans into a position where chocolate processing can commence. In technical terms that means looking at the DIS price and not the EXW (ex-factory works) price. Discussions with chocolate makers in three counties who have purchased Bougainville beans are happy with the price they pay to the grower, but they are unhappy with the cost of getting the beans into their factories. The other point is the vital need for researchers to feed the information back to growers in a format that the grower can access. Sending a glossy 14MB file that can't be opened outside the capital is useless.

COVID-19 surveys

- The project has participated in or has been asked to comment on a number of studies that assess the impact of COVID-19 on the cocoa industry. There seems to be push-back with those along the cocoa chain becoming tired of being repeatedly interviewed about something that happened close on twelve months ago without guidance as to the way forwards.

Cocoa of Excellence

- For the first time, Bougainville will be submitting samples to the Cocoa of Excellence program, coordinated by the Alliance of Bioversity International and International Center for Tropical Agriculture (CIAT) as Bougainville beans and not as part of Papua New Guinea. There were some issues but with the cooperation of the program's Coordinator, these have been resolved. Many thanks to the Coordinator in Rome. COVID-19 played havoc with the process. It took more than a month for the beans to come from Bougainville. This reduced the time the project had to complete the judging. With judges from Queensland and the Australian Capital Territory, the project developed a protocol that embraced the aspects of blind tasting, at least five objective standards, judging beans and not finished chocolate, and a tight time schedule. The project are grateful of and owe the judges for their great cooperation.

International Symposium on cocoa research, Montpellier September 2021

- While it remains unlikely that project staff will be able to travel to this meeting, plans are moving ahead to run the meeting online around the theme "Innovations to support market development and promote sustainability to improve farmer's incomes".
- Abstracts are due 19 March. Navigate to <http://iscrsymposium.org/> for more information.

Lessons learned

- The various reviews underway remind us that it is vital to stay in touch with all sectors of the cocoa industry rather than just when you need information from them. Feedback is critical to fruitful dialogue.

Research tools, articles, resources

- The acquisition of equipment continues apace. Needing a good micro scale to prepare the cocoa bean samples for the judges prompted the purchase of a number of scales for the project. The uncertainty of the system getting the equipment back to Bougainville is causing nervousness in sending the equipment up.
- We are continuing to add content to the Bougainville Cocoa App that will be released in the next few months as a free smartphone app, to provide advice and support to VEWs and cocoa farmers.

Publications

- Walton et al. 2020. *Applying one health methods to improve cocoa production in Bougainville: A case study*. One Health. <https://doi.org/10.1016/j.onehlt.2020.100143>
- Hall et al. 2020. *Factors influencing undernutrition among children under 5 years from cocoa-growing communities in Bougainville*. BMJ Global Health <http://dx.doi.org/10.1136/bmigh-2020-002478>
- Walton et al. 2020. *The extent to which the domestic conditions of cocoa farmers in Bougainville impede livelihoods*. One Health <https://doi.org/10.1016/j.onehlt.2020.100142>
- Walton and Hall. 2020. *"Examining ways to improve nutrition and food security in 'at risk' villages in Bougainville"* Final Report, Collaborative Research Grant, TADEP.
- Guest et al. *What smallholder farmers need to do is...* Submitted to Food Security.
- Walton et al. 2019. *One Planet, One Health*. <http://library.oapen.org/handle/20.500.12657/25284>

East New Britain Headquarters

- Trevor Clarke, who has been confined to PNG all year by the COVID-19 travel restrictions and was unable to take his annual summer leave in Australia, carried on the project work during January and February with the Cocoa Board REDS extension officers in the provinces, John Konam and Peter Bapiwai in the Highlands, and REDS research and administration officers at Tavilo, ENBP. He continued liaising with staff of NGIP-Agmark Ltd., Farmset Ltd. and the World Bank PPAP cocoa project based in Kokopo.
- Substantial savings were accumulated in the project budget at LaTrobe University, mainly due to the fact that travel by several Australian consultants was not undertaken because of disruptions during the transition from the Cocoa Coconut Institute to REDS and travel restrictions imposed for COVID-19. These savings enabled the project to be extended by a month (from 28 February to 31 March) during a final project variation completed in January. Extra funds were sent to PNG for final project activities, especially for final reviewing of the project by independent Niuginian consultants conducting focus group discussions with Cocoa Model Farmer-Trainers and their farmer groups. Working with George Curry and Gina Koczberski, who were unable to visit PNG to conduct the focus groups as planned because of COVID-19 restrictions, Trevor finalised plans for the groups in four provinces, arranged for people to conduct them, largely independent of project staff, and designed and printed forms to be used to summarise discussions. In New Ireland, 19 focus group sessions were conducted by Dr Josie Saul-Maora and Leonie Songtava, a social scientist based at REDS, Tavilo.
- Throughout January, Phil, Trevor, George and Gina worked with colleagues in PNG and at James Cook University to finalise a Preliminary Proposal for a project to support research on the establishment of Village Farmer Groups and village farmer-trainers, combining cocoa and foodcrops, developing cocoa planting material more suitable for village farmers and adapted to the highlands, and improving solar cocoa driers. Unfortunately, this proposal was rejected at an ACIAR In-house Review meeting on 28 January, to the great disappointment of REDS staff in PNG who were looking forward to further support of the strategy initiated under HORT/2014/096 which appeared to be indicating a way forward to an improved and more far-reaching extension system for village farmers. At the suggestion of the manager of REDS, David Yinil, Phil re-wrote the project proposal as a development project that the Cocoa Board can take to other possible funders.

East Sepik

- On 4 January, our coordinator, Timothy Sam, visited Kambagora Village of Wewak Rural LLG in Wewak District and assessed their budwood garden and nursery. This is a site under EU/FAO STREIT PNG Programme. 180 clones are already established with 1,000 budded clonal seedlings already distributed to the farmers within the group.
- On 14 January, Timothy and his team including Douglas Kawasi and Joel Hori travelled to Maprik to attend the launching of the Government's cash crop Price Subsidy Initiative. On 22 January they began field budding to establish a budwood garden at Passam National High School, Wewak.



Figure 4 (left): Seedling planting ready for field budding at Passam National High School, Wewak. The project had previously promised to help the school establish a cocoa project as a training and funding facility.

- Following a period of mourning for the death of his elder brother, Timothy began a new week on 15 February by assisting three farmers (Messias Sawiwali, Solomon Olinumbu & Jackson Holoniam) from Haniak No.1 Village, Numbo LLG of Yangoru/Saussia District with basic cocoa information, including Cocoa Manual Books and handouts on 'Guideline to Establishing and Managing Cocoa Budwood Gardens in PNG'. So far, these farmers have established a BWG with 13 cocoa clones (5 more needed) and have constructed a 10,000 capacity nursery and are preparing seedlings for budding.
- Timothy, working in Yangoru-Saussia, posted the following comment to Facebook, which perfectly summarises the benefit of direct field planting and budding – *"Apart from chupon budding, field budding is another cost saving method for farmers to adopt for new cocoa plantings. It really avoids all nursery costs. All you need is to mark out your field, dig out holes and directly plant your pregerminated seeds. After 2-3 months, the seedlings are ready for budding in the field. Its success rate is 95-100%. The plants grow faster and come into bearing within 2 years. That's from my experience. I am strongly encouraging my farmers to adopt this idea."*

Figure 5 (right): A farmer and his son conducting field budding in Yangoru-Saussia District

- On 18 February the team supervised base line squaring and field lining for budwood garden establishment at Yekimbole No. 2, Ward 25, for the Kusambuk Cooperative Group, and on 21 February in Saure Village, Wewak, as a way of keeping track of progress in their community project they supervised an extension of the village nursery as shown in the accompanying photos. This is another site under the EU/FAO STREIT PNG Programme that is using the same strategy as the ACIAR project.



Figure 6 (right): Lining a new cocoa planting at Yekimbole No. 2 Village.





Figures 7 and 8 (both above): Extending the village nursery at Saure Village, Wewak. Note the use of local materials, including sticks to hold the polybags, and the seedlings of three different ages.

- On 22 February, the cocoa training and development group at Boram Correction Institute, Wewak, once again provided budwood sticks to assist farmers from Dreikir Village in Ambunti-Dreikir District. In January they had agreed to exchange a female goat from their farm for a male goat from the CMFT site at Passam. The Boram CIS group, including staff and inmates, had been a great support to Timothy following the death of his brother in January. It is evident that extension officers like Timothy, Douglas and Joel, working in their home province, build up a strong network of farmer colleagues and friends as a result of their intensive extension activities as promoted under the ACIAR Project.
- On 23 February, Bosco Yapi, the CMFT from our most isolated site at Beglam, Ambunti LLG in Ambunti-Dreikir District 2 hours by speedboat up the Sepik River beyond Ambunti, visited Timothy in his office and briefed him on progress and delivered a summary report. Their group has completed a training house, kitchen, staff house and toilet block as a farmer training facility. They have a nursery with about 7000 rootstocks ready for budding and have budded nearly 2,500 seedlings with B1, B2, B5, S4 and S5 clones using budsticks obtained from the Blamda CMFT site.



Figures 9 and 10 (both above): Women practising budding at Beglam Village



Figure 11 (left): Active nursery at Beglam Village.

New Ireland

- Through January, our coordinator John Joseph concentrated on preparation for conducting focus groups with CMFTs to allow them to express their opinions on the project, followed by the actual interview program in different project sites. Two independent interviewers namely Dr. Josephine Saul-Maora (private consultant) and Leonnie Songtava (economics section-Cocoa Board REDS, Tavilo) appointed by Trevor Clarke were sent over to New Ireland to conduct the interviews. They were assisted all throughout the interviews by Karol Lovelle and myself of Cocoa Board New Ireland and also accompanied by respective DPI LLG Officers in each LLGs. The Focus Group Interviews commenced on the 09/01/21 and ended on the 20/01/21.
- The Project sites covered by the interviews are as follows - Noipuas (Robin Ulawai) and Umbukul (Gideon Kulepmu) in the Lavongai LLG; Djaul-Leon (John Sinelia in place of Lodgie Wat), Manggai (Arawes Mazetmat), Panamecho (Lumaris Mandaso/Tou Laisias), Laraibina (David Waulas) and Luapul (Cathy Miroi) in the Tikana LLG; Langenia (Rapheal Kanamale), Katedan (Joan Mode), Lemeris (Jeffery Kelly), Karu (Kalu Eliab), Komalabou (Henry Agaum) and Dampet (Chris Tapit) in the Sentral Niu Ailan LLG; Burau (Subul Hus) and Bo (Nick Misi); Sena (Robin Marty) in the Matalai LLG and Marinsouan (George Tabakua) in the Konoagil LLG. Murat LLG which includes Taval and Tarairai were excluded due to high costs and time limitation on travel to Mussau Island. Focus Group interviews were also conducted at Karia Village on Djaul island in the Tikana LLG and Himau Village in the Matalai LLG, two villages working under the New Ireland Provincial Government Cocoa Project, linked to the ACIAR project. A total of nineteen sites were captured for Focus Group Interviews.

Figures 12 to 14: Focus Group interviews at Panamecho Village



Figure 12 (above): Combined men and women.



Figure 13 (above): Men only in discussion.

Figure 14 (right): Women only in discussion.



Figures 15 to 17: Focus Group interviews at Laraibina Village



Figure 15 (above): Combined men and women.



Figure 16 (above): Men only in discussion.

Figure 17 (right): Women only in discussion.



Figure 18 (above): Focus Group interview at Karia village, Djaul Island under the New Ireland Provincial Government's Cocoa Project

- In February, a total of 20,000 SG2 hybrid cocoa seeds were distributed to the following project sites- Umbukul-2,000, Noipuas-1,000, Djaul (Leon)- 2,000, Laraibina-2,000, Luapul-1,000, Langenia-4,000, Lemeris-1,000, Bo-4,000, Sena-3,000.
- At Luapul and Sena CMFTs Cathy Miroi and Marty Robin have been using their Solomon solar dryers to dry their harvested cocoa beans, producing about 30kg in their first batch.



Figures 19 and 20 (both above): Solomon solar drier operating in Sena Village.



Figures 21 and 22 (both above): Solomon solar drier operating in Luapul Village.

Highlands - Simbu, Jiwaka, Eastern and Western Highlands Provinces

- In January and February, over 50,000 seedlings were budded in Karimui with the 18 CCI clones for distribution to five other districts in Simbu (Chuave, Sinesine, Kundiawa Gembogl, Gumine and Kerowagi). Mr Dominic Wani, the CMFT for Ward 4 in Karimui, is being contracted to oversee this.
- Trevor visited Simbu and Eastern Highlands Provinces from 11 to 18 February to initiate Focus Group discussions and thank and farewell collaborators there. He flew from Kokopo to Goroka with Peter Bapiwai and Robert Nailina, met with John Konam, Matilda Hamago (a social scientist based at the Coffee Research Institute Aiyura) and John Thomas (our Assistant Coordinator now based in Goroka), and had a meeting in the Lutheran Guest House to discuss Focus Group interviews in Karimui, to be conducted by Matilda and Robert. On the following day the group flew to Karimui by MAF flight and held the first Focus Group meeting for Ward 6 with CMFT Wanpis in Peria, Karimui. The discussion, involving 8 men and 8 women from the CMFT group interviewed separately, took 3.5 hours. Issues of isolation and marketing (only 50t for wet bean received) were among the issues discussed.
- On 13 Feb the group visited CMFT Dominic Wani's group. This group has been very innovative, with patch budding and marcotting of superior materials selected from the bud wood garden, using marita leaves to bind to the tree being budded. They have been carrying out field budding on root stocks raised from local seed. A video was made of John Konam interviewing Dominic and his farmers. The large nursery was visited, with over 50,000 seedlings in plastic bags being bud grafted by the group. The use of cling wrap as a cheap budding tape was demonstrated. On 14 February the Focus Group team facilitated a group interview. A reconciliation meeting was held for John Thomas and Tony Siperai who had been assaulted in 2019, necessitating the transfer of John to Goroka. People from the area responsible gave reconciliation gifts, and apologies. On 15 February, the group planned to fly back to Goroka, leaving Matilda and Robert to continue conducting Focus Groups with the other CMFT groups. However, the Karimui airstrip was closed due to rain and the trip was postponed to 16th. Trevor had a long phone conversation with Chris Mondo, OIC DPI Simbu Province, advising him of project closure, and discussing the cocoa pricing in needed in Karimui to continue to attract growers.
- On their return to Goroka, the group held a meeting with Eastern Highlands Crops Officer, Mr Naisman in Easter Highlands Provincial DPI office. It was explained that the ACIAR Project was winding up at the end of March. ACIAR was thanked for their assistance in helping to initiate an EHP cocoa industry which is expanding rapidly. The group was updated on progress with cocoa program in EHP. The main nursery has had to be relocated due to a problem with labour and a neighbour. Some of the trees planted in Kami Village, where the ACIAR launching was held, are now bearing pods. Nearly 10,000 seedlings have been planted in the Lufa area, and some are now producing. It was suggested that John Thomas be recruited by EHP DPI to help with their cocoa program. Trevor, Peter Bapiwai and John Konam drove to Kundiawa with Paul Gende, the former CCI Senior Entomologist, based in Kundiawa. On 17 February, they held a meeting with Mr Eric Gore, Provincial Crops Officer Kundiawa in the Simbu Provincial Office, stressing the need for continuity of the work when the ACIAR project concludes, and strong communication with John Konam and the growers in Karimui.
- The following day the team drove to Banz in Jiwaka Province and met Stanley Wandau, who has been appointed by the Cocoa Board to supervise work in the Highlands on behalf of the CB. He is from Jiwaka and is living there waiting for the Cocoa Board to provide housing and a vehicle for him. The team met with

Anthony Keru, Provincial Crops officer, Jiwaka, and farmers including Jesse Kaumbe in Banz. Stanley was introduced to Anthony and it is expected that cooperation will continue when the ACIAR Project is finished.

- Work in the Jimi area is expanding with Stanley's help supplying hybrid seed. About 6,000 seedlings have been transported and planted in the Upper Jimi area, and 7000 in Kondmanatian where a nursery has been established. More help is needed, including training and books on cocoa. On the 17 February the team drove on to Mount Hagen where they met Western Highlands Provincial Crops Officer, Mr Livai Kombati. Livai was introduced to Stanley who has been assisting with the Nebliyer Project, where over 20,000 seedlings have been distributed. They agreed to work together on the Nebliyer site and in the Baiyer River area where a previous cocoa nursery was established under the ACIAR project. Trevor and Peter flew back to Kokopo on 18 February.

Madang

- The following 13 project sites were visited by project staff in January and February 2021 with a total of 24 visits - Madang District (Balama, Tamane, Gumaru, Hobe, Wafen and Mabonob), Usino/Bundi District (Nuku, Danaru, Maono and Korona), Sumkar District (Rempi), Bogia District (Amiten and Suaru). A total of 198 farmers (89 females) were contacted and advised on cocoa activities.
- Nurseries are still operating at following sites – Rempi (1,000 plus rootstocks raised and budded, 500 plus clones for planting), Karkum (3,000 plus rootstocks remaining to be budded, 1,000 plus budded clones to be ready soon), Amiten (3,000 plus root stocks raised, 1,000 plus budded, 2,000 clones ready for planting soon), Suaru (1,000 rootstocks ready for budding, 400 budded, 300 plus clones ready for field planting soon)
- A total of 26 budwood gardens have been established under the ACIAR Project; eleven were visited and monitored in Jan/Feb and nine are still awaiting certification.
- Over 109 new cocoa blocks with about 20,000 cocoa trees and 500 plus rehabilitated blocks were visited and farmers advised on their maintenance.
- No new cluster (satellite) groups were added to the 109 already established, involving over 2000 farmers.
- Four solar driers at Balama, Mabonob, Wafen and Suaru were maintained but no new ones were constructed due to lack of funds to supply rolls of plastic.
- Planned field days were not carried out due to lack of funds as the project comes to an end. 120 Pacific Islands Cocoa Books were distributed to farmers
- In February, Focus Group meetings were conducted by Josie Saul-Maora and Leonnie Songtava with eleven CMFT groups, each involving 8 men and 8 women farmers.
- Activities in January and February were restricted by a lack of funds and there is no sign of Provincial DAL or the Cocoa Board stepping in to help continue project activities as the ACIAR project ends.



Figures 23 and 24 (both above): Solar drying in Wafen Village. Note the two designs of Solomon driers in the background and a blue tarpaulin placed on a bed of river stones.



Figure 25 (above): Focus Group, Tamane Village.



Figure 26 (above): Focus Group, Mabonob Village.



Figure 27 (left): Bearing clonal cocoa, Tamane Village.

Galip Nut

- Work on the canarium nut project is continuing to move forward with a strong team at NARI, Kerevat.
- Two new staff members have been appointed on the Galip project: Research Associate Ms. Wilma-Deanna Oli a Food Technology (B.Sc.) graduate from Unitech Lae, and; Whelance Mollo a highly experienced logistics & Unitech Commerce graduate who have taken up their roles with much anticipation.
- The factory has been busy processing nuts and The Galip Nut Company has shipped the second order of 170 kg of value added products to CPL. The team is also working with private partners in PNG to help strengthen their business.
- The first season of field experiments are continuing with the current fruiting season nearing the end.
- We are continuing to adapt to the impacts of COVID-19 with travel restrictions still in place. The team in Australia are conducting weekly meetings via Zoom with our partners in PNG to keep up momentum. Whole team meetings also occur monthly via Zoom to help maintain cohesion within the group and communicate project progressions.