Pacific Horticultural & Agricultural Market Access Plus Program

Supported by Australia & New Zealand

Specialty Cacao in Vanuatu

PHAMA Plus Performance Story

Australian Aid

NEW ZEALAND FOREIGN AFFAIRS & TRADE Manatū Aorere

Specialty Cacao in Vanuatu - PHAMA Plus Performance Story

Client: Department of Foreign Affairs and Trade

Prepared by
DT Global Asia Pacific
Level 14, 501 Swanston Street,
Melbourne VIC 3000, Australia
+61 8 8317 4300
www.dt-global.com
ABN 23 006 170 869

2026

Job No.: 70000191 (2022–2026)

Document Delivery

DT Global provides this document in either printed format, electronic format or both. DT Global considers the printed version to be binding. The electronic format is provided for the client's convenience and DT Global requests that the client ensures the integrity of this electronic information is maintained. Storage of this electronic information should at a minimum comply with the requirements of the *Electronic Transactions Act 2002*

Quality Information

Date	February 2026
Prepared by	Byron Pakula, MEL Adviser
Reviewed by	PHAMA Plus team

Revision History				
Rev	**Revision Date**	**Details**	**Authorised**	
			Name / Position	**Signature**

Cover Photo: Chocolat Production at Gaston Chocolat, Vanuatu

Vanuatu Cacao Story at a glance: Achievements of the Sector

1. Shift from bulk exports to specialty cacao

Crop Cultivate Harvest Ferment/Dry

Trading Storage Transport

Roasting Grinding Pressing

Exports Distribute to consumers

Primary Production → Commer-cialisation → Processing \ Manufacturing → Market

Quality and standards strengthened

ISO 22000 CERTIFIED

HACCP

2. Solar drying and fermentation innovations

3. Higher prices and income and real impacts for farmers

Bulk Market Wet Beans

VUV 180 → 190/kg

Specialty Cacao (Quality Assured)

VUV 200 → 210/kg

- 568 households benefitted
- AUD 133,555 income increase
- School fees + Home improvement
- Farm reinvestment

4. Inclusion of women and communities

Executive Summary

Vanuatu's cacao sector, historically characterised by bulk commodity exports, is undergoing a significant transformation towards high-value, specialty cacao. This shift is driven by both global market dynamics and a concerted effort from the PHAMA Plus program to unlock the potential of Vanuatu's cacao industry. Recognising the country's unique flavour profile and the potential of agroforestry-based smallholder production, PHAMA Plus implemented a series of interventions designed to improve quality, market access, and the enabling environment.

Since 2018, there is strong evidence that PHAMA Plus, through its partnerships, has significantly strengthened the enabling environment for Vanuatu's cacao sector, accelerating the expansion of the specialty cacao industry and delivering tangible benefits for communities and businesses across the country. PHAMA Plus has supported the enabling environment by helping to develop the national cacao strategy, strengthen quality assurance systems, and secure certifications that allow Vanuatu to compete in premium markets. At the same time, it has demonstrated proof of concept for centralised fermentation and drying models that improve bean quality and ensure that the resulting price premiums flow back to farmers. These interventions—delivered in partnership with the Government of Vanuatu, private sector actors, and farmer groups—have revitalised the cacao industry and created new economic opportunities. As a result, Vanuatu's specialty cacao sector is now a growing contributor to rural livelihoods, enterprise development, and the premiumisation of exports.

A central achievement has been support for the development and operationalisation of the 2020–2025 National Cacao Strategy. This strategy provided a coordinated framework for public and private sector alignment, unlocking additional government investment in seedling distribution, farmer training, and institutional coordination. PHAMA Plus also facilitated the establishment and registration of the Vanuatu Cacao Industry Association (VCIA), helping provide a credible peak industry body to engage on policy, export promotion, and sector governance. Simultaneously, the program enhanced the technical capabilities of the Vanuatu Bureau of Standards, including provision of quality testing equipment and training for laboratory staff, enabling consistent assessment of bean quality across value chains. Trade visits and international buyer engagement introduced Vanuatu to premium buyers in Australia, Japan, New Zealand and the United States, while support for exporters such as Gaston and Alternative Communities Trade In Vanuatu (ACTIV) led to HACCP and B-Corp certifications that strengthened market credibility and access.

In parallel, the program implemented targeted productivity and quality upgrades to post-harvest processing. Following successful solar dryer pilots in Solomon Islands, PHAMA Plus introduced modular solar drying technology to Vanuatu, distributing 40 units via partnerships with Vanuatu Primary Producers Authority (VPPA) and co-investing with private exporters. 94% of VPPA farmers preferred these solar dryers as they had better quality beans, required less labour, had faster drying times, were less risky to weather events, and were designed for easy assembly and use by women and youth. In particular, the solar dryers were instrumental in improving bean consistency and reducing smoke taint – the main barriers to exporting high-value specialty cacao. Gaston, Spencer and ACTIV expanded their centralised fermentation and drying infrastructure to reduce variability and risk at the grower level. Farmer training on food safety and drying practices further supported quality gains. These interventions contributed to raising the number of premium exporters from two to six and increased farmgate prices fourfold in some cases.

Despite these advances, the specialty segment accounts for less than 10% of total cocoa exports, and systemic challenges continue. Many cacao trees are ageing, poorly maintained, and yield inconsistently. There is an urgent need to refresh the sector vision with an updated strategy to 2030, aligned with updated farmer manuals and further extension services. Bottlenecks remain in the supply of seedlings, post-harvest infrastructure, and essential materials such as poly-drying mats and laser light roofing. Limited access to working capital restricts the ability of exporters to scale operations and double shipment frequencies.

To consolidate gains and achieve scale, next steps should focus on several priority areas: (1) update the Vanuatu National Cacao Strategy for 2026–2030 within the next year; (2) support the expansion of grafted nursery networks and community-managed seedling distribution; (3) continue to research, pilot and roll out scalable, modular drying and fermentation models tailored to different volumes and contexts; (4) provide technical and financial support through key farmers and premium exporters until a critical mass has been achieved; and (5) support coordination with the VPPA and the Ministry of Agriculture, Livestock, Forestry and Biosecurity (MALFB). Future programming may also support the institutionalisation of market intelligence and traceability systems that differentiate Vanuatu cacao in a crowded specialty market.

A modular solar dryer in Brenwei showing multiple batches from different farmers and neighbouring villages drying their beans. Modular solar dryers protect the beans from inclement weather, and are made up of separate self-contained units that can be independently created, replaced or scaled to allow for flexible expansion. They allow farmers to start small and expand capacity as their production increases.

Contents

Acronyms

AAER	Adopt–Adapt–Expand–Respond
ACTIV	Alternative Communities Trade In Vanuatu
ADB	Asian Development Bank
AUD	Australian dollar
CGA	Cocoa Growers Association
DARD	Department of Agriculture and Rural Development
DFAT	Department of Foreign Affairs and Trade
EDF11	Eleventh European Development Fund
EU	European Union
FFA	Foreign Fishing Agreement
GDP	Gross Domestic Product
HACCP	Hazard Analysis and Critical Control Points
ICCO	International Cocoa Organization
ILO	International Labour Organization
IMF	International Monetary Fund
IWG	Industry Working Group
KAP	Knowledge, Attitude and Practice
MALFB	Ministry of Agriculture, Livestock, Forestry and Biosecurity
MAWG	Market Access Working Group
MEL	Monitoring, Evaluation and Learning
MT	Mega tonne
NGO	Non-Governmental Organisation
NSDP	National Sustainable Development Plan
NSW	New South Wales
PACER	Pacific Agreement on Closer Economic Relations
PAF	Performance Assessment Framework
PHAMA Plus	Pacific Horticultural and Agricultural Market Access Plus Program
PPP	Public–Private Partnership
SBE	Small Business Enterprise
SIMAS	Small Island Mini-Agriculture Show
SOP	Standard Operating Procedure
USD	United States dollar
VBS	Vanuatu Bureau of Standards
VCCE	Vanuatu Copra and Cocoa Exporters
VCIA	Vanuatu Cacao Industry Association
VCIPG	Vanuatu Cacao Industry Product Group
VPPA	Vanuatu Primary Producers Authority
VUV	Vanuatu vatu

1 History of Cacao in Vanuatu

Cacao was introduced to Vanuatu in the mid-19th century by European settlers, who initially experimented with cotton plantations before shifting to more suitable crops like coffee, bananas, coconuts and cacao. This transition was spurred by the collapse of global cotton prices and led to the establishment of cacao plantations, particularly along the coastal areas of islands such as Malo and Malekula. During the colonial era, some of these plantations relied on indentured labour from China and Vietnam. Over time, these estates were gradually returned to local ownership, and ni-Vanuatu farmers adapted them into mixed agroforestry systems that included cacao alongside other traditional crops.

The legacy of this plantation economy continues to influence the cacao sector today. By the 2000s, national production averaged around 1,200 metric tonnes annually, with over 70% sourced from Malekula. At its peak, Vanuatu had an estimated 3,000 to 4,000 hectares of cacao under cultivation, with approximately 20,000 households involved in some form of cacao production.

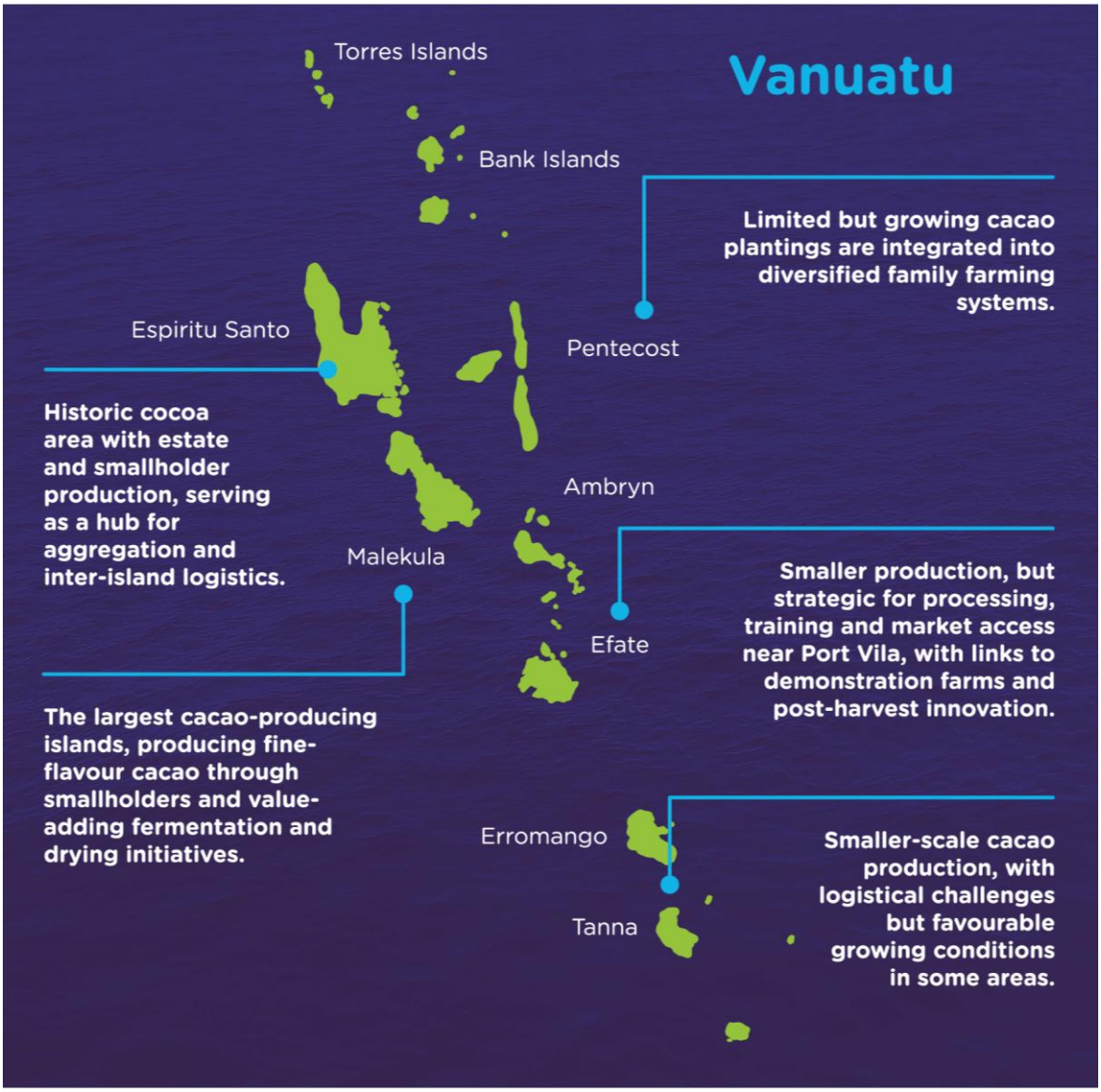
Cacao is a key livelihood for many rural families, particularly in Malampa and Sanma provinces, contributing significantly to household cash income. Socio-economic data suggests that cacao-growing households are generally among the poorer segments of Vanuatu's rural population. They typically rely on smallholdings, limited cash crops, and have restricted access to financial services, infrastructure and markets. Income from cacao, though seasonal and subject to global price fluctuations, often provides one of the few sources of cash earnings in remote communities.

Export of Vanuatu cacao has historically been dominated by a small number of buyers, who primarily processed it into bulk commodity products. While these exporters have helped maintain international trade links, concerns persist about inconsistent quality and the disproportionate share of value captured by intermediaries.

Vanuatu's cacao sector holds significant untapped potential, underpinned by a distinctive flavour profile, favourable growing conditions, and robust community-based production networks. A shift began in the 2010s, catalysed by rising global demand for single-origin and ethically sourced chocolate. Supported by technical assistance from initiatives such as PHAMA and then PHAMA Plus, the sector started to reposition itself for premium markets.

Freshly fermented and dried Vanuatu cacao beans — the foundation of the country's growing specialty chocolate industry.

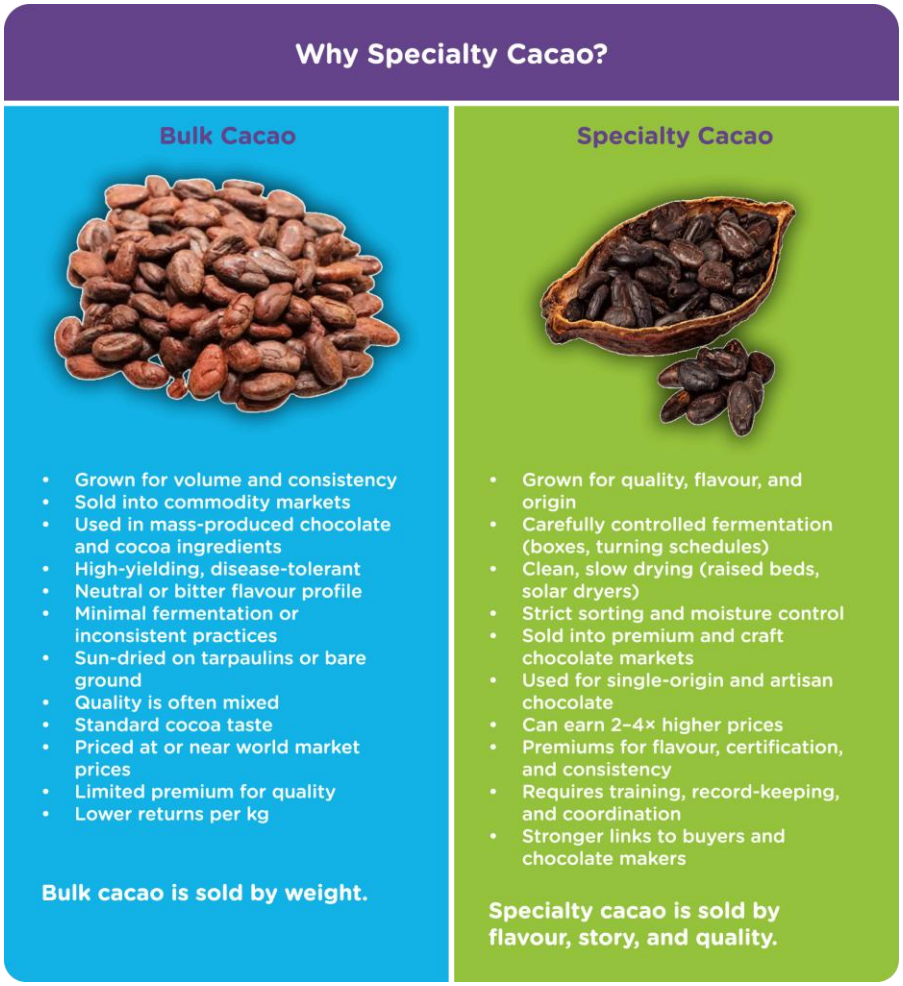
Cacao Growing Areas



2 The Rise of Specialty Cacao

The rise of specialty cacao globally is closely tied to shifting consumer values around food provenance, sustainability and quality. As craft chocolate makers gained prominence, they began to seek direct relationships with smallholder farmers, valuing transparency, bean flavour complexity, and ethical sourcing over commodity-scale supply. This movement paralleled the broader growth of artisanal and fair-trade food sectors, particularly in Europe, North America, and Japan. Specialty cacao—often referred to as 'fine or flavour cacao'—emerged as a distinct market segment recognised by the International Cocoa Organization (ICCO), which classifies such beans based on genetic origin, fermentation, drying and organoleptic qualities.

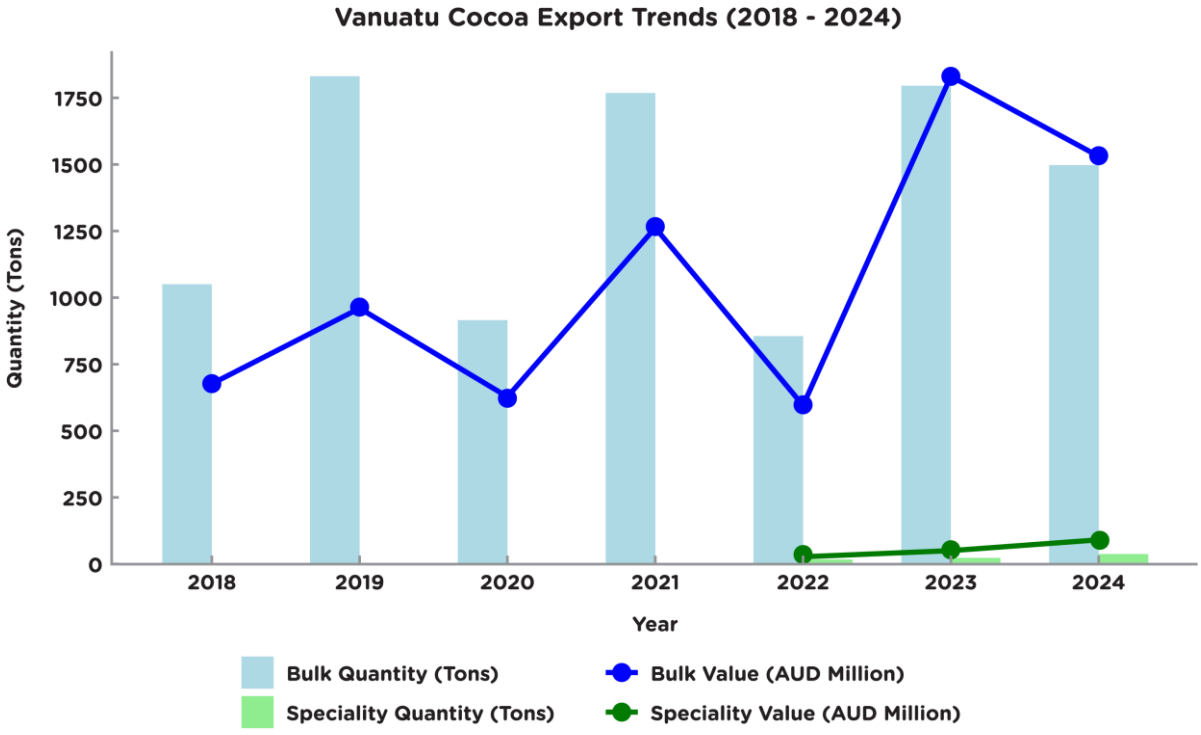
Demand for these beans has steadily increased, with the specialty segment now representing approximately 5–10% of the global cacao trade by volume, but an increasing share in value. The global market is worth over USD 1 billion, and continues to expand. Premium buyers, including bean-to-bar producers and ethical chocolate brands, routinely pay two to four times the bulk market price for quality-assured specialty cacao. Rising global prices have fuelled renewed interest in cacao production. Climate-related supply shocks in West Africa have reduced global output by up to 20%, nearly doubling market prices, which are currently as high as USD10,000 per tonne. This thin global market magnifies the importance of small producers like Vanuatu, who have only just begun their journey into exporting specialty cacao. Exporters and growers increasingly view cacao as a viable commercial crop, not just a subsistence cash crop.



Key Industry Metrics (based on 5-year averages)

Metric	2018	Most Recent Data
Number of cacao growers	8,500	5,822 (2022)
Area under crop (in hectares)	1,954	2,902 (2023)
Estimated yield (in MT)	0.51 MT per hectare	0.51 MT per hectare
Cacao production (in MT)	999	1,500 (2023)
Production zones	Malampa, Sanma, Penama	Malampa, Sanma, Penama
Exports (in MT)	1,059	1500 (2024)
Export markets	Malaysia, Singapore, Indonesia, EU, Australia, Philippines	Malaysia, Indonesia, EU, Australia, New Zealand and Japan
Major exporters – bulk	VCCE, C-corp, Vanuatu CGA	VCCE, C-corp, Vanuatu CGA
Major exporters – specialty	None	Gaston, Spencer, ACTIV

Source: Vanuatu National Statistics Office; PHAMA Plus Impact Assessments, FAOSTAT, ITC TradeMap



Source: Vanuatu National Statistics Office; PHAMA Plus Impact Assessments

Chocolate production at Gaston Chocolat.

The specialty market is particularly responsive to origin stories, sustainability certifications and sensory diversity. As a result, origin countries like Peru, Ecuador, the Dominican Republic and increasingly Pacific nations like Vanuatu have begun to see specialty cacao not just as a niche but as a strategic pathway for rural development, export diversification and climate-resilient agriculture. This price premium offers a compelling opportunity for Vanuatu business interests to create new market opportunities in a differentiated, higher-value cacao model.

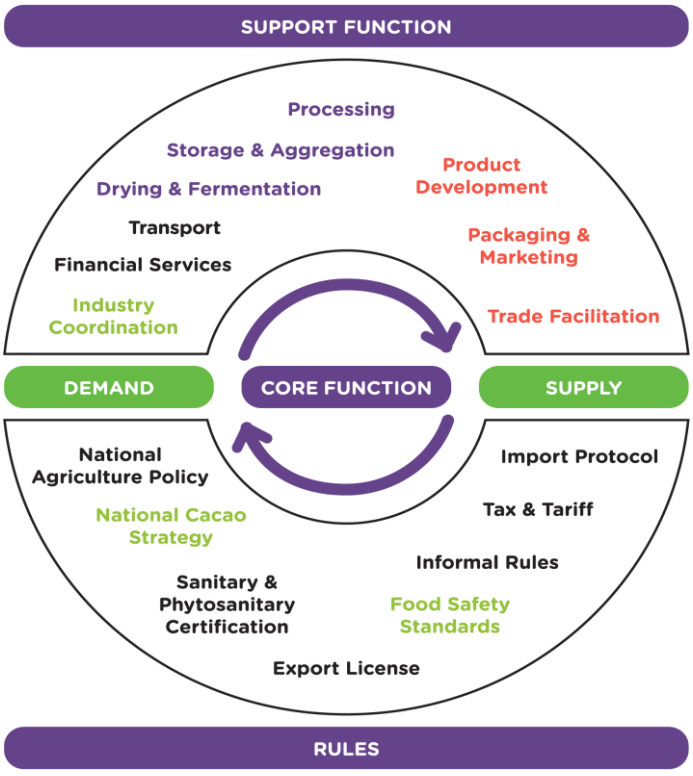
The main barriers to Vanuatu transitioning from bulk to specialty cacao beans have been the quality of the beans grown, and, in particular, the post-harvest drying process that relies on woodfire and leaves a smoke-tainted flavour. The broader global shift to specialty beans spurred early efforts by new market entrants to enhance post-harvest quality, particularly through the replacement of traditional woodfire drying methods (which often tainted bean flavour) with cleaner, more controlled solar drying systems. These upgrades have been essential to establishing Vanuatu's credentials as a credible and competitive origin for specialty cacao. However, this story is only beginning.

3 PHAMA to PHAMA Plus Phase 2

Since 2012, PHAMA and subsequently PHAMA Plus have worked to improve market access, quality and value capture in Vanuatu's cacao sector. Building on early assessments and industry consultations, the program has focused on strategic enablers across the value chain—ranging from national coordination and market intelligence to farm-level production, post-harvest innovations and trade facilitation. These efforts have aimed to establish a viable and resilient specialty cacao industry, while continuing to improve terms of trade and quality within the bulk cacao segment. The strategy is grounded in three mutually reinforcing pillars, with investments across these pillars prioritised to address structural and systemic constraints:

Building a robust enabling environment	Enabling market access and product development	Stimulating high-quality production
Supporting institutional functions and standards that underpin export growth, particularly through strengthened industry coordination and engagement.	Support access to formal export markets through improved branding and marketing, business networks and trade facilitation.	Improve product quality and reliability for premium market access, including through post-harvest equipment and materials and building knowledge and capacity of market actors in cacao processing and value-addition.

The market systems diagram below, based on PHAMA Plus's initial value chain analysis (2016) for the Vanuatu cacao sector, highlights the support functions and regulatory frameworks vital for the development, learning, adaptation, and growth of the market.



PHAMA Plus, Vanuatu Specialty Cacao Market Systems Framework, 2025 (updated).

Key support functions include industry coordination through working groups, improving production knowledge, drying and fermentation processes and facilitating processing and trade. The rules and norms encompass both formal elements (laws, regulations and standards) and informal aspects (values, relationships and social norms), all of which are essential in shaping incentives and behaviours within the market system.

Notably, the areas where PHAMA and PHAMA Plus have intervened, in partnership with both public and private sector stakeholders, are shown in coloured text, coded to the strategic pillar they most strongly align with (building a robust enabling environment, enabling market access and product development, or stimulating high-quality production).

PHAMA Plus has contributed significantly to shaping the enabling environment for Vanuatu's specialty cacao sector through industry engagement, supporting the development of a national strategy, and promoting biosecurity and standards to facilitate market access. A 'proof of concept' innovation model, combined with training-of-trainers and extension services, has successfully accelerated the integration of fermentation and solar drying as the cornerstone of promoting specialty cacao exports. These interventions are outlined in the graphic below and in the following sections.

	Building a robust enabling environment	Enabling market access & product development	Stimulating high quality production
PHAMA	• Established and supported Cacao Industry Working Group and its evolution into Vanuatu Cacao Industry Association (VCIA) • Supported operations and capacity of Vanuatu Primary Producers Association and its support to farmers • Provided capacity support, including laboratory equipment, to strengthen the research and quality control capabilities for the Vanuatu Bureau of Standards	• Completed comprehensive international market analysis for Vanuatu cacao • Introduced major new international buyers to Vanuatu producers, to improve exposure, competition and pricing.	• Instigation of solar dryer trials to improve product quality
PHAMA Plus Phase 1		• Co-invested with Gaston Chocolat to secure B-Corp Certification and expansion of exports to NZ and Japan.	• Expanded solar dryer investments through partnership with VPPA, designed for inclusive use (women, youth) and climate resilience.
PHAMA Plus Phase 2	• Helped establish 5 VPPA Provincial Officer roles for farmer engagement, now absorbed into their ongoing operations. • Ongoing support to VCIA to mature its industry leadership, including its ability to facilitate market linkages • Supported development of 'positive workplaces' policy content – focused on creating safe, inclusive and equitable workplaces - for inclusion in MALFB's Overarching Productive Sector Policy (OPSP).		• Significant expansion in establishment of solar dryers through VPPA and Gaston Chocolat partnerships • Co-invested with Spencer Cocoa and their Vanuatu partners (Aisen and LRT Premium) to increase production of premium cacao. Worked with Spencer, Aisen and LRT to develop and deliver training in child protection policies. • Supported ACTIV to establish a Shared Factory Concept for cooperative processing, and attain HACCP certification. • Co-invested with Gaston Chocolat to introduce central fermentation centres to further improve quality control for high-value product. • Supported Cocoa Ambassador to provide training to cacao farmers to improve farm productivity and develop value-added products

Source: PHAMA Plus Vanuatu Cacao Summary of Interventions, 2025 (updated)

4 Strengthening Systems and the Enabling Environment

4.1 Developing a National Cacao Strategy

PHAMA Plus has played a pivotal role in shaping the enabling environment for Vanuatu's specialty cacao sector. A central achievement was the co-development of the 2020–2025 National Cacao Strategy, with the Ministry of Agriculture, Livestock, Forestry and Biosecurity (MALFB) and key stakeholders. The strategy provided a coordinated framework for public and private actors, resulting in increased government investment in extension services, nursery expansion, and training. PHAMA Plus supported this process with strategic advice (including input from consultant Hannah Wheaton), facilitated the Cacao Industry Working Group, and produced and disseminated the strategy document.

The development and implementation of the 2020–2025 National Cacao Strategy, with strong technical and facilitative support from PHAMA Plus, has driven a range of institutional improvements within Vanuatu's cacao sector. These include the appointment of a cacao technical expert within MALFB, five dedicated cacao extension officers in key provinces linked with the VPPA, the establishment of new public nurseries, subsidies for pruning tools, and structured training for over 100 key farmers across the country. MALFB has committed VUV15 million annually (approx. AUD191,000) to these efforts, in addition to human resource investments. These funds support nursery operations, modest on-farm infrastructure, and broad-based subsidy and farmer support initiatives. PHAMA Plus has leveraged this commitment by co-financing pilot projects, such as modular, centralised fermentation and drying systems, while also facilitating targeted technical advisory inputs to help shape long-term delivery models.

"PHAMA Plus has been 'significantly influential' … previously, MALFB focused too much on family groups and associations, which was too broad and not successful. PHAMA Plus has had an important part in that shift to providing better structure for organisation, improving the quality of beans, and improving the processing to shift from bulk to specialty." – Timothy Tumukon, Director General, MALFB.

This collaborative approach has enabled PHAMA Plus to anchor its support within a government-led framework, ensuring both legitimacy and sustainability of reforms. The program has complemented MALFB's investment with international expertise, innovation prototyping, and market facilitation—all elements critical to achieving the sector's premiumisation ambitions. The public–private alignment has encouraged farmer and processor participation and has established a solid foundation for future scale. A formal review and update of the cacao strategy is now due. MALFB has requested continued PHAMA Plus engagement in developing the 2026–30 strategy, ensuring it captures lessons learned, reflects changing market conditions, and outlines the next phase of transformation for Vanuatu's specialty cacao sector. PHAMA Plus has engaged technical support to conduct consultations and develop an advisory paper for MALFB, to inform their development of the next strategy.

4.2 Facilitating the Industry Working Group

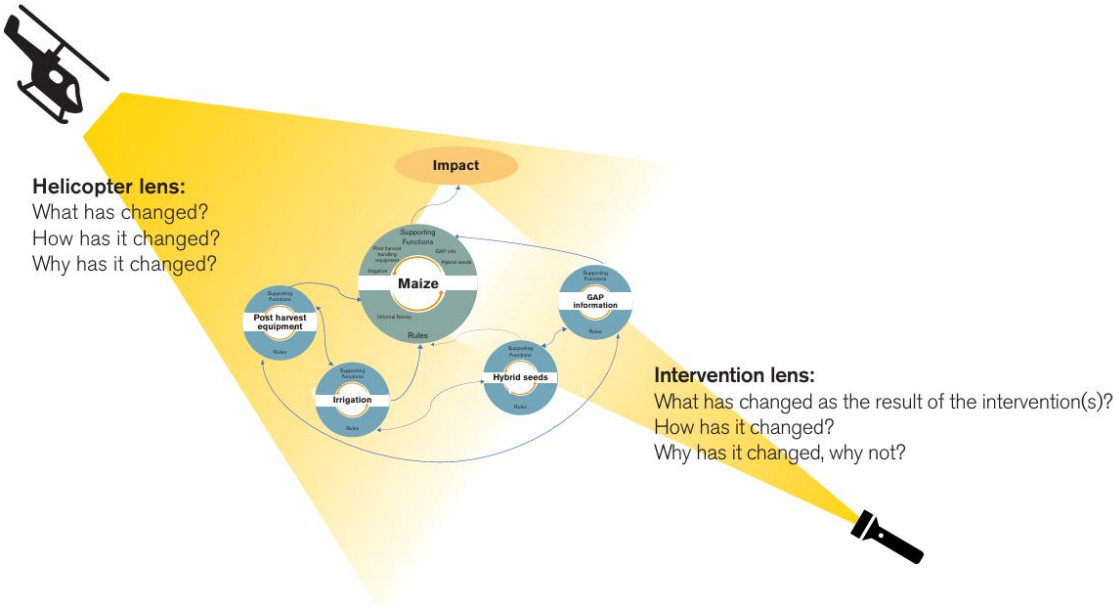
In parallel with the above-mentioned strategy, PHAMA Plus supported the establishment and operationalisation of the Cacao Industry Working Group (IWG). The IWG brought together processors, exporters, growers, and government agencies around shared priorities—quality improvement, certification, traceability, and export market development. The emphasis has been mainly on specialty cacao, with limited engagement from bulk cacao exporters. Co-chaired by MALFB and industry, it has provided a forum for collective problem-solving, sector planning, and coordination with donor programs.

International market development has also been a major focus. PHAMA Plus supported exporter participation in global chocolate festivals and trade visits to Ecuador, Hawaii, Australia, and New Zealand. These engagements helped strengthen buyer relationships and highlighted gaps in on-farm management, logistics, and post-harvest practices.

Finally, PHAMA Plus strengthened cacao quality testing through the Vanuatu Bureau of Standards. Equipment and training support enabled VBS to consistently test moisture content and bean quality prior to export, and to collaborate with biosecurity. Regional technical exchanges with Papua New Guinea and Solomon Islands were facilitated, while support for HACCP and B Corp certifications enabled exporters to meet international food safety standards and gain market entry. This has been complemented by the institutional strengthening work with Quality Solutions, a company involved in supporting other private sector actors in achieving certification of HACCP, ISO 9001 and other standards.

Certification Pathway Graphic

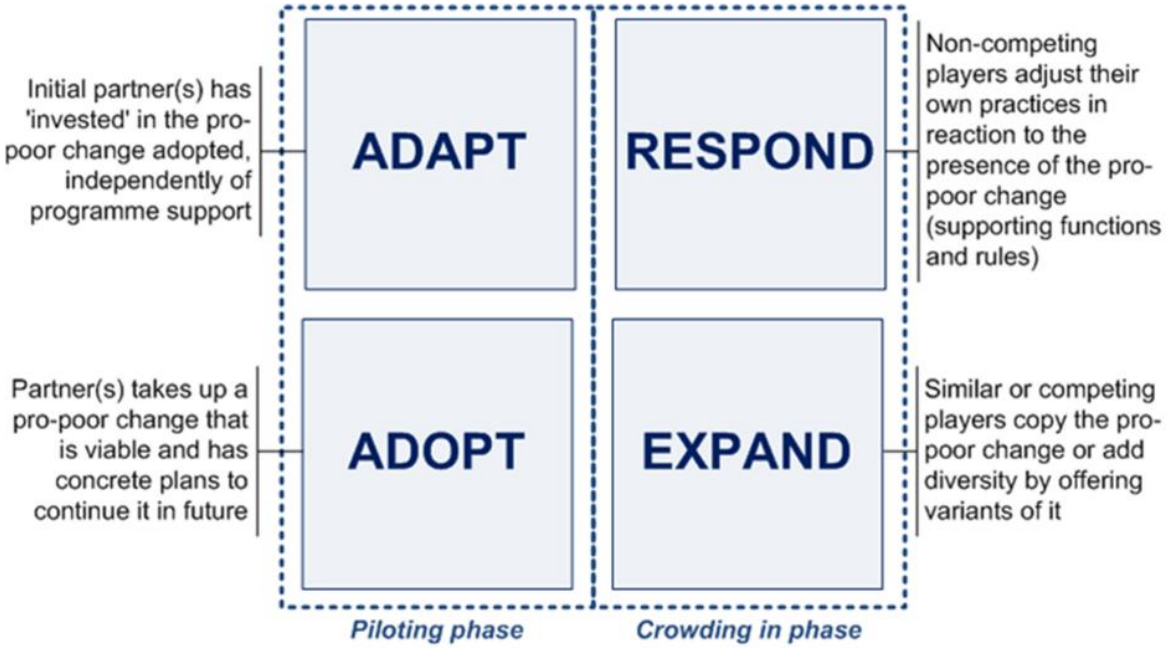
These examples from Vanuatu's cacao program exemplify the 'Helicopter Lens' approach by illustrating broad, interconnected changes within the market system. The National Cacao Strategy and the IWG examples show how multiple, coordinated changes—policy, institutional reforms, stakeholder engagement—are working together to influence the larger market system, consistent with the Helicopter Lens approach. They highlight the importance of understanding the broader system dynamics, how different parts interact, and how these interactions drive sustained, sector-wide improvements, rather than focusing solely on individual interventions or innovations.



Source: Posthumus, Shah, Miehlbradt & Kessler, 2020

5 Improving Production and Processing through Innovation

Transforming Vanuatu's cacao industry toward premium specialty markets has required targeted improvements in both upstream and downstream practices—particularly in planting material, farm management, and post-harvest processing. At the heart of this transformation lies an emphasis on supporting and enabling a structured approach to innovation—spanning ideation, prototyping, piloting, and scaling—with a particular focus on centralised fermentation and solar drying technologies. The PHAMA Plus interventions initially focused on the pilot phase (adapting and adopting new practices), and have gradually shifted towards the crowding-in phase (expanding through a training-of-trainers and extension model).



Source: Nippard, Hitchins & Elliott, 2014

Vanuatu's cacao industry transformation, supported by PHAMA Plus, offers a compelling illustration of systemic change, effectively tracing the "Adopt–Adapt–Expand–Respond" (AAER) framework. The journey began with PHAMA Plus supporting Gaston to adopt improved practices, initially upgrading four fixed-structure solar dryers in Phase 1 and establishing three more in Phase 2, demonstrating successful initial uptake of the technology. Gaston then moved into the adapt stage, showcasing independent innovation by deciding in 2025 to expand further, setting up an innovative foldable, kit model of three solar dryers in collaboration with MALFB. This move, inspired by a tour of commercial operations in Ecuador, signifies a crucial step where the lead actor invests independently and augments the practice beyond direct project support. Finally, the sector exhibits elements of the respond stage, with the adoption of digital sensors for fermentation, drying, and packaging, indicating that supporting systems are evolving to provide improved consistency, quality control, and traceability, thereby fostering a more robust environment for the introduced changes to thrive and evolve within the premium specialty cacao market.

The combination of growing adoption, adaptation, technological integration, and self-sustaining investment points to deeper, more durable market change. Together, these outcomes suggest that the conditions for innovation in Vanuatu's cacao sector have matured—embedding better practices, attracting new actors, and contributing to a more competitive, resilient and pro-poor industry, as outlined in more detail below.

Roy Buktan leads Gaston Chocolat's town processing facility and the Pinalum fermentation station.

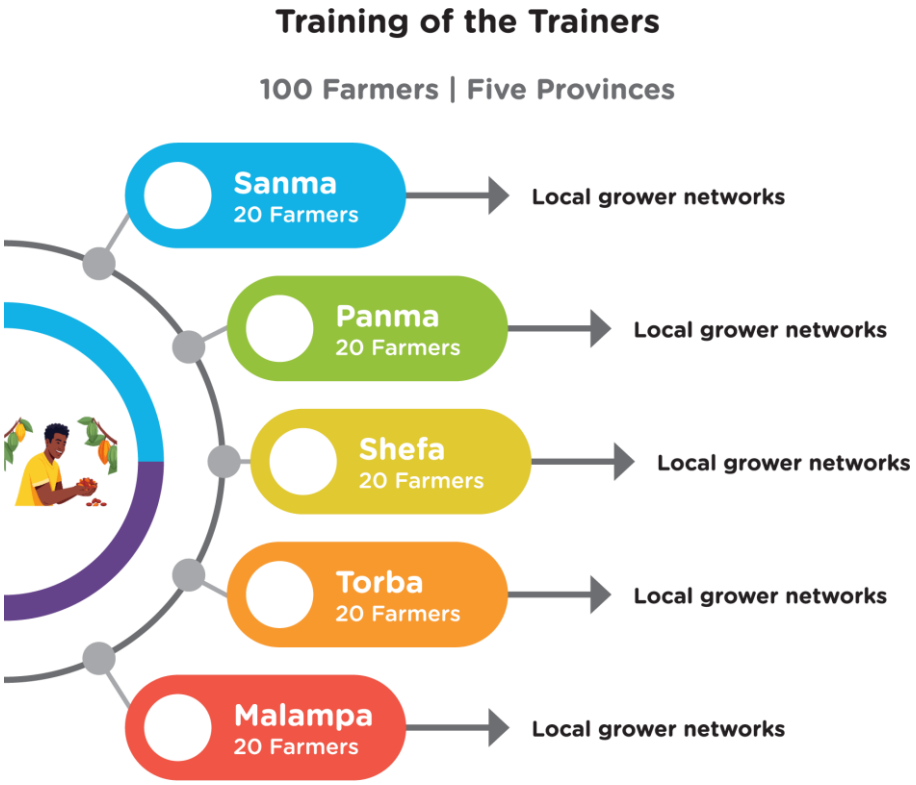
5.1 Improving Production and Plant Management

The ageing cacao tree population remains one of the sector's most serious productivity constraints. Many trees date back decades and suffer from low yields and vulnerability to pests and diseases. Replanting efforts are impeded by limited nursery capacity and access to resilient, grafted seedlings. MALFB has prioritised nursery expansion through public nurseries. PHAMA Plus has played a complementary role in raising awareness of the need for seedling renewal, facilitating early-stage investments by private actors such as Gaston, and advocating for improved plant quality. However, there are concerns that a government-owned approach to nurseries, which are able to supply the market at below private sector rates, is crowding out private investments. A clearer policy direction to support private nurseries may be required to meet the demand.

Based on PHAMA Plus analysis using MALFB and industry data, the sector requires approximately 400,000 cacao seedlings per year in comparison with 40,000 seedlings distributed by MALFB. Grafting to Amazonian rootstock is essential to achieve both higher yields and disease resilience. To improve plant management, PHAMA Plus has supported pruning training in partnership with VPPA, while MALFB has provided subsidised equipment to key farmers. These efforts are necessary to reverse the current trend of under-pruned, low-yielding farms.

"The quality chocolate we have now is because of the quality improvements of the past." – Sandrine Wallez, ACTIV.

MALFB, in partnership with Vanuatu Primary Producers Authority (VPPA) and PHAMA Plus, is deploying a decentralised training-of-trainers approach to catalyse practice change across the specialty cacao value chain. This strategy targets 100 key farmers—20 from each of Vanuatu's five provinces—who have been identified for their leadership potential, production expertise, and existing influence within local grower networks.



Many of these key farmers operate centralised fermentation and solar drying facilities, which are used by clusters of surrounding smallholder growers. By positioning these farmers as champions of improved agronomic and post-harvest practices, the program enables rapid diffusion of innovations across community-based supply chains. This includes techniques such as temperature-controlled fermentation, solar drying, grading, and recordkeeping—vital for meeting export quality standards. PHAMA Plus's interventions have been working with MALFB, VPPA, Gaston, Spencer and the key farmers to improve their on-farm practices, production, and productivity.

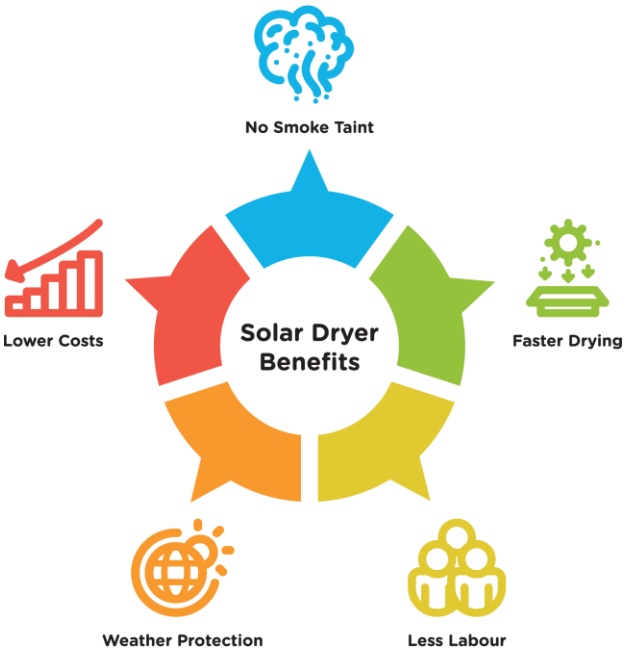
"In the North, 20 key farmers have been selected to form the training group. They are managing fermentaries and are the first to receive support through VPPA's and MALFB's training approach. They'll then be tasked to support surrounding smallholders." – Geraldine Neirove, Cacao Technical Specialist, MALFB.

The ‘key farmer’ model shows promise, with those farmers acting as entry points for improved practices and post-harvest aggregation. Recent interviews and impact surveys indicate strong adoption of quality-focused farm management practices across partner companies. Gaston continues to support farmers through regular one-to-one training, the provision of harvesting and pruning tools, and the enforcement of strict hygiene protocols, including the use of gloves and sanitisers, to maintain export-quality standards. Similarly, 90% of regular wet bean suppliers to Aisen—key farmers supplying Spencer—reported awareness of improved plantation and harvest management practices, following targeted training delivered by Spencer. Both companies confirmed strict adherence to these practices to ensure consistent bean quality.

Importantly, the key farmer approach is being complemented by nursery expansion interventions to ensure an adequate and sustained supply of high-quality planting material. Farmers are being supported and encouraged to replant using disease-tolerant and climate-resilient cacao varieties, helping to rejuvenate ageing plots and improve long-term productivity. In October 2025, the Minister for Agriculture, Livestock, Forestry and Biosecurity announced new government targets to plant 2 million new cacao plants by 2030 and strengthen pest and disease research. By aligning the promotion of better post-harvest handling with improved genetics and plant husbandry, these initiatives are strengthening the entire production system from seedling to export.

The cooperative and decentralised model not only supports peer-to-peer learning and local ownership, but also embeds innovation in ways that are scalable, culturally appropriate, and sustainable—laying the groundwork for a more resilient, inclusive, and high-performing specialty cacao sector in Vanuatu.

“There’s pride in what we produce now. You can taste Vanuatu in the chocolate.” – Lui Ross Tunmal, key farmer and local processor.



Lui Ross Tunmal, cacao farmer from Laravat, Malekula — delivers premium beans to Spencer Cocoa and contributes to Vanuatu’s specialty chocolate story.

The Key Farmer Model: Enabling Scale and Inclusion through Decentralised Extension

The success of Vanuatu's specialty cacao sector increasingly rests on the shoulders of its "key farmers"—locally embedded growers who act as champions for farmers focused on quality and innovation. Supported by Department of Agriculture and Rural Development (DARD) and PHAMA Plus, this model empowers selected farmers with the knowledge, tools, and infrastructure to improve their own production and act as peer-to-peer educators within their communities. These champions of change play a pivotal role in scaling good agricultural practices by fostering trust and knowledge-sharing through local networks.

DFAT, MFAT, DARD and the PHAMA Plus team

Since 2020, DARD has identified approximately 100 key farmers across Vanuatu, 20 in each province. These individuals receive targeted training on cacao agronomy, pruning, plant health, and post-harvest handling. The DARD, PHAMA Plus and VPPA joint trainings on farming and business management practices have been particularly effective for those who have attended, but are yet to see broader uptake. This has been combined with subsidised pruning tools from DARD and pilot fermentation and solar drying installations by PHAMA Plus, focusing early interventions on key farmers with sufficient landholdings and an openness to innovation. These pilots were designed to demonstrate the viability of centralised fermentation and drying systems that can aggregate wet beans from neighbouring smallholders. The model has shown strong promise, offering proof-of-concept for broader application, but is still in its infancy.

The 'key farmer' approach is grounded in a decentralised extension framework, leveraging community linkages to maximise impact. While DARD cannot directly reach thousands of growers, it can support key farmers who in turn influence and mentor their neighbours—creating a ripple effect of knowledge and behaviour change. The model aligns with the Knowledge, Attitude and Practice (KAP) framework: training enhances knowledge; trusted local leaders shift attitudes; and communities collectively adopt improved practices, particularly around bean quality and post-harvest processing.

Extension support is coordinated by DARD officers such as Geraldine Neirove, the department's cacao expert based in Santo, who plays a pivotal role in mentoring and training key farmers. During field visits, Geraldine and her provincial colleagues provide technical advice and ongoing support to ensure new practices are adopted and maintained.

Based on recent evidence, the key farmer model can now be considered established among three specialty cocoa buyers in Vanuatu. Alternative Communities Trade in Vanuatu (ACTIV) is fully sourcing cocoa beans from key farmers equipped with solar dryers; Spencer is procuring beans from key farmer Lui and Aisen and nine additional key farmers with solar dryers across multiple locations; and Gaston has expanded the model to source increased volumes from key farmers in different regions. As demand for sustainably sourced cocoa beans continues to rise, these companies are proactively expanding their networks of key farmers.

5.2 Promoting New Drying and Fermentation Technology

Recognising the importance of post-harvest handling, PHAMA Plus introduced centralised fermentation and solar drying processes adapted from successful models in the Solomon Islands. It provides capital-intensive infrastructure that can serve a broad network of farmers while ensuring consistent quality—an essential requirement for access to premium markets.

The PHAMA Plus interventions initially supported VPPA with household-level dryers. A second generation of solar dryers featured improved designs, replacing ultraviolet (UV) plastic with more durable laser light roofing, which is expected to last up to 20 years. Co-investments with processors such as Gaston and Spencer further scaled up the drying infrastructure.

The further introduction of modular solar drying systems has enabled farmers to gradually invest in post-harvest infrastructure, starting with small units that can be expanded as production grows. These systems are particularly well suited to Vanuatu's dispersed farming communities, where capital constraints and variable harvest sizes require flexible, scalable solutions. In addition to improving bean quality, solar dryers protect cacao from inclement weather, ensuring a more consistent drying process and reducing the risk of crop loss due to rain or humidity. By mitigating these risks and enhancing quality, the modular approach supports farmer confidence and helps unlock higher-value specialty markets.

Those using solar dryers also report significant time savings. This is important in a sector where labour shortages remain a key constraint. Many farmers report insufficient help with pruning, harvesting, and drying—leading to missed quality premiums and seasonal inefficiencies. While more women are engaging in the drying and processing phases of production, and some youth are entering the sector, the supply of labour continues to be affected by broader demographic and economic factors, including migration to urban centres or overseas work. In this context, time-saving technology has increasing value.

Pilot projects strategically targeted key farmers chosen for their production capacity, openness to innovation, and strong local influence, enabling them to train and inspire others. Forty key farmers received solar dryers through PHAMA Plus and DARD support in Phase 1, underscoring the significant potential for further expansion. Phase 2 saw the establishment of five additional solar dryers, a collaboration with boutique cacao bean exporters such as Gaston and Spencer. Building on this, Gaston innovated further by establishing modular, foldable solar dryers, drawing inspiration from commercial cacao plantations and drying techniques in Ecuador. In 2023, 10 other cacao farmers had independently set up their own solar dryers, inspired by the success demonstrated through PHAMA Plus's interventions.

While most adopters are engaged in specialty cacao, there are isolated examples of adoption by bulk producers. Observations in Malekula, interviews with key farmers, and 100% of Gaston and Spencer farmers surveyed noted that growers are preferencing their sales at higher prices to the solar-farm processors, switching from bulk buyers to specialty cacao producers.

PHAMA Plus has also supported the prototyping of modular fermentation and drying models suitable for both commercial and small-scale applications. These post-harvest aggregation models facilitate entry by new actors and enable quality upgrades without requiring full vertical integration. Tested business models include direct-to-export (e.g. Spencer), business-to-business (e.g. Gaston), and intermediary aggregation (e.g. Routini). Ensuring that part of the price premium flows back to growers is critical to sustaining farmer engagement in quality improvements.

Multiple rounds of support have evolved the dryer design, with the most recent iteration—co-developed with Gaston and VPPA—focused on durability, scalability and ease of use. PHAMA Plus continues to pilot and refine technologies to suit different production contexts and scales. The initial key farmers and processors, supported by the program, have been instrumental in demonstrating the viability of centralised fermentation and solar drying at the community level. Their success, evidenced by tangible

improvements in bean quality leading to increased farmer incomes, has generated local momentum, encouraging peer adoption and validating the model for broader investment.

Recent interviews with Gaston and Spencer confirm significant bean quality improvements since implementing centralised fermentation and solar drying. Consequently, these companies now rely on key farmers for initial quality control before bean supply. Reflecting this impact, 94% of Gaston farmers surveyed identified quality improvement as the primary reason for receiving price premiums.

Spencer Cocoa: A Fragile Premium Market

In Vanuatu's cacao sector, efforts to improve bean quality are often undermined by weak price incentives and the need for farmers to decide between short versus longer-term income and investment. Bulk buyers typically offer the same price regardless of quality, giving farmers little immediate reason to adopt better practices. Grading and quality assurance of the beans are rarely done at the point of purchase, and typically are carried out at the point of aggregation–which may be on a different island–making it difficult to link quality and prices.

Processors, too, are reluctant to invest in infrastructure like solar dryers or fermentation boxes when the farmers they rely on to supply the cacao can easily choose to switch buyers for marginally better prices. Particularly in areas of good infrastructure, a range of intermediaries may simply turn up to buy beans, even if they do not have a permanent business or any certifications in Vanuatu. This dynamic makes it hard to build and maintain a stable, high-quality supply chain.

Spencer Cocoa, which sources all of its beans from Malekula, faced the real risk of losing its suppliers. Despite years of engagement and investment in building trust, the low switching costs in the market meant farmers were tempted by quick cash from bulk traders when the price offered was relatively good. It was only through persistent relationship-building with growers like Lui Tunmal—reinforcing the benefits of long-term partnerships—that Spencer managed to retain its supply. Luke Spencer, who first came to Malekula as a volunteer, built his chocolate business on principles of fairness, quality, and a longer-term view, but that approach was nearly eroded by short-term market forces. In the end, what saved the supply chain was not just price, but the personal investment in farmers' livelihoods and mutual commitment to quality. The experience highlights the fragility of premium markets and the need for stronger incentives, alternative business models with more vertical integration between post-harvest processing and exporting, and strengthened coordination across the value chain. Without that, even the most well-intentioned buyers may lose ground to a system that, in the short term, rewards volume over quality.

Aisen's Story: Scaling a Community-Based Specialty Cacao Enterprise in Brenwei

Aisen, a respected elder in Brenwei on Malekula, has dedicated over 40 years to cultivating cacao. Fortuitously, about 15 years ago, he met Luke Spencer, then an Australian Volunteer stationed on Malekula. Spencer had been working on a dilapidated plantation, learning Bislama and immersing himself in the agronomy of cacao. Over time, the two formed a partnership built on mutual trust and a shared belief in the future of Vanuatu's specialty cacao sector. Today, Spencer produces premium chocolate in Mudgee, NSW, sourcing all his cacao from Malekula – with about half coming directly from Aisen and his community. Their collaboration has helped develop one of the clearest examples of how centralised fermentation and solar drying systems can benefit smallholder farmers. Aisen now operates a centralised post-harvest station—a compact, modular facility that serves as a collection point for wet beans from surrounding growers. These beans are fermented, solar-dried, and graded on-site, allowing the quality to be controlled and the premiums passed directly to the farmers. The solar dryers also protect the beans from inclement weather, reducing risks for farmers and improving the consistency of quality.

"We used to use smoke dryers, which now sit idle," Aisen said. "I have grown cacao for 40 years. But then, Luke asked for premium beans. Now we have new solar dryers and quality equipment. We couldn't have done this without Australia and New Zealand's support."

The work began in 2018 through a small PHAMA-backed initiative in Lakatoro Research and Training Centre (LRT), and was later scaled through expanded support from PHAMA Plus and DARD. "We did a small project in 2018 in LRT with PHAMA, and now this bigger one. But it's the long-term support and work from PHAMA Plus to bring the partnership together to lift up the whole industry [that's worked]," Aisen noted. Unlike traditional bulk exporters—who typically retain the margins from price differentials—this model ensures that premiums paid for high-quality beans flow directly to farmers. Previously, farmers like those in Aisen's network were earning just VUV180–190/kg (AUD2.10-2.25) for wet beans. Under the Spencer model, prices have increased to around VUV200–210/kg (AUD2.35-2.45). The transparency and fairness in pricing have built stronger supply relationships and provided a clear incentive for smallholders to invest in quality, contributing to more inclusive and sustainable growth in the sector.

Over 40 farmers are now supplying wet beans to Aisen's centralised facility, up from 20 farmers supplying in 2024; though he can't keep pace with the demand. Growers prefer to sell to Aisen because they receive significantly higher prices than through the bulk market, and many will sell as much as he can take—only offloading surplus beans to lower-paying, lower-quality buyers. The main constraint to further expansion is infrastructure: solar dryers are costly, requiring an estimated VUV1 – 1.2 million (AUD12,000–15,000) each in upfront financing. Aisen intends to add a new dryer each year using reinvested proceeds, but scaling up will take time. Encouragingly, other farmers are expressing strong interest in replicating Aisen's model, yet they too need support with training. With the right enabling support, the model has strong potential for scale across Malekula and beyond, offering a compelling pathway for inclusive growth in Vanuatu's cacao sector.

Gaston: A Vertically Integrated Model for Community-Based Premium Cacao

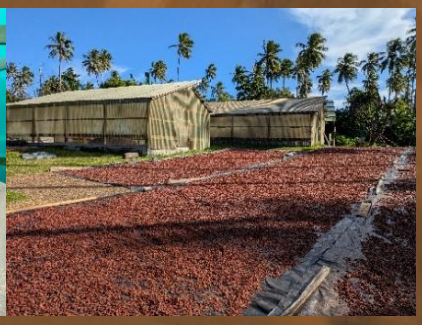
Gaston has emerged as a leading example of how Vanuatu's cacao industry can successfully move from commodity trading to a premium, value-added model that benefits both exporters and smallholder farmers. With early and sustained support from PHAMA Plus, Gaston Chocolat (the chocolatier) and Gaston Cacao (the cacao bean exporter) have been able to invest in quality upgrades, establish key certifications, and embed inclusive farming practices at the heart of their business model.

The public–private partnership (PPP) between the Government of Vanuatu and Gaston marks a step change in the move to high-value specialty cacao. Enabled by the 2024 PPP framework, it combines government land and oversight with private investment and market access to strengthen exports, expand processing and improve returns for farmers.

PHAMA Plus's partnership with Gaston was instrumental in improving quality assurance and securing both HACCP and B Corp certifications. Quality Solutions, supported by PHAMA Plus, played a key role in helping Gaston meet the stringent HACCP certification requirements necessary for entry into premium international markets. These internationally recognised credentials have enabled Gaston to access markets in Australia, New Zealand, Hawaii, Europe, and the United States—selling out orders through to 2027 without advertising or a website. The program also helped co-finance the installation of solar dryers and fermentation boxes in Pinalum village on Malekula Island, where Gaston co-invested in infrastructure with multigenerational farmers like Roy. Coordination with DARD has further strengthened the enabling environment, ensuring technical support and extension services reach farmer networks. These systems are not just processing hubs—they are income-generating assets producing higher-quality beans at scale.

Gaston's approach is deeply local: the company employs 4 full-time staff (3 men, 1 woman) at Gaston Cacao, 3 women full-time at Gaston Chocolat and 10 seasonal women workers at Pinalum , with two trucks collecting wet beans from over 378 smallholder suppliers—most with fewer than 100 trees. The company employs women in cacao powder production and is also managing a new nursery, co-financed with PHAMA Plus, to expand access to productive seedlings and rejuvenate older tree stocks.

Gaston's vertically integrated model—where fermentation, drying, and export are managed by Gaston Cacao alongside in-country chocolate production by Gaston Chocolat to demonstrate the quality of their beans—ensures traceability, quality, and better returns for farmers. Farmers earn VUV190–210/kg (AUD2.25-2.45) for wet beans, up from VUV180–190/kg (AUD2.10-2.25) in the bulk market, a shift that has significantly lifted incomes.



Olivier added, "The more remote the location, the greater the motivation for the farmers and the less competition."

Yet the path hasn't been easy. COVID-19, Cyclone Harold in 2022, and the Port Vila earthquake in December 2024 forced costly relocations, disrupted market access, and exposed financing constraints. Despite all the challenges, Gaston Cacao saw a 40% increase in export revenue in 2025 by targeting boutique international markets. Simultaneously, Gaston Chocolat maintained a consistent and stable revenue stream, successfully capturing the domestic market through its integrated chocolate, bakery, and catering operations, contributing to import substitution.

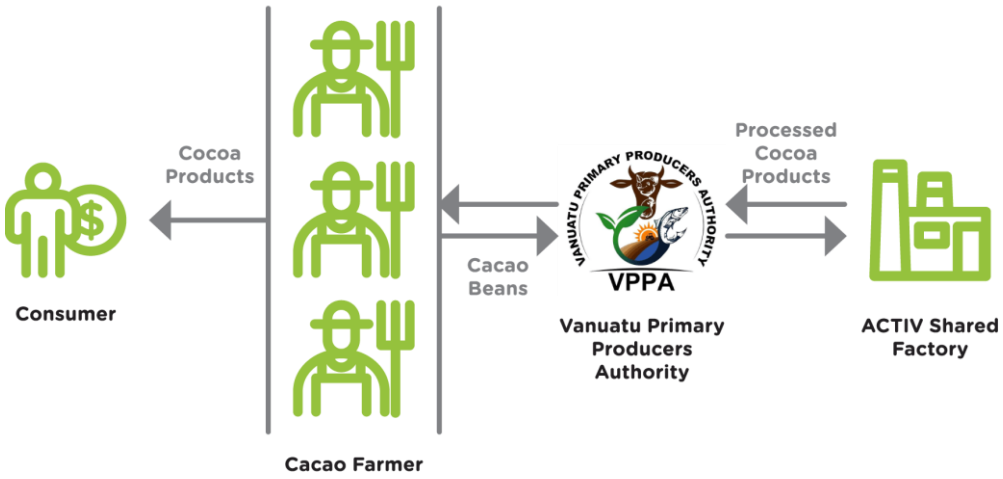
With further investment and replication, the Gaston model offers a pathway to scalable, inclusive, and sustainable growth for Vanuatu's cacao sector.

5.3 Shared Factory Model

When COVID-19 hit, the vulnerability of the nascent specialty cacao sector to fluctuating global markets quickly became apparent. Border closures and supply chain disruptions meant that Aelan Chocolate (the business arm of ACTIV) could no longer export its chocolates. The farmers that had been supplying ACTIV suddenly found themselves without an income. PHAMA Plus entered into a partnership with ACTIV and the VPPA to trial a new business concept–the 'Shared Factory Model'– as a means of protecting farmer incomes and sustaining supply chain logistics until exports re-opened.

PHAMA Plus supported ACTIV to establish a dedicated processing line within their HACCP-certified processing facility for 'shared factory' users. An arrangement was then put in place whereby VPPA acts as an aggregator, collecting and transporting dried cacao beans from Malekula, Santo, Araki, Malo, Ambae, Maewo, and Epi to Port Vila for processing by ACTIV in the capital. The cacao beans are processed into chocolate and cocoa powder using the dedicated shared factory processing line, and the processed products are provided back to farmers. The farmers can then sell the products directly using their own individual labelling. Processing fees are paid by the farmer to ACTIV either in cash or with additional cacao beans, and 30% of the processed product is retained by VPPA for them to market through their own outlets. During the set-up phase, PHAMA Plus partially subsidised the processing fee for farmers on a gradually reducing basis to help de-risk and incentivise initial uptake of the new model. All fees are now directly paid by participating farmers.

Figure: ACTIV Shared Factory Model

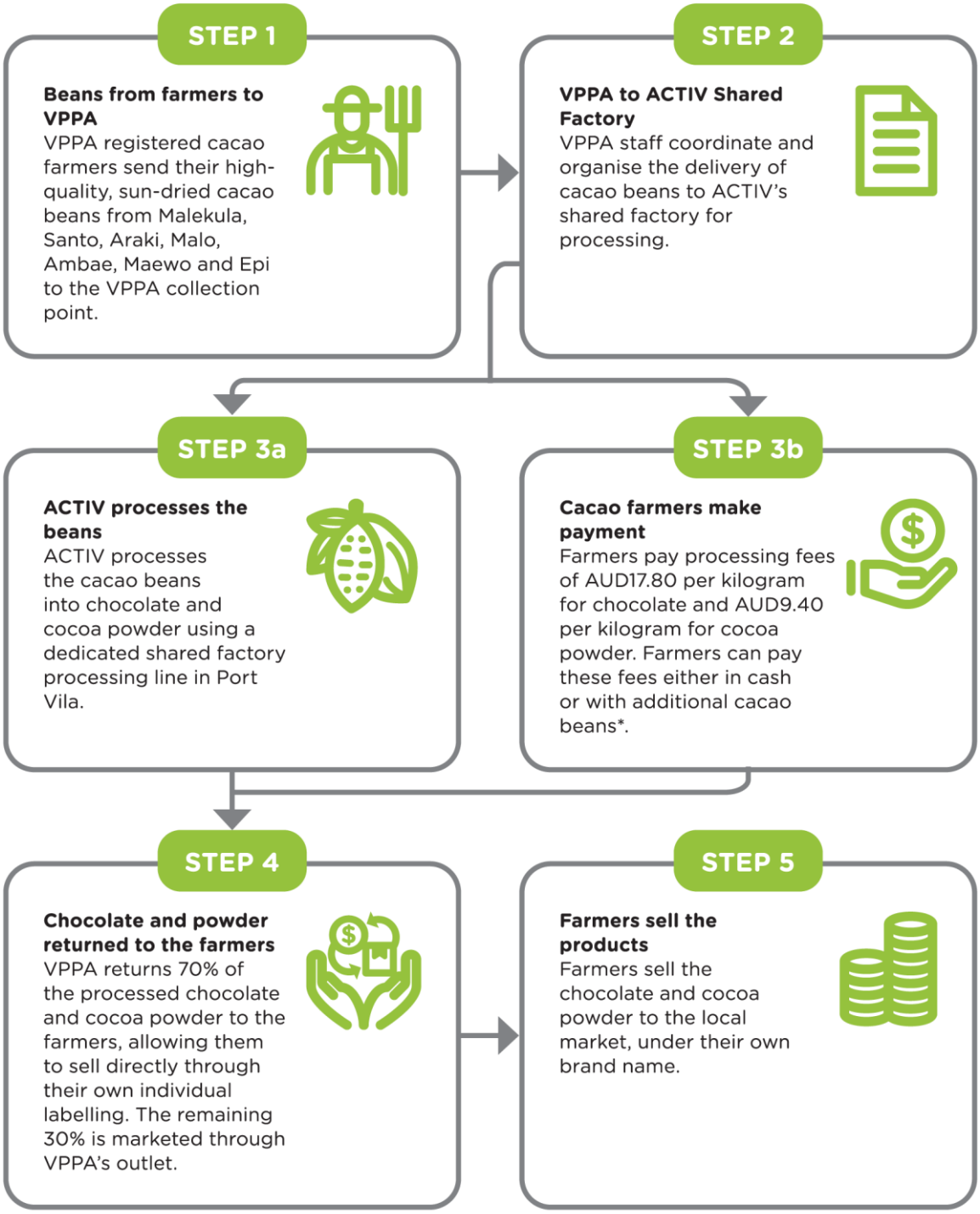


The Shared Factory Model was successful in protecting ACTIV's supply chain through COVID-19, and it has also delivered a range of other benefits. Through its diversified business model, ACTIV has more than doubled its processing capacity and established a new revenue stream. Farmers participating in the Shared Factory Model report increased household incomes of approximately VUV256,000 (AUD3,000) a year (as a point of comparison, Vanuatu minimum wages are approximately VUV60,000 (AUD715) per month). As farmers using the Shared Factory Model have increased sales of their processed products, that have also needed to source more cacao beans to dry and process. This demand has created a ripple effect, with other smallholder farmers supplying wet beans to the shared factory users. An impact assessment found that 125 households earned an average 32% increase in income from supplying those wet beans. For VPPA, the initiative provides a practical way to help deliver its core mandate to support all cacao farmers and to work towards improved commercial production on designated islands.

What started out as a COVID response initiative has become an important innovation with multiple benefits. PHAMA Plus has supported new ways of working, enabled economic diversification, and built a more resilient domestic supply chain as a foundation for sustainable and reliable export growth.

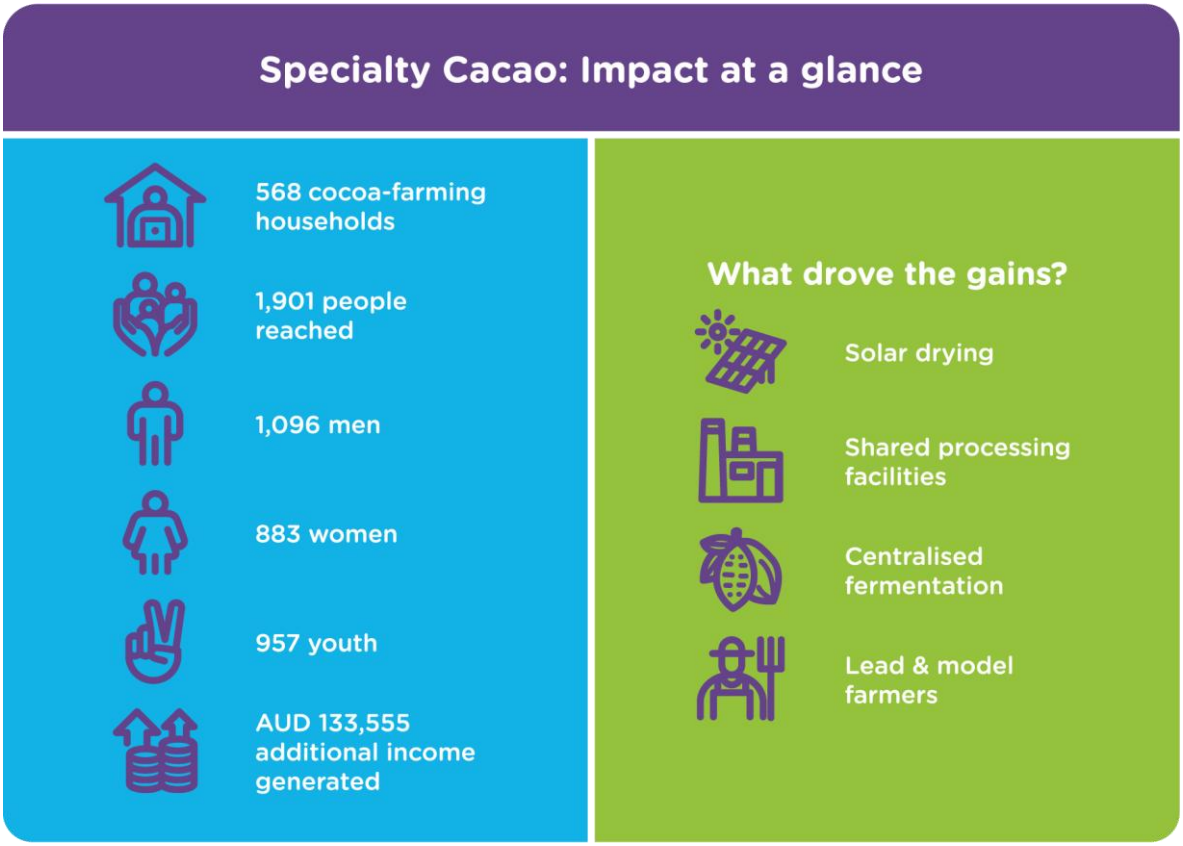
How the Shared Factory Model Works

The ACTIV shared factory operates through a streamlined process, empowering farmers to turn their cacao beans into marketable products.



* During the establishment period, PHAMA Plus initially subsidised the processing fees to help incentivise uptake and de-risk engagement with an innovative model; farmers are now paying the full fees.

5.4 Transforming Farmers and Communities: Early Indications of Widespread Social and Economic Impact



Improvements in the specialty cacao sector are beginning to translate into tangible socioeconomic gains for farming communities across Vanuatu. Although still at an early stage, with many of the industry changes only reaching their inflection point now, these changes are visible in both household-level investments and broader shifts in farm management and labour dynamics.

Farmers involved in the premium segment report improvements in income stability and livelihood quality. For example, 154 cacao farming households have increased income as a result of supplying Gaston, worth an estimated VUV1.75 million (AUD20,582) according to impact assessments. Meanwhile, anecdotal evidence from growers like Norah highlights how cacao has helped fund school fees, renovate homes, and support community events. In some households, cacao income has enabled the construction of permanent housing structures (e.g. concrete homes), the purchase of vehicles, and other significant investments. These outcomes are especially notable given the limited cash income sources in many rural areas.

The impact extends beyond the individual farmer. In areas with strong cooperative models or shared post-harvest infrastructure, benefits are diffused across entire communities. Social events, such as weddings and church fundraising, have reportedly become more financially viable through cacao earnings.

Economic activity around cacao has also led to increased local employment, particularly for roles in drying, fermentation, bean collection, and chocolate processing. These jobs are increasingly being taken up by women, who are also playing more prominent roles in quality assurance and marketing. Youth involvement is slowly improving where economic returns are visible.

While progress is uneven, the early results are promising. In particular, the potential for household-level transformation appears strongest among those integrated into the specialty cacao value chain. Here,

the link between improved quality, higher prices, and livelihood gains is most tangible. These benefits are further reinforced when paired with training, cooperative support, and market facilitation provided by programs like PHAMA Plus. However, access remains uneven, and many growers outside key pilot areas still rely on bulk channels and lack technical knowledge or capital to upgrade.

In total, 568 cacao-farming households benefited from improved market access, higher prices, and increased sales volumes through specialty cacao supply chains. These households comprised 1,901 people, comprising 1,096 men, 883 women, and 957 youth, reflecting broad participation across communities. Collectively, these interventions generated an estimated VUV11.4 million (AUD133,555) in attributable income increases, demonstrating the effectiveness of solar drying, shared processing facilities, centralised fermentation, and key farmer models in improving smallholder incomes.

Norah's Story: Empowering Women Farmers through Inclusion

Among the many farmers now benefiting from Vanuatu's emerging specialty cacao industry is Norah, a resilient grower from Brenwei Malekula who supplies her beans to Aisen's centralised fermentation and drying operation. For Norah, the shift to higher-quality production in the past two seasons has been transformative.

Through this partnership with Aisen, Norah now receives significantly higher prices for her beans—rising from just VUV180–190/kg (AUD2.10-2.25) for wet beans in the bulk market to around VUV200–210/kg (AUD2.35-2.45) for premium-grade beans sold to Aisen. While Norah prefers to sell to Aisen, he is not able to take all the beans produced. Norah spoke of wanting to set up her own fermentation and solar dryer, though she acknowledges she would need more training to access finance.

"Before, I was just growing cacao. Now, I'm running a business."

These gains have directly impacted Norah's life: she has been able to pay her children's school fees, stock her kitchen with all-new utensils, and renovate the family home. The rest of the money has been used to reinvest in her cacao plantation. Rather than selling her land or reducing production, Norah is committed to expanding her farm and maintaining quality standards so she can continue to supply into the premium market. Norah's story reflects the broader inclusion potential of the specialty cacao sector. As more women engage in post-harvest processing, quality control, and small-scale entrepreneurship, the benefits of premiumisation are increasingly reaching beyond traditional male-dominated farming roles. Her experience demonstrates how targeted support—combined with strong community-based models—can empower individual farmers, uplift households, and strengthen local economies.

6 Lessons Learned and Recommendations

The recent growth of Vanuatu's specialty cacao sector highlights the transformative potential of targeted and well-coordinated interventions to reshape agricultural value chains and improve rural livelihoods. PHAMA Plus has played a pivotal role in establishing proof-of-concept—from enhancing bean quality and supporting certification to enabling export market access. However, the specialty cacao segment remains in an emerging phase, comprising less than 10% of total national production. While the market opportunity is clear and growing, the sector has not yet reached a tipping point where scale and sustainability are assured.

A number of key lessons have emerged from the current phase of investment. First, the success of modular solar drying systems and centralised post-harvest aggregation has enabled smallholder producers to meet premium quality standards. The 'key farmer' model has proven effective in diffusing good agricultural practices and improving productivity. Equally, enabling infrastructure—such as HACCP and B Corp certification—has been instrumental in facilitating entry into niche export markets. These technical interventions were made possible in part by the Vanuatu National Cacao Strategy (2020–2025), which galvanised government commitment, coordinated stakeholder action, and aligned development partner investments.

Despite this progress, structural challenges remain. Access to quality planting material is a persistent bottleneck, with public nursery systems overstretched and private sector involvement limited. There is a need for investment in resilient, grafted seedlings to support new entrants and replant ageing trees. In addition, while post-harvest innovations are improving bean quality, incentives reaching the farmgate are not always strong enough to compete with the short term bulk market. The lack of a clear price signal disincentivises quality improvements. Stronger value chain linkages, improved business models, and equitable benefit-sharing mechanisms will be critical to sustaining momentum and unlocking the full potential of Vanuatu's specialty cacao sector.

To consolidate gains and achieve scale, next steps should focus on the following priority areas:

1. **Update the Vanuatu National Cacao Strategy (2026–2030):** Provide technical support to MALFB to finalise an updated national cacao strategy within the next year. This will help maintain coordination across government, industry and donor investments.
2. **Expand nursery capacities:** Support MALFB's commitment to plant 2 million cacao trees by 2030 through the expansion of grafted seedling supply via public and private partnerships. Promote community-managed nursery models to decentralise access to planting material.
3. **Promote the roll out of scalable drying and fermentation models:** Continue to encourage expanded adoption of modular, centralised fermentation and drying systems tailored to different production scales and contexts. These models should support both commercial exporters and key farmers.
4. **Provide support through key farmers and premium exporters:** Offer technical and financial support through established key farmers and premium exporters to build a critical mass of quality-focused production. Ensure sufficient price incentives reach farmers to sustain engagement in a competitive supply environment.
5. **Strengthen coordination with VPPA and MALFB:** Support ongoing coordination between industry and government, especially through the VPPA and MALFB/DARD. Facilitate institutional learning and shared investment planning. Future programming may also support the institutionalisation of market intelligence and traceability systems to differentiate Vanuatu cacao in a crowded global specialty market.

In Malekula, the Cacao Ambassador, Oonagh Browne joined farmers and experts to learn together, boosting premium bean quality and local cacao consumption.

Annex 1: Evidence Matrix

Key Question	Key Finding	Evidence
Context • What is the relevance of the specialty cocoa sector development strategy in light of Vanuatu's social, environmental and economic priorities	• The specialty cacao sector directly supports Vanuatu's rural development priorities by improving smallholder incomes, strengthening export diversification, and building resilience against economic shocks. • Agroforestry-based cacao farming promotes environmentally sustainable land use, aligns with climate adaptation goals, and reduces soil erosion and deforestation. • The development strategy contributes to Vanuatu's national economic diversification agenda by shifting focus from low-value bulk exports to high-value specialty products. • The strategy supports post-disaster economic recovery by enhancing community cash flow and enabling reinvestment in housing, education, and farming inputs. • The premiumisation of cacao exports complements Vanuatu's tourism and branding strategy by building a reputation for ethical, high-quality agricultural exports.	• Over 5,800 households are engaged in cacao production, the majority as smallholders. (Sector Strategy, slide 10) • Cacao is increasingly seen as a viable income source in rural communities, with income increases reported from 180–190 VUV/kg (AUD2.10-2.25) (bulk) to 200-210 VUV/kg (AUD2.35-2.45) for quality beans. (Impact Assessment, p. 6) • Growth from 3 tonnes (2021) to 60 tonnes (Gaston Interview 2025) reflects improved livelihoods and market participation. (Performance Story, p. 3) • PHAMA Plus interventions are aligned with national priorities on economic inclusion and rural development. (Performance Story Briefing, slide 8) • Agroforestry cacao systems protect biodiversity and mitigate soil erosion. (Baseline Report, p. 7) • Solar dryers reduce dependency on wood fuel, contributing to environmental sustainability. (Performance Story, p. 6) • Modular infrastructure integrates rain protection and climate-resilient design. (Sector Strategy, slide 17) • Government support for VCIA and the National Cacao Strategy 2020–25 reflects national economic diversification goals. (Sector Strategy, slides 6–7) • Market access activities have targeted premium buyers in Japan, Australia, and New Zealand. (Improved Market Access Report, p. 3) • PHAMA Plus helped position cacao as one of two priority export crops alongside kava. (Performance Story, p. 2) • Cacao has been a core livelihood recovery crop post-disaster, particularly after Cyclone Pam. (Performance Story Briefing, slide 5) • Cacao enables rural liquidity in cash-scarce environments, supporting other community priorities. (Performance Story, p. 6) • Vanuatu cacao's unique flavour profile and ethical sourcing story are promoted as part of national branding. (Gaston Case Study, p. • Branding reinforces Vanuatu's identity as a producer of quality and sustainable exports. (Performance Story Briefing, slide 6)

Key Question	Key Finding	Evidence
		• Linkages between cacao branding and tourism form part of the 'Made in Vanuatu' campaign. (Performance Story, p. 6)
Enabling environment: Export market facilitation • To what extent has PHAMA Plus contributed to informal and formal export market access for Vanuatu specialty cacao suppliers? • Demonstrate significant instances in which PHAMA Plus, through its partnership approach, contributed to improving the enabling environment, particularly in terms of policy, research and industry leadership to support value over volume?	**Extent of PHAMA Plus's contribution to market access:** • Facilitated HACCP and B Corp certification for exporters like Gaston and ACTIV. • Organised trade visits and linked producers with buyers in Japan, NZ, and the US. • Helped establish the Vanuatu Cacao Industry Association (VCIA), creating a formal platform for industry coordination. **Contribution to policy, research and industry leadership:** • Supported development and implementation of the 2020–2025 National Cacao Strategy. • Strengthened the capacity of the Vanuatu Bureau of Standards, including provision of lab equipment and training. • Promoted inclusive governance through partnerships with DARD and private actors to align efforts.	**Market access** • Trade missions organised to Japan, NZ, and Australia introduced Vanuatu suppliers to specialty buyers. (Market Access Report, p. 3) • Gaston Chocolat received technical support for market engagement in Australia. (Gaston Case Study, p. 4) • Export volume grew from 3 tonnes in 2021 to 60 tonnes in 2025. (Performance Story, p. 3) • PHAMA Plus supported HACCP and B Corp certifications for Gaston and ACTIV. (Gaston Case Study, p. 4) • B Corp certification enhances access to ethical consumer segments. (Performance Story, p. 4) • Certification enabled participation in global supply chains. (Performance Story Briefing, slide 7) • PHAMA Plus supported formation of VCIA to coordinate policy, standards, and industry inputs. (Sector Strategy, slide 6) • VCIA recognised by government and private sector as key industry platform. (Performance Story, p. 3) • Participation in PHAMA Plus–supported international visits to Hawaii and Ecuador had a transformative impact on Gaston's operations. Key learnings included: • Centralized fermentation and consolidation models • Improved cocoa handling and quality control • Introduction of fermentation tracking devices • Design and installation of adjustable, hygiene-focused fermentation units • These changes significantly improved processing efficiency and quality, enabling Gaston to establish regular export relationships with buyers in the United States, Hawaii, and France. **Policy, research and industry leadership** • The VBS was equipped with food safety lab equipment and staff trained in audit protocols. (Sector Strategy, slide 11) • MoU with VBS enabled localised pre-certification services for HACCP/B Corp. (Gaston Case Study, p. 4)

Key Question	Key Finding	Evidence
		• Exporters introduced traceability systems from producer to buyer. **HACCP Certification** is current and was renewed recently for Gaston, with an external audit scheduled for January/February 2026. The certification is particularly valuable for supplying cruise ships once tourism activity resumes. **B-Corp Certification** renewal is planned for 2026 for Gaston. It has proven especially useful for marketing and attracting socially conscious clients. Both certifications currently apply only to chocolate products for Gaston. For cocoa beans, Gaston is pursuing **organic and heirloom certifications**, which are expected to strengthen export competitiveness. (Gaston Interview 2025) • PHAMA Plus promoted national quality standards aligned with export protocols. (Sector Strategy, slide 7)
Production: Quality and biosecurity • How has PHAMA Plus supported improvements in post-harvest practices, including climate-adaptive technology (e.g. solar dryers)? • What evidence is there of increased value addition, quality improvements, and traceability?	**Support for post-harvest improvements:** • Rolled out 40 modular solar dryers, improving drying consistency and bean quality. • Demonstrated effectiveness of centralised fermentation and drying systems in pilot areas like Malekula. • Integrated solar dryers with rain protection, reducing weather-related losses. **Evidence of quality improvement and traceability:** • Exporters now demand traceable, high-quality beans (e.g., Gaston and Spencer pay 200-210 VUV/kg vs 180-190 VUV/kg bulk). • Premium certifications and centralised processing help establish traceability from farmer to buyer.	**Post harvest improvements** • Over 40 modular solar dryers installed in key growing areas. (Performance Story, p. 6). 4 solar dryers were improved for Gaston in Phase 1. 1 was a new solar dryer and 3 were improved version of existing structure. (Gaston Partnership 2020-21) 3 new solar dryers were established for Gaston in Phase 2 (Gaston Partnership 2024) 3 new foldable solar dryers are being built for Gaston in collaboration with in 2025-26 (Gaston Interview, 2025) • Solar drying reduced smoke taint and improved flavour consistency. (Impact Assessment, p. 5) • Dryers protected beans from rain, reducing post-harvest losses. (Gaston Case Study, p. 2) • Centralised fermentation models piloted in Malekula improved bean quality. (Performance Story, p. 6) • Exporters like Gaston report better consistency and lower rejection rates. (Gaston Case Study, p. 3) • The Gaston Solar Dryer operations and supply chain involve the weekly collection of approximately 1 metric ton of wet beans from Vinmavis and Laravat, which are then transported to Pinalum for drying. In addition, there is a monthly procurement of around 3 metric tons of dried beans from Tisvel and Laravat. Furthermore, an extra monthly supply of 0.5 metric tons of dried beans is sourced from Brewei, located north of Laravat, through a station managed by farmers. (Gaston Interview 2025)

Key Question	Key Finding	Evidence
	• Cases of rejected low-quality bags at local markets indicate stricter quality standards are taking hold. • Supported nurseries and improved plantings for quality and climate resilience	**Quality and traceability improvements** • Prices increased to 200 VUV/kg for high-quality fermented beans. (Impact Assessment, p. 6) Recent interviews and impact surveys indicate strong adoption of quality-focused farm management practices across partner companies. Gaston continues to support farmers through regular one-to-one training, the provision of harvesting and pruning tools, and the enforcement of strict hygiene protocols, including the use of gloves and sanitisers, to maintain export-quality standards. (Gaston Interview 2025) Similarly, 90% of regular wet bean suppliers to Aisen—key farmers supplying Spencer—reported awareness of improved plantation and harvest management practices, following targeted training delivered by Spencer. Both companies confirmed strict adherence to these practices to ensure consistent bean quality. (Gaston Interview 2025, Spencer Impact Assessment 2025) • Traceability from farmer to buyer improved via processing records. (Performance Story Briefing, slide 7) • Dryers include climate-adaptive design (rain cover, airflow). (Sector Strategy, slide 17) • Communities trained in maintenance of solar infrastructure. (Performance Story, p. 6) • Community nurseries expanded with PHAMA Plus support. (Performance Story, p. 7) • Farmers access improved, disease-resistant planting material. (Baseline Report, p. 9) **VPPA and farmer surveys** Farmers were surveys to understand their preference between solar and traditional dryer, 94% farmers preferred solar dryers. The reasons for their preferences (Ranked based on frequency) are: Rank 1: Improved quality beans – no smoke taint Rank 2: Less labour/Easier to use compared to traditional dryer Rank 3: Faster drying – typically 4 days. Rank 4: Weather Protection and reliable Rank 5: Low operating costs – labour and fuel (firewood) cost saving Some of the issues noted by solar dryer farmers (Ranked based on the frequency) regarding the solar drying technology are: Rank 1: Unavailability of plastic tarps at the nearest hardware shops for replacement or repair Rank 2: Expensive plastic tarps Rank 3: Transportation and logistical issue

Key Question	Key Finding	Evidence
Processing: Diversification and value adding • To what extent has PHAMA Plus contributed to improving the processing and value adding of Vanuatu speciality cacao? • To what extent have producers, processors and other supply-side actors increased resilience and improved performances?	**PHAMA Plus contribution to value adding:** • Enabled small-scale chocolate production (e.g., Gaston Chocolat) to showcase bean quality. • Supported solar dryer expansion and infrastructure development for centralised processing. **Improved performance and resilience of supply-side actors:** • Helped businesses like Gaston scale from 3 to 65 tonnes in 2 years. • Expanded nursery production to renew ageing tree stocks and address productivity constraints. • Encouraged partnerships (e.g. Public-Private Partnership with Roy in Pinalum) to improve community-based aggregation.	**Gaston Case Study:** Gaston Chocolat expanded from 3 tonnes to 60 tonnes processed in 3 years. Chocolates now sold in duty-free and resort shops. Locally branded products feature in gift and tourism markets. (Gaston Case Study, p. 2) Equipment and layout upgrades supported by PHAMA Plus co-investments. Small-scale processors received training in chocolate-making techniques. New infrastructure improved hygiene and quality control. Certification standards helped establish food safety protocols. (Gaston Case Study, p. 4) Products met import requirements for Australia and Japan. (Market Access Report, p. 4) 66.67% farmers express satisfaction with the price offered by Gaston through the agents. Most respondent mentioned that the price offered by Gaston is better than other buyers. Farmers were also happy about the trainings provided by Gaston on cacao husbandry and processing. 36% farmers said they received the training who also confirmed to apply the changes in the farming practices to comply with the quality standards set by Gaston. 97% of the farmer showed willingness to continue to supply wet beans to Gaston. Farmers appreciated Gaston's initiative on price premiums and raising awareness about cacao plantation, production management, and quality. In terms of household decision making regarding cacao production, 52% respondents said they practice joint decision making. 39% respondents said the male in household takes the major decisions and only 9% said women takes the decision regarding cacao farming. Women engaged in cocoa powder production, packaging, and nursery work. Female employment supported through inclusive partnerships. (Gaston Case Study, p. 4) Ownership of Gaston Solar Dryers varies depending on the location. In some areas, such as with Pinalum dryers, the dryers are owned directly by farmers. In contrast, new stations are operated under a registered company model, known as Gaston Cacao. In this model, farmers, including husband-and-wife teams, hold shares and receive dividends amounting to 10%. Additionally, profit-sharing mechanisms are in place to ensure that farmers benefit beyond just the direct sales of cocoa. This approach is designed to strengthen incentives and encourage long-term engagement with the program. (Gaston Interview 2025)

Key Question	Key Finding	Evidence
		ACTIV: ACTIV is providing share factory services to its suppliers to process cacao beans to chocolate which the agents sell in the local market. Farmers participating in the Shared Factory Model report increased household incomes of approximately VUV255,844 (AUD3,000) a year (as a point of comparison, Vanuatu minimum wage is approximately AUD60,000 (AUD715) per month). As farmers using the Shared Factory Model have increased sales of their processed products, that have also needed to source more cacao beans to dry and process. This demand has created a ripple effect, with other smallholder farmer supplying wet beans to the shared factory users. An impact assessment found that 125 households earned an average 32% increase in income from supplying those wet beans. (ACTIV Impact Piece 2025) As per the dry bean farmer survey, 90% farmers are satisfied with the provision of shared factory concept. 70% said it has helped increase their household income. 100% are willing to continue to use the share factory for chocolate production. The reasons mentioned to continue to use the facility are: Increase in household income, ability to produce and sell chocolate, and motivation to be part of the innovation. A Likert scale questionnaire was used to assess the change in women's role due to the provision of shared factory model among the dry bean farmers. 64% agreed that women are active in using the shared factory model for chocolate production 64% agreed that women have decision making power in using ACTIV's shared factory model to produce chocolate. 73% agreed that women are actively involved in selling chocolate in local markets 64% agreed that women have decision making power over chocolate pricing and sales strategies.

Effectiveness & Impact • In what ways have communities and beneficiaries been impacted economically, socially and or environmentally? • **Economic**: Consider the improvements in the market, including expanded export value, increased pricing, increased job creation. • **Social**: Consider the local socio-economic improvements in cacao-producing regions, such as social gathering, social / community assets women's economic employment, theft. • **Environmental**: Adoption of sustainable post-harvest methods (e.g. solar drying).	**Economic impacts:** • Increased farmgate prices (from 35–50 VUV to 200 VUV/kg) drive higher incomes. • Supported over 378 smallholder farmers, many of whom are now integrated into formal export chains. • Growth from 3 tonnes in 2022 to 65 tonnes forecasted in 2024. **Social impacts:** • Empowered key farmers (champions) like Aisen and Norah to influence community adoption. • Women involved in cocoa powder production and nursery management. • Local communities benefiting from export-linked cash flow and improved social cohesion. **Environmental impacts:** • Modular solar dryers reduce wood fuel dependence and post-harvest losses. • Agroforestry approach supports biodiversity and land-use sustainability. • Expansion of seedling nurseries supports rejuvenation of older tree stock.	In total, 568 cocoa-farming households benefited from improved market access, higher prices, and increased sales volumes through specialty cocoa supply chains. These households comprised 1,979 people, comprising 1,096 men and 883 women, including 957 youth, reflecting broad participation across communities. Collectively, these interventions generated an estimated VUV11.4 million (AUD 133,555) in attributable income increases, demonstrating the effectiveness of solar drying, shared processing facilities, centralized fermentation, and key farmer models in improving smallholder incomes. (Annual Partner Data Collection 2025) Partner-Level Contributions Gaston - phase I 154 cocoa-farming households benefited from income increases Beneficiaries comprised 304 men, 241 women, including 125 youth Total attributable income increase: VUV1.75 million (AUD 20,582) VPPA – Solar Dryer Distribution - phase I 259 households benefited from increased income Beneficiaries comprised 409 men, 390 women, including 592 youth Total attributable income increase: VUV1.15 million (AUD 13,478) ACTIV – Shared Factory Model 136 households benefited from increased income Beneficiaries comprised 227 men, 187 women, including 199 youth Total attributable income increase: VUV7.64 million (AUD 89,689) Spencer–LRT -Aisen Partnership 19 households benefited from increased income (This could increase as our MRM team gathers data from other key farmers) Beneficiaries comprised 144 individuals, including 79 men and 65 women, including 41 youth Total attributable income increase: VUV835,864 (AUD 9,806) As per the survey, most farmers mentioned that the income from cocoa supports farmers to pay for their children's education and for basic family needs. A few farmers also mentioned that they reinvest a small proportion to grow/maintain their cocoa business such as repairing the solar dryer GEDSI: (VPPA Impact survey Findings) In terms of roles of men and women in cacao production. Men are primarily responsible for physically demanding and field-oriented tasks – harvesting, pruning, planting, and heavy lifting.

		Women carry-out post-harvest processing, including extracting, fermentation, drying, packaging and often help men with harvesting. This indicates solar dryer could prioritize women's role that can promote women's economic empowerment. A recent survey of cocoa farmers indicates that wet bean sales have improved livelihood outcomes. The majority of respondents reported increased cocoa production, improved food security, and better household wellbeing, including spending on education, health, and housing. While gains in savings and investment were slightly less uniform, most households still reported positive effects. These findings suggest that improved market access and higher prices for wet beans are contributing to meaningful, broad-based improvements in farmers' livelihoods. Key farmers reported that PHAMA Plus–supported solar dryers and fermentation equipment have significantly improved post-harvest practices, resulting in more consistent, higher-quality beans and reduced spoilage. Improved quality has been recognised by buyers, strengthening trust and long-term business relationships and increasing farmers' willingness to continue and expand solar-dried bean production. In addition to economic gains, farmers reported positive social outcomes, including improved household food security and increased ability to meet essential needs such as education, health, and housing, reinforcing the broader livelihood benefits of participating in the specialty cocoa market. Climate and resilience • Dryers protected beans during unpredictable weather. (Impact Assessment, p. 5) • Reduced dependence on firewood for drying. (Baseline Report, p. 7) • Agroforestry systems maintained soil cover and shade. (Baseline Report, p. 6) • Encouraged mixed cropping and biodiversity. (Sector Strategy, slide 10) Case Studies • Norah used cacao income to pay school fees . (Performance Story, p. 5) • Peer learning promoted by champions like Aisen and Norah. (Performance Story, p. 5)
Sustainability and scaling How sustainable are the outcomes achieved, and what is the potential for scale or replication?	**Sustainability and scaling:** • Certification capacity embedded locally via the Vanuatu Bureau of Standards	• VBS delivers HACCP and B Corp pre-audit services post-PHAMA. (Gaston Case Study, p. 4) • MoU between PHAMA Plus and VBS remains active. (Sector Strategy, slide 11) • Commercial producers like Roy investing in scale-up. (Performance Story, p. 6) • Nurseries generating revenue and distributing seedlings. (Performance Story Briefing, slide 7)

	• Commercial farmers and nurseries are expanding operations with private investment. • Solar drying and centralised processing models provide a scalable template. • Market demand continues to grow, creating incentives for expansion. • Sustainability strategies include industry working groups and government linkages.	• Dryer and fermentation hubs co-invested by private sector. (Performance Story, p. 6) • Shared infrastructure used by multiple growers. (Gaston Case Study, p. 3) • Premium buyers from Australia and Japan continue engagement. (Market Access Report, p. 4) • Export tonnage forecast to grow through 2024. (Performance Story, p. 3) • VCIA and IWG continue coordination of post-program activities. (Sector Strategy, slide 6) • Government endorsement of strategy ensures continuity. (Performance Story, p. 3)
Lessons Learned • What lessons emerge for future value-chain interventions in niche or specialty agricultural sectors?	**Lessons for future value-chain interventions:** • Proof of concept is essential: centralised processing and premium pricing work. • Enabling environment (e.g. strategy, standards, industry body) must accompany technical support. • Incentives must reach farmers; otherwise, quality improvements are unsustainable. • Accessible finance for working capital and infrastructure is critical to scale. • Champion farmers and inclusive extension systems (e.g., via DARD) are effective diffusion models.	*See above*.

Annex 2: Vanuatu Cacao Results Chain