

Department of Industry

Cocoa Industry Development Programs

Issues, Activities and Ways Forward

PRA: Facilitating Improved livelihoods for Pacific cocoa producer networks through premium market access

Funded by PARDI through SPC

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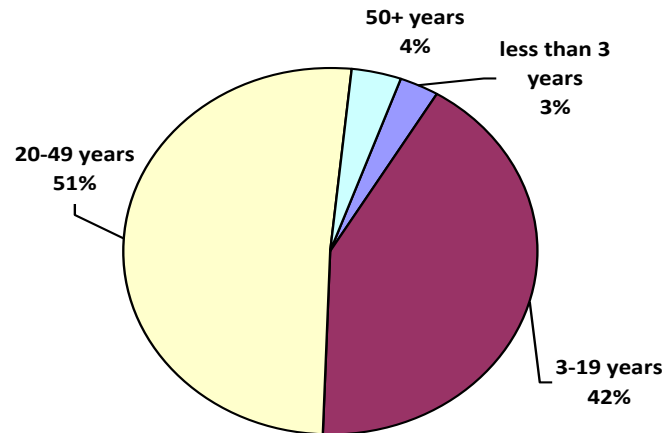
Background

- Cocoa planting in Vanuatu began in 1885 and the first reported cocoa bean export was in 1910. In Vanuatu, cocoa is grown throughout the islands with the 2007 Agriculture Census reporting cocoa trees being concentrated in Sanma, Penama and Malampa provinces. Once the pods are mature they are harvested, and the beans are fermented, dried and then exported. The 2007 Agriculture Census reported 22,153 hectares of cocoa trees throughout Vanuatu.
- In 1910 there were 302 hectares of cocoa planted and about 1,800 cocoa trees in Vanuatu. By the 1983 census, 12% of households in Vanuatu reported being involved in cocoa activities with 1,297,988 trees. The 1994 census found an increase of households being involved in cocoa to 34% with 3,343,700 trees. These numbers then dropped in the 2007 census to 25% of households and 3,042,000 trees. Of the households that have cocoa trees, about 60% (4,882 households) sold cocoa beans in 2007. Of the cocoa trees that were counted in the 2007 Agriculture Census, over half (55%) were more than 20 years old (Figure 1).

(MALFFB/DARD, 2009)

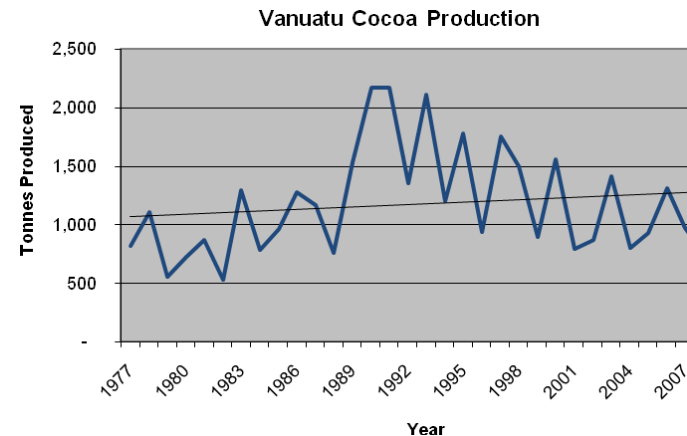
Production of Cocoa

Figure 1: Age of Vanuatu Cocoa trees, 2007



Source: Vanuatu Agriculture Census 2007

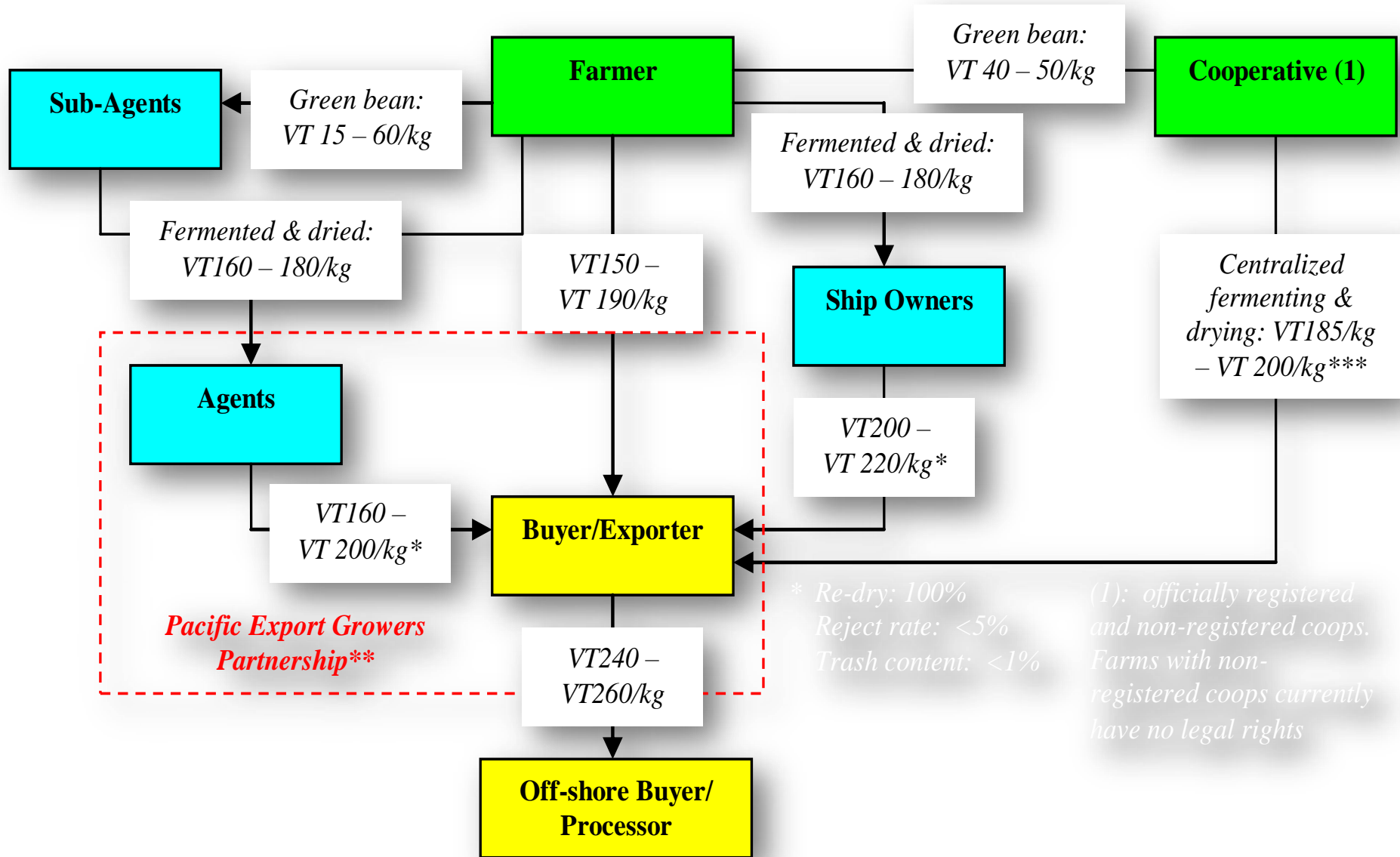
Figure 2: Vanuatu Cocoa Production 1977-2008



Source: Reserve Bank of Vanuatu Quarterly Economic Reviews

Production of cocoa has grown slightly over the last 30 years (figure 2). Vanuatu's 2008 production was 748 tonnes (RBV, 2008), while world production for the 2007-2008 season was 3,663,000 tonnes (World Cocoa Foundation, 2009). In 2008 Vanuatu exported 1,058 tonnes of cocoa with a value of 240 million vatu, or 6% of total value of exports (RBV, 2008). The 2006 Vanuatu Household Income and Expenditure Survey found that average household monthly income from cocoa is 9,600 vatu.

Supply Chain Map for Cocoa Production in Vanuatu



(Source: GfG, 2010)

Issues

(Processing and Market Access)

Market access issues

- No linkages with high-quality chocolate makers thus no market information on bean quality and how farmers can change their practices to reach higher standards and subsequently higher prices
- No incentives provided to the industry to facilitate competitiveness and growth

Quality issues related to fermentation and drying methods

- Fermentation using laplap leaves
- Smokey beans
- Hot air driers

PARDI/SPC Support

PRA: Facilitating Improved livelihoods for Pacific cocoa producer networks through premium market access

Aims

Identify premium market opportunities and improve the capacity of the cocoa industry to access these niche markets through better quality control incentives and value adding activities

Activities

1. Identify premium market opportunities for each of the farmer networks through market intelligence linked to specific chocolate retailers; facilitate these private sector
2. Improve capacity of cocoa producers to access niche market opportunities through better quality control incentives, product traceability training and management skills customized to premium markets

Supporting Sector Frameworks

Cocoa Development Program (2010-2014)

- ➔ **To improve the overall quality of the cocoa**, through:
 - Improvement of processing infrastructure (11 PU's pa operating).
 - Training of processors.
 - Enforcement of quality standards.
- ➔ **To develop market outlets** which could offer optimum return/revenue for farmers and the industry, through:
 - Linkage producers/buyers/exporters.
 - Encourage/facilitate market competition and review of VCMB.
 - Development of a Vanuatu Label of Quality (*Appellation d'Origine Contrôlée*).
 - Establishment of a Development Fund for cocoa industry.

(MALFFQ/DARD, 2009)

Priority Activities 2012 - 2014

Project activities	Implementation approach
1. To improve the overall quality of the cocoa beans, through:	
1.1 Improvement of Cocoa processing (fermentation and drying) infrastructure	<ul style="list-style-type: none"> • Through CGA and Epi cocoa farmers network by identifying potential cocoa processors/dryers to improve existing infrastructure (fermentation and drying methods), • set up proper testing facility in collaboration with Vanuatu Food Technology Training Centre – Food Analysis.
1.2 Training of cocoa bean processors.	<ul style="list-style-type: none"> • Facilitate training and accreditation of lead farmers from CGA and Epi cocoa farmers network through the TVET Program
1.3 Enforcement of cocoa quality standards.	<ul style="list-style-type: none"> • Collaboratively develop Vanuatu Cocoa Quality Standard through consultation with Vanuatu PHAMA program, VCMB and Vanuatu Food Technology Training Centre – Food Analysis. • Enforcement of cocoa quality standards
2. To develop market outlets which could offer optimum return/revenue for farmers and the industry, through:	
2.1 Linkage between producers/buyers/exporters.	<ul style="list-style-type: none"> • Organised active players in the cocoa industry to develop a complete cocoa cluster development approach
2.2 Encourage/facilitate access to premium niche market.	<ul style="list-style-type: none"> • Identify potential premium markets access and link cocoa farmer groups directly with the buyers to gain premium market price on their produces in collaboration with Vanuatu PHAMA program and PARIDI
2.3 Development of a Vanuatu Label of Quality	<ul style="list-style-type: none"> • Develop Vanuatu Label of Quality through consultation forums with Vanuatu PHAMA program and relevant stakeholders
2.4 To promote sustainable farming system	<ul style="list-style-type: none"> • Encourage agro-forestry techniques of increasing cocoa production through CGA and Epi cocoa farmers network in collaboration with TVET program, VARTC program with DARD being the lead agency

Implementation Approach

Facilitating Improved livelihoods for Pacific cocoa producer networks through premium market access

Government (DoI, other line government agencies)

Stakeholders (Buyers, NGO's)



Cocoa Growers Group

CGA

EFA



Cocoa Farmers

CGA Farmers

EFA Farmers

Implementation & Achievements (2012-2014)

Year	Phase (six months) Funding	Amount (VT)	Targeted support	Achievements
2012	Phase 1	480,028	<ol style="list-style-type: none"> Organised Cocoa stakeholder workshop <ul style="list-style-type: none"> To present and agreed on a organizational framework (Business Model) that could be effectively utilized by the cocoa Industry in Vanuatu to enhanced value addition of Vanuatu's cocoa industry Consult all stakeholders in the cocoa industry on business concept that needs to be established to facilitate the cocoa processing facility proposal Constructively agreed on the way forward for the cocoa processing facility to be established in Vanuatu including the management arrangement. 	<ol style="list-style-type: none"> Held (in early 2013) a series of stakeholder workshops for farmers and industry representatives. Topics covered include best agricultural practices, cocoa processing methods and quality control practices, and more targeted training with selected producers on how to better manage their plantations (pruning) and awareness on best processing practices. Developed a cocoa supply chain map for Vanuatu
2013	Phase 2	1,360,176	<ol style="list-style-type: none"> Improving cocoa testing equipments to test for high cocoa quality beans. Improving cocoa quality beans by promoting solar cocoa drying method. Organized a Cocoa quality workshop on developing strategies to improve and sustain cocoa quality beans. 	<ol style="list-style-type: none"> Purchases of cocoa testing equipments. Purchases of cocoa sun drying materials (clear plastics). Cocoa quality strategy plan have been developed for Vanuatu.
2013	Phase 3	486,971	<ol style="list-style-type: none"> Continue monitoring and evaluating the cocoa sun drying method and testing analysis progress in producing high cocoa beans. 	<ol style="list-style-type: none"> Monitoring and Evaluation report on best solar drying method used by the farmer groups Identifying best approaches trial by farmers
2014	Phase 4	Yet to be released	<ol style="list-style-type: none"> Improve Cocoa quality beans by improving fermentation and processing of Cocoa beans. 	<ol style="list-style-type: none"> Ensure requirements under the International Cocoa Standards are meet, which require cocoa of merchantable quality to be fermented, thoroughly dried, free from smoky beans, free from abnormal or foreign odour and free from any evidence of adulteration. It must be reasonably free from living insects, broken beans, fragments and pieces must be seasonably uniform in size.
2014 - 2015	Phase 5 Phase 6 Phase 7	Yet to be released	<ol style="list-style-type: none"> Improve drying Continue monitoring and evaluating the fermentation processing , cocoa sun drying method and testing analysis progress in producing high quality cocoa beans. 	

Achievements (Con't)

Through PARDI

- ACTIV has delivered their first batch of commercial chocolate for local ice cream maker
- Planning is now underway for a chocolate competition to be held in Vanuatu in October 2014
- ACTIV visit to Bahen & Co, Western Australia (March 2013) – presentation by Bahen of the equipment from roasting to the moulding using antique chocolate making
- Buyer/supplier exchanges (visits) continued and construction of/adjustment of fermentation boxes and solar drying methods and practices tested
- Sample of beans shipped to buyer for testing and results documented against processing methods
- The Chocolate factory in Port Vila and ACTIV have commenced building their new facility to initial infrastructure stage
- April to September: Development of the chocolate formula (70% dark) adjustments of fermentation and drying techniques – ACTIV
- Visit to Solomon Islands and PNG by ACTIV and CGA to investigate drying methods in June/July 2014

(PARDI Annual Report, 2014)

Challenges and Opportunities

Challenges	Solutions/Opportunities
<p>1. Challenges to effectively organize and coordinate the industry/farmers</p>	<p>1. A cocoa stakeholder forum have been organised, that reviewed the existing framework and have agreed on PPP model as an effective framework that can effectively utilized within the cocoa industry in Vanuatu.</p> <p>1.1. key players within Cocoa PPP model develop</p> <p>(a). Cocoa producers cooperative suppliers</p> <p>(b). Buyer - processors</p> <p>(c). Marketers and Exporters</p> <p>(d). Government</p>
<p>2. Poor bean quality</p>	<p>2. A cocoa quality workshop have been organised, focus on developing strategies that will improved and sustain cocoa quality beans for domestic and export markets.</p> <p>2.1. Develop a cocoa quality, grades and standards program for Vanuatu covering:</p> <ul style="list-style-type: none"> • Quality brand standard review to be review by internationally recognised cocoa quality expert in making sure that all cocoa processing units meets the criteria for fair trade certification <p>2.2. Regular monitoring of processing units by a local cocoa quality expert</p> <ul style="list-style-type: none"> • Continue research promote quality technology for drying, processing and testing of cocoa quality beans for export markets <p>2.3. Develop a Vanuatu cocoa quality guide</p> <ul style="list-style-type: none"> •Continue provide specific training focusing on cocoa quality, grading and standard of producing best cocoa quality beans.
<p>3. Lack of capacity in carry out supply chain studies</p>	<p>3. Upgrade officers capacity to undertake supply chain studies in country and outside country</p> <p>3.1. A Cocoa supply chain map has been develop for Vanuatu.</p> <p>3.2. Issues along the supply chain have been identified</p>
<p>4. Poor cocoa testing equipments</p>	<p>4. Improving cocoa testing equipments to test for high cocoa quality beans - Purchases of Cocoa testing equipments.</p> <p>4.1. Cocoa testing certificate analysis issues for exporters; Dried cocoa bean must;</p> <ul style="list-style-type: none"> •Have a pH 4.5 – 5.5 •Moisture <7% •Bean count = ~93 beans in 100g •Fermented correctly = light – dark reddish-brown color •Kernel crumbles easily •No mould growth •% Cocoa fat = 53 – 56% (average)
<p>5. Poor cocoa drying materials</p>	<p>5. Improving cocoa quality beans by promoting solar cocoa drying method - Purchases of Cocoa solar drying materials.</p> <p>5.1 Distribution of solar dryer materials and also monitoring progress on the solar drying method being used.</p> <p>5.2. Continue investigations of appropriate practical methods of drying that influences bean quality</p>

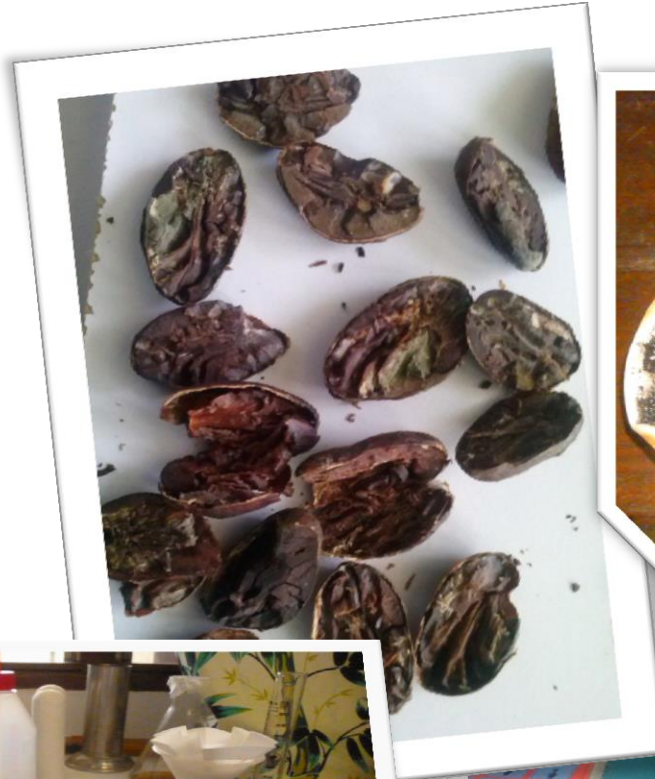
Cocoa implementation Activities in Pictures

- Trial site: Epi – Improving farm management practices (bruning) resulting in increased production all year round



Improving cocoa quality testing infrastructure

- FTDC-AU testing equipments



Improving fermentation methods

- Recommended fermentation boxes



Refining drying methods to control quality

- Trial investigations of Solar Dryer method by CGA & EFA



Thank you