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|  | Annual report |
| project | Developing the cocoa value chain in Bougainville |
| project number | **HORT/2014/094** |
| period of report | **2016-2017** |
| prepared by | Joe Yabom, PNGCCIL,  |
| co-authors/ contributors/ collaborators | Chris Fidelis- Soils and Compost Kenny Francis- Post HarvestAnton Varvaliu- TOT TrainerJulie Rereve- FEO North Bougainville  |

# Progress summary

The specific aim of CCIs involvement in this project as one of the major partners is to improve the profitability and vitality of smallholder cocoa farming families and communities in Bougainville through the aim of strengthening the workforce under this project through resourcing, training, research and Development to deliver professionally to the wider cocoa farming communities and at the same time advice the ABG and the ACIAR through Sydney University of our research outcomes and impacts observed.

CCI delivered through the following objectives:

1: To improve the productivity, profitability and sustainability of cocoa farming and related enterprises;

2: To foster innovation and enterprise development at community level; and

3: To strengthen value chains for cocoa and associated horticultural products

CCI received two batches of funding this year ie, the first one was last years payment and the other was for January 2017. Prior to having these two payments within the first six months of 2017, we had enough funds to implement our activities in a short period of time.

Achievements are not too visible at the moment as the activities are still going through their processes before been fully established then can be regarded as achievements. Eg. Bud Wood Gardens, seedlings have to be raised for 3 months then budded to stay for another 2 months before transplanting then after transplanting we can have that as an achievement as the BWGs are now established. By the end of this year we should have all the BWGs fully established. This also applies to Demo plots and Nurseries.

However, for the TOT is now fully completed and the VEWs are certified to go and run trainings at the village level. For the soil status, composting and fertiliser requirements will entirely depend on the outcome of the soil tests that will determine our next course of action for composting and fertiliser trials.

# Achievement against activities and outputs/milestones

* Payments for July 2016, January 2017 have been received this year 2017 which boosted implementation of activities.
* Induction workshop conducted at Mamaro, South Bougainville
* Travel to Mars Indonesia of which CCI helped to fund the trip of a UNRE staff and a CCI staff.
* Recruited 3xFEOs
* CCI attended a Marketing session run by Grant Vinning at Buka
* CCI also attended a Marketing session run by Andrew
* CCI bought 3 x laptops for the 3 FEOs at Bougainville
* Compost shed at Buin DPI station has been built
* A 10,000 Capacity nursery at Buin DPI station has been erected
* TOT Training for DPI officers, FEOs and VEWs was conducted during this reporting period.
* Soil sampling was conducted for the South from three different locations.
* Composting trial on Goat and Chicken manure using Bogasi technique done at Buin, South Bougainville
* Distributed a total of 6,800 poly bags to the VEWs at 200 each for training purposes
* Distributed a total of 34 secateurs, bow saws and Kiwi knives for training purposes for the VEWs. Ice block plastics were also given for training purposes.
* A germ plasm plot was established at the Buin DPI station.
* A budwood garden was established at the DPI station.
* Superimposed the IPDM block onto the Budwood garden at Buin DPI station
* Inspection and advisory done on establishment of Solar dryers x 3 regions and CCRI built combination dryer at Buin DPI Station.
* Advisory visit done on establishment of Demo plots to VEWs
* 3 x CCI FEOs supplied with fuel to carryout extension work
* 2 400 poly bags supplied for rootstock raising to two VEWs at North Bougainville or BWGs establishment.
* 2 200 Seedlings raised at Arawa for Central BWGs
* 2 200 rootstock seedlings currently raised at Buin DPI station for South BWGs
* 200 rootstocks budded and nursed at Buin DPI Nursery in preparation for the chocolate Festival in September.
* CCI- Coordinator attended two marketing sessions coincidently, one ran by grant and the other by Andrew during one of the trips to Buka to unload research materials loaded on coastal vessel at kokopo, ENBP.

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| No. | Activity | Outputs/milestones | Due date of output/ milestone | Progress to June 2017 |
| 1.4 | Training of DPI Senior Facilitators, District Officers, and selected VEWs | Train 12 Senior DPI Facilitators, (at MCA), then 52 District Officers and 100 village level specialists in cocoa, food crops, livestock and health  | 7/2016- 6/2017 | 1 x CCI officer trained at MARS Indonesia including a UNRE staff funded under CCIs allocation.33 VEWs, 3 Hub coordinators and 3 CCI Project staff with some DPI officers trained on Sustainable Livelihood, IPDM, CPBM, Clones, BWG and Nursery set up as well as two business modules- small enterprises and record keeping and decision making. |
| 1.5 | Establish village budwood gardens and Nurseries | Establish 100 village budwood gardens and nurseries | 7/2016-6/2018 |  BWGs- North- NIL. Therefore poly bags were organised to prepare clones for BWG establishments for the 11 VEWs.Central- 6 budwood gardens. However, many of them have the clones mixed up as well as presence of off types. Therefore, poly bags are prepared for the 11 VEWs to establish new budwood gardens in the Central Region.South-NIL. Therefore, poly bags are been filled and seeded for budding in September for the BWGs to be planted in November for the 11 VEWs. |
| 1.6 | Evaluate soils and compost and fertiliser requirements | Sample soils and establish composting trials linked to resource centres | 7/2016-2018 | Soils samples were collected and awaiting results.Composts of Goat Manure and Chicken Manure were done and are in the compost shed at Buin DPI Station. |
| 1.7 | Establish IPDM demonstration plots | Establish 100 IPDM plots | 7/2016-2018 | 33 IPDM plots belonging to the 33 VEWs are being identified and advice given accordingly to bring them up to a Demo plot standard.  |
| 1.9 | Farmer Training | Training Established in 100 villages.Communication and outreach ( Radio, social media, Bougainville Bulettin, Newsletter, etc | 7/2016-2018 | No reports have been received yet on Farmer training from the CCI staff and the VEWs. DPI is facing cash flow issues so further farmer training is halted. |
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| 3.1 | Support the establishments of DPI Regional Hubs in Bougainville | Selected facilitators trained at the MARS cocoa academy so DPI has a network of well supported research hubs staffed by trained scientists and technicians | Dec -2021 | The Buin DPI Station is been supported by CCI with a Combo shed, 10,000 capacity nursery ,budwood garden, cocoa germ plasm plot and a labourer to man the station with the help of the FEO.Central Hub Station is yet to be confirmed.Northern Hub was identified but is still in a forest state and needs to be cleared by the DPI before CCI moves in.  |
| 3.4 | Support economic development through enterprise development | Village communities establish diverse enterprises based around cocoa farming- nurseries, fermentation and drying, marketing, compost, block sanitation.... | 7/2016-12/2021 | Farmer training at the village level is yet to be done as DPI still having cash flow issues. |
|  |  |  |  |  |
| 4.1 | Improve quality through better postharvest handling, fermentation and drying | Establish and evaluate cocoa drying and fermenting equipment.Guidelines for cocoa fermentation and dryingCommunities adapt, build and maintain new fermentaries and dryersCocoa quality monitoring becomes routine | 1/2017-12/2021 | Training by Kenny Francis, Grant Vinning and Andrew Sale was done for the VEWsTraining by Kenny Francis, Grant Vinning and Andrew Sale was done for the VEWsAwareness is going on at the moment Awareness is going on at the moment |
| 4.3 | Extension, Education and capacity Building  | DPI Officers trained in cocoa management | 7/2017- 12/2021 | TOT was run for them and they are in a position to deliver the training to their farmers. |
| 4.5 | Chocolate Festivals and field Days | Annual events including chocolate judging, farming and health training | 7/2016-12/2021 | Preparations for the up coming event in September 2017 is underway with printing of new posters, seeding of poly bags, budding of rootstocks, etc. |

For the establishment of BWGs Nurseries, IPDM plots, etc. takes time and does not happen overnight. There are processes to follow before these facilities are established as this is the first year of implementation and work is in the primary stage. Things should start getting really established by the end of 2017 and onwards.

# Project Outcomes and Impacts

Continuous consultations and planning activities have generated interest in the project at ABG and community levels, and developed a strong sense of shared goals and responsibilities amongst the project team. Decision Making has a big influence from the ABG on certain matters concerning the hubs especially.

The Induction workshop held at Mamaro, South Bougainville has clarified and distinguished the roles of the project team and stakeholders. Stream lining of activities and cost sharing measures between project partners were highlighted to effectively roll out the activities.

The Indigenous people are contributing immensely in terms of security due to been involved in some spin offs from the hub stations with respect to awarding little contracts and providing employment which makes them feel responsible for the care of the facilities established.

The handing out of pruning and budding tools and materials to VEWs to assist them in their trainings has boosted their morale and some have shared their sentiments that CCI has gone down to visit them at their door step which is very humbling. Apart from the VEWs, farmers started receiving a 100 poly bags each to kick start their village nurseries after going through training with their VEWs.

The Buin DPI station is in the pipeline to be self sustaining by generating internal revenue in future from the BWG, Nursery and wet and dried beans. Plans are underway to see this through to be a model for the other two hub stations. After the life of this project, the station will continue to sustain itself and serve the wider communities at large.

## Research Outcomes

The TOT training has done a lot of good in terms of the knowledge base of the VEWs on cocoa husbandry practices and has changed their attitudes and their perception of the project from the farmers view. There are other projects that are existing at present that involve self taught trainers or unqualified trainers who sometimes give information that is not true and misleading to farmers. However, this project, 094 has involved the cocoa experts and the level of training and information disseminated to farmers is of a higher standard.

Few village nurseries have been erected already and a commercial Nursery was also erected on Buka Island straight after the TOT Training.

BWGs were inspected but there seem to be a lot of unidentified clones and off types in rows they are not supposed to be in so there is a lot of work to be done. For the North, Central and South, CCI has organised the planting of new budwood gardens by next year but preparations for raising the clones has started already.

With the TOT training on clones, IPDM and sustainable livelihood, the results noticed after an evaluation and monitoring exercise done, looks promising as some VEWs begin to diversify their income generation from the investment of cocoa income into the other avenues to generate more income to sustain their livelihoods.

## Scientific impacts

Many farmers still are mixing themselves up with the clone name and type of the released clones. Some farmers were corrected as unreleased clones were also seen in few blocks that these particular farmers think that they are released clones but are in fact not released. These are clones which were used earlier for On Farm Trials only.

Those VEWs who were visited have a fair knowledge on the clones as their cocoa trees were also tagged with the clone names and were shown how to differentiate between the released and unreleased clones.

The impact though at its early stages is quite obvious as a result of the TOT trainings and is bearing positive results especially with the improvement in yield of the cocoa blocks.

## Capacity impacts

Prior to other planning exercises and the Induction workshop at Mamaro and collaborative efforts from everyone concerned during execution of activities, capacity within the project team is apparently sound. The Project employees on the ground have taken up the challenge after going through a good number of trainings and working with the experts and are now implementing some of the activities themselves through trainings, awareness meetings and farmer visits.

At the VEW level it is showing a positive outcome after the TOT that some returned after the TOT training and are putting into practice all they have learnt and training other farmers while either setting up their own village nurseries or commercial nurseries. Blocks are also been cleared for BWG planting of 180 plants. Other VEWs are also field budding and replacing their Hybrid cocoa with the cloned ones.

For the need to push the project forward through incentives as some VEWs give reasons for their ineffectiveness, CCI has provided each VEW with a secateur, a bow saw, a kiwi knife for budding and ice block plastics to trial at home and 200 poly bags each for nursery training. This has boosted the morale of the VEWs and some have confessed that lack of tools for running trainings for their 25 farmers was the set back but after them receiving their tools showed a positive indication to participate well.

The 25 farmers also will be provided 100 polybags each so after been trained by their VEWs will go back home and make a start with the 100 poly bags.

The three FEOs were equipped with a laptop each, a digicel moderm and some stationery to keep them going. Fuel for them to do extension work was also organised with three suppliers to provide fuel for them when going out on field engagements. Their work plans and reporting formats were also done up and handed to them after a short briefing at Buin DPI station

So far, we have a combo shed built at Buin DPI station to store Chemicals and tools and at the same providing shelter for budding exercises during rainy seasons or training sessions and also for making of compost. A 10, 000 capacity Nursery was also erected at the DPI station to raise cocoa seedlings for distribution to farmers.

## Community outcomes and impacts

So far through this project, Other projects like PPAP and ACIAR 2012/026 are been attracted to this project as well as Chiefs of villages who are in eager expectation to have some form of training at their villages in the near future.

### Economic impacts

Though at the early stages, it is looking promising that people are starting to realise changes in the yield of their cocoa trees after the input of IPDM in their cocoa blocks. Farming families especially the VEWs are starting to experience increased yields and consequently an increased income level compared to the past. After their 25 farmers are trained than more impacts can be anticipated.

### Social impacts

Village chiefs are requesting for training on cocoa technologies to be taken to their villages, even those that were not included in the project.

Some landowners surrounding the Buin DPI station were employed as permanent labourers and temporary labourers as well as some were contracted to do the combo shed and the Cocoa Nursery. Time to time they were advised to take good care of the facilities that were established so more services can reach them through the DPI station. They seemed to understand and are cooperating very well to stem down security issues at Buin.

On gender issues, CCI has employed a female FEO apart from the two male FEOs and she seems to be coping well.

### Environmental impacts

Nothing to report.

### Policy impact

Nothing to report.

## Stakeholder engagement and Communications

1. **ACIAR/Sydney University**

Have released two batches of CCIs funding for this reporting period enabling smooth flow of implementation of activities.

1. **The Department of Primary Industry-ABG**

The DPI through Mr. Thomas Betitis have supported CCI very well in terms of logistics by providing their vehicles to implement our activities from the North to the South of Bougainville through some mutual understanding than CCI pays for fuel, parts and takes care of the drivers allowances.

# Training and capacity building activities

Marketing training courses were run for the three regions by Grant, Andrew and Kenny Francis.

A TOT training was conducted in November 2016 and a pilot training followed suit in February-March 2017 for the VEWs. The first training was conducted for the VEWs as participants on clones, IPDM and sustainable livelihoods. The second training was a pilot training to see how best the VEWs can deliver to the farmers what they have learnt and were certified afterwards as CCI trainers.

Further training was conducted at Buin DPI station for the 3 FEOs on cocoa block management, shade control, field grafting, commercial nursery set up and Demo plot set up.

# Intellectual property

Nothing to report.

# Amendments to personnel and project activities

Nothing to report.

# Problems and opportunities

**Communication**: Access to mobile phones and units/credits to communicate is a big problem. Our 3 FEOs are finding difficulties in communicating with the VEWs as some do not have mobile phones. We are all using money from our pockets to allow free flow of communication. The opportunity here is that the project will have to look at providing credits for communication purposes.

**Transport for FEOs for extension work:** Our three FEOs are finding it quite difficult in terms of mobility to go out and implement their activities with the farmers. There are project vehicles and CCI vehicles but the Hub coordinators and CCI staff also have their own programs and are busy implementing their programs whilst the Project CCI staff are left stranded. The opportunity here is that DPI through the project needs to buy motor cycles quickly to assist with transportation as this is been budgeted for. Another opportunity is that some of the VAs are accessible by PMVs so officers are taking PMV rides to carry out their activities using their own own funds.

**Farmer expectations:** Some village assemblies where PPAP project exists have caused the farmers to behave differently. They expect lunch to be provided when running awareness meetings or trainings and also the venues must be hired. Opportunity is that some of those Village assemblies have established DPI stations to run trainings so trainings/awareness meetings can be done at no cost.

**Opportunists:** There are people who are looking for opportunities to access funds or materials through the project. People can come and seem to be voluntarily assisting but when the work is done, they will insist for compensation for work done. The Opportunity is that it happened already and staff are now aware of such people so they will not be entertained in future.

# Evaluative Learning

The training of the VEWs during the TOT training proved to be very successful but then also depends on the participants’ ability to adopt the knowledge and skills taught. This adoption rate can be determined by the VEWs performance at his/her farm level. They were taught to have a sustainable livelihood, IPDM, clones and how to set up a budwood gardens and nurseries. They were also taught, another two business modules, Small enterprise and record keeping and decision making. The success of this training was due to having had a good co-funding support from the DPIs and good cooperation from everyone involved.

The cocoa quality training that our CCI staff was involved in with Grant and Andrew is very successful in the sense that the project staff together with few leading farmers have taken on board the message on cocoa quality and are delivering to farmers. The motivating factor that caused the project staff to take a step further is due to the establishment of the three marketing companies by the assistance of Grant Vinning.

# Budget

Future budgets need to be examined carefully before warranting its implementation. This statement is due to CCI been dragged by the DPI in terms of logistics and other research requirements that DPI cannot fund at the moment due to low cash flow issues. This is a good example that in future, anything that involves the smooth running of activities must be considered and funding be given to the Partner concerned. Eg. Budget for motor cycles should have been given to CCI so by now we should have purchased 3 motor cycles to make work for our CCI Project staff easier. Secondly, budget for processing facilities should also have been budgeted for under CCIs budget so by now we would have set them all up.etc.

Please find below is our financial Report from 04/08/2016- 30/06/2017.

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| --- | --- | --- | --- | --- | --- | --- |
| **Project** | **Vote** | **Description** | **Total Budget Appropriation** | **Expenditure to date Kina 30/06/2017** | **Total Funding Received to date $** | **Remaining** **Balance** |
| **ACIAR****2014/094** |  | a)Salary or Wages | 56,175.00 | 24,407.09 |  70, 354 |  |
|  |  | ***Total*** | ***56,175.00*** | **24,407.09** | 47,644 |  |
|  |  | a)Supplies and Services |  |  | 66,544 |  |
|  |  | -IPDM Training and Demo plot Establishment, soil sampling, composting, BWG and Nursery est. | 21,450.00 | 67,910.37 |  |  |
|  |  | -Quality Evaluation and Chocolate Making | 6,000.00 | 5,852.90 |  |  |
|  |  | -Local travel and camping allowances | 9,000.00 | 6,450.00 |  |  |
|  |  | -Chocolate Festival | 7,500.00 | 13,514.00 |  |  |
|  |  | ***Total*** | ***43,950.00*** | **93,727.27** |  |  |
|  |  | b) Contracted Expenditure | 00.00 |  |  |  |
|  |  | ***Total*** | ***00.00*** | **00.00** |  |  |
|  |  | Travel |  |  |  |  |
|  |  | a)International and domestic fares | 14,100.00 | 36,661.10 |  |  |
|  |  | b)Subsistence | 50,100.00 | 189,942.20 |  |  |
|  |  | ***Total*** | ***64,200.00*** | **226,603.30** |  |  |
|  |  | Capital Items/asset usage | 12,000.00 | 17,005.05 |  |  |
|  |  | ***Total*** | ***12,000.00*** | **17,005.05** |  |  |
|  |  | Infrastructure 5% | 8217.00 | 9,426.36 |  |  |
|  |  | ***Total*** | ***8217.00*** | **9,426.36** |  |  |
| **TOTAL** | **$184,542.00** | **K 371,169.07****($ 151,696.80)** | **$184,542.00** | **K 73,792.02****($ 32,845.20)** |