



CLIMATE-SMART AND **INCLUSIVE** COCOA IN USINO (Cocoa project)



About this report

This brief summarises the main findings of the mid-term review for the Climate-Smart and Inclusive Cocoa project, implemented by World Vision Papua New Guinea (WV PNG) from 2021 to 2026. The review was conducted by Evidence Building Advisor Rivika Bisht and Environment Advisor Vincent Potier from World Vision Australia (WVA), with the support of Monitoring and Evaluation Coordinator Nancy Kasimani from World Vision Papua New Guinea (WV PNG) and in close coordination with the project implementation team.

This brief was prepared by Rivika Bisht with reviews conducted by Vincent Potier, County Impact Manager (WVA) Geoffrey Peterson, Project Coordinator (WV PNG) Dehaan Lapawe, Economic Empowerment and Resilience Technical Specialist (WV PNG) Jordan Becks, and Inclusive Economic Development Technical Advisor (WVA) Diana Johannis. For more information, please contact Geoffrey Peterson (geoff.peterson@worldvision.com.au) or Shareena Tanabi, Economic Empowerment and Resilience Portfolio Manager, WV PNG (shareena_tanabi@wvi.org).

The Climate-Smart and Inclusive Cocoa in Usino project is supported by the Australian Government through the Australian NGO Cooperation Program (ANCP). The views expressed in this publication are the author's alone and are not necessarily the views of the Australian Government.

All photos © World Vision

Front cover photo: Across four central nurseries and 45 satellite nurseries, robust disease-resistant cocoa clones and rootstock are growing for distribution to participating farmers.



SUMMARY

Goal	Improve the resilience of rural households within an inclusive cocoa value chain
Timeframe	2021–2026
Budget	US\$4,535,000
Location	Usino Bundi district, Madang Province, Papua New Guinea

Cocoa farming is a valuable venture for farmers in the remote Usino Bundi district of Papua New Guinea’s Madang Province. Growing conditions are ideal and the potential income boost for families is hugely beneficial for meeting their children’s needs. However, the revival of the cocoa value chain requires overcoming barriers like pests and disease, fluctuating quality, market access, climate change, conflicts over land and labour-intensive bean drying processes. Social barriers are also significant. Men typically control production, sales and income and these entrenched gender norms exclude women from financial benefits, despite their significant contributions to production.

Since 2021, the Climate-Smart and Inclusive Cocoa in Usino project (Cocoa project) has worked with cocoa farmers, cooperatives, savings groups and key partners across the Usino district to enhance the resilience of rural households through an inclusive cocoa value chain. This five-year project is implemented by World Vision Papua New Guinea and supported by the Australian Government through the Australian NGO Cooperation Program (ANCP). Building on previous livelihoods initiatives in the region, the Cocoa project is focused on increasing climate-smart cocoa production, improving market access and boosting financial resilience – all while promoting gender equity and social inclusion.

Key findings from the project’s mid-term review in August 2024 are summarised below:

OUTCOME 1:

- The project has established four central and 45 satellite nurseries to create better access to saplings of disease- and pest-resistant high-yielding cocoa varieties for over 2,600 farmer cooperative members

- Among the 90 lead farmers who were directly trained through the farmer field school, 88 were active and cascading training to other farmers.
- The distribution of clone cocoa varieties will need more momentum in final project years.

OUTCOME 2:

- Investment from project partners and both private and public market actors in the cocoa value chain has increased.
- The Kou and Gigaso cocoa cooperatives need further coaching and support to improve their business capacity. This is recommended as a priority focus for remaining project years.

OUTCOME 3:

- Nineteen savings groups, with 217 men and 240 women members, have completed one savings cycle, accumulating \$US26,383.
- Savings group members reported increased financial literacy, though no members have borrowed money to overcome shocks or for other purposes.
- A priority area moving forward is ensuring savings groups have access to bank accounts to secure their savings and ongoing financial literacy support.

OUTCOME 4:

- Disability mapping has taken place in the previous year – an important step towards enhancing the project benefits for people with disabilities.
- Proactive measures will need to be taken to support local women as income from cocoa farming increases, as the risk of gender-based violence is also anticipated to rise.
- Outcome four has been slower to progress, due mainly to the need for more staff and partner support around gender equality, disability and social inclusion.

CONTEXT

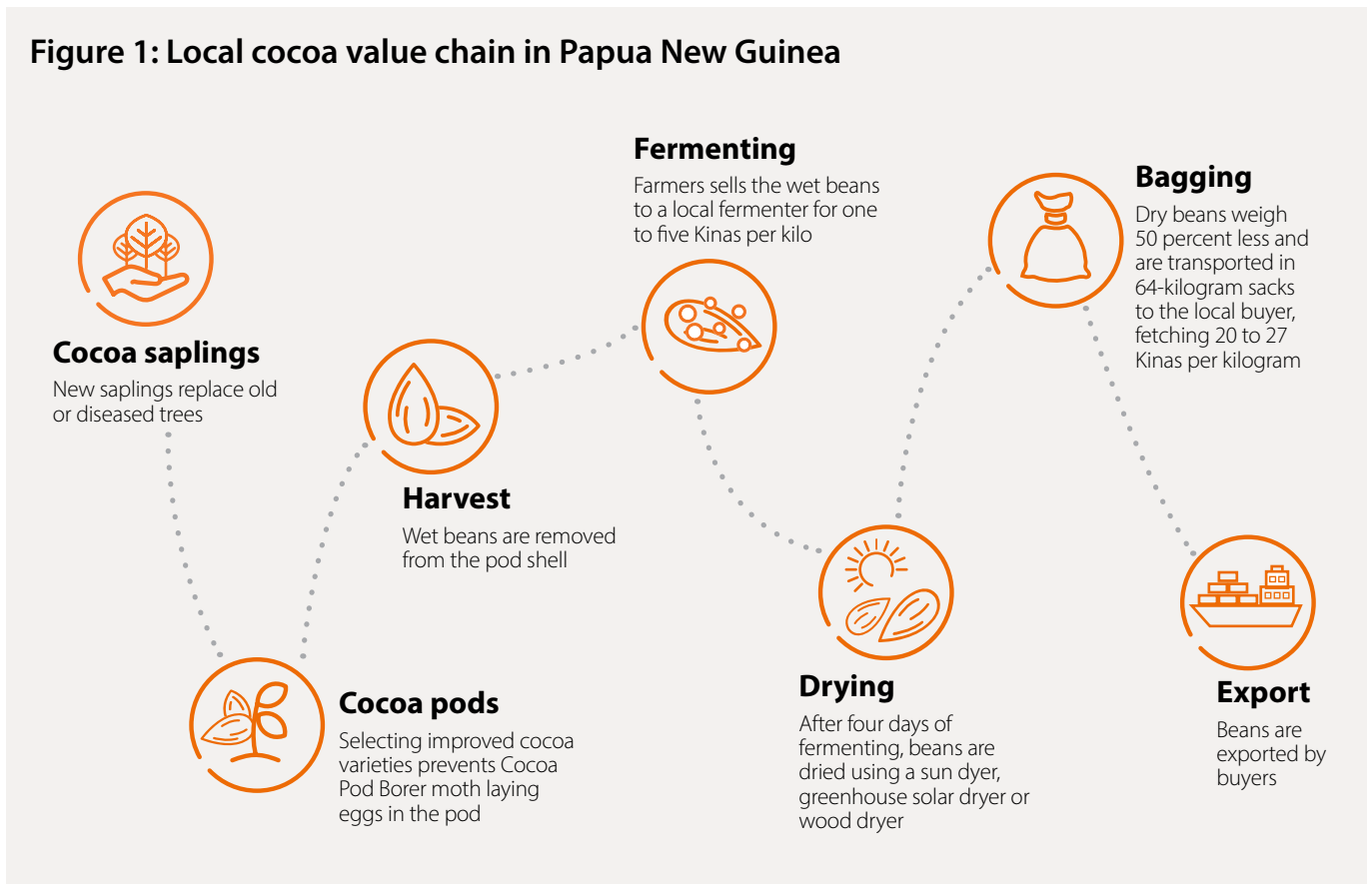
In the hills of Usino Bundi district in Papua New Guinea’s Madang Province, cocoa farming is a key source of income for families. The mountainous terrain and forest canopy provide ideal growing conditions for this valuable commodity, but challenges in quality and quantity, market accessibility, climate issues and social inclusion barriers make the cocoa value chain complex. Farmers often face the choice between making a quick and low-price sale of wet, non-fermented beans or achieving a higher price through the labour-intensive process of drying beans – a process made more difficult by limited access to processing tools like fermentation box and bean dryers. Since 2002, the region has also grappled with Cocoa Pod Borer infestations, a dreaded pest that can rapidly wreak havoc on farmers’ productivity and yields.

In more recent years, a changing climate in Papua New Guinea has contributed to decreasing productivity for cocoa farmers. Landslides are one of the most common natural hazards in the Usino district, and the changing climate has led to unpredictable rainfall and flooding, all projected to increase. Cocoa trees can prevent soil erosion in these wetter conditions, making it even more important to see the overall value chain as requiring a localised and collective solution.

There are also significant social factors affecting cocoa’s potential. Entrenched gender norms around men and women’s roles mean that women are typically excluded from decision making regarding production and sale as well as the financial benefits of cocoa farming, despite their significant labour contributions. Men control the cash flow and income streams, often holding the responsibility for travelling and selling cocoa at the distant collection points as the travel is deemed too unsafe for women.

Over 97 percent of Papua New Guinea’s total land area (47 million hectares) is ‘customary land’ that is owned under traditional or customary titles. This land is guarded within tribes or clans, possessing both economic and symbolic value. Women are also excluded from land ownership under such titles in the Madang province. Government plans to raise the proportion of land that is legally available in the formal market for productive use have not advanced¹, and conflict over land can quickly escalate. Building improvements such as cocoa fermentation trays, dryers and nurseries most often occur on customary land, which can result in the exclusion of non-clan members, widowed women or other marginalised groups.

Figure 1: Local cocoa value chain in Papua New Guinea



¹ USAID. *Land Links: Papua New Guinea*: <https://www.land-links.org/country-profile/papua-new-guinea/>

PROJECT OVERVIEW

Over a period of five years from 2021 to 2026, World Vision's Climate-Smart and Inclusive Cocoa in Usino project (Cocoa project) aims to improve the resilience of rural households by improving cocoa processing skills, promoting gender equity, creating better access to market systems and enhancing climate-smart practices. The Cocoa project is supported by the Australian Government through the Australian NGO Cooperation Program (ANCP) and implemented through World Vision Papua New Guinea. Building inclusion is a critical project focus across market actors and the entire cocoa value chain.

The project builds upon the learning in this area from previous livelihoods projects with cocoa farmers in the same region, recognising that social inclusion is at the heart of rural resilience and strengthened communities. A key aspiration

of the project's design is to revive and build the capacity of two existing local cocoa cooperatives, Gigaso and Kou. At the project's outset, the cooperatives were very much male dominated and this initiative seeks to promote greater inclusion of women while also building the cooperatives' business management skills.

The Cocoa project is implemented in 21 wards of the Usino Bundi District of Madang Province of Papua New Guinea. The project areas are largely inaccessible, connected to the district capital of Madang by only a single road. Here, the extremely remote location of many villages make transportation difficult, especially during the rainy season when roads are easily cut off. The combination of steep terrain and limited infrastructure often requires villagers to travel long distances on foot to reach markets or access essential services.



Traditional cocoa bean dryers require heavy labour and large amounts of timber for fuel. These wood-powered dryers also contribute to deforestation and carbon emissions.

THEORY OF CHANGE

Goal: Improve the resilience of rural households within an inclusive cocoa value chain



CORE PROJECT APPROACHES

SAVINGS FOR TRANSFORMATION (S4T)

World Vision's [Savings for Transformation](#) model builds resilience in vulnerable households by facilitating the creation of community savings groups. These groups enable members to save small amounts of money collectively and provide loans to one another for emergencies such as illness, educational expenses or income loss due to unexpected shocks. These groups become important social safety nets to their members, creating a greater sense of empowerment and trust within communities.

CELEBRATING FAMILIES

The [Celebrating Families](#) approach equips families with the knowledge, skills and tools to create safe and nurturing environments within the home and community. Celebrating

Families includes an interactive workshop in which parents and caregivers learn practical ways to support their children's holistic development across life stages, enabling children to experience positive and peaceful relationships within their families. The approach also promotes more equitable decision making within households and communities through greater awareness of power dynamics and financial management.

FARMER FIELD SCHOOL

The [Farmer Field School](#) approach is a participatory education intervention that brings together a group of small-scale food producers to solve production problems through sustainable agriculture. The approach creates space for hands-on peer-to-peer learning, enhancing farmers' skills for observation and critical analysis and improved decision making by local communities.



Papua New Guinea's mountainous terrain and forest canopy provide ideal growing conditions for cocoa trees.

MID-TERM REVIEW

OBJECTIVES

A mid-term review of the Cocoa project was jointly conducted in July 2024 by monitoring and evaluation technical specialists from World Vision Australia and World Vision Papua New Guinea. The objectives of the review were to build an understanding on the project's progress and consolidate reflections and lessons learned from staff, participants and other stakeholders. These insights could then be used to inform any project adjustments for the remaining two years of implementation.

KEY REVIEW QUESTIONS

- To what extent has the project achieved its output and outcome targets?
- What were the significant operational or contextual factors that have enabled or hindered progress?
- How has the project design been adapted over years two and three of implementation?
- To what extent is the project adequately resourced in terms of budget, staffing, technical expertise and capacity?
- To what extent are the project assumptions and the theory of change still valid?

METHODOLOGY

The mid-term review relied on primary data collection through qualitative research, including 12 focus group discussions and nine key informant interviews. Focus groups with the community were disaggregated by gender and people with disabilities were consulted through interviews to ensure the voices of the most vulnerable groups were included throughout the review process. Aside from the cocoa smallholder farmers, a wide range of stakeholders were consulted during the review, such as the Cocoa Board, Kou Cocoa cooperative, Gigaso cocoa cooperative, the Department of Agriculture and Livestock, the Department of Commerce, Women's rights organisations, private sector buyers and exporters, organisations of people with disabilities and ward councillors.

Where available, quantitative data was extracted from project monitoring documents, cooperative and savings group book-keeping and other reports to track progress against planned activities and outputs. Findings were triangulated through interviews with staff, community and other partner organisations and through site-visits to a solar dryer, a fermentation box, a model farmer block and nursery. Secondary data, including project documents and relevant external research publications,

was also utilised. The findings and recommendations were consolidated through a three-day in-country participatory sense-making workshop with the project team.

LIMITATIONS

The mid-term review was largely based on qualitative data and reviews of existing secondary project monitoring and other project reports. While this data was not sufficient to fully assess the project's progress quantitatively, it generated valuable insights on its overall progress and lessons for use in future programming.



A community facilitator demonstrates how a pest-resistant cocoa variety is grafted onto an existing seedling to prepare new seedlings. If successful, the new sapling will be ready for planting in three months.

FINDINGS

OUTCOME 1: COCOA FARMERS HAVE IMPROVED CAPACITY TO INCREASE THEIR PRODUCTIVITY IN A CLIMATE-SMART MANNER

Partially on track

Farmers with training are adopting improved practices

Focus group discussions and key informant interviews indicated that farmers who were trained in improved cocoa farming techniques and accessed improved cocoa clones were very satisfied with the results. Nearly all project farmers have received the small tools for maintaining their cocoa blocks. These trained farmers reported adopting improved practices, though adoption rates and yield data from the wider project area were unavailable. The project monitoring data indicated that only 107 farmers out of 2,500 target farmers had taken disease-resistant clones of new cocoa varieties from project nurseries at mid-term. This was partly due to the lack of roads and the logistical challenge of carrying the saplings through slippery and muddy terrain. The distribution of clone varieties will need greater momentum.

Male farmers were reported to be primarily adopting techniques like budding, while women continued to engage in more traditional activities like block maintenance, weeding and cutting grass. Some women reported 'stealing knowledge' from their male partners to gain insights into improved farming practices.

Lead farmers are actively training others in improved farming techniques

The review identified that a total of 2,510 farmers have received tools, and training in climate-smart agriculture and integrated pest management was ongoing. Among the 90 lead farmer who were directly trained through farmer field schools, 88 were active and cascading training to other farmers through model farming blocks in 21 wards. These model farming blocks serve as practical training sites for community members to learn improved methods of farming cocoa. Lead farmers organised weekly meetings to provide information and training to farmers in their areas. Findings from focus group discussions indicated that each lead farmer supported a group of 12 to 50 farmers, including a smaller proportion of women, who were usually extended family members.

Nursery operations and clone production need boosting

Four central nurseries and 45 satellite nurseries were found to be operational, producing robust clones and rootstock for distribution to participating farmers across 21 wards. The satellite nurseries were introduced to overcome the logistical challenges posed by the target communities' remote locations. At mid-term, the capacity was 170,000 clones per central nursery and 225,000 per year from satellite nurseries. To meet the project's target of producing 788,000 cocoa clones, careful planning is required to address the existing deficit.

The environmental impact of cocoa farming must be managed

The renewed interest in cocoa farming, driven by price increases and rapid population growth, presents potential negative impacts, including land clearing, tree cutting and herbicide use. When combined with heavy rainfall, land clearing on steep slopes increases the risk of erosion and landslides. Surveyed farmers mentioned using pesticides to control pests, and lead farmers reported receiving training on pesticide safety from the project, which was previously low.



A Cocoa Pod Borer-infested pod. Cocoa Pod Borer moths have a devastating impact on cocoa farming. The Cocoa project has distributed 18 varieties of cocoa plants tolerant to Cocoa Pod Borers among farmers to help control the spread.

CLIMATE-SMART AGRICULTURE PRACTICES IN COCOA FARMING

In the pursuit of sustainable cocoa farming, several climate-smart agriculture (CSA) practices have been observed and implemented through the Cocoa project. These practices can enhance farmers' productivity and ability to adapt to the effects of climate change, while also reducing greenhouse gas emissions and helping to conserve the natural environment.

One notable practice is **agroforestry** and **soil conservation**. Farmers use logs to prepare terracing, which helps to manage soil erosion and maintain soil fertility. Keeping the soil covered with **mulch** provides further protection and maintains moisture, promoting healthier cocoa plants. **Intercropping** is another effective strategy where cocoa is grown alongside multiple other crops, including food and cash crops such as coconut, betel nut, banana and Chinese taro. This crop diversification maximises land use and generates additional sources of income and food security for farmers while the cocoa saplings grow into productive trees.

Some farmers are planting new cocoa saplings in a **contour** fashion, helping reduce soil erosion and manage water runoff. The leguminous tree *Gliricidia* is planted to support the contour beds. Its leaves and branches slow down heavy floods and enrich the soil with nitrogen. **Integrated pest and disease management** is another key project strategy. Farmers are trained to prune their cocoa plants to help manage the risks of fungal disease and optimise sunlight and cocoa pod production. Eighteen varieties of cocoa plants tolerant to Cocoa Pod Borers have been distributed among farmers to help control the spread of further diseases and reduce the need for chemical control. Farmers are intentionally discouraged from selecting one dominant variety to reduce the risk of Cocoa Pod Borers developing resistance.

OUTCOME 2: PRODUCERS INCREASE THEIR INCOME FROM COCOA THROUGH BETTER ACCESS TO INCLUSIVE MARKET SYSTEMS

Partially on track

Investment from project partners has increased

At mid-term, there was notable increase in investment from project partners and market actors in the cocoa value chain. The Kou Cooperative invested approximately 7000 Kina (US\$1788) in land transfer and a solar dryer, and the Cocoa Board provided a training venue for cocoa assessors and family farms. Both private and public market actors expressed optimism in the cocoa value chain's future, with cocoa exporter Outspan planning to expand its program in Madang and the Department of Agriculture intending to build a value-added cocoa processing factory in Madang.

Training in fermenting and drying processes is supporting farmers

The project's training efforts have included training for five cooperative leaders and five lead farmers in fermentation and solar dryer standards and 90 lead farmers in wet bean standards. Additionally, 80 cocoa fermentaries exist in the project area to process wet beans. Despite regulations, substandard drying and opportunistic buying due to high cocoa prices were reported.

The project supported the Kou cooperative to pilot a solar dryer kit. The pilot trialed the use of solar energy to power a systematic drying process that aims to improve cocoa bean quality and result in better income for families. The review indicated that the solar dryer showed promise, though it faced challenges due to unpredictable weather patterns and frequent cloudy days. Income for smallholder cocoa farmers was reported to have increased, though driven largely by a fivefold increase in the price of wet beans and growing demand from export buyers.

Cooperatives' capacities need building

The two existing cocoa cooperatives showed limited financial, monitoring and organisational capacity at mid-term, relying heavily on the project for implementation and record keeping. Executives of both cooperatives lacked clarity on their roles and responsibilities, requesting more support in management and growing their capacities. Cooperatives have increased their cash flow from member registration fees and gained ownership of project central nurseries. However, the surveyed farmers, who indicated joining cooperatives primarily to benefit from project support, reported no direct benefits yet. Many farmers paid the initial 30 Kina registration fee to access project tools and inputs but were unaware of the 100 Kina total fee to be paid in installments. Cooperative executives noted interest from farmers outside the project scope in joining as members.

Gender and social inclusion are in their early stages

One chairman from Kou Cooperative expressed a willingness to champion gender equity and disability inclusion. No clear plan

for inclusion was articulated, indicating continued reliance on the project for support to act. Notably, two women now serve on the executive committees of each cooperative. The wife of the Kou Cooperative chairman is also the Vice President of the Usino Women's Council.

SOLAR DRYER PILOT OFFERS AN ENVIRONMENTALLY FRIENDLY SOLUTION

Dried cocoa beans can achieve far better prices for farmers than wet beans, but the drying process can be inefficient and burdensome. As the cocoa industry is revived through the propagation of new plant breeds and improved farming techniques, **dry bean production among 2,500 participant farmers is expected to increase fivefold during the Cocoa project timeframe.** This surge in production necessitates sustainable drying solutions. The project is piloting a greenhouse solar dryer to replace or complement hot air wood-powered dryers traditionally used in cocoa bean processing.

Traditional dryers consume between 1.8 to five cubic metres of wood to produce one tonne of dry cocoa beans, contributing to deforestation and carbon emissions, in addition to requiring heavy labour. Solar dryers offer a better-quality product that is free from smoke tainting and is more environmentally friendly. At mid-term, farmers reported satisfaction with the new solar drying process, noting the absence of smoke taint and the reduced need for firewood. Exporters also prefer the quality of solar-dried beans as they better meet European market standards. Adopting greenhouse solar dryers presents a sustainable development opportunity within the cocoa industry. This approach not only addresses environmental concerns, but also enhances the quality of cocoa beans, supporting the long-term viability and growth of the industry.



The Cocoa project is piloting the use of an environmentally friendly solar dryer. This is an innovative approach that can produce better quality dried beans.

OUTCOME 3: IMPROVED FINANCIAL RESILIENCE FOR HOUSEHOLDS AND MARKET ACTORS

Partially on track

Savings groups members are being trained in financial skills

Nineteen out of 21 savings groups have completed their first cycle, with 457 individuals (53 percent being women) trained

in Savings for Transformation and financial literacy skills. [World Vision's Gender-Inclusive Financial Literacy training](#) plans to be rolled out to the target communities in the coming project years, aiming to support couples to make sound financial decisions for their families while also promoting women's economic empowerment. Through the Celebrating Families approach, which covers topics like shared responsibilities between men and women, the project has promoted gender equality in decision making among lead farmers, church leaders and savings group members. The most significant

changes reported by savings group members included feeling motivated and hopeful for a better future, adopting new financial practices, increased knowledge and satisfaction with their growing savings, with many eager to continue saving.

Savings and investment challenges are evident

Many farmers expressed an enthusiastic desire to invest in fermentaries, but they lacked the financial literacy needed to achieve this goal. Since May 2023, the 19 active savings groups have collectively saved 103,075 Kinas (US\$26,383), with average savings per group member of 225 Kinas (US\$57.60). The use of these savings was not clear during the mid-term review as the social fund was not utilised for basic needs like school fees or family emergencies, nor was there evidence of investment in cocoa farming improvements.

Security concerns threaten continuity of savings groups

At mid-term, none of the savings group had yet opened bank accounts. In one location, savings group members were not meeting regularly and were individually depositing money into a communal box as they were able to save. Security concerns were reported by almost all savings group members, highlighting the need to find ways to safely link participants with appropriate banking services to help secure their savings. Adding to security challenges was the complicated and lengthy processes required to open an account – made more difficult for those savings group and cooperative members lacking national identity documents.

The Gigaso cooperative was found to have a functional bank account for business operations, and while the Kou cooperative had an account with Mi Bank, it lacks internet-enabled transactions. Ongoing capacity building and management support for the cooperatives around practices like banking would help to ensure their financial stability and growth.

OUTCOME 4: COCOA FARMING COMMUNITY MEMBERS EXPERIENCE INCREASED GENDER EQUITY AND SOCIAL INCLUSION

Not on track

Gender-based violence may increase with income

The mid-term identified a lack of available data on the total number of female-headed households among project participants. This data gap needs to be addressed to ensure that the project's benefits are equitably distributed and

that all participants' needs are adequately met. Another key consideration for the remaining project years is addressing **gender-based violence**. Project staff highlighted this issue as a core concern and potential risk in their context as economic advancement for women without changes in societal attitudes can put women at more risk of harm. They emphasised the need to take proactive measures to mitigate these risks and safeguard the community. During focus group discussions and workshops, many male participants actively voiced their support and advocacy to combat gender-based violence.

A standout advocate was the local Sergeant of Police, who emerged as a passionate champion for the cause with immense insights and practical recommendations to share. Project staff also demonstrated a deep understanding of the potential risks associated with increased income from cocoa farming. Focus group discussions on gender equality, disability and social inclusion revealed a strong need for sector-wide awareness and advocacy campaigns. Many organisations reported having limited resources, often with only one or two individuals dedicated to these efforts. They emphasised that advocacy would be more effective if conducted collaboratively, pooling resources and efforts for greater impact.

“We have ongoing unreported domestic violence abuses. . . the judicial system of the country is very weak. We try our best but when it comes to the courthouse. . . it has its own additional powers to make decision in favour of the suspect. There are times that this brings our morale down so we cannot continue to enforce the same law. . . the only way is everybody must work together.”

– Sergeant of Police during focus group discussions

Disability mapping and further data will be available in subsequent reports

Community-based rehabilitation volunteers have initiated the mapping of people with disabilities in project areas as the first step in establishing relevant disability referral pathways, in partnership with the Creative Self-Help Centre, a local organisation for people with disabilities. This mapping aims to collect comprehensive data on people with disabilities in the target communities and plans to be detailed in subsequent project reports.

GETARI'S STORY

Empowering Women Farmers in Sustainable Agriculture

Getari is a registered farmer with the Kou Cocoa Cooperative in Usino, and her farming journey has become a catalyst for empowering other women in her community. Soon after the Cocoa project commenced in 2021, Getari took part in skills training and quickly put her learnings into action. "I took the skills I learned and tried it in my block and I saw my cocoa improve. I started budding my cocoa last year and it began bearing pods," she says. "I also prune my plants and clean my block so that it does not attract the Cocoa Pod Borer."

Recognising the potential for other women to benefit from her new skills, Getari took it upon herself to share her knowledge with others. "I brought other women to my block and taught them how to bud as well. They would often ask me questions and I always try my best to explain and demonstrate what I know," she says.

Her successful efforts soon led to the sale of her dried cocoa beans for a good price. With a vision beyond immediate gains, Getari wisely saved 150 Kinas (US\$38) in her savings group. Getari says she dreams of setting up a local trade store. "I have learned so much from this project. They taught us skills as well as gave us tools and clone cocoa materials to help us," says Getari.

While she does not have children of her own, Getari can see the positive impacts for the families around her. "I have seen the positive impact this has on my family members who have children. The money they earn from cocoa is helping them care for their children's needs such as clothing and school fees, and they have saved some in our savings group as well," she says.

Determined cocoa farmers like Getari are reviving the cocoa value chain in Usino in sustainable ways, building greater resilience and hope for the future.



Getari is cascading her new skills in budding and other cocoa farming techniques to local women who are also eager to learn.

LESSONS LEARNED

Building on previous projects

- The project benefited significantly from the technical expertise of staff who had worked on a previous Australian Centre for International Agriculture Research (ACIAR) project.
- It effectively leveraged some of the outcomes from the previous ACIAR project, including the established budwood gardens which provided essential plant material to scale up the production and adoption of new Cocoa Pod Borer-tolerant breeds.
- The project further plans to promote backyard nurseries to overcome logistical challenges and ensure equitable access for all farmers.
- An internal study was conducted to explore alternative livelihoods for women-friendly value chains, aiming to advance women's economic empowerment in the male-dominated cocoa value chain. Some market linkage opportunities for vegetable growers are currently being piloted for further action.

Adaptations made to project design:

- Although the Cocoa project initially planned to set up its own budwood gardens and nurseries, it has evolved to include satellite nurseries that are more accessible to remote farmers.



The Cocoa project's Technical Officer explains the drying process inside the greenhouse solar dryer.

CONCLUSION

Overall, the Cocoa project has demonstrated adaptability and a commitment to sustainable and inclusive development. Despite significant external and internal challenges relating to the socio-political environment of the region, the project has made demonstrable progress under outcomes one, two and three. Progress was lacking under outcome four, but is anticipated to gain momentum with greater support from staff who are trained in gender quality and social inclusion.

The introduction of climate-smart agriculture practices, such as agroforestry and soil conservation, alongside

innovative solutions like greenhouse solar dryers, highlight the project's dedication to good environmental stewardship and improved agricultural productivity. Moving forward, addressing logistical challenges, enhancing financial literacy and ensuring equitable access to resources will be crucial for the project's continued success and long-term impact on the cocoa farming communities. The organisational capacity of the Kou and Gigaso cooperatives will also require significant improvement to ensure sustainability beyond the project's end.



As part of Luis' involvement with the Gigaso Cocoa Cooperative, he tends to the clone cocoa plants at a nursery. These clone plants are designed to bear cocoa pods in just nine months.

RECOMMENDATIONS

- **Strengthen monitoring and data collection** across all outcome areas to support evidence-based decision making.
- **Develop business management plans for nurseries** to ensure continuity after the project ends.
- **Engage women to become lead farmers** to expand the reach of farmer field schools to more women.
- **Organise coordination meetings with market actors**, both public and private, to effectively strengthen market systems.
- **Strengthen cocoa cooperative capacity** by piloting a small business operation run by the cooperative that tests their business plan and capacity to manage larger operations.
- **Organise site visits to other existing solar dryer facilities** in the region to expedite the solar dryer design and make it available at scale before the project ends.
- **Support savings groups to open bank accounts** to help secure their finances and formalise their savings.
- **Facilitate coordination between gender equality and disability and social inclusion partners** to strengthen advocacy efforts.



Cocoa pods damaged by the Cocoa Pod Borer moth.



A farmer participating in the Cocoa project shows his newly transplanted cocoa saplings.

For more information, please contact:

Geoffrey Peterson, Country Impact Manager

World Vision Australia | geoff.peterson@worldvision.com.au

Rivika Bisht, Evidence Building Advisor

World Vision Australia | rivika.bisht@worldvision.com.au

Vincent Potier, Environment Advisor

World Vision Australia | vincent.potier@worldvision.com.au

Shareena Tanabi, Portfolio Manager, Economic Empowerment and Resilience

World Vision PNG | shareena_tanabi@wvi.org

Dehaan Lapawe, Project Coordinator

World Vision PNG | dehaan_lapawe@wvi.org

World Vision ANCP desk: ancp@worldvision.com.au

World Vision Australia acknowledges the support of the Australian Government through the Australian NGO Cooperation Program (ANCP).



THIS MEANS THE WORLD