



GTFS/RAS/198/ITA
Support to the Regional Programme for Food Security in the Pacific Island Countries

FAO/ITA/VAN/03
Food Processing Project

TERMINAL REPORT
For the Extension Phase

By

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Executive Summary

The Food Processing Project involves assisting in the continuation of the activities of the Cassava Flour production program established in the previous project since 2005. The continued activities involved up grading two processing units in Efate Island to strengthen the Cassava flour channel in Vanuatu and to promote this program in collaboration with Private sectors.

On the initial stage of this program three processing units were established on the Island of Efate to produce dried cassava chips to be delivered at the Vanuatu Fresh Factory and to satisfy a preliminary market outlet of 10t of Cassava flour for Port-Vila Market.(S.Akua 2004).Unfortunately the Vanuatu Fresh Factory has closed down and this has disturbed the development of the Root Crop Processing program. As a result of this incident, in order to strengthen the channel established and to support the existing achievement through the FAO funding for processing equipments and trainings provided the approach from the original project proposal has been diverted and involved different partners to promote the program.

The new approach established consists on negotiating with a private company to evaluate and explore the market potential and develop products with cassava flour, strengthening the agricultural extension service to rural communities to verify the sustainability of the program, and also to involve a school to learn and teach students on the use of cassava. All these working partners have received from the previous project root crop miller and slicers to produce their own cassava flour and will be working with Lapita by supplying cassava pellets to Lapita for processing and distribution in shops, restaurants, local bakeries. Meanwhile the community selected and the school will also produce cassava flour for their local consumption.

This arrangement was made by the three parties and will be monitored by DARD to ensure that the marketing of the cassava flour that Lapita is supposed to carry out will not be affected.

In collaboration with other stakeholders (Health and Trade Department) and another funding agency (EU/France) assisting the community, school, and local food processor an awareness program has been carried out, a food safety training was conducted to all the participants of this program, more than 1,000 cultivars of improved varieties were distributed to communities by the Vanuatu Agricultural Research and Training Centre (VARTC) recommended for processing and 10 hectares of Cassava were established and will be ready for processing in Mid 2009 .

While setting up all the cassava flour food chain, the project period was due in 2007 and an extension was approved. From the original logical framework prepared for the Extension of the Food Processing project a total budget of 3,762,215 vatu was approved for spending. During the implementation only 3,529,249 vatu was spent to build two processing houses and to clear all the outstanding issues with the project suppliers. During the extension phase, two processing buildings were constructed in 2008 and equipped.

Finally this program has directly involved 50 Farmers from communities involved in the cassava flour program, 100 Women by training them on the use of Cassava flour, and one Local food processor and the project is expecting to increase the number of participants when Onesua College and Lapita will operate in 2009. Consequently these will have an impact on the Production and consumption of Cassava flour on the Island of Efate to 50 tons targeted .

1. Introduction

Vanuatu is an island nation with a relatively small land area and population. A scattered archipelago of about 80 islands, only about a third of the total cultivable land is currently farmed. The economy of the country is largely dependent on agriculture as 78.5 % of the population is classified as rural and is therefore actively engaged in agricultural activities. Subsistence agriculture represents the bulk of agricultural activities. Although Vanuatu is endowed with rich soils and sufficient rainfall for agriculture, productivity in particular in the traditional food crops sector is low. Furthermore, transportation, both inter-island and within an island, is a major constraint to marketing and therefore to increasing both productivity and volume of production. Root crops, including cassava, sweet potatoes and yams, are widely cultivated throughout Vanuatu and are part of the staple diet of the population. The project concept is based on well known technology for the milling of cassava into flour, and is a development and expansion of the ongoing Root Crops Development Programme implemented in Santo (LORY Coop and Fanafo) under the DARD/POPACA Project. The Extension phase of the project will facilitate the setting-up of a Processing unit at Port-Vila to support the marketing and promotion of the cassava flour and upgrade one of the three Root Crops Processing Units on Efate Island established in 2005. Dehydrated value added products such as cassava flour, chips and pellets, will be produced in accordance with the information on market requirements gained from a preliminary market survey in 2004. The project will enable the general development of a greater consumption of locally grown products and more specifically will supply the Port Vila urban market.

The project is also expected to reduce the country's reliance on imported foods (7000 t of Wheat Flour import 2007) in the decade and to strengthen technical support of promoting and developing to root crop sector.

Supporting factors for the Project are:

- A large and widespread root crop production on Efate;
- Root crops are the major source of cash income for smallholder farmers on Efate;
- Currently low level of transformation, and consequently restricted value addition on agricultural products is achieved;
- Root crop storage at farm level is difficult;
- There is a large potential of productivity increase in existing farms;
- Proven existing technology is readily available and ongoing experience in Santo (POPACA/LORY Cooperative) brings valuable information on Vanuatu's specificity;
- A market survey in Port Vila has identified potential marketing avenues (schools, hospitals and prisons) and, possibly a regional export market;
- The project conforms to one of the priorities of the Ministry of Agriculture's current policies i.e. food security.
-

Goal

The Project complies as well with a current policy on improving the level of food security in the country.

Purpose

In preparation for the project all projects were to be presented in the newly developed Logical framework format. The whole months of May and June 2008 were spent on the preparation of the logical framework. A draft was prepared and presented to the FAO office in Apia Samoa for consideration. While the budget and project activities were accepted there however was the need for assistance in putting the proposal in a proper logical framework. The latter was possible with the assistance of Mr. Lauro Hernandez whom reviewed and presented a revised Logical framework in July with the timeframe for the activities and budget to be spent between July and December of 2008.

The Logical framework was accepted and in the month of August and September through to October the effort was on the collection of the standard three quotations of materials for the Onesua building and Lapita Processing Building and also to clear all the outstanding issues from the previous project.

Most of the activities revised (see annexe 2) and planned for during this extension phase were carried out despite of the time frame schedule to use funds from October-December 2008 and other challenges faced by the administration and organizations and arrangements were made to implement the program.

2. Project Organization and Budget Arrangements

The Extension of the Food Processing project had the following organization. In the initiation of the extension of this project the National Project Coordinator (NPC); Late Mr. Frazer Bule Lehi was instrumental in assisting in the negotiation for the FAO office in Apia Samoa to accept the project and in the formulation of the logical framework. The project steering committee was effectively coordinated by the NPC but since the implementation of the project for food processing had never been clear, meetings were only organized between the NPC and the Project managers . The Project Manager contract for the Food Processing Project in the early month of the Extension (January 2008) wasn't renewed since the contract of Mr Georges Kanegai was not extended in December 2007. While waiting for the NPC and the implementing agency (DARD) to make a decision all the activities of the project were frozen from January to April 2008. Finally an internal arrangement was made between DARD and the NPC to appoint Mr Georges Kanegai to manage the project. During the implementation Agriculture Extension Officers in Efate where the project is located were informed to assist in the supervision of the activities.

The logical framework includes the main activities to be carried out and the budget required. During the project implementation most of the questions are raised to the NPC, or often the NPC sees and approves requests for funding for activities to be implemented in the project. There was a National project Implementation Assistant but since he was recently recruited most of the quotas were followed by the Project Manager (PM) and reported directly to the NPC for submission. It was rather difficult considering the NPC was not feeling well and eventually passed away.

This situation really affected and reduced the scope of implementation of the program in Field. Due to the situation mentioned above field activities were to be focusing only on the Paunagisu Farmers to strengthen their farmers Association on management, planning skills, processing and marketing with the assistance of training tools provided by the CTA.(Centre Technique de Cooperation Agricole et Rurale). Meanwhile the project has received support from the Department of Health, the FFEM project (Fond Francais pour l'Environnement Mondiale) and supported by the Department of Agriculture providing staffs, infrastructure, and assets for the implementation of the project.

In July 2008 Larry Hernandez confirmed that the project had 31,000 USD to spend and requested the project to submit quotations for the construction of Lapita and Onesua. Finally the project sent the quotations in September 2008 and they were approved by Mr Bismarck Crawley during his Visit in on November 2008 for implementation and completion.

The budget allocated for the extension was 2,460,000 Vatu (22,000 USD) and was finally increased to 3,576,167 Vatu (31,511 USD) to complete the two building and clear all the outstanding issues for suppliers.

Below is a summary of the total allocation to the different activities carried out in the extension of the Food Processing project in 2008.

Summary of the 2008 Budget for the Extension Food Processing Project.		
Activities	Other Source	FAO Expenditure
Farmers made aware of Pilot Program	Agriculture Department	0
Farmers supported to produce cassava chips and /Flour		3,113,949
Improved Root Crop Varieties distributed to farmers	VARTC	0
Farmers ,women ,trained on the technologies	Health Department	0
Use of Cassava flour tested		0
Administration (outstanding on communication and materials)		462,218
T O T A L :		3,576,167

3. Project Outputs

In the implementation of the project listed below are the project outputs. Originally the actual project had resulted in the setting up of three processing units in Efate. However to continue the activities in 2008 the project assisted by upgrading the Onesua Processing unit and build a new processing unit. Other activities were supported by other partners. As per the Logical Frame work approved training was cancelled, and other activities due to the fund constraints and a limited time frame to complete the activities.

3.1. Conduct Awareness Campaign.

With the Assistance of the Agriculture Extension Officer Mr Keith Amos, 12 meetings were organized to promote the program and inform the farmers group, public, and private sectors that activities have been extended with a new strategy to focus only with one processing unit among the three established due to the financial situation and delay caused by the administration of the project.

Two field days were organized at the communities on Post-Harvest, Processing and marketing with the Paunagisu Farmers Association to assist them on the management of their processing units.

3.2. Building processing unit.

As per the Logical Frame work developed, the overall target is to establish 4 processing units. Since the implementation of the project in 2005, three processing units were established located on the Island of Efate .The first one established was the Paunagisu Processing unit, the second one the Onesua Processing unit and the Third one is the Tanoliu Processing unit. Each processing unit has received a set of machineries (Hot Air Drier, Petrol Slicer, Scale) to produce cassava pellets and deliver to Vanuatu Fresh in a centralized miller to process and distribute in urban market.

In 2007 the Vanuatu Fresh factory closed and the project came to an end forcing the project to revise its activities and requested an extension.

During the extension with the fund allocated only Lapita and Onesua were supported for the development of this program.

Lapita Café is a small food processor base in Port-Vila specializing in local food for decades.

As a market strategy to this program Lapita and the Department of Agriculture have signed an MOU to promote and explore the market sustainability of the cassava flour program in Efate. (see annexe 3).

As a result to this agreement Lapita received funding from the project for an amount of 1,893,150 Vatu to build a processing building for an area of 24 sqm with an electric miller, and other accessories.

Lapita Café will buy cassava pellets from 3 established processing units in communities in the Island of Efate (Paunagisu Farmers Association, Tanoliu Farmers Association, Onesua school), will process it into flour to explore the market potential in urban area, and the Quality control of Cassava pellets in Villages and the Factory will be controlled by the Department of Agriculture.

Lapita Café will officially launch this Cassava flour program in June 2009 once all the quality and the business aspects of the program are established.(Cost Analysis, Market availability, production at Farm level, etc.)

The second processing unit receiving funds from the project is the Onesua Processing unit. The building of 72 sqm was built in 2007 but was not completed. An amount of 670,159 Vatu was allocated to complete the building.

Onesua will produce Cassava pellets for Lapita and also produce cassava flour for its own consumption. The College has its own farm and has 50 000 plants ready to be processed into 10 tons of flour next Year.

This Cassava flour will be utilized in different forms, Bread, Simboro, Laplap, Noodles and distributed to the population of Onesua.

More than 300 people including staffs and students are living in Onesua College .

Deleted: Onesua

The processing unit to be upgraded is the Paunagisu Processing unit, but with the time frame and budget allocated this activity was cancelled.

However with the continuous support and technical assistance from the Department of Agriculture Paunagisu Processing Unit captured attention of the public and also other communities when they were presenting their result during Mr Crawley Bismarck's visits.

They managed to establish an internal monitoring system for the quality and quantity required by the local market and increase the consumption of the cassava.

Deleted: Bismarck's

The purpose of establishing the processing unit in Paunagisu is to demonstrate to other communities ways of addressing their food security problems by adding value to our local food. For this year the Paunagisu farmers Association produced an average of 300 kilos of Cassava Flour per month (1,200 ton fresh cassava) marketed in the Village for cheaper price than wheat Flour (120 cassava flour:/180 wheat flour).

Factors that lead this community to this result are the support to the farmers association from donors, the product development training on the use of cassava flour provided to women's group (Paunagisu Women have received a training on 2007), and a regular field visit to farmers from the implementing agency, the Agriculture Field Officer.

In Field preparation the farmers have already planted 5 000 plants of cassava and will increase their planting to 15 000 plants.

Hopefully the Paunagisu Processing Unit will be upgraded to comply with the Vanuatu Food Regulation Act in the food premises section.

They will supply cassava pellets to Lapita and the left over will be processed for the Village consumption.

3.3. Improved Root crops distributed to farmers.

With the assistance of the Vanuatu Agricultural Research and Training Center (VARTC) farmers involved on the program received more than 1,000 planting materials.

Not only the Improved Cassava variety was distributed but also Yams and Aroids recommended for processing.

Distribution has been delivered to 15 farmers in Paunagisu , Onesua, and Ekiye.

This planting material will be propagated to other farmers in Efate willing to participate in the Root crop processing program in the future.

VARTC is still working on the selection of Cassava Improved Varieties high in starch, fibre and with different stage of maturity according to market requirements.

The maturity can range from 3 month for the early variety to 12 month for the late variety.

3.4. Training of farmers.

During the project implementation three modules have been tested for this program.

- The Food Safety Training provided by the Health and Trade Department
- The Post Harvest and Processing, management and marketing training using a CTA training book
- The product development training recipe book developed by DARD/POPACA (see annexe3)

For this extension phase 7 trainings were requested but only 2 trainings were provided with the support of other stakeholders.

The food Safety one was provided by the Health department in June 2008 and a field day training was provided by the DARD with financial support from an EU funded project.

Even though all the training was not carried out all the beneficiaries on the Cassava flour program from the Communities and the Lapita Cafe were made aware of the importance of the food safety.

The field day and technical assistance to the Paunagisu Farmers association with the setting up of an internal a monitoring system set for Paunagisu farmers from the Production to the marketing of the cassava flour resulted in an increase of the production and consumption of cassava flour.

This model could be duplicated to other communities for remote and isolated areas in the country to address food security and climate change problems.

4. Major Issues and Concerns in Project Implementation

Problems

The major problem faced in the implementation of this project was the delay in the issuing of funds which there was not a simple way around.

The other difficult problem faced in the implementation of the project was that since there was some delays this resulted in cut of the budget.

There is currently no NPC and NPIO for Vanuatu and it makes it very difficult when for example one PM had to take entitlement to leave the project implementation was left untended to.

5. Recommendations

Personnel responsible for finance needed to sometimes just make a call to the PM to let them know what really is happening.

Review of the Logical framework needed to be consistent as is with the case of this project. The PM sees the need for more time needed (with new reviews) but is unfortunate with the strict deadlines.

There is an urgent need for the recruitment of the NPC and NPIO for Vanuatu.

Conclusions

While the project faced challenges in achieving its goals with administration difficulties, the extension of the food processing project was able to move the project to establish a base of the foundation of the Cassava Flour program in Vanuatu.

As a result of the extension the project has managed to establish four processing units with two upgraded on the Island of Efate.

National statistics shows that Vanuatu imports more than 5,000 tons of wheat flour per year and more than 10,000 tons of rice per year.

During the implementation of the project it was proven that processing cassava into flour is technically feasible according to experience and achievements, compared to other Root Crops cassava has large advantages in that Cassava is a traditional crop and technical aspects of this culture are well mastered, improved varieties of cassava are already available in Efate, and part of the growing stock is already earmarked for marketing, Cassava can be used as a substitute product to Wheat Flour by making biscuits, bread, noodles and can also be used in traditional food like laplap ,simboro, toulouk.

Producing cassava flour in Villages with the model established with the Paunagisu Farmers association will be able to generate income when market is available and a surplus will be marketed to the community. Furthermore, local flour production is an answer to a major problem that the local farmers are facing: transportation of fresh cassava to processing factories. The initiative is therefore welcomed in rural areas of Efate and could be expanded to other Islands to address food supply difficulties and those affected by the climate change related problems.

A potential local market for 11.2 t/year of flour has been identified during a preliminary market study in 2004. This market should have allowed the initial stages of the Project to be implemented and tested. Unfortunately this was not able to be carried out with the closing of Vanuatu Fresh Factory. This marketing opportunity will however require further investigation by Lapita Cafe. Improving the marketing opportunities of dehydrated root crop products in Vanuatu constitutes the real associated challenge and therefore support on product standards, on promotion of our local food is important for this sector.

In Vanuatu like in other Pacific islands involving youth in Agriculture sector it is a real challenge. The purpose of building the Processing Unit is to promote the cassava flour program and also to

encourage students that the Food Security issue will be achieved with a young nation and young farmers.

The extension project helped the project to establish and strengthen a Cassava flour channel and as a result farmers from Paunagisu have seen their consumption of cassava increase to 14 tons of raw cassava processed into Flour. The production of cassava will be increased when Lapita and Onesua will be operating in 2009. It is estimated that the production will increase to more than 30 tons of cassava in the next twelve months, this represents 60 % of the target set during the project establishment.

The Food processing program should continuously be supported to help a country like Vanuatu that is vulnerable to globalization and disaster, to address their self reliance in terms on food production

The following are recommendations for the continuation of the project.

- Upgrading the other processing unit to comply with the Vanuatu Food Act.
- Assist on producing cassava flour training book for farmers, small food industries, and schools.
- Assistance on establishing a HACCP for the cassava flour.
- Support on the marketing and promotion of the cassava flour (packaging/Nutrient Analyses/Product development...)
- Department of Agriculture to continue to support the Food crop sector for the Food security program in Vanuatu.

7. Acknowledgements

I would like to take thank the partners institutions, the farmers group, the Lapita Café, the Onesua Presbyterian College for their patience and collaboration to establish a cassava flour

channel as a one of the foundations for the development of this food security program in Vanuatu.

Particular thanks go to colleagues assisting farmers in field and also to Mrs Doresday Kenneth for the interest she put on promoting our local food.

I give my special thanks to late Frazer Lehi Bule who orchestrated the project despite of all the health problems he faced during the extension.

I also want to thank Dr. Vili and colleagues from the FAO office in Apia Samoa for your efforts and understanding all through the implementation of the extension of the project. A Special word of thanks to Mr. Lauro and Mr. Bismarck and Miss Rossy for their collaboration towards the implementation of the project.

Annexes 1

RPFS PROJECT IMPLEMENTATION REVIEW SUMMARY
2007 - 2008

Project Code: FAO/ITA/VAN/03

Project Man:

Project Name: Dehydrated Root Crops Project (Extension Phase)

National Project

<i>Activities</i>	Indicators	Overall Target	Outputs		
			2007	2008	
1. Conduct awareness campaign 1.1 Conduct awareness meetings 1.2 Conduct field days featuring project activities	No. of meetings conducted No. attendance No. of field days conducted No. of attendance	8 200 4 40	4 100 40 100	12 100 40	

2. Procure and distribute processing machines and build processing units	No. of chipping machines	4	4	0	
2.1 Procure cassava chipping machines	No. of dryers	4	4	0	
2.2 Construct dryers	No. of noodle machines	100	0	100	
2.3 Procure noodle machines	No. of processing units	4	0	0	
2.4 Build processing units	No. pack of food safety and hygiene gears	4	0	0	
2.5 Equip the processing unit with food safety and hygiene gears	No. of flour packaging bags	4000	0	1000	
2.6 Procure packaging bags	No. printed cassava flour bags	20000		0	
	No of pools for washing cassava	4	0	6	
	No of Sealer	4	4	0	
	Bag sowing Machine	4	0	4	

3. Procure and distribute improved root crop varieties	No. of cultivars	60		60		
3.1 Procure improved root crop varieties from VARTC	No. of planting materials procured	500		1000		
3.2 Distribute planting material to farmers	No. of planting materials distributed	500		1000		
	No. of farmers provided	5		15		
4. Train farmers, women and youth on root crop processing	No. of trainings conducted	7	1	1		
4.1 Procure training materials needed during trainings	No. of farmers trained	40	20	20		
4.2 Run trainings on quality cassava chip production (this trainings where organised as part of the field days see 1.2)	No. of women trained	20	3	3		
4.3 Run training on cassava flour uses	No. of youth trained	20	3	3		
4.4 Submit training reports	No. of reports submitted	7	1	1		
5. Promote uses of cassava flour						
5.1 Conduct promotional activities to promote cassava flour	No. of promotional activities	4	3	4		
	No. of private individuals involved	3	4	4		
5.2 Encourage private sector and NGOs to be involved in production and marketing	No. of NGOs involved	4	2	4		
6. Monitor project activities						
6.1 Monitor activities	No. of quarterly reports	6	1	2		
6.2 Submit quarterly and final report	Final report	1				

* Constraints, issues or problems if target not achieved

General Comments: (Implementation issues, constraints or problems, recommendations, etc)
 For implementation the DARD is supporting the project to carry out field work.
 Still administration is becoming a constrain for PM as we always need to run after the Quotes and follow-up ...
 As the regional projects are exercising the new monitoring program put in place last year yet, we discover new tools monitori

Recommendation for Vanuatu :

1. Recruitment of NPIA.
2. Before the Expansion phase need to Trainee NPC, PM, and NPIA by grouping the countries, according to activiti implementation

Reporting Officer: GEORGES KANEGAI | **Designation:** PROJECT MANAGER | **Date:** 05 SI

Annexes 2

FAO/ITA/VAN/03: DEHYDRATED ROOT CROP PROJECT

REVISED WORK PLAN

July - December 2008

Main Activities	Sub-activities	J	F	M										
1. Make farmers aware of the pilot program	1.1 Visit communities around Efate													
	1.2 Conduct awareness meetings													
	1.3 Divide Efate into different zones													
	1.4 Educate farmers on how to process cassava													
2. Support farmers to produce cassava chips and flour	2.1 Provide cassava chipping machines													
	2.2 Help construct different dryers													
	2.3 Supply noodle machines													
	2.4 Provide drying materials													
	2.5 Complete/build new processing unit													
	2.6 Provide packaging bags													
	2.7 Carry out follow up visits for M & E													

3. Distribute improved root crop Varieties	3.1 Procure improved varieties from VARTC																		
	3.2 Distribute planting materials to farmers																		
	3.3 Evaluate dry matter on tubers distributed																		
	3.4 Carry out follow up visits for M & E																		
4. Conduct training on cassava chips and flour production	4.1 Run training on quality chips production																		
	4.2 Run training on cassava flour uses																		
	4.3 Identify training materials																		
5. Promote the use of cassava Flour	5.1 Use cassava flour to produce new products																		
	5.2 Engage in promotional activities																		
	5.3 Involve private sectors and NGO																		

Annexes 3

LOGICAL FRAMEWORK
FAO/ITA/VAN/03 Dehydrated Root Crops Project

Intervention logic	Objectively verifiable indicators of achievement	Sources and means of verification	
Goal	Improved food security through improved income and access.		
Project Purpose	Increased production and consumption of cassava flour	no. of beneficiaries assisted no. of processing units established and operational increase in cassava flour production flour availability (household & market)	Project records, site visit Agriculture reports.

Outputs/ Results	1. Farmers made aware of the pilot program	no. of visits made to the different areas no. of awareness workshops conducted for farmers. no. of zones identified during the awareness workshops	VARTC, DARD report Vanuatu Food Processing report, project report, co-report. Training report provided consultant and project. Retailers sales records	
	2. Farmers supported to produce cassava chips and/or flour	no. of processing units constructed and tested no. and type of equipment given to the communities no. of the different dryers constructed;		
	3. Improved root crops varieties distributed to farmers	no of cultivars distributed and the no. of farmers involved in production activities report on quality of flour		
	4. Farmers, women and youths trained on the technologies	no. of trainings conducted; no. of people trained		
	5. Uses of cassava flour tested and promoted	quantities of chips produced quantities of flour produced and retailed no of product developed (experimentations) no. of the different types of dryers tested no of promotional tools used		

Activities		Costs	
1.1 Visit communities around Efate 1.2 Conduct awareness meetings 1.3 Divide Efate into different zones 1.4 Educate farmers on how to process cassava chips and flour including basic information on Food Safety	1 visit every quarter to communities 6 awareness meetings conducted in different communities Efate divided into 4 zones 2 field days conducted	Total: US\$22,200 (Please see separate below for detail)	
2.1 Provide cassava chipping machines to communities 2.2 Help to construct different dryers 2.3 Supply to Communities Noodle machines 2.4 Provide to farmers drying materials required 2.5 Complete and build new processing unit 2.5 Equip the Processing Unit with Food Safety & Hygiene gears. 2.6 Provide packaging bags to Processing Units 2.7 Carry out follow up visits for M & E	20 lead farmers per zones supported 4 hot air drier 50 clays for sun drying 4 chipping machine per zone 4 cassava miller 100 Noodles Machines 1 processing unit to complete 3 processing unit to build no. of equipment supplied : 4 Electronic scales 4 Thermo sealers 4 safety equipment package No. & type of packaging bags delivered Flour bags with accessories Printed bags 1 follow-up visits once a week per zone		

3.1 Procure improved root crop varieties from VARTC	60 cultivars and varieties supplied recommended for processing		
3.2 Identify interested farmers and distribute planting material	5 of farmers identify and received planting materials to set up on farm multiplication plot		
3.3 Evaluate quality of flour from new varieties supplied	Testing 4 main recipes with flour made from distributed varieties		
3.4 Carry out follow up visits for M & E	1. of visits carried out per month to monitor the plots		
4.1 Run trainings on quality cassava chip production;	3 of training carried out on chips production		
4.2 Run training on cassava flour uses	4 of training carried out on flour uses		
4.3 Procure training materials needed during trainings	list of materials used for trainings: Recipe book, poster... ingredients need for training, printing of training materials		

<p>5.1 Test cassava flour to produce new products</p>	<p>50 kilos of cassava flour Ingredients need for experimentation Cooking tools (Noodle machine, biscuits trays) 3 dryers tested 3 press article 3 types publicity</p>		
<p>5.2 Engage in promotional activities to promote cassava flour</p>	<p>1 poster 1 leaflet 1 DVD 3 Public Awareness in town</p>		
<p>5.3 Engage private sectors and NGO to be involved and to take over production and marketing</p>	<p>4 of private sector involved 1 ton of cassava flour retails in shops 50 kilo of flour produce per month per PU</p>		

Annexes 4

WORKPLAN

Activities	Activity Status	Activities to be carried out	
1.1 Visit communities around Efate	Ongoing	1 visits every quarter to communities	Jul
1.2 Conduct awareness meetings	Budget constraint	6 Awareness on the progress of the cassava flour program in Villages	Jul
1.3 Divide Efate into different zones	Completed		
1.4 Educate farmers on how to Process cassava chips –and flour	Completed And supported by other project	1 Field day at Tanoliu PU 1 Food Safety training at Tagabe Station	Jul Jul
2.1 Provide cassava chipping machines to communities	Completed		
2.2 Help to construct different dryers	Completed		
2.3 Supply to Communities Noodle machines	Budget constraint	Order Noodle machine	Au
2.4 Provide to farmers drying materials required	Completed		
2.5 Complete and build new processing unit	Ongoing	Complete Onseua PU Construct Lapita PU Construct Pauniagisu PU Construct Tanoliu PU	Jul Jul Se Se
2.5 Equip the Processing Unit with Food Safety & Hygiene gears.	Ongoing	Purchase Hygiene gear Purchase Factory Boots Purchase washing Pool	Jul
2.6 Provide packaging bags to Processing Units	Ongoing	Purchase of Flour Bags and of 500grms packaging bags	Jul

2.7 Carry out follow up visits for M & E	Ongoing	Monitor the construction of the PU, and the delivery of the Equipments once a week from the beginning of construction	Jul
3.1 Order improved root crop varieties from VARTC	Completed		
3.2 Identify interested farmers and distribute planting material	Completed		
3.3 Evaluate dry matter on tubers distributed	Ongoing Not sure to carry out	Harvesting Process into Flour Test the cultivars with 4 main recipes of cassava flour	Au
3.4 Carry out follow up visits for M & E	Ongoing Not sure to carry out	Supervise the plots maintenance Up date records on cultivars	Jul
4.1 Run training on quality chips production	Completed	PU Managers chips production training	Jul
4.2 Run training on cassava flour uses	Cancelled due to budget limited	Eton community Tanoliu Community Mele Community Wan.Smol School	Au Se No Oc
4.3 Identify training material to be used during trainings	Cancelled	Ingredients Printing of Materials	Jul
<hr/>			
5.1 Use cassava flour to produce new products flour	Cancelled	50 kg of cassava flour Ingredients for testing Cooking tools	Jul
5.2 Engage in promotional activities to promote cassava	Cancelled	3 press article 3 types publicity 1 poster 1leaflet 1 DVD 3 Public Awareness in town	Jul

5.3 Engage private sectors and NGO to be involved and to take over production and marketing

Ongoing

4 of private sector involved
1 ton of cassava flour retails in shops
50 kilo of flour produce monthly

Jul

BUDGET

Activities	Budget	Total Buc	
2.5 Complete and build new processing unit	Complete Onseua PU Construct Lapita PU	2 563309 VT	
2.6 Provide packaging bags to Processing Units	Purchase of 1000 Flour Bags 4 bag sawing machine with thread rolls (Hong enterprise)	232 000 V	
2.6 Equip the Processing Unit with Food Safety & Hygiene gears.	Purchase washing Pool (Pacific Polythanks)	101 334 V	
Activities (1.1)(1.2);(2.5);(2.7);(3.7)	Need fuel (Societe des Service Petroliers)	321 775 V	
# Administration	<u>Outstanding with Suppliers</u> TVL Wiclo Re-reimbursement	77 997 V1 347764 V 46 936 V1	
	Stationary (DATEC)	76 100 V1	
TOTAL BUDGET REQUESTED (VATU)		3 762 215	
TOTAL BUDGET REQUESTED (USD rate used 91U\$D)		41 343 U	

Pictures

1. Conduct Awareness Campaign.

2. Improved Root crops distributed to farmers

3. Building processing unit.

3.1 In a college

Onesua processing unit Upgraded during the extension will be involving more than 300 students exploring different ways of

3.2 In a community

Paunagisu Processing Unit

Strong farmers association important for the sustainability of the program.
Average production of a cassava flour 300 kilo per month marketed in the community .
This processing unit was not upgraded removed for 2009.

3.3 In a local food small industry

First induction training for Lapita staffs on Manioc processing
Farmers waiting at a Lapita

During the extension Lapita had signed an MOU with Dard to work jointly for the development of the program.
Project support Lapita to build a 24sqm processing unit during the project extension.
Lapita will be exploring the market outlet for the Cassava flour in Port-Vila.

