SOCIAL IMPACT

ADVANCING DEVELOPMENT EFFECTIVENESS

FINAL EVALUATION REPORT

MCC INDONESIA GREEN PROSPERITY PROJECT
SUSTAINABLE COCOA PARTNERSHIP GRANTS PERFORMANCE EVALUATION

Photos by Lucy O'Bryan (Lucy O'Bryan Photography)

April 2020

This report was prepared independently by David Rinck, Leah Ghoston, Hariyadi Hariyadi and Cininta Pertiwi of Social Impact, Inc. at the request of Millennium Challenge Corporation.

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ACRONYMS

Acronym	Definition
ACIAR	Australian Centre for International Agricultural Research
AFS	Agro-Forestry Systems
AMARTA	Agribusiness Market and Support Activity (USAID)
AO	Adoption Observations
BAPPEDA	Regional Planning and Development Agency (Ind. *Badan Perencanaan Pembangunan Daerah*)
BAPPENAS	Ministry of National Development Planning (Ind. *Badan Perencanaan Pembangunan Nasional*)
BDS	Business Development Services
CDC	Cocoa Development Center
CIAT	International Center for Tropical Agriculture (Sp. *Centro International de Agricultura Tropical*)
CPB	Cocoa Pod Borer
CR	Cocoa Revolution (project)
CRS	Cocoa Research Station
CSA	Climate Smart Agriculture
CSP	Cocoa Sustainability Partnership
CSR	Corporate Social Responsibility
CVC	Cocoa Village Clinic
DFI	Development Finance Institution
DO	Direct Observation
ECOM	ECOM Agroindustrial
EDR	Evaluation Design Report
ENT	East Nusa Tenggara
ERR	Economic Rate of Return
EQSI	Economic, Quality and Sustainability Improvement (project)
EQ	Evaluation Question
ET	Evaluation Team
EU	European Union
FDP	Farm Development Plan
FFS	Farmer Field School
FGD	Focus Group Discussion
FIP	Farm Identification Program
FOB	Freight on Board
GAP	Good Agricultural Practices
GBP	Good Business Practices
GEP	Good Environmental Practices
GERNAS	National Movement to Increase the Production and Quality of Cocoa (Ind. *Gerakan Nasional Peningkatan Mutu dan Produksi Kakao*)
GFP	Good Financial Practices
GHG	Greenhouse Gas
GNP	Good Nutrition Practices
GP	Green Prosperity
GPF	Green Prosperity Facility
GOI	Government of Indonesia
Ha	Hectare
ICB	Indonesian Cocoa Board
ICCO	International Cocoa Organization
ICCRI	Indonesia Coffee and Cocoa Research Institute
IDR	Indonesian Rupiah

IFC	International Finance Corporation
IMS	Internal Management Systems
IPDM	Integrated Pest and Disease Management
Kg.	Kilogram
KII	Key Informant Interview
KKI	Kalla Kakao Industri
KPI	Key Performance Indicator
LEMS	Community Economic Cooperative (Ind. *Lembaga Ekonomi Masyarakat Sejahtera*)
LLA	Lifescape-Landscape Analysis
LOE	Level of Effort
M&E	Monitoring and Evaluation
MCA-I	Millennium Challenge Account – Indonesia
MCC	Millennium Challenge Corporation
MIS	Management Information System
MSME	Micro, Small and Medium Enterprise
MT	Metric Ton
NGO	Non-Governmental Organization
NPV	Net Present Value
NREL	National Renewable Energy Laboratory
NRM	Natural Resource Management
OFIS	Olam Farmer Information System
P&D	Pests and Diseases
PE	Performance Evaluation
PPP	Public-Private Partnership
RA	Rainforest Alliance
SCPP	Sustainable Cocoa Production Program
SME	Small and Medium Enterprise
SMS	Short Messaging Service
SVCD	Sustainable Value Chain Development
T	Ton
TA	Technical Assistance
TAF	Technical Assistance Fund
TOC	Theory of Change
TOT	Training of Trainers
TPSA	Trade and Private Sector Assistance
UPTD	Regional Technical Implementation Unit (Ind. *Unit Pelaksana Teknis Dinas*)
USAID	United States Agency for International Development
USD	United States Dollar
USG	United States Government
VSD	Vascular Streak Dieback
WCF	World Cocoa Foundation

EXECUTIVE SUMMARY

Overview of Compact and Interventions Evaluated

The Millennium Challenge Corporation (MCC) and the Government of Indonesia (GOI) signed a five-year USD 600 million compact on November 19, 2011. Subsequently, the Millennium Challenge Account-Indonesia (MCA-I) launched the USD 312.7 million Green Prosperity (GP) Project with the goal of increasing economic productivity through reduced reliance on fossil fuels and improved land use practices and natural resource management (NRM). As part of the GP Project, MCA-I launched the Green Prosperity Facility (GPF) as a flexible vehicle to provide financing and mobilize private-sector investment and community participation in renewable energy and sustainable land use practices. With funding through the GPF, MCA-I launched the Sustainable Cocoa Partnership (SCP) to address long-term decline in cocoa production and support "the development of a sustainable cocoa industry in Indonesia and improved smallholder incomes where smallholders and processors benefit equitably." Grants facilitated by the Partnership included: 1) Sustainable Cocoa Production Program (GP-SCPP) implemented by a consortium led by Swisscontact with Mars as the largest consortium member; 2) Cocoa Revolution (CR) project led by Olam and Rainforest Alliance; and 3) Economic, Quality and Sustainability Improvement (EQSI) project implemented by Yayasan Kalla and partners.

Evaluation Type, Questions and Methodology

Between May-December 2019, Social Impact deployed an evaluation team (ET) to implement this final performance evaluation (PE)[1] of the SCP grants, including five members that undertook in-country data collection in Jakarta, Sulawesi, and East Nusa Tenggara. The results presented in this report represent the authors' independent assessment of the performance of the grants in terms of four evaluation questions:

1. Theory of Change - To what extent were the theories of change (TOCs) valid in achieving the overall project objectives?
2. Implementation Approaches - To what extent have the GP cocoa grants' (GP-SCPP, CR, and EQSI) approaches and activities proven successful in improving farmers' knowledge, attitudes, and practice of GAP/GEP?
3. Knowledge Management - How did the GP cocoa grantees monitor grant progress toward results and outcomes during implementation, and how did they use this information to manage performance?
4. Sustainability - What results or outcomes of the GP cocoa grants are likely to be sustainable and scalable, and what results do not appear to be sustainable and scalable?

In order to answer these questions, the ET deployed a mixed-methods approach that included secondary material and project data review. Qualitative data collection methods included 62 key informant interviews (KIIs) with grantees, GOI, farmers, buyers, nursery owners and private sector partners, 20 focus group discussions (FGDs) with farmers and their families, and 25 direct observations of cocoa farms, buying

[1] The first performance evaluation of the SCP grants took place in 2017. The final report for the 2017 evaluation is available here: https://data.mcc.gov/evaluations/index.php/catalog/206.

stations, and nurseries. Quantitative methods included a mini survey of a group of 115 cocoa producers who were convenience sampled from FGD participants.

Implementation Summary

The GP-SCPP grant targeted 79,000 farmers in Sulawesi and East Nusa Tenggara, while CR targeted 8,000 farmers in Sulawesi, and EQSI targeted 9,000 farmers in Southeast Sulawesi. These grants sought to scale-up industry-supported training activities to enhance productivity as well as sustainable production and land use, improve cocoa marketing through both farmer certification in sustainable production and through improved bean quality (and fermentation in the case of ESQI), and increase smallholder access to finance and markets, community development planning and gender equality.

Figure 1: Activity Summary

Main Activities by Grantee		
GP-SCPP	**Cocoa Revolution**	**EQSI**
• Expand TA delivery and promote sustainable access to agro-inputs, planting materials, knowledge and financial services • Promote certification of sustainable production • Establish a platform for policy dialogue in the cocoa sector	• Train farmers in GAP and GEP • Provide incentive payments • Initiate demonstration plots • Conduct soil quality testing • Facilitate nursery development	• Train farmers in GAP, GEP, NRM and fermentation • Reforestation through air seeding • Create **farmer-fermented** cocoa supply chain

Findings and Conclusions

EQ 1 - Theory of Change

Successful implementation of grantee TOC was highly correlated with the presence of pre-existing supply chain interventions and technical assistance delivery infrastructure due to time and logistics constraints, as well as grantee focus.

- GP-SCPP - The GP-SCPP grant built on the Mars Community Development Centers/Cocoa Village Clinic model for technical assistance (TA) delivery. The approach included training on good agriculture/environmental practices (GAP/GEP) and coaching to address intermittent challenges such as pests and disease. The model was based on experience in West Africa and Sulawesi while also leveraging Swisscontact experience in farmer training in less commercially developed areas of Indonesia. Corollary activities to create smallholder relations with financial institutions addressed access to finance for inputs to reach higher productivity levels. Finally, additional activities were aimed at gender, nutrition, and community empowerment. In terms of outputs, the project was largely successful at disseminating the Mars model and the additional activities on a large scale through collaboration with a number of major buyers acting as sub-

partners. However, there were some limitations. Notably, this includes low interest in access to finance for inputs, with few farmers following up on banking relations to access credit due to lack of confidence in repayment ability and low interest in expanding or upgrading their farms. Likewise, the outcomes of some activities were limited by access to essential inputs, such as nutritious vegetables required to improve nutrition.

- CR – The CR grant project likewise addressed GAP to improve declining farmer productivity but worked through a more traditional approach revolving around demonstration plots and including a focus on nurseries and new planting. However, in the absence of the strong pre-existing foundation upon which GP-SCPP was built this project was over-ambitious. Implementation suffered from logistics challenges such as haphazard delivery of saplings and in-actionable practices like solar dryers for which farmers had trouble accessing and financing the plastic sheeting.
- ESQI – The ESQI grant project was unique in its focus on grantee-implemented reforestation activities (air-seeding) and value-added fermentation at the producer level. However, this project suffered most from the curtailed implementation period, and it is still too early to assess the success of some activities. Likewise, fermentation proved to be unviable due to low renumeration of farmers and logistics related to buying at economies of scale.

EQ 2 - Implementation Approaches

“Training” reinforced existing knowledge but grantees stressed the need for “coaching” to address intermittent problems. Efforts to mobilize credit for increased investment were largely ignored by farmers and weak price transparency limited improvements in market access. However, grantees noted bean quality improvements over time.

- In general, while SCP grantees found adoption rates “low” or “challenging” it is important to note that low-cost GAP application was already moderate to high prior to the SCP grants due to previous trainings. Some practice changes required longer time to materialize and affect productivity. However, farmers cite an important distinction between “training” and “coaching.” While training is useful and tends to “regularize” certain practices, such as regeneration of trees through pruning, coaching was viewed as very important for dealing with intermittent and individualized problems. After the grants concluded, farmers no longer received coaching from any entities.
- Changes in income and management practices were limited due to low farmer interest in accessing credit, and limited access to inputs such as cocoa-specific fertilizers because of distribution challenges. On the other hand, buyers perceived notable improvement in cocoa quality over the grant implementation period.
- Changes in access to markets was limited and producers experienced a lack of transparency regarding prices despite activities, such as SMS price reporting systems, designed to improve this. In addition, many farmers had a poor understanding of how quality factors determine cocoa prices.

EQ 3 - Knowledge Management

Pre-existing knowledge management systems overcame initial challenges to guide program decision-making. New systems faced time and logistical constraints. For all grants, limited partner and GOI access resulted in some frustration, and post-project, each partner retreated to proprietary data control and competition.

- GP-SCPP – CocoaTrace: Koltiva, a private company founded by former Swisscontact employees and based in Jakarta, created CocoaTrace to collect real time project monitoring data. Feedback on this system from consortium members was positive, especially relating to targeting and tailoring assistance to supplier farmers (for example, increasing focus on coaching as opposed to training), and sub-grantees continue to use the system in a proprietary way i.e. with access limited to company-specific data related to supply chain improvements. On the other hand, GOI staff and producers did not have access to the data nor a clear understanding of its purpose and some local partners had trouble accessing data required for project implementation. In addition, the outdated forestry registry maps made it difficult to confirm compliance with sustainability requirements.
- CR – Olam Information System (OFIS): As a pre-existing tool used for Olam global supply chain management, CR staff found it more difficult to share OFIS data due to confidentiality issues. However, quarterly monitoring facilitated adjustments to TA in order to focus more on coaching. Producers and GOI staff did not have access to data and were not fully aware of its purposes.
- EQSI – Cocoa Act Data: After initially relying on GOI data, the EQSI data management system was launched late in project implementation, and feedback was limited to showing that the project was not on track to reach targets. As with the GP-SCPP and CR data management systems, producers reported lack of knowledge as to the purpose of the data, and GOI staff reported not having access to the data.

EQ 4 – Sustainability

Sustainability certification and nurseries responded to market and producer demands, respectively. Fermentation for bean quality proved to be unviable due to logistical constraints and low-price incentives. Fostering smallholder capital investments for minimal productivity growth continues to be a key challenge to sustainability in the sector.

- The SCP grants addressed prevailing global market trends and priorities through promoting sustainability certification to meet global demand for sustainably sourced cocoa as well as through promotion of fermentation in the case of EQSI in order to improve the quality of Indonesian cocoa beans. Both activities also held potential to improve producer incomes. Certification proved to be a viable strategy for improving incomes in areas where large-scale buyers held the certification,

though where farmer organizations were required to hold the certification, weak financial management undermined their ability to provide premiums to producers. Producer-level fermentation proved to be unviable due to the limited price differential between fermented and non-fermented beans, as well as buyer requirements to buy at scale in response to specific orders. Fermentation remains limited to Mars fermentation of wet beans and a small number of specialty producers.

- In addition to training, farmers require coaching by qualified experts in order to address intermittent problems such as pest and disease outbreaks. However, even with full adoption of lower-cost GAP, farmers are not likely to achieve estimated minimum sustainable levels of production i.e. over 1 MT/ha required to guarantee future production economic sustainability. This productivity level will require motivating smallholders to invest higher levels of capital into their farming systems, a transition that to date has proven difficult to foster.
- While private-sector actors appreciated the opportunity to collaborate in order to pursue common objectives, and in a number of cases have adopted long-term supply chain management strategies that entail on-gong producer support and intend to continue to use SCP-facilitated materials, most of them did not see a significant return on investment and have returned to a territorial and competitive approach.

Next Steps/Future Analysis

This is the final report in the MCC Indonesia Green Prosperity Sustainable Cocoa Partnership Grant's Performance Evaluation. The ET does not anticipate additional analysis. However, MCC expressed interest in a mapping of implementor relationships over the course of SCP grant implementation that may be a topic for further investigation.

1. INTRODUCTION

Cocoa first appeared on plantations in Java and Sumatra in the 1880s as part of Dutch attempts to identify export crops that could balance the budgets of their colonial holdings. Plantation output over the next century was negligible, but exports soared as small-scale producers in Sulawesi adopted the crop in the 1970s. Calling into question the impact of "economies of scale" conventionally associated with large-scale farming operations, Sulawesi's smallholders leveraged the skills of return migrants from Malay farms as well as the rich alluvial soils of the island's readily available forest, land that could be cleared at marginal costs ("forest rent"), and low cost labor facilitated by state-sponsored inter-island "transmigrations" to generate a patchwork of highly productive cocoa farms.[2] Indonesia's "cocoa boom" was also driven by a highly efficient marketing system that delivered a comparatively very high portion of farm gate prices to producers. Within 20 years, cocoa smallholders drove Indonesia into third place (after Côte d'Ivoire and Ghana) in global markets with annual production exceeding 600,000 MT.[3]

However, by the 2000s, surging land and labor costs, as well as the inevitable diminishing of soil productivity and growing incidence of disease and pests, which began to compel higher investments into inputs, signaled an end to low-cost cocoa production, and growth trends for the sector reversed. As expansion stalled, some farmers switched to alternative crops. In addition, Indonesian cocoa had always traded at a discount due to a prevailing lack of fermentation, low cocoa butter content, and small and irregular bean size.[4] By 2017/18, annual production was reported to have fallen to under 300,000 MT.[5] In an attempt to improve export earnings derived from the sector and with the active advocacy of domestic processing companies, Indonesia's Ministry of Finance had passed Regulation No.67/2010 in 2010. This regulation is essentially a graduated export tax ranging from 5-15 percent on unprocessed beans with precise rates tied to international market prices. In response, a number of international firms including Barry Callebaut, Cargill, and Olam reorganized operations in Indonesia to acquire processing capacity or build new plants. Likewise, a large domestic company, Kalla Group, purchased a processing plant from the government in Sulawesi.[6] These companies were then forced to turn to imported beans to satisfy existing installed capacity due to the decreased production in Indonesia.

It is in this context that the Millennium Challenge Corporation (MCC) and the Government of Indonesia (GOI) implemented the Green Prosperity (GP) Sustainable Cocoa Partnership (SCP) initiative in Indonesia between 2015-2018 under two grant windows: Window 1 grants for private-sector partnerships and Window 2 grants for community projects. This final evaluation presents an independent assessment of the performance of the three Window 1 Partnership grants facilitated by the SCP: 1) Sustainable Cocoa Production Program (GP-SCPP) implemented by a consortium led by Swisscontact; 2) Cocoa Revolution

[2] Ruf, François, Yoddang Jamaluddin and Waris Ardhy (1995). "The Spectacular Efficiency of Cocoa Smallholders in Sulawesi: Why? Until when?" *Cocoa Cycles* (chapter 17), pp.339-375, London.
[3] Ruf, François, P. Ehret and Yoddang Jamaluddin (1996). "Smallholder Cocoa in Indonesia: Why a Boom in Sulawesi?" *Cocoa Pioneer Fronts since 1800* (Clarence-Smith ed), London.
[4] Ruf, François (2018). "Indonesia's Position Among Cocoa Producing Countries." *Indonesia Circle*, August 1, 2007
[5] "Annual Report, 2017/2018." ICCO. Abidjan, Côte d'Ivoire.
[6] Neilson, Jeffrey, Dwiartama Angga and Permadi Dikdik (2018). "Hilirisasi (Downsizing): Resource-Based Industrialization and Global Production Networks in the Indonesian Coffee and Cocoa Sectors." ACIAR for Canada-Indonesia Trade and Private Sector Assistance (TPSA) Conference, Jakarta.

(CR) project led by Olam and Rainforest Alliance; and 3) Economic, Quality and Sustainability Improvement (EQSI) project implemented by Yayasan Kalla and partners.

2. OVERVIEW OF COMPACT

2.1 Compact Project Logic

On November 19, 2011, MCC and the GOI signed a five-year USD 600 million compact, which entered into force on April 2, 2013.[7] During the planning phase of the compact, a constraints analysis had identified lack of infrastructure as a limit to Indonesia's economic growth and determined that current growth patterns were "putting increasing pressure on the environment and natural resources, posing significant risks to both economic growth and poverty reduction in the long run."[8] In response, Millennium Challenge Account-Indonesia (MCA-I) launched the USD 312.7 million GP Project with the goal of increasing economic productivity through: 1) reduced reliance on fossil fuels by expanding renewable energy; and 2) reduced land-based greenhouse gas (GHG) emissions by improving land use practices and management of natural resources.[9] As part of the GP Project, MCA-I launched the Green Prosperity Facility (GPF) as a flexible vehicle to provide grant financing in order to mobilize greater private-sector investment and community participation in renewable energy and sustainable land use practices. Allocated USD 192.6 million, the GPF was the largest component of the GP project, which also included allocations for participatory land use planning, technical assistance and oversight and "green knowledge." Ultimately, MCA-I disbursed USD 228 million under the GP project, including USD 123 million under the GPF (see **Annex A: Green Prosperity Project Logic**).[10]

With Indonesia's economic growth predicated on sustainable utilization of the country's natural resources and one-third of the labor force engaged in agriculture, promotion of sustainable agriculture practices to increase incomes and reduce pressure on critical natural resources emerged as a focus of the GOI. Likewise, with smallholders producing virtually all of the country's cocoa, and given its role as a key export commodity, the cocoa sector presented an obvious choice for GP focus.[11] Consequently, on July 1, 2014, MCA-I announced the creation of the SCP initiative to be implemented through GPF-administered grants. The goal of the SCP was to support "the development of a sustainable cocoa industry in Indonesia and improved smallholder incomes where smallholders and processors benefit equitably." MCA-I anticipated that the SCP grants would achieve this goal through:

- Leveraging significant private-sector resources and access to marketing channels from partners with a shared interest in ensuring Indonesia as a long-term sustainable source of cocoa in the global market;
- Increasing cocoa production in order to maintain Indonesia's market position in response to growing demand;
- Improving and optimizing smallholder yields that will result in increased incomes;
- Promoting prices to producers that reflect improvements in quality and sustainability; and
- Contributing to greenhouse gas emissions reductions and/or improved carbon sequestration.

[7] "Star Report – Indonesia." MCC, August 2019.
[8] Ibid.
[9] Ibid.
[10] "Green Prosperity Facility – Sustainable Cocoa Partnership (Version 001)." MCA-I, Jakarta, July 1, 2014.
[11] Ibid.

Entities "sharing the objectives of the SCP with a proven track record in managing/implementing cocoa value chain development projects, and able to leverage a 1:1 funding match" were eligible to apply for GP grants for projects in 24 districts in ten targeted provinces of Indonesia across the islands of Sulawesi, Sumatra and East Nusa Tenggara.

2.2 Project Level

Addressing the challenges of declining productivity and increasing costs in the main cocoa growing zones, GPF grants prioritized "catalytic private-sector investment that promoted sustainable and less carbon-intensive economic growth among independent smallholder cocoa farmers" who were otherwise tempted to encroach onto new forest lands.[12] Specifically, SCP grants sought to scale-up ongoing, industry-supported technical assistance (TA) and training activities to enhance productivity as well as sustainable production and land use practices. In addition, the grants focused on improved marketing through farmer certification and supply chain traceability, and to a lesser extent through improved cocoa bean quality including through adoption of fermentation (in the case of EQSI). In addition, the SCP grants supported activities to increase smallholder access to finance and markets, and community empowerment and development planning (see **Annex B: SCP Grants – Individual Logical Frameworks** and **Annex C: SCP Grant Goals and Key Outcomes**).

2.2.1 Link to ERR and Beneficiary Analysis

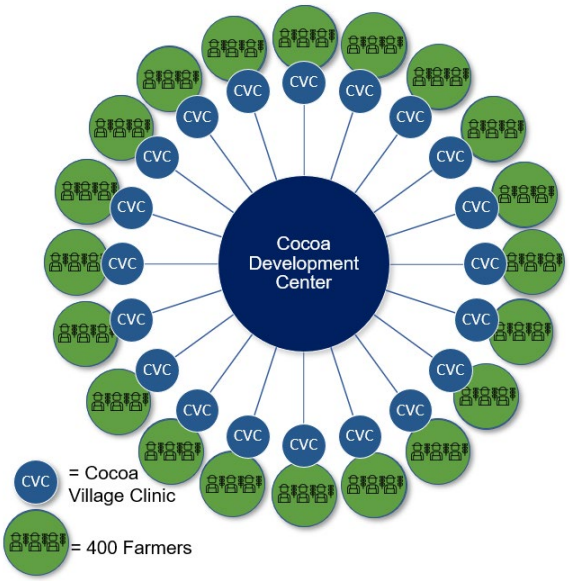


Figure 2: Mars Cocoa TA Dissemination Model

In 2014, the National Renewable Energy Laboratory (NREL) submitted a SCP project model to MCC largely based on a model developed by Mars and introduced from Africa to Indonesia in 2006 focused on TA delivery through a hub and spoke approach (the "Mars scheme").[13] This model achieves exponential dissemination of TA by deploying expert TA at a centrally located Cocoa Development Center

[12] "Star Report – Indonesia." MCC, August 2019.
[13] Moriarty, K. M. Elchinger, G. Hill, J. Katz and J. Barnett (2014). "Cocoa Intensification in Sulawesi: A Green Prosperity Model Project." NREL for MCC.

(CDC) serving as a demonstration farm and training site and staffed by a "Cocoa Doctor." CDCs in turn support about 20 Cocoa Village Clinics (CVCs), each staffed by a local entrepreneur engaged in sector-related service(s) provision, the income of which ensures financial sustainability i.e. nursery management, input supply, and grafting. In turn, CVC operators further disseminate agronomic advice, including on proper use of CVC-supplied inputs, to about 20 farmer field schools (FFSs) comprised of groups of about 20 farmers each.[14]

Based on cited "industry assessments," the NREL model assumes that yields can be improved from current levels of around 500 kilograms (kg)/hectare (ha) to 1 ton (t)/ha through labor-intensive but inexpensive steps, such as pruning, tree replacement, grafting and sanitation. The model also assumes achievement of (historical) yields greater than 2 t/ha requires investment into fertilizer and pesticides, which is not affordable to most smallholders at the required time.[15]

The model notes that actual implementation will vary between grantees but will loosely follow the model outlined above. Based on assessments of the performance of this TA delivery model in Indonesia and other countries in West Africa where it has been applied, and assuming donor funding to support CDCs and FFSs over a period of two years at prevailing costs, the project model forecasts a medium-yield farmer group achieving an increase in yield from about 500 kg/ha to 1 t/ha through adoption of no- or low-cost productivity enhancing practices, and a much smaller group adopting fertilizer and pesticide use reaching 2 t/ha. As such, the model forecasts the project meeting the GP requirement of a minimum 10 percent economic rate of return (ERR) as well as the goal of reducing poverty through increasing income for cocoa smallholders while providing a positive net present value (NPV).[16]

2.2.2 Program Participants

SCP grants targeted smallholder cocoa farmer households. Specifically, GP-SCPP targeted 79,000 farmers, CR targeted 8,000 "cocoa smallholders" and EQSI targeted 9,000 farmers comprised of 7,000 cocoa farmers and farm workers and 2,000 "forest farmers" i.e. farmers producing cocoa in remote forest areas.

2.2.3 Geographic Coverage

Figure 3: Cocoa Grant Geographic Coverage

[14] "Mars Indonesia: Service Delivery Model Assessment – Case Study Report." (2015). New Foresight.
[15] Moriarty, K. M. Elchinger, G. Hill, J. Katz and J. Barnett (2014). "Cocoa Intensification in Sulawesi: A Green Prosperity Model Project," NREL for MCC.
[16] Ibid.

Geographic coverage of the three SCP grants included the islands of Sulawesi, Sumatra and East Nusa Tenggara. Specifically:

- The GP-SCPP grant covered cocoa producing zones in West Sumatra (Kota, Padang Pariaman, Pasaman, Pasaman Barat, Tanah Datar), Southeast Sulawesi (Kolaka, Kolaka Timur), South Sulawesi (Luwu, Luwu Timur, Luwu Utara, Kolaka Utara), West Sulawesi (Majene, Mamasa, Mamaju, Polewali Mandar), East Nusa Tenggara (Ende, Flores Timur, Sumba Barat Daya, Sikka) and Gorontalo (Boalemo, Pohuwato).
- CR implemented activities in South Sulawesi (North Luwu) and Southeast Sulawesi (North Kolaka).
- EQSI implemented activities in Southeast Sulawesi (Konawe, South Konawe, East Kolaka).

2.2.4 Implementation Summary

Summary

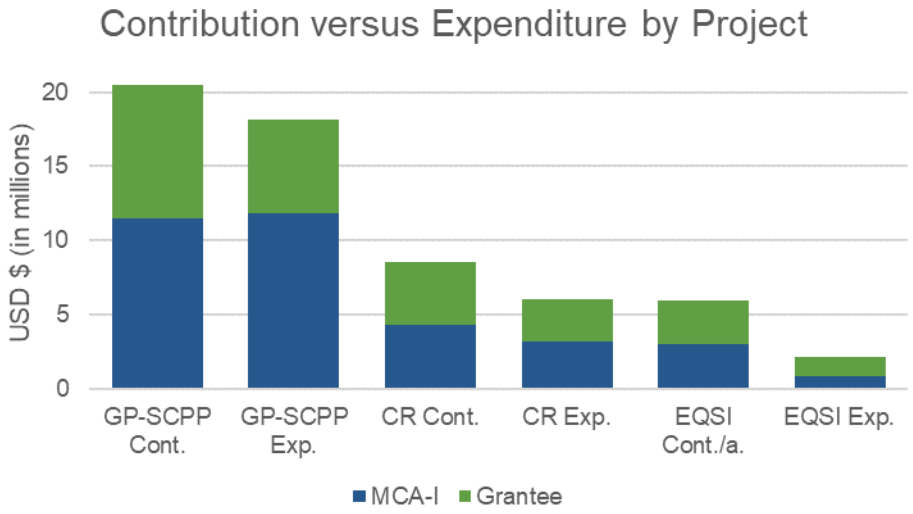
MCA-I announced the SCP grant window under GP through a public release on July 1, 2014.[17] This publication outlined the rationale for the SCP project, as well as who could apply and where activities could be implemented. The release also explained the requirement of a 1:1 match in funding between MCA-I and grantees, which would include co-financing by private-sector cocoa consortium members to continue funding project activities after MCC's investment closed. MCA-I made initial awards in March 2015. Notably, the "original plan was for the GPF to award and administer grant funding over a 4-year period with 3 to 3.5 years allocated for project implementation. However, administrative delays, including questions related to a credit facility with the Ministry of National Development Planning (BAPPENAS) resulted in a truncated timeline in which "the majority of grantees had much less time than 3 years to deliver projects, with some having to complete activities in only 18 months."[18]

Projected and Actual Costs

MCA-I awarded the SCP grants in 2015. GP-SCPP was the only grantee with a full consortium of partners with whom the 50 percent grantee contribution was divided; Swisscontact provided the highest contribution (16 percent) followed by Mars (13 percent) while the other ten consortium partners each contributed between 0.22-6 percent. Following implementation, none of the grants realized the expenditure of their full grant values. Notably, the EQSI grant and deliverable timeline was reduced by two-thirds after Yayasan Kalla rescoped project activities at MCA-I's request with two quarters (Q8/9) remaining. On the other hand, Olam received a no-cost extension following the end of the CR project to enable them to distribute incentive packages, which comprised the largest part of their co-financing.

[17] "Green Prosperity Facility – Sustainable Cocoa Partnership (Version 001)," MCA-I, Jakarta, July 1, 2014.
[18] Ibid.

Figure 4: GP Cocoa Grants Project Budgeting and Expenditures (end of project figures)



a. In September 2018, MCA-I issued an amendment reducing the EQSI grant to USD 3,963,050.

Achievement of Monitoring Targets

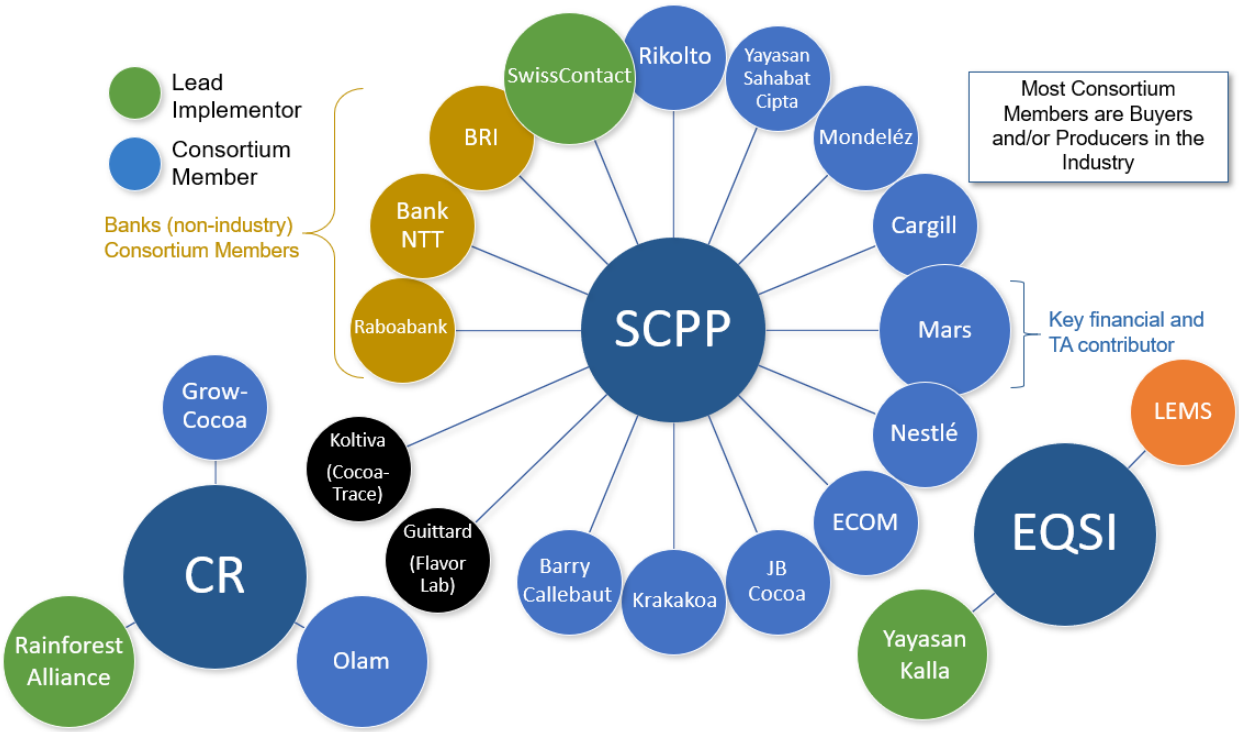
Each monitoring target responded directly to key project objectives as part of the theory of change or results framework submitted to MCA-I by the grantee (see **Annex A: Green Prosperity Project Logic**). EQI and EQ2 findings below discuss in further detail the extent to which each grantee reached or exceeded targets and achieved overall outcomes (see **EQ 1: Theory of Change**).

Selection of Participants and Recruitment

As outlined in the grant announcement, eligible applicants were required to be legally registered in Indonesia and authorized to conduct activities, including engaging in partnership with multinational or national corporations, banks or financial institutions, non-governmental organizations (NGOs) or foundations, and professional organizations. Applicants must have demonstrated a track record in managing and implementing cocoa value chain development projects. Recipients were required to have a minimum match of 1:1, have a significant portion of the project within the 24 districts under GP, and must not affect existing non-degraded natural forest or be likely to cause environmental health or safety risk.[19]

[19] "Star Report – Indonesia," MCC, August 2019.

Figure 5: Summary of Grant Participants



Estimated Economic Rates of Return

MCA-I modeled the benefit streams of all three grants around net farmer revenue over time to generate an estimated economic rate of return (ERR). Net farmer revenue was measured as the difference between total farmer costs and net revenue. Even with a temporary increase in production costs, MCA-I estimated long-term benefits would be manifested in increased yields and improved income-earning potential over 20 years:

- GP-SCPP: Farmer costs include input costs (fertilizer, compost, seedlings), labor costs (hired labor, hours/cost of foregone labor), while farmer revenue considers improved productivity and premiums for certification. This model takes into account estimated adoption rates, as well as variation in cocoa price, farmers to be trained, newly trained farmers, farm size, cocoa yield at midline, and a quality adjustment factor.
- CR: Farmer costs include certification qualifying costs, labor, fertilizer, seedlings and other inputs, while farmer revenue considers cocoa price, farm size, and overall cocoa yield.
- EQSI: Farmer costs include insecticide/fungicides, fertilizer, harvesting, fermentation and drying and tree planting, while farmer revenue considers intercropping revenue, farm value, and fermentation center prices.

Assumptions of the logic models are that cocoa prices and demand remain stable or increase; Indonesian cocoa remains competitive on the international market, increased incomes and income diversification and climate education sufficiently deter farmers from converting forests to cocoa fields; and climatic shock will not occur and impede growth and productivity of newly planted cocoa trees. Estimates were a 17.25

percent ERR for the GP-SCPP grant project, 32.92 percent for the CR project and approximately 39.8 percent for EQSI.[20]

Table 1: Estimated 20-year Economic Rate of Return

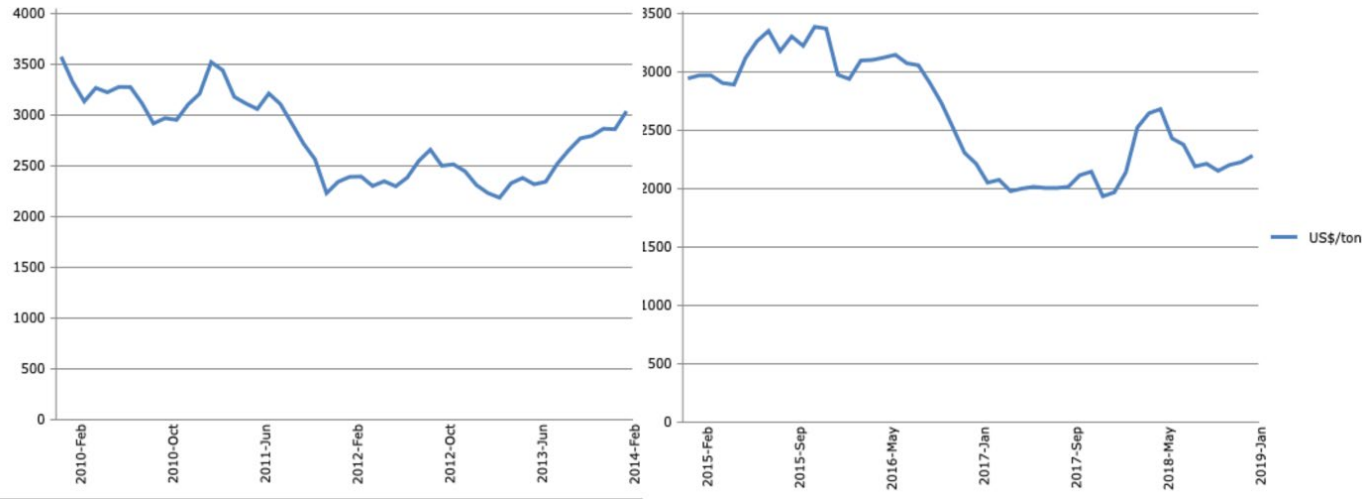
Grant	20-year ERR/a
GP- SCPP	**17.25%**
Cocoa Revolution	**32.92%**
EQSI	**39.48%**

a. Data received from MCA-I in November 2019

This evaluation did not include a quantitative assessment of the calculated ERR. However, qualitative findings call into question whether ERR targets are achievable. Lower than expected productivity is a particular concern. Although the productivity of perennial crops such as cocoa trees is determined by a number of factors that manifest themselves over long periods of time (5-10 years), including climate, soil quality, agronomic production practices, age of trees and, in the case of the GP SCP grant projects, farmer's willingness to invest into their farming systems for productivity improvements. While the timing of the evaluation limits its ability to speak to long term outcomes, the ET found very limited borrowing by smallholders for the capital investments that are required to reach estimated productivity levels, calling into question whether ERR rates are achievable (see **Section 5:Findings** and **Section 6: Conclusions and Policy Implications).**[21]

One factor that determines farmer propensity to borrow for investment is global cocoa commodity prices. As indicated by International Cocoa Organization (ICCO) data, global cocoa commodity prices varied from just over USD 3,500 per ton to approximately USD 2,200 per ton over the course of the 4 years preceding the GP SCP projects (2010-14). During the onset of the projects, prices were again increasing, from approximately USD 2,200 per ton in 2013 to approximately USD 3,400 per ton in 2015 when the projects were launched, but subsequently falling again between 2015 and 2017 (to approximately USD 2,000 per ton).[22]

Figure 6: Global Cocoa Commodity Price (2010-14/2015-19) (US$/ton)



Source: International Cocoa Organization (ICCO)

[20] MCA-I, November 2019.
[21] FGDs, Producers, Sulawesi and East Nusa Tenggara, October-November 2019.
[22] ICCO "Statistic: Cocoa Prices". https://www.icco.org.

Although numerous factors determine farmer propensity to borrow to finance investments into farming systems, this data suggests that, to the degree international commodity prices impact this propensity, price *volatility* (as opposed to absolute price trends) may have been a negative factor. Based on this assessment, activities that mitigate the impact of price volatility, such as price arbitrage through futures and options markets, may help to counteract the dampening effect of market volatility on producer investment.

3. LITERATURE REVIEW

3.1 Background

In 2016, the Australian Centre for International Agricultural Research estimated that the GOI and donor partners had invested more than USD 150 million in the Indonesian cocoa sector since 2000.[23] This includes the following projects:

- The Mars/Netherlands Ministry of Foreign Affairs PRIMA project (2003-2010) provided 40,000 farmers with training in pruning, good sanitation, frequent harvesting, appropriate fertilizer and pesticide use and replacing old trees with short, high-yielding varieties or grafting budwood from superior varieties onto old trees. Technically, the project was largely successful, managing to achieve increases in productivity and farmer income in the treatment group. The program noted that knowledge transfer was increased and sustained through engaging private-sector providers, rather than expecting farmers to gain information through their own means.[24]
- SUCCESS (2000-2008) and the Agribusiness and Market Support Activity (AMARTA) (2006-2009) projects focused on increasing production through the introduction of new technologies including training farmers in stumping and grafting of existing cocoa trees to improve yields, improving drainage in heavier lowland soils, pest and pathogen control/ management, agricultural chemical safety, shade trees (canopy management), pruning, tree height management, soil fertility and crop nutrition, and harvest techniques. While both projects realized higher yields and incomes, the quality of the cocoa produced was largely unaffected. Evaluations of both projects noted lack of price incentives for farmers for uptake and maintenance of new technologies.[25]

As noted, the GOI has also sought to transform Indonesia's role as a supplier of low-quality discount beans by introducing a graduated export tax on raw bean cocoa export. In doing so, they promoted investment in domestic processing facilities that, rather than improving local quality, increased import of higher quality beans from the international market as domestic production continued to decline (see **Section 1: Introduction**).

Recently, expansion of certification and traceability systems has presented a possible opportunity to improve farmer incomes and cocoa sustainability. For example, Fair Trade certification guarantees a minimum price to the seller while UTZ allows for price negotiations. In addition, a premium is placed on adoption of sustainable practices to improve yields and protect environmentally sensitive areas from uncontrolled expansion. However, there are mixed views on whether certification systems benefit farmers, including whether the price fully covers the costs of participation.[26] Nevertheless, several major

[23] Pearce, D. (2016). "Sustaining Cocoa Production: Impact Evaluation of Cocoa Projects in Indonesia and PNG." ACIAR Impact Assessment Series Report No. 89.
[24] Pye-Smith, C. (2011). "Cocoa Futures: An innovative program of research and training is transforming the lives of cocoa growers in Indonesia and beyond." ICRAF Trees for Change no. 9. Nairobi: World Agroforestry Centre.
[25] Farman, B. A. (2005). "Final Report: Sustainable Cocoa Enterprise Solutions for Smallholders (SUCCESS) – Alliance, Indonesia."
[26] Murray, D. L. et al. (2003). *One Cup at a Time: Poverty Alleviation and Fair Trade Coffee in Latin America.* Colorado: Colorado State University.; Jaffee, D. (2007). *Brewing Justice*, Univ. of California.; See for example, Beuchelt, T. D. and M. Zeller (2011). "Profit and Poverty: Certification's Troubled Link for Nicaragua's Organic and Fairtrade Coffee Producers," *Ecological Economies*, 70 (7) pp: 1316-1324. and Barham, B. L and J. G. Weber (2012). "The Economic Sustainability of Certified Coffee: Recent Evidence from Mexico and Peru," *World Development*, 40 (6): pp: 1269-1279.

buyers have committed to transitioning entirely to third-party certified sustainable cocoa by 2020 in response to perceived market demands for more sustainable supply chains.[27]

In addition, literature shows unique hurdles faced by women, including labor wages 25 percent lower than their male counterparts, barriers in accessing regional markets (with higher prices) due to an inability to travel alone, harsh working conditions in factories and warehouses without legal contracts, extra household duties, and sustainability programs focused on transferring knowledge and skills to male farmers.[28]

3.2 Evidence Gaps

The findings above are relevant to the current evaluation in several ways:

- First, they underline the importance of identifying appropriate technology transfer mechanisms to promote knowledge transfer and management of new technologies, tools, and inputs to increase production and productivity.
- Second, they note a major challenge in sustaining new farming practices after projects have ended, especially around improving cocoa quality and long-term income increases.
- Third, they note the changing environment in Indonesia and globally, including the introduction of local processing facilities, competition from global imports and the increased use of certification systems.
- Fourth, they emphasize the role of women and gender considerations in the sector.

Given that the SCP deviates from previous programs in several ways, this evaluation provides the opportunity to further contribute to existing literature by: 1) comparing approaches and perceptions of progress across multiple projects at a single point in time; 2) exploring the strengths and weakness of shared funding partnership models; and 3) reviewing the success and challenges of each of the grantees in addressing current challenges including cocoa quality, introduction of processing facilities, use of certified schemes, and gender inclusion.

While a previous evaluation in 2017 addressed each of these points,[29] this final PE facilitates a sustainability lens. Specifically, it takes into account the agricultural cycle for production changes by looking at post-project knowledge and practice retention after a full year has elapsed since project close-outs. This evaluation also considers the GOI attempts to transform Indonesia's reputation as a supplier of low-quality discount beans through the 2010 export tax on raw cocoa bean exports as well as attempts to require bean fermentation. Finally, this PE considers the post-project sustainability certification and traceability systems.

[27] Pye-Smith, C. (2011). "An Innovative Programme of Research and Training is Transforming the Lives of Cocoa Growers in Indonesia and Beyond," ICRAF Trees for Change no. 9. Nairobi: World Agroforestry Centre), Cocoa Futures.
[28] Field note, retrieved July 12, 2017, https://www.oxfam.org/sites/www.oxfam.org/files/gender-inequality-cocoa-indonesia.pdf.
[29] Previous evaluation report can be found here: https://data.mcc.gov/evaluations/index.php/catalog/206.

4. METHODOLOGY

4.1 Evaluation Type

The final PE relies primarily on qualitative data collection including analysis of project documents, key informant interviews (KIIs) and focus group discussions (FGDs). However, value chain development interventions do involve a focus on quantitative measurements of yields, price, and income, which the evaluation utilizes when available. As some descriptive quantitative data analysis is necessary, this evaluation includes analysis of existing MIS data and a mini survey facilitated during data collection. Although the study is a primarily qualitative performance evaluation, it focuses on identifying changes that have occurred since the program was implemented, an assessment based on the data available of the extent to which these changes can be attributed to the project, and the likelihood that the grants contributed to improving the overall outlook for the cocoa sector in Indonesia. Developing a comparison group in an attempt to construct a counterfactual that might attribute program impacts to the grants (i.e. "impact evaluation") was deemed impractical for this final PE as nearly all smallholder cocoa farmers in non-targeted areas had participated in previous projects or operated in quite different circumstances.

4.2 Evaluation Questions

This final PE of the SCP grants sought to answer the four evaluation questions illustrated in the following table (for a full list of evaluation questions and associated areas of enquiry see **Annex D: Cocoa Grant Specific Training Approaches**).

Table 2: Evaluation Questions

Evaluation Questions	
1.	Theory of Change - To what extent were the theories of change (TOCs) valid in achieving the overall project objectives?
2.	Implementation Approaches - To what extent have the GP cocoa grants' (GP-SCPP, Cocoa Revolution and EQSI) approaches and activities proven successful in improving farmers' knowledge, attitudes and practice of GAP/GEP?
3.	Knowledge Management - How did the GP cocoa grantees monitor grant progress toward results and outcomes during implementation, and how did they use this information to manage project performance?
4.	Sustainability - What results or outcomes of the GP cocoa grants are likely to be sustainable and scalable, and what results do not appear to be sustainable and scalable?

4.3 Evaluation Methodology

Between May and December 2019, Social Impact deployed a six-person Evaluation Team (ET) to implement this final PE of the SCP grants, including five persons that undertook in-country data collection in October 2019 (see **Annex E: Evaluation Questions and Areas of Enquiry**).

4.3.1 Data Collection

The ET deployed a mixed-methods approach that included secondary material review, as well as both quantitative and qualitative data collection methods as noted below. Selection of districts visited for field work was deliberate to represent the major regions of the national cocoa production areas, all the grants involved in the cocoa portfolio, as well as the majority of the implementation clusters in the GP-SCPP. The final selected districts included both districts where CR was implemented, two out of three program

districts where EQSI was implemented, and four out of ten GP-SCPP districts including two that overlap with the other grantees in order to identify synergies.

Secondary Document and Data Review

Initially, the ET reviewed secondary documents and data including project documents and reports, training assessments (where available), monitoring and evaluation (M&E) and strategic plans, project design documents, government statistics data, global market reports, and other relevant reference and technical works related to the subject matter. Secondary document and data review were intended to inform data collection planning and design of data collection tools (see **Section 8: Citations and References**).

Project Monitoring Data

Prior to and following deployment for fieldwork, the ET referenced project monitoring data collected through available grantee databases between 2016 and 2019. This data included beneficiary-level (individual or group) information related to adoption rates, use of inputs, group formation and yields. The ET used this data to address evaluation questions 1 and 2 through triangulation with field-based data collected by the team (see **Table 2: Evaluation Questions**).

Key Informant Interviews and Focus Group Discussions

KIIs consisted of in-depth facilitated discussions conducted with individuals or small functional groups of related individuals (e.g., one to four participants). FGDs were mixed or sex-disaggregated moderated discussions with groups of up to 15 cocoa producers. The purpose of the KIIs and FGDs was to better understand project impacts. Both of these data collection methods employed an "evolving subject-driven" format, which refers to an iterative process so that information gathered across successive interviews can be aggregated and analyzed in a cohesive and consistent manner.[30] For KIIs and FGDs, the ET approach facilitated open conversation with probing questions in locations where informants felt comfortable (i.e. farms, offices and other places of work or community gathering). These events were semi-structured (adhering to a structured interview guide) (**see Annex H: Data Collection Tools**).

The ET implemented KIIs with a purposively selected sample of members of each stakeholder group, while FGDs were implemented only with producers. For purposes of this evaluation, the ET identified seven distinct stakeholder groups:

1. Consortium Partners – Staff at private-sector companies that were sub-grantees to the SCP grants (for example, ECOM, Guittard, Mars staff).
2. Donor Staff – Washington DC and field-based MCC staff.
3. GOI - BAPPENAS, BAPPENDAS and Regional Technical Implementation Unit (Ind. *Unit Pelaksana Teknis Dinas* [UPTD]), staff.
4. Grantees – Swisscontact, Olam and Rainforest Alliance and Yayasan Kalla staff.
5. Buyers/traders/input suppliers.

[30] King, Gary, Robert Keohane and Sydney Verba (2016). *Designing Social Inquiry: Scientific Inference in Qualitative Research*, Princeton University Press.

6. Community leaders.
7. Producers (smallholder cocoa farmers).

Table 3: KIIs by Stakeholder Group and FGDs

Stakeholder Group	#
Consortium Partners	16
Donor Staff	4
Government of Indonesia	10
Grantees	9
Buyers/Traders/Input Suppliers	7
Community Leaders	8
Producers	8
Total KIIs	**62**
Focus Group Discussions	**20**

Purposive sampling of KII and FGD participants consisted of selection according to the likelihood of significant knowledge of the SCP grant project activities, as well as convenience of access so as to reach the largest number of informants possible over the course of fieldwork within the time and personnel resources available to the ET (see **Annex I: Data Collection Schedule).**

Producer Mini-Survey

The ET conducted a producer mini-survey containing both open- and closed-ended questions with 115 producers participating in FGDs. The mini-survey sample included 58 GP-SCPP project beneficiaries, 38 CR beneficiaries and 19 ESQI beneficiaries aged between 22 and 67 years. The gender of the respondents varied by grant, where 35 percent of GP-SCPP respondents, 38 percent of CR respondents and 55 percent of EQSI respondents were female.

The focus of survey questions was to note changes in prevailing pre-project practices due to project interventions, including i) growing cocoa (e.g. integrated pest and disease management [IPDM], soil regeneration, nutrient management, and genetic material); ii) cocoa processing (e.g. solar drying, quality sorting, and fermentation); and iii) selling cocoa (e.g. direct sales to international buyers and certification system participation). While the sample is not large enough to be statistically representative, the purpose of the survey was to obtain illustrative quantitative data to help explain qualitative findings related to context or to collective responses. Surveys were self-administered immediately following FGDs.

Direct Observations

In addition, over the course of this final PE, the ET visited a deliberately selected sample of 25 program-related sites to conduct direct observations (DOs). These sites included farms as well as workplaces such as trader warehouses and input dealer shops. The purpose of DOs was to deepen understanding of the context and experiences of project stakeholders, identify unintended outcomes and assess successes and challenges in implementation related to the evaluation questions based on firsthand observations.

4.3.2 Data Analysis

Throughout data collection processes, the ET attempted to analyze findings daily to determine emerging trends in order to aggregate findings around common themes. Following the conclusion of data collection, the ET aggregated data into common themes related to the evaluation questions and areas of enquiry. Data analysis included tabulating responses and disaggregating data, as possible, by project, private-sector partner, region and gender, to understand what changes occurred and how this might have varied among beneficiary groups. Data analysis methods used by the ET included:

- **Content Analysis** – Content analysis included the ET's intensive review of KII and FGD data to identify and highlight notable examples of project successes (or lack of successes) that contributed to or did not contribute to goal and objectives.
- **Trend Analysis** – Trend analysis enabled the ET to examine different project indicators over time in order to identify patterns of convergence (or divergence) of activity outputs and outcomes toward the stated objectives.

4.3.3 Potential Biases and Limitations

The final PE has several potential biases and limitations that have important implications for the types of findings and conclusions that can be drawn from this Evaluation Report. These, and the steps the ET took to mitigate them, include:

- ***Attribution* –** Cocoa-producing regions of Indonesia have been the site of numerous governmental and non-governmental producer training projects. Field based-data collection demonstrated that many farmers included in KIIs and FGDs had received prior training, in some cases on multiple occasions by the same trainer working for various projects, which complicates attribution of impact to specific projects. While the ET made efforts to disaggregate discreet project impact, this is limited by the ability of respondents to accurately identify the contribution of specific projects to effects.
- ***Response Bias:*** Probing questions regarding income, growth and outcomes may result in negative or positive response bias, i.e. tendency of respondents to subjectively focus on negative or positive outcomes. To mitigate this bias, the ET probed for both successes and challenges throughout each qualitative method to develop a holistic picture of impacts and outcomes. Additionally, the self-administered mini-survey inquired about practices and events in the past and present, which could present a recall bias of respondents, and which also contributed to a high non-response rate for several mini-survey questions. Results of this data in the findings clearly note where the reader must account for non-response.
- ***Selection Bias:*** Selection bias is an inherent risk when implementers help to facilitate contact with program stakeholders. The ET worked closely with previous SCP grantee staff to organize KIIs with program stakeholders, so there is a risk that these staff selected the most active, responsive or engaged stakeholders. In addition, the accuracy of findings is limited by the sample size which was in turn limited by technical and logistics factors including budget and time. To mitigate this bias, the ET requested contacts for randomly pre-selected sites across the widest possible spectrum of project sites permitted by resources. Also, the ET designed tools to solicit neutral data i.e. responses that reflect "rationale" as opposed to "judgment."

4.4 Timeframe

The ET implemented this final PE between May and December 2019, with fieldwork taking place in Jakarta, Sulawesi and East Nusa Tenggara over a period of approximately 25 days between October 8 and November 2, 2019 (see **Annex G: GANTT Chart of Final Evaluation Timeline** and **Annex I: Data Collection Schedule**).

4.4.1 Justification for Proposed Exposure Period to Treatment

The Phase 1 PE in 2017 was conducted before the end of the grants periods and was intended to capture grant performance during the full duration of implementation, short- and medium-term outputs and preliminary outcomes and the prognosis for sustainability. At the time of the interim evaluation, it was not possible to assess a number of outcome indicators due to the length of the exposure period at the time, necessitating a follow-up evaluation to review the full implementation period and allow for more time for grantees to measure and report results. This final PE was conducted after each grant period ended to assess realization of medium- and long-term outcomes and sustainability a year after the end of activities. Table 4 summarizes the full exposure for all three grants covered by this PE and the total period allowed for activity implementation.

Table 4: Exposure Period by Grant

Grant	Awarded	Activities Started	Activities Concluded	Period
GP-SCPP	April 1, 2015	October 1 - December 31, 2015 (Quarter 3)/a	January - March 2018 (Quarter 12)	27 months
CR	July 1, 2015	January - March 2016 (Quarter 4)	October - December 2017 (Quarter 10) plus 1-month no-cost extension to deliver incentive packages by January 31, 2018	23 months
EQSI	December 2015	October 1 - December 2016 (Quarter 4)	October - December 2017 (Quarter 8)	14 months

a. Note that the time period for some activities, especially in East Nusa Tenggara, differs slightly.

Further, implementation differed by regional area for GP-SCPP, where activities and “exposure” started later due to administration delays in ENT or, in the case of Sumatra (not sampled in Phase 2), due to being added to the portfolio later in the grant period. Note that the timing of this evaluation (i.e. approximately 1.5 years following grant closeout) does not permit the ET to observe the performance of some activities, such as new sapling growth that took place in the final months of grant implementation, or effectively assess the full breadth of the long-term outcomes of activities.

5. FINDINGS

5.1 EQ 1: Theory of Change

Successful implementation of grantee TOC was highly correlated with the presence of pre-existing supply chain interventions and technical assistance delivery infrastructure due to time and logistics constraints, as well as grantee focus.

This section presents findings related to EQ 1: *Theory of Change - To what extent were the TOCs valid in achieving the overall project objectives?* Specifically, this section addresses the following areas of enquiry:

- EQ 1.1: Regarding the design of each of the grants, to what extent was each implemented according to plan? What was the overall relevance and logic of the designs?
- EQ1.2: How were contextual factors (i.e. factors such as history, crop diversity, topographic and soil and crop quality, access to land, private-sector presence and commercial infrastructure, etc.) taken into consideration in the request for grant applications and by the grantees when designing the cocoa projects?

Each of the SCP grant projects expressed their theory of change (TOC) through a "Logical Framework" (or "Results Chain" in the case of GP-SCPP). In the case of all three projects, the "TOCs" were based on "outputs," which focused on large-scale farmer training in good agricultural practices (GAP) coupled with good environmental practices (GEP) on environmental, climate smart activities, or activities aimed at GHG emissions reduction. These outputs led to "outcomes" ("components" in the case of EQSI), and in turn to a high-level goal reflecting the SCP goal. EQ 1 focuses primarily on outputs while outcomes are addressed through EQ 2 (adoption) and EQ 3 (knowledge management). At the request of MCC and due to the lack of available and validated data from each grantee, SI did not review or measure the grantee's progress in reducing GHGs. Table 5 presents a high-level overview of each grant's TOC (for greater details see **Annex B: SCP Grants – Individual Logical Frameworks**). Below, the ET presents findings under EQ 1 by grant.

Table 5: TOC Overview

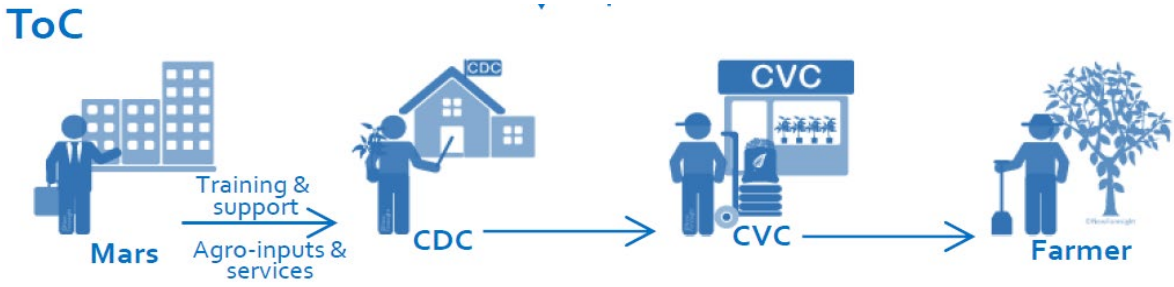
Grant(s)	GP-SCPP	Cocoa Revolution	EQSI
GP Impact	**Reducing Poverty through Low-Carbon Economic Growth**	**Reducing Poverty through Low-Carbon Economic Growth**	**Reducing Poverty through Low-Carbon Economic Growth**
Grant Outcomes/ Impacts	• Cocoa Sector Adopts Measures to Enhance Transparency, Farm Profitability, and Cocoa Quality (CocoaTrace, Flavor Lab) • Cocoa Sector Adopts Climate Smart and Environmentally Friendly Measures • Cocoa Sector Supports Local Communities to Enhance their Living Standards	• Improved Farm Management Practices Increasing Yields and Quality • Farm and Income Diversification • Market Linkages Strengthened through Long-Term Buying Relationships (GrowCocoa) • Reduced Encroachment on Natural Forests and Increased Carbon Storage on Farms	• Land Reforestation • Improved Sustainable Agriculture and Natural Resource Management Practices • Improved Income Generation and Equality • Increased Knowledge Transfer and Cocoa Quality through Community Centers

Activities/ Outputs	• Promote Good Farm Management • Access to Agro-Inputs and Financial Services • Micro, Small and Medium Enterprises (MSMEs) and Farmer Organizations Professionalized • Stakeholder Learning Strengthened • Promote Environmentally Friendly Practices and Awareness • Promote Good Nutrition and Access • Gender, Youth and Community Participation	• Farmers Trained on Sustainable Agriculture and Business Skills • Farmers Achieve Rainforest Alliance Certification • Soil Quality Testing and Mapping Completed with Fertilizers Locally Developed • Nurseries Provide New Cocoa Seedlings and Shade, Fruit and Timber Trees are Planted	• Manual and Air-Seeding, Watershed Protection, Erosion Reduction • Farmers and Family Trained on Improved Farming Methods and Cocoa-Related Enterprises • Provision of Community Fermentation and Drying Centers • Establish Nurseries, Encourage Reduction in Pesticides, Herbicide and Full-Sun Cocoa Gardens • Provide Access to Capital Assets and Inputs Through an External Lending and Grant Mechanism

5.1.1 Sustainable Cocoa Production Program (SCPP)

The design and overall relevance and logic of the GP-SCPP TOC ("Results Chain") were largely derived from the pre-existing experience of Mars in large-scale farmer training in GAP to reverse productivity decline, as well as coaching on pest and disease management, gained in West Africa and later in Sulawesi. With Mars as the largest partner in the GP-SCPP grant, the logic of the GP-SCPP project closely models the already existing "Mars scheme," which was introduced into Indonesia by the company in 2006 and through which training and coaching are provided by CDC and CVC structures to groups of FFSs. As noted, this model also ensures the sustainability of TA delivery agents through the development of "service" enterprises embedded in the CVCs that can deliver inputs such as seedlings, fertilizers and pesticides, and agronomic services such as grafting and pruning as sustainable business services (note that the "Mars scheme" also formed the basis for which NREL developed the initial project model for the SCP grant program) (see **Section 2: Overview of Compact**).

Figure 7: Mars Technical Assistance Delivery Model



Source: "Systemic Change Assessment: GP-SCPP Indonesia." Swisscontact, Jakarta, March 2018.

However, the TOC of the GP-SCPP grant project also builds on the pre-existing experience of Swisscontact in training groups of cocoa farmers in Sumatra (Aceh, Lampang) and East Nusa Tenggara under its pre-GP SCPP project. Lessons there noted that the lower concentrations of commercial infrastructure meant that farmers in these areas are more likely to be required to organize as self-managed associations or cooperatives in order to reach buyers at commercial scale.

Notably, the Mars supply chain model in Sulawesi entails sales of "wet" beans to Mars buying centers, which facilitates drying and fermentation by Mars, which in turn ensures quality during these operations while at the same time saving farmers the associated costs in terms of labor and time, albeit also providing them lower prices. In contrast, farmers in the areas with lower commercial development, such

as East Nusa Tenggara, are obliged to dry their beans prior to sale and sell into supply chains for unfermented beans (though these unfermented beans also enjoy niche markets, especially demand for lower quality "filler" beans required by U.S. chocolate producers where their competition is limited to the unfermented Sanchez variety produced in the Dominican Republic[31]).

As noted by Swisscontact, "Mars was already a strong lead company in the cocoa sector prior to GP-SCPP. They have been investing in different types of farmer training models and trying to get their suppliers to adopt best practices."[32] Mars is the biggest cocoa buyer in Indonesia (buying 30-40 percent of all beans) and is also supplied by large cocoa processors including Barry Callebaut, ECOM, and Olam. It has operated the USD 4 million Cocoa Research Station (CRS) at Pangkep, Sulawesi since 2010, and constructed a Cocoa Academy at Tarrenge for training "Cocoa Doctors" to provide support to CVCs and, in turn, to FFSs. Since 2013, Mars trained 120 Cocoa Doctors directly through a network of four CDCs in South Sulawesi.[33] Furthermore, the company's supply chain development model is integrated into its core corporate functions, as opposed to corporate social responsibility (CSR) activities as is the case with projects at Nestle (Cocoa Plan) and Mondelez (Cocoa Life). The project represents a key strategy for meeting the company's stated goal of deriving 100 percent of its supply chain through sustainable sources in line with its 2019 "Sustainable in a Generation Plan."[34]

Swisscontact staff recognized that Mars' deep engagement in the Indonesian cocoa sector and pre-existing experience with cocoa farmer training provided a basis for TA delivery that could be adapted to contextual factors, especially through revision of training materials:

> *"Mars has had longer presence and participation in developing the cocoa sector (since 1990s), especially in Sulawesi regions. With robust and vast experience to understand the context and the state of cocoa sector development, Mars training materials are living documents and continued to be revised and adapted according to specific issues addressed at different periods."* – KII (email correspondence), Grantee staff, December 10, 2019

Likewise, Mars also acknowledged the pre-existing strengths of the SCPP35 model implemented by Swisscontact, especially in the area of strengthening its training models to reflect contextual challenges as they arose and focusing on perceived weaknesses in producer livelihoods:36

- First, the SCPP model had a strong aspect of organizing farmers and encouraging group learning (training of trainers [TOT], field school preparation and facilitation modules), resulting in more efficient training delivery and stronger group cohesion.
- Second, GP-SCPP covered more comprehensive aspects of financial management, nutrition, etc. instead of only GAP, which is a saturated area given the previous programs in the cocoa sector since the early 2000s.

[31] KII, consortium partner, Skype interview, October 29, 2019.
[32] "Systemic Change Assessment: GP-SCPP Indonesia," Swisscontact, Jakarta, March 2018.
[33] "Sustainable in a Generation Plan," Mars, 2019.
[34] Ibid. and KIIs, grantee, Makassar October 14, 2019.
[35] In this document, SCPP refers to the pre-existing Swisscontact model while GP-SCPP refers to the model as it was adapted under GP funded SCP.
[36] "Systemic Change Assessment: GP-SCPP Indonesia," Swisscontact, Jakarta, March 2018.

In addition to the focus on farmer agronomic training expressed in the GP-SCPP, the TOC also incorporated access to financial services required to access capital inputs such as saplings for improved varieties, and fertilizers and pesticides. In addition, specific areas of experience Swisscontact had gained in Sumatra and East Nusa Tenggara focused on climate adaptation, GEP and community development planning, which addressed perceived challenges related to nutrition practices, advocacy for community development, and gender equality and youth participation in community development (see **Annex B: SCP Grants – Individual Logical Frameworks**).

The focus on GEP was intended "to ensure that environmentally friendly practices [were] introduced [to] and adopted by the farmers. This environmental dimension in GEP is [an] important component to improve the standard of practices so that farmers can grow cocoa in environmental[ly] responsible manners and cocoa sector can adopt the measures."[37] GP-SCPP staff intended that GEP was fully integrated into the project in line with Mars' objectives related to sustainable cocoa supply, rather than treated as a stand-alone component:

> *"Apart from the GEP module itself, the environment topics integrated in the GAP and certification training curriculum. It contributes to the achievement of both Intermediate Outcome 1 and 2 in the program, which were highly related to each other. Outcome 1 is about enhancing productivity and profitability, and Outcome 2 is about doing it in an environmentally friendly manner to make it sustainable."* – KII (email correspondence), Grantee staff, December 10, 2019.

Accordingly, the relationship between Swisscontact, Mars and other private-sector consortium partners over the course of GP-SCPP project implementation was largely synergistic, and Swisscontact staff described leveraging these partners' experiences through *"the process of exchange through training materials development and through (ongoing) review workshops with private-sector partners and other stakeholders, including the Mars sustainability team."*[38]

SCPP staff felt that the TOC was realistic and addressed the evolving needs of the sector:

> *"Looking at the ToC, it is manageable during the project period and within the project's capacity. The framework was created based on assessment and our experience in cocoa sector previously. The identified outputs and outcomes are the situation we would like to see to happen within the program period and area."* – KII (email correspondence), Grantee staff, December 10, 2019.

These staff also emphasized that the TOC laid the framework for further development of the sector in line with emerging requirements of the industry. *"The framework responded to the public and private needs on scaling up the sustainability activities i.e. massive training to small producers. The framework is actually laying the base for* (a) *more competitive Indonesia cocoa sector as the industry then can escort the trained farmers to more sustainable and inclusive markets (certification)."*[39]

[37] Ibid.
[38] KII, Grantee staff, Jakarta, October 10, 2019.
[39] KII (email correspondence), Grantee staff, December 10, 2019.

In terms of realizing the logic of the TOC and implementing the project as planned, GP-SCPP felt the project's greatest achievement was *"providing large sustainable, value to the market beyond its direct impact of its programs,"*[40] especially through sector-wide cooperation:

> *"When the MCA-I funding possibility emerged, private-sector worked together to organize implementation. GP-SCPP became the partner "umbrella" organization for the private sector to facilitate this process. This process facilitated better cooperation between the large private-sector parties, aligning their sustainability programs, and learning from each other, with GP-SCPP as an (implementing) partner throughout the process."* – KII (email correspondence), Grantee staff, December 10, 2019.

In KIIs, this sentiment was widely echoed by other GP-SCPP consortium staff, who described the cost-share aspect of the project as particularly beneficial to facilitating innovations required to respond to evolving market demands. This is especially true regarding surging consumer demand for sustainably accessed cocoa by partially absorbing the cost associated with implementing large-scale activities such as farmer training and developing and introducing new systems. One respondent noted "*Usually, to apply new approaches or technology such as large-scale training and traceability systems (CocoaTrace), the industry needs a certain period of time and modality to invest in it, not to mention the initial development risks the industry has to bear. The GP grant program shared the risk by the matching grant mechanism."*[41]

Grantee staff stated that "*GP-SCPP* (for the most part) *reached its output objectives. GP-SCPP has proven to be able to offer high quality implementation across a wide range of topics and regions, at scale, and is flexible and efficient in its implementation. Especially during the MCA-I "top-up," GP-SCPP managed to scale up fast and efficiently based on its prior experience. This is a significant achievement.*"[42] Furthermore, GP-SCPP incorporated learning into its model through review and responsiveness to CocoaTrace data updates, noting that *"some key performance indicators (KPIs) are not on track and a shift in indicators or goals may be required to maximize impact."*[43] Specifically, this staff member stated that *"SCPP operates in a changing and challenging cocoa market and enabling environment and struggles to realize strong outcomes. Adoption and drop-out remain challenging, despite rolling out* (the) *program as initially designed. Also, GP-SCPP faced limited success with setting up, and strengthening, of cooperatives due to a challenging enabling environment."*[44] The last challenge is particularly relevant in contexts beyond Sulawesi, where lower commercial concentration obliges farmers to organize into self-managed associations and cooperatives as well as partially process beans prior to sale, for example, drying in East Nusa Tenggara.

Project monitoring data, as well as KIIs and FGDs carried out by the ET, reflect these achievements in terms of outputs, but also note challenges in terms of implementing the grant as planned.

[40] KII, Grantee staff, Jakarta, October 10, 2019.
[41] For example, ibid. and KIIs, consortium partners, Makassar, October 14, 2019.
[42] KII (email correspondence), Grantee staff, December 10, 2019.
[43] Ibid.
[44] Ibid.

Table 6: GP-SCPP TOC Implementation Findings

Output	Findings
1.1	**Good farm management practices promoted** - GP-SCPP monitoring data reports that the project achieved 97.6 percent of target of number farmers trained in GAP (72,739 farmers of 79,000 targeted).
1.2	**Access to agro-inputs and financial services** - Monitoring data shows that GP-SCPP achieved 105 percent of the grant's target for number of nurseries established to increase access to high quality seedlings (36,114 nurseries). Furthermore, in FGDs, farmer feedback on banking relationships was positive, and relationships are still in existence after the grant. However, in these FGDs, no farmers reported taking advantage of credit schemes themselves. Likewise, key informants reported that access to fertilizer cannot be improved due to current unavailability of cocoa-specific mixes throughout Sulawesi.
1.3	**Farmer organizations professionalized** – Monitoring data reports that the grant achieved 99 percent of its target of number farmers certified with third-party sustainability through training in GEP (26,762 farmers). However, in KIIs and FGDs, producers and other stakeholders reported that, because in Sulawesi the certification was held by the buyer in order to guarantee the traceability of their supply chains against audit, competition in terms of marketing options were limited (i.e. they had to sell to the certification holder in order to obtain the premium). In East Nusa Tenggara, where a lower commercial presence mandated self-organized producer groups, KII and FGD respondents reported that cooperatives faced challenges in the financial management required to ensure that farmers received payments.
I.3	**MSMEs professionalized** – Prior to GP SCP, the GOI created farmer organizations in order to facilitate distribution of inputs under the National Movement to Increase the Production and Quality of Cocoa (Ind. *Gerakan Nasional Peningkatan Mutu dan Produksi Kakao*) (GERNAS) input distribution program. Monitoring data reports that the grant achieved 130 percent of its target for MSME/Centers of Excellence supported to promote internal management systems (IMS) and good business practices (629 MSME/Centers of Excellence). However, the ET did not find evidence of new or strengthened MSMEs serving the cocoa sector. Rather, most GP-SCPP-related farmer organizations encountered in FGDs were created before the grant to access inputs and training from a previous GOI effort (Gernas). Furthermore, farmer organizations were identified as part of GP-SCPP's sustainable exit strategy, but in KIIs, informants described them as lacking organizational and financial management capacity to be effective advocates for improved access to inputs, processing activities or financial services, and general group organization.
1.4	**Stakeholder exchange and learning strengthened** – KII feedback from consortium partners was positive regarding data sharing and development and utilization of GP-SCPP training materials and structures for future work. However, the ET found no evidence that partners plan to continue working together in a pre-competitive space or to share lessons learned with each other. In contrast, KIIs reflected that prevailing competition in securing supply chains means upholding territorial approaches, which weakens the post-project dynamic of Cocoa Sustainability Partnership (CSP) sector-wide collaboration.[45]
2.1 & 2.2	**Environmentally friendly practices promoted** – Monitoring data shows that the project achieved 85.7 percent of target of number farmers trained in GEP (59,774 farmers). However, in FGDs, most producers had trouble citing specific practices related to GEP, and these practices were not obviously visible in site visits.
3.1	**Improved nutrition** – Monitoring data shows that GP-SCPP achieved 76.9 percent of its target by the end of the project for number farmers trained on good nutrition practices (35,116 farmers). However, in FGDs, many producers described challenges in

[45] KIIs, grantees and consortium partners, Jakarta and Sulawesi, October 10-30, 2019.

Output	Findings
	implementing the nutritional practices they learned due to poor access to certain produce required to improve nutrition.[46]
3.2 & 3.3	**Gender, youth, and community participation** – The ET was unable to determine any indicators that were defined and used to measure these outputs.

5.1.2 Cocoa Revolution (CR)

Addressing the long-term decline in Indonesian cocoa production, the CR TOC was closely modeled on the Mars model, notably utilizing 14 "adoption observations (AO)" developed by Mars to check if good practices are being adopted. These AOs were crafted under the assumption that the adoption of the "3PP," or "Triple Productivity Package" is a necessity for cocoa sustainability: soil fertility management, GAP, and planting material.[47,48] The project specifically recognizes that declining production is related to *"lack of planting materials, lack of technical skills of producers and poor soil due to minimum access and capital from smallholders as well as no market appreciation from the project beginning resulting in* (lack of sorting into) *bad and good quality beans."*[49]

As a result, in addition to establishment of demonstration plots and training in GAP, the TOC focused on access to improved planting material, improvements in soil quality, training farmers in business and financial management skills and also introduces "incentive payments" for adoption of promoted practices. On the other hand, while the project included an output related to GEP, CR did not specifically monitor outcomes related to GEP training but rather relied on Rainforest Alliance indicators i.e. *"We do not have GEP training under CRP instead of using* [*project specific] certification indicators as a tool to make sure sustainable farming [is practiced]."*[50]

Although the project targets were much more modest than those found under the GP-SCPP model (8,000 farmers under CR versus 79,000 farmers under GP-SCPP) and the geographic area much smaller, the grantee struggled to implement the project as planned within the three-year timeframe as reflected in the following comment "(the target) *was too ambitious within a three-year project,* (although there was) *still logic but more just able to promise output and we lost some lessons learnt* (sic)."[51] Specifically, grantee staff cited administrative burden related to grant management and reporting as a factor is delaying implementation and reducing the implementation time to 24 months (see **Section 5.1.3: Justification for proposed exposure period to treatment**). Grantee staff also stated that challenges in identifying and setting up FFS and demonstration plots (which were sited on the cocoa farms of lead farmers) and training extension workers also "slowed progress."[52]

Thus, while the CR Final Report stated that the project "met 94 percent of all deliverable targets – including training, promotion and promotional material; provision of infrastructure, seedlings and incentive; fertilizer mix formulation and recommendation; market development; outcome survey and monitoring and evaluation and operation support,"[53] in KIIs and FGDs, respondents described

[46] FGDs, Sulawesi and East Nusa Tenggara, October 17-28, 2019.
[47] "Adoption Observations with Cocoa Farmers," Mars, March 2017.
[48] KII, grantee, Jakarta (by phone), October 11, 2019.
[49] KII, grantee (email correspondence), November 21, 2019.
[50] Ibid.
[51] Ibid.
[52] KII, grantee staff, Jakarta, October 10, 2019.
[53] *"Final Report - Green Prosperity Facility Cocoa Revolution: High Yielding Climate-Smart Cocoa Farms Partnership Grant: Sustainable Cocoa Partnership."* (2018). PT. Rainforest Alliance for MCC, Jakarta.

challenges, particularly the limited time frame, in realizing outcomes as noted in Table 7. Likewise, the CR Final Report also stated that achievement of the project outcomes is less than initially targeted with respect to the sustainable agriculture adoption rate, as well as low application of improved business management and finance. Specifically, the report notes that "One of the most significant implications of the delay and shorter project duration was that Rainforest Alliance has only been able to certify 7,000 of the targeted 8,000 farmers (88 percent of target) in total."[54]

On the other hand, as with GP-SCPP, grantee staff described the matching grant requirement as a positive incentive for private-sector innovation, but with reservations i.e.:

> *"I think private sector under the MCA-I model learnt a lot in how to manage project implementation by using matching fund from donors with strict evidence… In principle matching fund in development is powerful in terms of scaling up and sharing responsibility to private sectors but puts a high risk on private sector in their business."* – KII, grantee (email correspondence), November 21, 2019.

Project monitoring data, KIIs and FGDs reflect these achievements and challenges in terms of implementing the grant as planned.

Table 7: CR TOC Implementation Findings

Output	Findings
1	**Farmers trained in business skills and financial literacy** through FFSs achieved 94 percent of the target number farmers trained (7,543 farmers). However, in FGDs, farmers reported that this approach did not lead to further outcomes related to accessing finance. Farmers found this training to be not applicable for their households due to a lack of ability to save, literacy challenges, general disinterest in recordkeeping and because farmers don't separate cocoa income from other income because it is not significant enough.
2	**Farmers trained in sustainable agriculture, Climate-Smart Agriculture, yield intensification and post-harvest handling techniques** in farmer field schools achieved 98.6 percent of target for farmers trained in integrated GAP, sustainability standards and climate smart agriculture (7,891 farmers). Likewise, CR achieved 100 percent of target for solar dryers constructed (140). However, in FGDs farmers expressed challenges with maintaining these structures due to lack of access to plastic sheeting. Also, monitoring data shows that yield targets fell short of expectations. In KIIs, respondents stated that this was due to ambitious targets of what farmers could accomplish in only two years. While project reports lauded information dissemination through community CSA workshops about mitigating climate risks and distributing 8,000 CSA pocket books, in KIIs and FGDs, none of the community leaders, farmers or government stakeholders interviewed in the areas served by CR could recall being involved in CSA activities or receiving CSA-specific information.
3	With regard to farmers **receiving incentive payments**, while the incentive formed the largest part of co-financing, in KIIs, respondents described procurement problems delaying progress (at the time of the interim evaluation in 2018, none of the packages had been distributed) and Olam was only able to distribute the in-kind incentive packages after receiving a no-cost extension after the end of the project (8,000 farmers). While this achieved their target, the ET did not find any evidence of farmer receipt of incentive payments due to GAP adoption (in-kind) and bean quality (cash), and none of the farmers interviewed reported receiving a scorecard assessment of compliance with standards (AO-Adoption Observation) or an incentive.

[54] Ibid.

Output	Findings
4	**Demonstration plots established** – 100 percent of target achieved (40 demonstration plots). However, in FGDs farmers described challenges in implementing new practices or other improvements. For example, these respondents described being introduced to fertilizers and materials and equipment that were no longer available after the end of the CR project.
5	**Soil quality testing and mapping** - 100 percent of target (80 farms) achieved soil quality testing and mapping. This information was used to develop cocoa-specific fertilizer. However, numerous farmers reported that while they wanted to know the results in order to make changes on their farm, Olam did not provide them with the results of their soil tests. For farmers who did receive results, they did not have access to dolomite (for pH correction) or the funds available to acquire it.
6	**Nurseries established for cocoa and tree seedling propagation** – The nursery model was successful in creating entrepreneurial ventures for several farmers i.e. 100 percent of target achieved (63 nurseries). However, in FGDs a common producer complaint was receiving saplings in an unplanned manner and therefore being unable to effectively plant, due to lack of access to sufficient labor for large-scale replanting in time to ensure plant survival.

5.1.3 Economic, Quality and Sustainability Improvement (EQSI)

The rationale for the EQSI TOC is based on the observation that "Cocoa smallholders are suffering from declines in production that negatively impacts household income. The most significant reasons for low production are aging trees, ageing farmers, skimping on inputs and pest infestations. The cocoa industry estimates that pest infestations reduce yield by 40 percent."[55] It also notes that farmers frequently compensate for declining soil productivity by clearing new land. Consequently, while in common with the GP-SCPP and CR TOCs, the EQSI TOC ("Logical Framework") focuses on large-scale farmer training in GAP and sustainable practices through extension and demonstration sites as well as cocoa-related MSMEs, it differs in several important ways.

First, the ESQI TOC addresses environmental encroachment through a large reforestation effort. Second, it promotes cocoa as a component in overall agro-forestry systems (AFS). Finally, the TOC promotes farmer-based fermentation as a mechanism for improving cocoa quality and hence producer incomes. Notably, although not specifically cited in the TOC, the project also envisioned improving access to capital assets and inputs through an external lending and grant mechanism, the Community Economic Cooperative (Ind. *Lembaga Ekonomi Masyarakat Sejahtera* [LEMS]).

In terms of the overall logic of design and adaptation to prevailing context, the EQSI TOC focus on promotion of AFS addresses a need to diversify farmer income source and improve soil management in project areas in Southeast Sulawesi through reduction of land under unshaded cocoa. Likewise, the focus on fermentation is, in theory, a reasonable step toward improving the quality of Indonesian beans in line with GOI policy, while simultaneously improving producer incomes through farm-level value-added activities and facilitating the entry of Kalla Kakao Industri into higher value European markets that require fermented beans. However, in KIIs with grantee staff, respondents described administrative delays that significantly reduced implementation time to just 14 months (see **Section 4.4.1: Justification for**

[55] "Final Report - Green Prosperity Facility Economic, Quality and Sustainability Improvement from Community Centered Cocoa Fermentation Stations, Diversified Agro-Forestry and Agribusiness Systems and Social Development Program (EQSI)," Yayasan Kalla for MCC, Jakarta, February 15, 2018.

Proposed Exposure Period to Treatment).[56] In addition, while monitoring data for EQSI that would reflect the ability of the grantee to implement the grant as planned were still unavailable at the time of this PE, data derived from KIIs and FGDs suggest that the implementation of a number of objectives are unmeasurable or failed to materialize for logistical or technical reasons. Notably, it is still too early to measure the success rate of the 7,000 HA manual and air seeding activity in establishing new forest growth. Although in FGDs producers report selling their fermented beans to Kalla Kakao in 2016, they stated that they since decided the terms of sale i.e. community aggregation and delivery to the Kalla Kakao plant near Kendari, as well as costs of additional labor and time versus premium made it economically unfeasible to continue with fermentation.[57] Likewise, in KIIs, consortium member staff reported that the low quantities and uneven quality of farmer fermented beans made it economically unviable to collect beans at premium prices that would cover additional costs.[58] Accordingly, during ET site visits at producer farms, direct observations of granted-supplied fermentation boxes showed that the equipment was unused, and in several cases producers stated that they intended to refashion them into poultry coops.[59]

In addition, in KIIs with grantee staff, respondents stated that trader advance financing for future bean harvests tied producers to traders, making it impossible for large-scale buyers to provide subsequent quality premiums (a bonus on top of the market price, which is calculated through quality beans, bean count and low bean waste, and moisture content).[60] Finally, direct observations at producer sites revealed that a large portion of LEMS-supplied processing equipment (automated grading and sorting machine and dryers) was underutilized or idle.[61]

Table 8: EQSI TOC Implementation Findings

Output	Findings
1	**Air seedling and reforestation** - Monitoring data from manual planting exercises showed that 82 percent of the target was reached (1,232 ha planted), however only an average of 55 percent of seedlings were successfully grown. For the air seeding exercise, 100 percent of the target distribution of 5,500 ha was met. The reforestation component has not yet been measured in terms of seedlings surviving after being dropped. The end of GP funding meant that funds were not available for follow-up by Yayasan Kalla.
2	**Training for improved agriculture practices and institutionalizing sustainable natural resource management systems** - Only 47 percent of the target was achieved, with a total of 3,066 farmers trained out of the initial target of 6,500, however 70 percent of the target was reached for farmers trained in agribusiness (4,916).
3	Number of **nurseries established to propagate certified cocoa trees** - Achieved 100 percent of target (20 nurseries). Site visits by the ET confirmed that nurseries are still functional.
4 & 5	**Community fermentation centers and enhanced fermentation methods** - These components were curtailed (or not fully implemented in the case of the inoculants) due to reprogrammed activities at the request of MCA-I, reduced grant funding, scope and timeline. Of the target of 260 farmers trained in fermentation and post-harvest practices, the project reached 71 percent (184 farmers), and for farmers trained specifically on fermentation technology, the project reached 55 percent of this target (109 farmers).

[56] KII, grantee staff, Makassar, October 29, 2019.
[57] FGDs, producers, Southeast Sulawesi, October 24-27, 2019.
[58] KII, consortium member staff, Kendari, October 27, 2019.
[59] Direct observations, Southeast Sulawesi, October 24-27, 2019.
[60] KII, grantee staff, Makassar, October 29, 2019.
[61] Direct observations, Southeast Sulawesi, October 24-27, 2019.

5.2 EQ 2: Implementation Approaches

"Training" reinforced existing knowledge but grantees stressed the need for "coaching" to address intermittent problems. Efforts to mobilize credit for increased investment were largely ignored by farmers and weak price transparency limited improvements in market access. However, grantees noted bean quality improvements over time.

This section presents findings related to EQ 2: *To what extent have the GP cocoa grants' (GP-SCPP, Cocoa Revolution and EQSI) approaches and activities proven successful in improving farmers' knowledge, attitudes and practice of GAP/GEP?* This section specifically focuses on the following areas of enquiry:

- EQ 2.1. How have GAP/GEP principles and measures been applied or adopted by trainees after training? What were the adoption rates by types of key training activities (i.e. pruning, grafting, etc.) and what are enabling, or constraining factors related to adoption?
- EQ 2.2. To what extent were there changes in income, management/financial practices, productivity, product quality, access to inputs, and value chain integration? What are farmer and grantee/private-sector perceptions of these changes? What are enabling or constraining factors related to changes?
- EQ 2.3. To what extent were there changes in access to markets? What are enabling or constraining factors related to access?
- EQ 2.4. How did the outcomes of the approaches vary in terms of changes in income, management/financial practices, productivity, product quality, access to inputs, and value chain integration? What are enabling or constraining factors related to outcomes?

Whereas the previous section was structured by SCP grant, we address EQ2 by area of inquiry due to similarities in grant objectives. Specifically, this section evaluates grant performance regarding five areas of approaches and activities: 1) GAP/GEP training; 2) access to finance; 3) market access; 4) sustainability and traceability; and 5) cocoa quality, including fermentation.

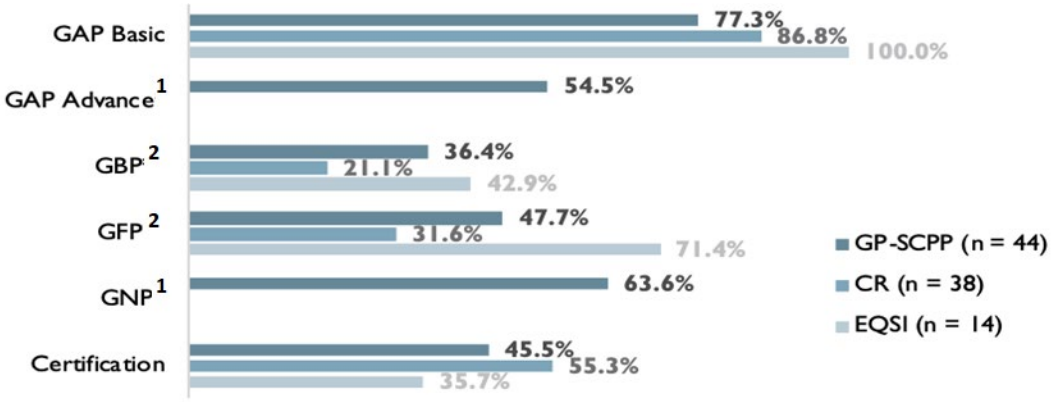
5.2.1 GAP/GEP Training

Large-scale producer training in GAP and GEP to address declining cocoa production and sustainability constituted the core activity of all three grants evaluated. As noted, Mars' significant pre-existing infrastructure TA delivery coupled with previous Swisscontact experience in cocoa smallholder training meant that GP-SCPP built on a strong foundation from the outset of implementation, while CR and EQSI had to initially allocate time to TOT, identification of lead farmers and FFS formation. In addition, administrative issues curtailed planned implementation periods for CR and EQSI to just 23 and 14 months, respectively, while GP-SCPP had 27 months for implementation (see **Section 5.1: EQ 1: Theory of Change**).

Participation and Perceived Usefulness

In mini surveys of producers carried out by the ET, approximately 77 percent of GP-SCPP respondents reported participating in basic GAP training and approximately 54.5 percent participated in advanced GAP training. Approximately 87 percent of CR respondents and 100 percent of EQSI respondents reported participating in training in basic GAP. In addition to GAP, producers surveyed also reported receiving training in a variety of other topics including good business practices (GBP), good financial practices (GFP), good nutrition practices (GNP) and certification standards, as illustrated in Figure 8.[62] GP-SCPP and CR trainings initially struggled to achieve high female participation, resulting in lower overall participation rates reported by FGDs than EQSI. In one GP-SCPP FGD with all female participants, producers reported that the women only participated in GAP trainings if their husband was unable to attend.[63] Meanwhile for EQSI, there was no differentiation between men and women for any of the training modules.

Figure 8: Training Participation by Module Type (% of respondents)



1) GAP Advance and GNP modules were only provided by GP-SCPP. Due to farmers' limitation in recalling or attributing what trainings they have received, there were farmers under CR and EQSI that reported receiving these training modules, but these responses were not included in the figure since they were actually not performed by those grants.

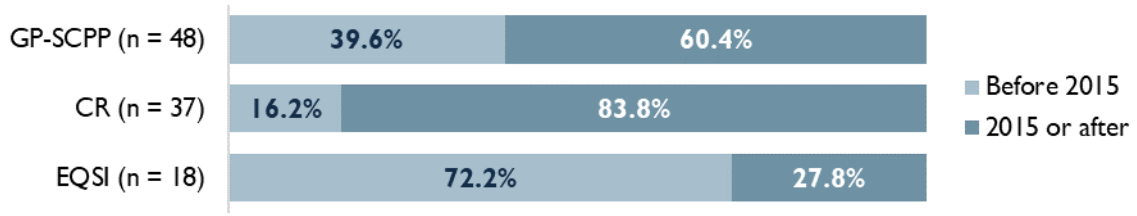
2) The GBP and GFP terms were used for modules under GP-SCPP. CR and EQSI also provided modules in financial practices but likely not using the same term. During the administration of the mini-surveys, respondents were informed that the GBP and GFP refers to financial practices training thus the responses may reflect the CR and EQSI respondents' participation in modules relating to financial and/or business practices.

In terms of attribution, the cocoa producing regions of Indonesia, especially in Sulawesi, have been the site of numerous farmer training projects focused on restoring productivity.[64] Correspondingly, in mini surveys implemented by the ET, a large portion of farmers surveyed reported training experience prior to 2015. The mini survey did not solicit more specific explanations for these prior training experiences (such as what they were or who provided them). Since the grants began in 2015, it is thus a likely assumption that respondents reporting a first training experience in 2015 or after are producers that have only received training from the SCP grants. In the case of GP-SCPP, farmers with training experience prior to

[62] Note that these figures are based on farmer recall, and in many cases farmers may be unaware of the specific name of the training module they received or may have had trouble in correctly attributing training to a specific project or module i.e. attribution challenges.
[63] FGD, Sulawesi, October 16, 2019.
[64] Hafid, Hiswaty, and Fiona McKenzie (2012). "Understanding Farmer Engagement in the Cocoa Sector in Sulawesi: A Rapid Assessment," ACIAR.

2015 constituted approximately 39.6 percent of the respondents. In the case of CR and ESQI, approximately 16.2 percent and 72.2 percent, respectively, reported previous training experience.[65] The high number of respondents with training experience prior to 2015 for EQSI producers could likely be due to pre-existing relationships with local government of the producers who participated in the evaluation's FGDs. Of the three FGDs for EQSI, two consisted of farmers with close working relationships with the local government either through LEMS or due to the farmer being a lead farmer in the region. These relationships resulted in farmers receiving trainings, coaching, and equipment from the local government prior to the SCP grants.

Figure 9: Year of First Training Participation by Grant



Accordingly, in FGDs in Sulawesi, producers reported that some practices covered by training were not relevant because they had been trained in them previously and that every farmer was *"trained in the same topics"* regardless of their past experience (some producers reported multiple trainings over a number of years, in some cases by the same trainer but employed by different projects).[66]

From the mini surveys, over 90 percent of respondents who responded to questions regarding the usefulness of the trainings noted they were "very useful" or "useful."[67] Although there were mentions of repeating materials from those who have had prior trainings, most still reported the trainings under the SCP projects leaned toward useful. In FGDs, one comment that explained this said that although the trainings were similar, they served as a refresher for those who have previously been trained. Additionally, there were mentions of the trainings being done in a different format i.e. field school, which was described as more useful compared to previous trainings, which were lecture-based.

Adoption of Practices Post Trainings

Most SCP project monitoring data was structured to report progress toward output delivery (i.e. number of farmers trained against targets, number of training events, etc.) and as such do not present quantitative measurements of specific activity impact (i.e. adoption rates, changes in income, management/financial practices, productivity, product quality, access to inputs, etc.) (see **Section 5.3: EQ 3: Knowledge Management**). Most farmers participating in interviews and FGDs remarked that practices they felt were most successful included side and top grafting, pruning, and using organic fertilizer. The adoption of low-cost practices such as pruning and composting was more likely than adoption of practices requiring farmers to source and fund inputs (i.e. cocoa-specific fertilizer and dolomite to improve soil quality). However, in KIIs with grantee and consortium partner staff, respondents stated that they estimated adoption rates to be "low" or "a challenge" for a variety of reasons, including weather, price, old trees,

[65] ET mini survey, Sulawesi and East Nusa Tenggara, October 14-18, 2019.
[66] FGDs, Sulawesi, October 17-21, 2019.
[67] As noted under Limitations, it is important to keep in mind potential biases in response of the mini survey including non-response. In addition, some respondents from CR and EQSI noted the usefulness of GAP Advance and GNP trainings to which they would not have had access, demonstrating a potential misunderstanding of the question.

poor availability of inputs, and excessive pests and disease, as well as curtailed implementation periods and challenges with monitoring data.[68] It is important to emphasize that adoption of some practices requires more time to yield productivity increases. The relatively short period of exposure from training to end of activities (one to two years) limited the magnitude of the treatment effect, because some practice changes like grafting, replanting, or soil improvement using organic fertilizers require two to three years to show substantial results. Likewise, many farmers are hesitant to adopt practices until they see results of fellow farmers.

In East Nusa Tenggara, consortium partner staff and producers reported that a specific reason for low adoption rates of some techniques (i.e. renovation through replacing old trees by granting new scions onto existing root stock and rejuvenation through pruning) is that farmers don't want to cut existing trees for cultural reasons, such as that existing trees were planted by their parents.[69] One producer in East Nusa Tenggara stated that *"even if trees are barely productive, it better than not having a tree."*[70] One grantee staff ventured an estimate of 70-75 percent for GAP adoption rates, while another estimated the full suite of practices (GAP/GEP/GNP/GFP) was adopted by less than 20 percent of farmers.[71] The ET found adoption rates and changes related to impact subject to attribution challenges, as well as constrained by issues related to cost and access to appropriate inputs.

A key takeaway often repeated in FGDs as a reason for why practices taught in trainings were not adopted was external to cocoa growing itself i.e. weather and price. During the ET site visit to farms in East Nusa Tenggara and Southeast Sulawesi, farmers noted in FGDs that they were going through a period of drought resulting in poor to no cocoa growth and "*how can practices taught in trainings be performed if there are no cocoa to perform them on*."[72]

Likewise, in FGDs, producers described little change in their use of chemical fertilizers and pesticides, which were relatively moderate prior to training. Limits to increased use are compounded by lack of availability of cocoa-specific fertilizer, which forces cocoa farmers to compete with rice farmers for products that contain urea. In contrast, farmers in East Nusa Tenggara did not cite fertilizer access as an issue because compost is widely used, either by making it themselves or buying it from local suppliers who are farmers with surplus quantities.[73] Mini survey data suggests that use of chemical fertilizer actually fell in the case of GP-SCPP and CR beneficiaries, though this is possibly due to a switch to organic fertilizer, which showed modest growth as illustrated in Table 9.

Table 9: Fertilizer and Agro-input Use (% of respondents after training and % change from before)

	GP-SCPP	CR	EQSI
Apply Chemical Fertilizer	55% (-9)	63% (-20)	84% (7)
Buy Organic Fertilizer	62% (33)	61% (28)	68% (18)
Take Loan to Buy Fertilizer	21% (0)	42% (0)	42% (100)

[68] For example, KIIs, grantee staff, Jakarta, October 10, 2019, grantee staff, Makassar, October 29, 2019 and consortium member staff, Kendari, October 27, 2019.
[69] KIIs, consortium partner staff, Ende, October 21, 2019.
[70] KII, producer, Ende, October 20, 2019.
[71] KII, grantee staff, Jakarta, October 10, 2019.
[72] FGD, East Nusa Tenggara, October 22, 2019.
[73] FGDs, Sulawesi and East Nusa Tenggara, October 17-27, 2019.

Produce Organic Pesticide	38% (83)	34% (44)	68% (225)
Apply Chemical Pesticide	41% (-8)	58% (-8)	89% (13)
Produce Compost	53% (121)	37% (40)	53% (100)

In the mini survey, data for other low-cost farm management practices such as sanitation, pruning and shade tree planting showed relatively high pre-existing usage, over 58 percent for beneficiaries of all three grants in the case of sanitation, and over 69 percent and 63 percent in the cases of pruning and shade tree planting, respectively. Correspondingly, respondents surveyed reported only modest growth in use of these practices as illustrated in Table 10. On the other hand, pre-existing use of regeneration and rejuvenation techniques (top/side grafting and stock replacement with seed) showed relatively robust growth over modest initial use. In FGDs in Sulawesi, producers reported that this was due to training generating more "systematic" (i.e. regular) application of these techniques as the primary stimulus for increased use, though this was lower in East Nusa Tenggara due to the cultural influences described above (for a full list of pre- and post-training changes in practices, see **Annex J: Changes in Farm Practices Before and After Training**).[74]

Table 10: Farm Management Practices (% of respondents after training and % change from before)

	GP-SCPP	CR	EQSI
Top Side Graft	78% (150)	87% (65)	89% (240)
Replace Stock with Seed	62% (112)	89% (36)	74% (250)
Plant Seed Trees	81% (27)	97% (23)	84% (23)
Sanitation	76% (29)	95% (13)	89% (13)
Pruning	81% (18)	92% (-5)	89% (0)

Yield and Income

Both CR and GP-SCPP conducted assessments in the last year of project implementation that used statistical modeling and a rigorous approach meant to evaluate progress made from the beginning of the GP period. The calculation for income used for both was as follows:

Income [IDR/farm] = Land Productivity [kg/ha] x Cultivation Area [ha/farm] x Cocoa Price [IDR/kg], where price is 25000 IDR average.

Swisscontact conducted an Outcome Study in late 2017 and used a treatment group (farmers trained after 2015 with GP-SCPP) and a control group (farmers trained under GP after April 2017, in the final year of the project). Comparing the newer farmers outcomes with those originally trained under GP-SCPP, the Outcome study showed an increase of cocoa yield by 11% from 497 kg/ha to 551 kg/ha or 54 kg/ha which fell short of its 3-year target of 840kg/ha. With an average cultivation area of 0.96 ha, there was an annual income increase of around IDR 1.3 million per farm.

[74] Ibid.

CR did not complete a baseline until April-August 2016 and then conducted an outcome monitoring survey one year later in September 2017 with a random sample of 400 farmers registered in the OFIS system. CR did not disaggregate new farmers from those trained previously. All results are for these 400 farmers only. The survey showed an increase in average yield by 3.4% from 829 kg/ha in 2016 to 857 kg/ha in 2017, which fell short of its 2-year target of 1,279 kg/ha. With an average cultivation area of 1.2ha, farms in CR areas were larger than those under GP-SCPP; there was an annual estimated income increase of IDR 2.6 million per farm. GP-SCPP had more time to measure progress (nearly 3 years) compared to CR (1 year).

EQSI did not have the data from their outcome survey available.

Importance and Need for Coaching

Finally, in producer FGDs, virtually all respondents stressed the difference between training and "coaching." This differentiation and importance of coaching was also noted in KIIs with grantees who mentioned that SCP projects contributed to them learning and realizing this need. While beneficial aspects of training included reinforcing pre-existing knowledge and generating more systematic application of technologies, access to coaching facilitated effective responses to urgent "intermittent" (i.e. occurring irregularly) or unique problems, such as pest and disease outbreaks and soil nutrition problems, which are inevitably increasing as groves age and long-term use degrades soils.[75] The importance of coaching was mentioned in a FGD in Southeast Sulawesi i.e. rehabilitation and replanting were introduced during the project period and then implemented by farmers. However, as trees provided under the program are now starting to produce fruit, there are no entities or parties that farmers can go to consult with in how to take care of newly producing trees.[76] Coaching was provided to farmers under all grants from field agents with mixed results; some farmers found coaching useful, timely and innovative, where other farmers noted that field agent knowledge was often incorrect, leaving an unaddressed need. Farmers reported that they did not provide this critical feedback to grantees, but also remarked that they were not asked for feedback. For CR and EQSI, the implementation period was limited to provide comprehensive feedback loops to collect, report and address farmer needs after training. Coaching was rarely continued after the end of the GP grants; farmers in GP-SCPP and CR areas relied on private sector partners such as Olam, Cargill, and Mars to continue the follow-up model, but this has been inconsistent. Currently, there are no mechanisms remaining from GP or created since the project ended, which farmers can rely on to be provided with intermittent support for farm management. Further, farmers do not have mechanisms in which they can provide feedback stating this continued need.

5.2.2 Access to Finance

All three SCP grant projects included training in business or financial practices as a strategy to facilitate producer access to finance for higher cost inputs required to achieve higher productivity levels. However, in FGDs, GP-SCPP, CR, and EQSI beneficiaries reported a lack of interest in recordkeeping, which they described as "labor intensive."[77] In addition, they stated that they *"can't save money"* (from cocoa income to reinvest) and that it was often "depressing" to see how little income they had compared with expenses.

[75] FGDs, Sulawesi and East Nusa Tenggara, October 17-27, 2019.
[76] FGD, Southeast Sulawesi, October 22, 2019.
[77] Ibid.

Hence, long-term planning is not a priority.[78] In one approach, CR field staff provided beneficiary farmers with record books as part of project participation, but grantee staff reported that farmers did not use them, also admitting that they did not provide this feedback to CR or to Olam, who still distributes the books. In one FGD in East Nusa Tenggara, GP-SCPP farmers stated that they were given paper templates to track income and expenses, but they were subsequently lost or misplaced. Farmers in South Konawe mentioned in FGDs that initially during the project period, they would keep records but ceased to do so afterwards. Accordingly, CR beneficiaries that responded to the mini survey reported a decline of approximately 1.5 percentage points in recordkeeping post training. As an exception to the lack of recordkeeping, in FGDs, the ET found that farmers selling to Barry Callebaut in Majene (Sulawesi) kept receipts because the company requires these to receive certification premiums at a later date. In contrast, farmers selling to Olam in Luwu Utara did not keep receipts because they receive the premium at the time they sell their beans.[79]

Despite limited success preparing farmers to access credit through training in GBP and GFP, GP-SCPP activities included introducing producers to banks that offer specialized loan programs in order to develop long-term credit relationships. For example, GP-SCPP facilitated farmer introductions to Bank Rakyat Indonesia in order to facilitate access a credit program that did not require a land certificate. However, in producer FGDs very few of the farmers reported attempting to access credit through the scheme.[80] Likewise, farmers expressed mixed sentiments about the long-term prospects of these banking relationships. Those who had not or did not want to access the credit cited concerns with the productivity of their farms and ability to repay the loan, and were often more interested to wait a few years until their replanted trees were more productive or prices rose in order to confidently invest in them.[81] In FGDs in East Nusa Tenggara, farmers did not mention GP-SCPP helping to facilitate specific relationships with banks, but were aware of credit mechanisms that could be used not only for cocoa but also other commodities and general financial needs. Several farmers expressed interest in taking credit in the future, but only after their farms became more productive and they were able to save money. Also, some farmers mentioned having taken credit from banks but using it to support household needs as opposed to investing in their cocoa farms.[82]

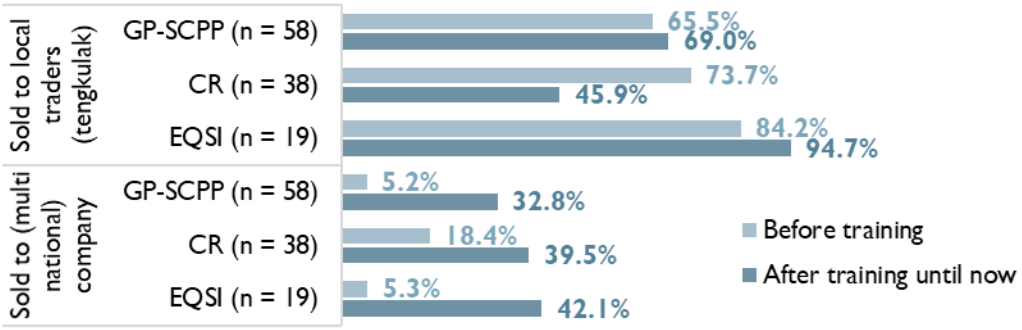
5.2.3 Market Access

In KIIs, buyers at Barry Callebaut and Mars in Sulawesi described quality as improving with the support of GP-SCPP, but buyers interviewed at Olam stated that they *"don't see a difference."* Olam farmers receive a receipt that shows how their premium was calculated, and gives the farmer feedback on waste, moisture and bean count so they know how the buyer evaluates their bean quality. But in some areas, farmers stated that they are not aware of how to measure quality, even if they know how to improve it i.e. *"farmers know that price is related to quality, but they don't know how to measure the quality themselves."*[83] Farmers lack the equipment to test their beans on the farm and this was not included in GAP training.

[78] Ibid.
[79] FGDs, Sulawesi, October 17-24, 2019.
[80] FGDs, Sulawesi and East Nusa Tenggara, October 17-27, 2019.
[81] Ibid.
[82] FGDs, East Nusa Tenggara, October 20-27, 2019.
[83] FGDs, Sulawesi, October 17-28, 2019.

As shown in Figure 10, farmers are still selling frequently to local traders (*tengkulak*), mainly due to distances to buying stations and interest in selling lower quantities of beans but having direct access to companies based on relationships related to certification premiums. In one example cited by farmers in an FGD in Konawe, the default method of selling is still to local traders because they would approach farmers at their houses and either sight-unseen or in advance offer to buy their beans. Having the traders approach them removes the need for them to travel to sell their beans.[84]

Figure 10: Market Access Before and After Trainings (% of respondents)



In addition, in FGDs, producers stated that price transparency is not guaranteed across farmer groups or regions, and farmers who sell through traders have no assurance that they are receiving a fair price or the full amount of any premium. Rather, in FGDs respondents indicated variances in the amount of premium received in different areas by different partners. Collectors themselves would quote one price, but this price often differed considerably from what village heads, UPTD and farmers themselves believed to be true. For example, in an FGD in Kolaka Utara, farmers described only knowing that they could receive an average of IDR 27,000/kg for their beans and were unaware of a premium. However, the village head stated that farmers could receive a premium of IDR 500/kg for good quality beans and Olam collectors themselves stated that they pay a premium of up to IDR 1,600/kg. In Kolaka Timur, Olam pays a premium of IDR 1,300/kg.[85] A buyer in Ende also mentioned the premium to be approximately IDR 500/kg for certified beans.[86]

Figure 11: SMS Price Updates

Reported Access to SMS Price Updates	
Sulawesi	✓
Luwu Utara	✓
Kolaka Utara	✗
Timur	✗
East Nusa Tengara	✗
South Konawe	✗
Konawe	✗

[84] FGD, Sulawesi, October 14, 2019.
[85] FGDs, Sulawesi, October 2019.
[86] KII, buyer, East Nusa Tenggara October 20, 2019.

In FGDs, some farmers described receiving short messaging services (SMS) with daily price updates, but others are unaware of such systems. Farmers in GP-SCPP areas of Sulawesi receive SMS daily with cocoa price (from ECOM or Mars), while farmers in Olam areas in Luwu Utara reported receiving these kinds of SMS through the "Olam Direct" system they signed up for with their phone numbers the first time they sold their beans direct to Olam. In other areas, however, farmers did not report any knowledge of a SMS system to receive prices and were unaware of the actual prices unless received directly from the buyer or through their own networks (e.g. farmer groups, other farmers).

5.2.4 Sustainability and Traceability

Under SCP, grantees utilized either Rainforest Alliance or UTZ as certification bodies, as they held the international standards for certification. In 2019, these agencies merged so that certification is now solely through Rainforest Alliance in Indonesia. In Kolaka Utara, there are two certificate holders, Mars and Marewa (a farmer association).[87] In practice, certification is through Rainforest Alliance with random audits, while Koltiva does inspections two times per year (hence, traceability is a required prerequisite for verifying compliance with certification criteria). A criterion for certification is that cocoa farming does not encroach on protected or forested land, but this has thus far not been wholly prevented. GPS data from Koltiva shows several areas where certified farms are still encroaching.[88] Rainforest Alliance uses inspections to remove certification from farmers who are not in compliance, but this checks and balances system is "not foolproof".[89]

Certification is widely seen as a means to improve prices through premiums, and the majority of farmers in responding FGDs were benefiting from selling certified beans and receiving a premium. However, in some FGDs, farmers did not know how certification was determined, the eligibility criteria or how to renew their certification. In FGDs, farmers in Kolaka Timur (GP-SCPP) and Kolaka Utara (CR) recalled a meeting in 2016 where certification was discussed but remember being disinterested because it meant that while they may receive a "slightly" higher price (none remembered the amount), they would have to travel even farther to sell their beans (to Olam and to Cargill, respectively).[90] Though they found certification to be beneficial, farmers in all groups were uncertain of how to guarantee their certification status with companies from year to year. In one FGD in Ende (East Nusa Tenggara), farmers stated that certification is still in progress and there is still uncertainty around the details such as who the holders are, how to guarantee farmers are certified, etc.[91] In FGDs in EQSI regions, farmers mentioned in passing that there are actually certified farmers but did not know other details related to this. In terms of certification under EQSI, certification was a goal but was not attained "due to time limitations."[92]

5.2.5 Cocoa Quality (Fermentation)

In FGDs in Sulawesi, none of the farmers the ET spoke with reported currently fermenting beans. Some farmer groups in Mamuju reported previously receiving materials for fermentation under GP-SCPP and

[87] Rainforest Alliance is currently auditing Marewa because farmers complained that their premium did not match their yield.
[88] KII, consortium member staff, Jakarta, November 2, 2019.
[89] KII, consortium member staff, Jakarta, November 22, 2019.
[90] FGD, Sulawesi, October 18, 2019.
[91] FGD, East Nusa Tenggara, October 20, 2019.
[92] KII, consortium member staff, Kendari, October 22, 2019.

noted that fermentation was included in the training received.[93] However, every CR and GP-SCPP beneficiary producer in Sulawesi stated that fermentation was too time consuming and not worth the investment because the price was inconsequential and was not worth the extra effort. Though EQSI was the only grantee with a specific intent to promote fermentation, EQSI respondents also echoed this sentiment in the grant's regions of Southeast Sulawesi. Even though farmers were taught fermentation and see the quality difference between fermented and non-fermented beans (farmers said they can tell that the fermented beans were better from the color and smell), they stated that price premiums made it not worth the effort, time, and cost to ferment.[94]

> *Guittard Chocolate based in Burlingame, California is a family-owned company specialized in fine artisanal chocolate products. Under the company's Cultivate Better sustainability platform, Guittard has undertaken flavor quality work in Ghana, Ivory Coast and in Indonesia through the establishment of 'Flavor Labs' designed to protect and preserve the unique flavors of cocoa from the countries where it sources beans. As a member of the GP-SCPP consortium and with support from GP SCP, Guittard established the Indonesian Flavor Lab in partnership with the Indonesian Coffee Cocoa Research Institute (ICCRI) located in Jember, East Java. KIIs with Guittard described the objective of the Guittard-ICCRI partnership as to build the technical capacity of ICCRI technicians to identify potential fine flavor beans and to develop handling recommendations that enhance these qualities. Tools at the lab also increase the capacity of ICCRI staff to undertake flavor-based breeding (generally, most current breeding research is focused on pest and disease resistance or high productivity varieties). To date, the lab has analyzed 83 samples of beans from Indonesia and Papua New Guinea, one of which was listed as amongst the top 50 beans in the world at the 2019 Salon de Chocolat in Paris. In addition, at its 2019 meeting, the International Cocoa Organization Ad hoc Panel on Fine or Flavour Cocoa reversed a planned decision to drop Indonesia from the list of global fine cocoa producers, instead retaining the level of 1% of the country's exports as fine flavor beans and thus leaving the door ajar for future development of this premium sub-sector.*
>
> *Historically, most fine flavor beans are derived from Criollo or Trinitario varieties, while bulk beans are derived from the Forastero variety (though there are exceptions such as Ecuador's Nacional variety). Regardless of origins, quality problems have resulted in Indonesian beans typically trading at a discount of USD100 under global market rates (about USD 2,170 per ton at the time of writing), while fine flavor cocoa trades at premiums of between approximately USD 1,000-1,500 over commodity or 'bulk' beans (fine flavor beans represent about 5% of global cacao production). Therefore, the work of the Flavor Lab has potentially enormous implications for Indonesia's cocoa sector in that its primary purpose is to develop opportunities for the country's farmers to tap into these higher value markets. This, in turn, can help smallholder producers to escape the 'commodity trap' through returning cocoa farming to profitability, which is likely to foster smallholder investment into their cocoa farming systems.*

[93] FGD, Sulawesi, October 14, 2019.
[94] FGDs, East Nusa Tenggara, October 20-24, 2019.

5.3 EQ 3: Knowledge Management

Pre-existing knowledge management systems overcame initial challenges to guide program decision-making. New systems faced time and logistical constraints. For all grants, limited partner and GOI access resulted in some frustration, and post-project, each partner retreated to proprietary data control and competition.

This section presents findings related to EQ 3: *How did the GP cocoa grantees monitor grant progress toward results and outcomes during implementation, and how did they use this information to manage project performance?* It addresses the following areas of enquiry:

- EQ 3.1: Have grantees received any feedback from the cocoa consortium members, farmer associations, co-ops or the GOI relating to cocoa quality, farmer performance, training or specific activities? What changes have the private sector observed as a result of the intervention, and have actors in the industry learned anything new? Were any approaches changed as a result of learning from feedback?
- EQ 3.2: How effective were knowledge management systems in communicating changes, challenges and successes, and what could be improved?
- EQ 3.3: To what extent did/can M&E practices and systems provide useful data for future programming or activity assessments? Who are the data owners, and how are they using the farmer data generated under the GP grants?
- EQ 3.4: What, if any, lessons, practices or successes can be (and/or are already being) applied to other value chains and to MCC and/or other private and public stakeholders' work in (or outside of) the cocoa sector?

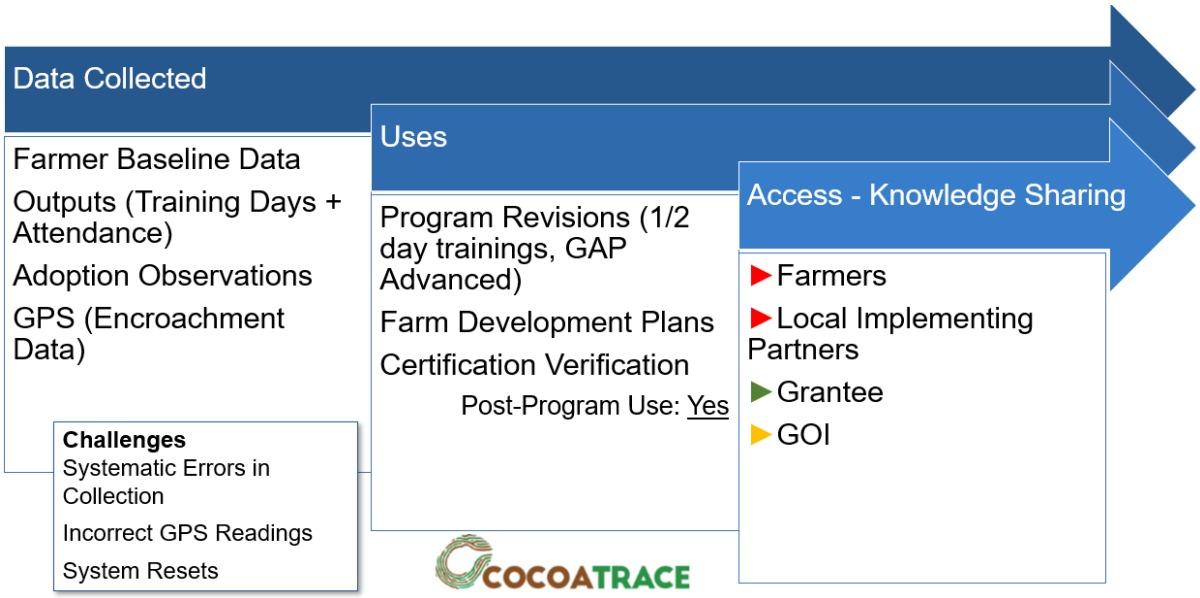
Grantees were expected to have a functioning M&E system in order to track indicators and targets and provide accurate quarterly reporting. Each grantee utilized a distinct M&E system and staff to collect, review and analyze project data, with GP-SCPP and CR both building from existing data management systems and EQSI relying on secondary (GOI) data prior to initiating their own system in Q4. GP-SCPP employed the largest M&E staff (12), commensurate with the size of the grant and breadth of activities, while both CR and EQSI grants employed fewer than three officers and technical data specialists each. All of the grantees conducted comprehensive baseline assessments of farmers in their select regions, including current farm size, utilization of GAP/GEP, income and farm yield and a Lifescape-Landscape analysis (LLA) (a context study required by MCA-I at the start of each of the GP grants) to further understand the environmental, cultural and historical context of where they would be implementing their work.

In addition to individual key performance indicators (KPIs), MCA-I also had 16 specific KPIs that each grantee was expected to report on. However, this system of a standardized quarterly progress report on all indicators lacked uniformity; grantee data was collected through different means, at different times, and aggregated inconsistently. In some cases, targets and KPIs were revised over the course of several

quarters based on delayed start-up or procurement challenges. In addition, each grantee started baseline data collection at varying times and initiated activities in varied exposure periods.

5.3.1 GP-SCPP - CocoaTrace

Figure 12: GP-SCPP Knowledge Management System



Koltiva, a private firm created by former Swisscontact employees in 2013 and headquartered in Jakarta, created CocoaTrace for use by Swisscontact under SCPP, prior to GP SCP, to facilitate traceability and cost transparency. During the GP project period, the CocoaTrace database was used to collect farmer baseline data and to document training days and attendance to update output monitoring data. In KIIs, a grantee stated that the data collected provided same-day updates on field activities, and GP-SCPP used this monitoring data to make improvements related to several implementation areas. For example, reports of low female farmer participation resulted in the change from a full-day training to a half-day training to accommodate women's schedules. Additionally, reports of differing levels of farmer literacy and farm expertise were noted by trainers after initial GAP training and follow-up, and the Advanced GAP module was created to address the specific needs of more established farmers in subsequent trainings.[95]

In addition, Farm Development Plans (FDPs) were created under GP-SCPP as monitoring tools to support long-term financial planning for farm activities by assessing their current conditions and estimating yields. In KIIs, respondents also described AOs being done by Koltiva field staff. Subsequently, based on the results, Mars helped farmers create FDPs, with Cocoa Doctors providing technical assistance based on areas of need.[96] The FDP's paper form was initially filled in manually but this was time consuming and prone to human error, resulting in Mars' consequent development of a mobile application for Cocoa Doctors to monitor farmer data. By the end of GP-SCPP, overall data suggested that adoption rates captured and aggregated by the application had not increased from

[95] KIIs, grantee and consortium partner staff, Jakarta and Makassar, October 2019.
[96] Ibid.

baseline as hoped, and GP-SCPP changed its strategy to focus more on mentoring and coaching rather than training.

The results from the LLA contributed to programmatic shifts for GP-SCPP to develop an Environmental and Social Management System and Plan (ESMS/ESMP) in line with MCA-I and better include environmental considerations and risks. However, while GP-SCPP was the only grantee to collect monthly data on environmental safeguards using this plan and engage in environmental awareness workshops, the ET found no evidence that this data led to any changes in implementation.[97]

Monitoring System Challenges

During baseline data collection, CocoaTrace was processing almost three times as much data as in prior years, delaying implementation in some areas because data collectors had to be trained on collection and processing data and because the paper forms used were prone to error. Additional systematic errors affecting data quality such as inaccurate baseline data to disaggregate existing farmers under SCPP with those new farmers under GP-SCPP, and incorrect GPS readings from farms early in implementation, prompted the GP-SCPP and Koltiva staff on the ground to revisit and retake measurements, causing further delays in implementation areas such as ENT. During implementation, CocoaTrace was reset several times to address technical and system issues, which also affected field staff ability to upload data in real-time.[98]

Data Access and Use

In FGDs, farmers in all areas of Sulawesi sampled reported not knowing why data was collected and how it was used by any of the grantees. Likewise, farmers in GP-SCPP FGDs noted that their farms were visited several times when they had their photo taken and information about their yield and income recorded but no explanation was given on why this data was needed. Farmer groups in Kolaka Timur, Luwu Utara and Kolaka Utara specifically noted that in the last few years, representatives from Swisscontact came to take GPS measurements of the farms, telling them that they would receive inputs from GP-SCPP based on the results, but these farmers reported never receiving the results or the inputs. Additionally, local implementing partners for GP-SCPP in East Nusa Tenggara described never receiving access to data, even though they were partners who monitored activities and needed the aggregate information to track regional trends for certification or initiate collaborations between buyers.[99]

In Phase 1, all grantees expressed an intent to submit farmer data and monitoring database access to local government entities during and after the completion of the grants. However, this Phase 2 evaluation found that none of the government partners for GP-SCPP interviewed stated that they currently had access to the data generated under the project. Under the SCP, MCA-I and the government received login access to CocoaTrace so they could access the aggregate level data for all locations where GP-SCPP worked. However, government entities including BAPPEDA, provincial governments and UPTD in West and South East Sulawesi and Ende in East Nusa Tenggara interviewed in Phase 2 said they never

[97] Ibid. and project monitoring documents.
[98] KII, consortium partner, Jakarta, November 2, 2019.
[99] KIIs, East Nusa Tenggara, October 20-24, 2019.

accessed CocoaTrace for farmer data collected or generated by GP-SCPP, or received reports from the private-sector partners in order to inform their own reports, internal communications and programming.[100]

Knowledge Sharing and Lessons Learned

GP-SCPP implemented an "Outcome Study" in the final quarter of the project to look at adoption rates of GAP and found a statistically significant improvement in most practices over baseline (pesticide and chemical fertilizer dosing, shade tree planting and yield increases from 10-23 percent). While encouraging, in KIIs grantee staff and consortium partners described widespread adoption in multiple areas as "not promising," based on CocoaTrace adoption observation checklists.[101] Accordingly, GP-SCPP has used this information to recognize the limitations of training in GAP without intensified coaching and shifted to a focus on identifying categories of farmers more or less likely to adopt in order to create a social network analysis and better identify "entrepreneurial farmers" with whom follow-up will be most beneficial.[102]

In KIIs, GP-SCPP partners JB Cocoa and Cargill lauded GP-SCPP for generating specific farmer data that they can use to improve their individual monitoring systems by realizing that adoption rates were largely unaffected by training alone and certification did not lead directly to improved practices.[103] Partners currently use GP-SCPP training materials and curriculum and recognize them as "gold standards;" The project exceeded its target of number of training modules and manuals developed, shared and updated (11) by 109% (23). However, in KIIs, every consortium partner staff respondent emphasized that wide-ranging training was not enough to invoke real change in yield, quality, and income, and that the outcomes of GP solidified the importance of coaching and mentoring rather than training. There is a new preference for quality farmer investment over quantity. Several key stakeholders, including consortium partners and certificate holders, noted that their strategy moving forward is to mirror GP-SCPP's strategy of using the farmer data captured to make data-backed decisions to identify entrepreneurial or influential/high performing farmers likely to produce higher rates of adoption and focusing on targeted investments in those farmers rather than all farmers in a given area or group as influencers that can help motivate farmers needing additional coaching and support.[104] In addition, these respondents stated that identifying geographic areas with higher adoption rates helps determine which locations to further invest in for GAP promotion and to gauge individuals' candidacy for farm renovation loans.[105]

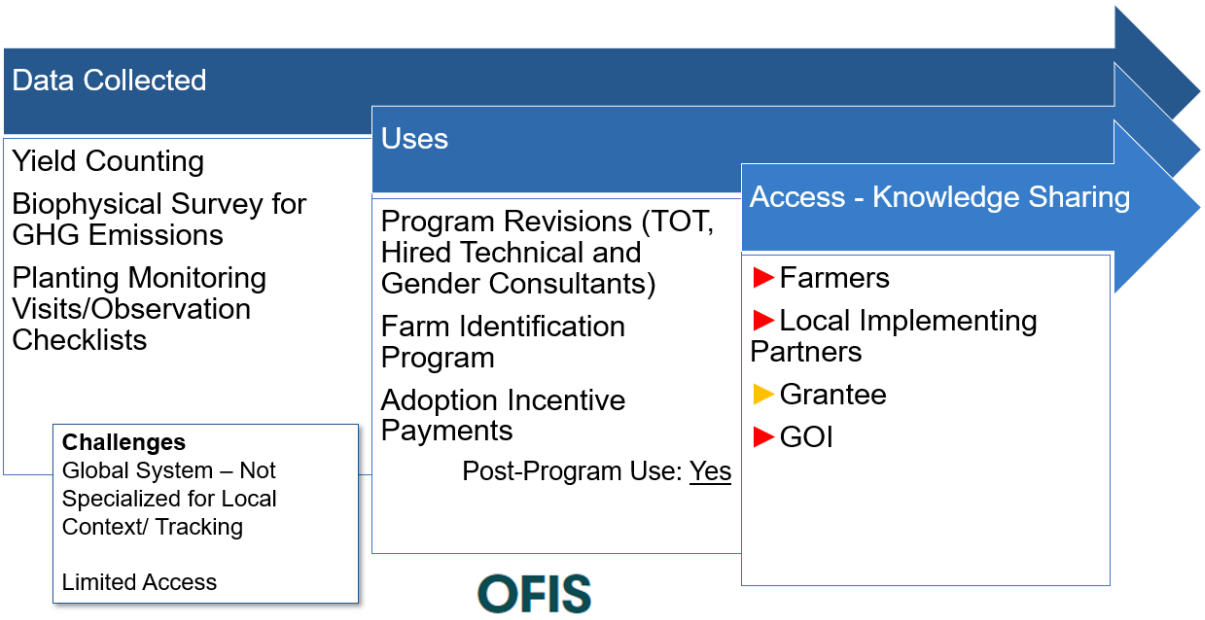
In KIIs with consortium partners, respondents stated that data generated under GP-SCPP showed that extension staff (NGOs, government and private companies) and traders/collectors buying from farmers had an "opaque system" that did not account for or show the link between all farmer inputs and farmer outputs. This led to creation of two new mobile applications by Koltiva meant to be used by farmers and private companies to identify influential actors, which inputs were providing the most benefit and where and what payments farmers should receive.[106] Following the GP implementation period, all of the GP-SCPP consortium partners including Barry Callebaut, Cargill, ECOM, Mars, and Nestle described

[100] KIIs, GOI staff, Sulawesi and East Nusa Tenggara, October 2010.
[101] KIIs, grantee and consortium partner staff, Jakarta, October 2019.
[102] KII, grantee staff, Jakarta, October 10, 2019.
[103] KIIs, consortium partner staff, Jakarta and Makassar, October 2019.
[104] Ibid.
[105] Ibid.
[106] KII, consortium partner, Jakarta, November 2, 2019.

continuing to monitor farmer data from their regions of investment through CocoaTrace.[107] Continued access to the data is through individual, independent agreements with Koltiva where private partners can only see the information for those farmers and outputs in their supply chain (i.e. Mars cannot see data collected from farmers in Nestle buying areas). This process respects any commercial-in-confidence concerns of the private sector but does not lend itself to collaboration.

5.3.2 CR - Olam Farmer Information System (OFIS)

Figure 13: CR Knowledge Management System



During the GP implementation period, the CR grant utilized the Olam Farmer Information System (OFIS) to collect project data but had many challenges in monitoring and providing real-time data that the project could use for course correction. OFIS was an existing database used for all Olam Global supply management data, not just for CR, which made it "difficult to disaggregate data for farmers directly reached by the project and for database access to be shared due to confidentiality concerns."[108] Quarterly monitoring included measurements of yield by pod-counting, a biophysical survey to calculate on farm GHG emissions, and two verification monitoring visits for planted seedlings and shade trees. During monitoring visits and collection of farmer data, CR staff found that farmers consistently reported yields that were lower than those estimated by the pod-counting technique and, under the assumption that pod-counting was more precise, discontinued the use of farmer-reported yield data on farm productivity. To resolve challenges presented by initially low training targets, low levels of farm performance and assessment numbers and female participation, the project reissued a training of trainers—including government extension workers—on intensified coaching, hired four additional technical consultants to

[107] KIIs, consortium member staff, Jakarta, October 9-22, 2019.
[108] KII, consortium member staff, Jakarta, November 2, 2019.

provide follow-up coaching on demonstration plots and hired two female gender consultants to mobilize female farmers and document success stories for each region.[109]

Like the GP-SCPP FDP, Olam's Farm Identification Program (FIP) provided an observation checklist following training to review GAP/GEP and provide recommendations to farmers, but unlike the FDP, this did not include financial planning. While monitoring data provided information about GAP/GEP strengths and weaknesses, the training curriculum itself was not revised based on the observations because training was only offered once. However, extension agents worked with farmers to proactively identify the needs on their own farm and monitor adoption. The FIP was initiated by Olam prior to the CR project but was reinforced under CR by increasing farm visits from CR staff. Currently, Olam monitors farms on a quarterly basis using extension agents but conducts infrequent farmer engagement or training.

Monitoring System Challenges

Interviews with Olam staff and quarterly reports noted that accurate data on CR-trained farmers was difficult to collect due to inconsistencies between farmer names in attendance registers and those participating farmers registered in OFIS. OFIS was a digital platform, yet it still had manual data collection for yield estimates and bean quality (coming directly from farmers or buying stations) to be entered, so the data was not always complete for monitoring and decision making.[110] This prevented OFIS from accurately tracking the number of farmers trained and affected the project's ability to make predictions for farmers and areas needing follow-up training.[111] Incentive payments were also linked directly to adoptions of GAP/GEP and bean quality, although AO surveys were delayed due to geographic constraints and procurement administration. When the results were finally prepared, none of the 6,000 farmers received compliance scores high enough to receive an incentive. The survey scoring was heavily weighted (26 percent) toward bean quality, which CR had data difficulties with measuring, and as a result the bean quality was removed from the scoring criteria to enable farmers to reach compliance and receive incentives.[112] As with GP-SCPP, certified farmers' compliance with land use specifications were problematic. The national forestry map data is outdated, making several farms in the CR-area in existence for more than 15 years on land now considered to be a protected area. The ET found no evidence of corrective measures being taken by any of the grantees to remove certification from farmers who were non-compliant with land protection requirements.

Data Access and Use

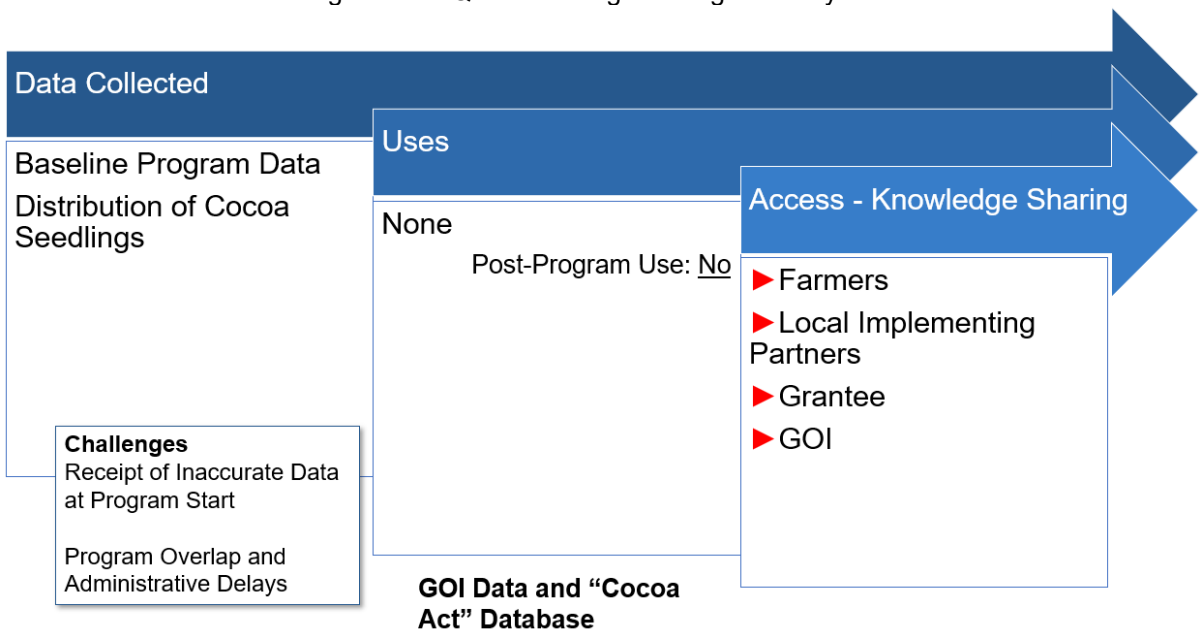
As with GP-SCPP, in FGDs, farmers stated that they were not informed about the use of their farm or individual data. Furthermore, in the cases of soil testing, many CR-trained farmers were told why the data was collected but reported often not receiving the results. In the CR areas, farmers reported that they were told that GPS measurements taken confirmed the farm size and placement to ensure there would be no overlapping farm ownership, but none of the farmer groups involved in FGDs stated that the GPS data was shared with them after being taken by Olam. Further, farm ownership was not a stated concern of CR as much as land encroachment into protected areas, so this explanation did not follow program logic. While Olam reps noted that they shared information with the GOI and believed that the GOI had

[109] "Final Report - Green Prosperity Facility Cocoa Revolution: High Yielding Climate-Smart Cocoa Farms Partnership Grant: Sustainable Cocoa Partnership" PT. Rainforest Alliance for MCC, Jakarta, February 15, 2018.
[110] KII, grantee staff, Jakarta, October 10, 2019 and desk review.
[111] Ibid.
[112] Ibid.

access to summary data collected none of the government representatives interviewed during Phase 2 were familiar with the OFIS system or knew how to access it to mine data for future planning.[113]

5.3.3 EQSI - Cocoa Act

Figure 14: EQSI Knowledge Management System



EQSI initially relied on available data from the Office of Provincial Estate and the Horticulture and Statistics Bureau, but after receipt of inaccurate, unvalidated data and in conjunction with the completion of EQSI baseline activities, the project initiated the "Cocoa Act" database in Q4. EQSI's baseline data revealed an overlap in implementation sites with two other grantees, which necessitated switching districts from Kolaka Utara and Kolaka to Konawe Selatan and Konawe. While this switch was necessary, it further delayed implementation due to adjustment of project targets and a project agreement modification. EQSI's delays and monitoring data revealed an inability to reach quarterly targets as planned within the timeframe, resulting in a reduction of the grant and revision of the targets in Q7. In KIIs, EQSI representatives claimed the monitoring database was passed on to the local government after the project to track the progress of recipients who received cocoa seedling distributions, however at the time of the evaluation, there was no evidence of the database being used or updated by the district and provincial government in Konawe. One BAPPEDA representative in Konawe had no knowledge of the EQSI project.[114] Former EQSI representatives stated that EQSI data was shared with Kalla Kakao to use for identifying farmers for certification, however EQSI farmers did not receive certification under the project due to time. Likewise, in KIIs, GOI staff interviewed in all grantee locations expressed a universal agreement that GP grantees did not provide their monitoring data in a timely way, or even at all, to allow village governments to inform reports or future activities, even though BAPPEDA was identified as a post-compact partner to facilitate future programming and planning.[115]

[113] KIIs, GOI staff, Sulawesi, October 2019.
[114] Ibid.
[115] KIIs, GOI staff, Southeast Sulawesi, October 20-24, 2019.

Collaboration and Learning Across All Grantees

The Window 1 grants were unique in that they created a platform that brought together competing entities to collaborate in a pre-competitive space that "benefitted both individual company supply chains and independent smallholder cocoa producers."[116] All stakeholders agreed that a focus on coaching rather than training was most beneficial to farmers long-term, that improved rates of certification granted farmers opportunities to improve their income and that farmers will need continued support to "jump start" their farms through high-quality inputs, with financial support coming from public entities and technical assistance coming from private sector. However, following the end of the grants, each partner retreated back to a place of infrequent partnership and competition with other agencies. Representatives from the CSP, a platform created for collaboration and learning about Indonesian cocoa, along with several private-sector partners, felt this competition and unwillingness to share successes and lessons learned was the largest challenge to knowledge management in the cocoa sector.[117] CSP and some government counterparts throughout Sulawesi noted an attempt to initiate conferences and large-scale meetings to share information, but stated that they were infrequently and inconsistently attended by major cocoa stakeholders.[118]

5.4 EQ 4: Sustainability

Sustainability certification and nurseries responded to market and producer demands, respectively. Fermentation for bean quality proved to be unviable due to logistical constraints and low-price incentives. Fostering smallholder capital investments for minimal productivity growth continues to be a key challenge to sustainability in the sector.

This section presents findings related to EQ 4: What results or outcomes of the GP cocoa grants are likely to be sustainable and scalable, and what results do not appear to be sustainable and scalable? Specifically, it addresses the following areas of enquiry:

- EQ 4.1: What role do global market trends or priorities play in considering sustainability?
- EQ 4.2: What factors will enable continued success for farmers and smallholders, including key strategies or approaches (certification, fermentation, incentives)? What challenges or limitations may affect sustainability of grant outcomes?
- EQ 4.3: Do private-sector actors believe that they achieved a good financial and social return on their investment? Will they continue similar approaches in the future?

There are several apparent challenges to the sustainability of continued smallholder cocoa production. In KIIs with private-sector buyers, two respondents explained that they calculated that farmers must attain a minimum yield of 1.5 MT/ha or they will eventually switch to other crops that offer better returns on land and labor costs (e.g. palm oil, which grows well on soils depleted by decades of cocoa production, or

[116] Star Report – Indonesia," MCC, August 2019.
[117] KIIs, consortium member staff, Jakarta, October 9-22, 2019.
[118] KII, consortium member staff, Jakarta, October 9, 2019.

maize, which has a ready market as poultry feed).[119] The NREL model calculates that most farmers will achieve yields of 1 MT/ha by applying low-cost practices, while a much smaller group would achieve rates of 2 MT/ha though adoption of higher-cost practices i.e. soil amendments, fertilizer and pesticides and rejuvenation (replacement of old trees through grafting).[120] This suggests that prevailing low-cost production is insufficient to maintain most farmers' current focus on cocoa, and these farmers must be induced to make higher-cost investments in their cocoa farms either through access to finance or greater use of existing funds. In addition, these respondents also stated that certification premiums will become "substantial" at higher levels of productivity, suggesting that certification will be sustainable at these levels because of the renumeration higher productivity producers receive for sustainable production strategies.[121] In addition, one grantee respondent stated *"even if the cocoa price improves, that is not enough for farmers… if they have less than one-half hectare, they must have other income."* This suggests that most farmers will not rely solely on their cocoa incomes given that the average land holding is limited to about one-half hectare.[122, 123] Taking into account these conditions, this section specifically considers SCP grant exit strategies and key sustainability activities including cooperatives, nursery development and private-sector coordination as well as certification and fermentation, which were the primary means through which grantees addressed global market trends.

5.4.1 Exit Strategies

GP-SCPP: The most clearly elaborated exit strategy identified for GP-SCPP describes consortium members building on lessons learned to continue farmer skills development and marketing strategies. Notably, building on lessons learned through collaboration with GP-SCPP, in KIIs with Mars staff, respondents stated that they have refined their supply chain development model by shifting to a greater focus on group learning and facilitation and increasing focus on comprehensive financial management instead of only GAP in order to promote farmer investments into farming systems required to achieve higher productivity levels.[124] In FGDs, numerous farmers stated that, in addition to training, access to ongoing coaching and mentoring to address intermittent issues such as pest and disease outbreaks is essential, but absent. Accordingly, since 2016, reflecting its commitment to remain engaged with Sulawesi cocoa farmers, Mars has promoted its CDC-CVC model, which includes ongoing coaching, to Barry Callebaut, Olam and ECOM. Mars' competitors subsequently followed suit by committing themselves to investing into the supply chain through similar models i.e. Nestle Cocoa Plan and Mondelez Cocoa Life. In terms of continuing TA delivery, GP-SCPP consortium partners recognized GP-SCPP-generated training materials as reflecting "good practices" and several partners stated that they intend to continue to use these curricula in their post-project trainings (Barry Callebaut, ECOM, Mondelez).[125] Finally, in FGDs, some farmers in East Nusa Tenggara described the lack of follow-up opportunities from government or third-party entities motivating them to pursue utilization of their farmer organizations to receive information from "connections" in Sulawesi.[126]

[119] KIIs consortium member staff, Sulawesi and Skype, October 12-24, 2019.
[120] Moriarty, K., M. Elchinger, G. Hill, J. Katz and J. Barnett, "Cocoa Intensification in Sulawesi: A Green Prosperity Model Project," NREL for MCC, February 2014.
[121] Ibid.
[122] KII, grantee staff, Skype, November 2, 2019.
[123] KIIs, grantee staff, Jakarta, October 10, 2019.
[124] KII, consortium member staff, Makassar, October 8, 2019.
[125] KIIs consortium member staff, Sulawesi and Makassar, October 2019.
[126] FGDs, East Nusa Tenggara, October 18, 2019.

CR: The proposed CR project had no clear exit strategy. During grant implementation, Olam employed trainers who also served as field staff to provide quarterly follow-up, but in FGDs farmers described this follow up as "inconsistent."[127] Farmers also reported that ultimately they "saw less of the extension workers" and that "training stopped" but that it was not clear to them that the project had ended.[128] Farmers also stated that they still expected Olam representatives to continue to provide inputs because Olam verbally reaffirmed this commitment to them, but farmers did not know when this would happen.[129] Specifically, farmers trained through CR in Kolaka Utara noted that after the last training in 2017, they rarely saw the trainers. Some farmers in Luwu Utara and Kolaka Utara did report some visits after training when Olam staff came to the farm to see if they had any questions, but these farmers stated that their questions went unanswered. Overall, farmers in CR areas universally agreed that there was no systematic follow-up after CR, so they did not know who to turn to for troubleshooting on their farms, accessing inputs or following up on soil quality tests.[130]

EQSI: The EQSI exit strategy envisioned providing a team of five trainers with a "seed fund" to motivate them to continue coaching farmers. However, in FGDs, producers stated that once the project ended, this fund was depleted and the team discontinued training.[131] Nonetheless, in two FGDs, farmers stated that they do not see post training follow-up as a challenge because they "receive routine visits or communication with government agents" affiliated with LEMS. They stated that villages with LEMS tend to have more follow-up because they are linked with government extension workers, who visit "frequently."[132] However, farmers not closely affiliated with local government or LEMS report difficulty in sourcing follow-up. In addition, the ET found no mechanism in place to monitor viability or locations where air seedlings were carried out without continued funding for follow-up on germination. On the other hand, site visits showed that the EQSI-facilitated nurseries have continued to function.

5.4.2 Key Activities for Sustainability

Cooperatives: In areas with lower concentrations of commercial development i.e. East Nusa Tenggara, farmers are required to organize into self-managed associations or cooperatives in order to access buyers at sufficient scale. These farmer organizations are also required to provide continued access to technical assistance and coaching, as well as serve as certification holders providing premium payments to farmers. However, cooperatives were described by numerous KII respondents as "ineffective due to insufficient organizational and financial management capacity. In a KII with grantee staff, one respondent noted, *"it is rare to hear a success story of a cooperative in Indonesia."*[133] Another KII respondent described a case in East Nusa Tenggara where a cooperative received a certification premium but failed to pay them onward to producers.[134]

Nursery Development: Site visits and KIIs showed that investment in nursery start-up by farmers through provision of training and inputs in the case of CR, and provision of training from GP-SCPP and EQSI, has resulted in a more structured nursery system and improved responsiveness to farmer demand

[127] FGDs, Sulawesi, October 2019.
[128] Ibid.
[129] Ibid.
[130] Ibid.
[131] FGDs, Southeast Sulawesi, October 20-24, 2019.
[132] Ibid.
[133] KII, grantee staff, Jakarta, October 10, 2019.
[134] KII, consortium partner staff, Jakarta, November 2, 2019.

and accessibility needs, especially in areas where there were no previous nurseries and where farmers faced difficulty accessing good quality clones. Contrasting two activities, one KII respondent stated that *"fermentation is not a necessity for them* (farmers, because), *they still have income from cocoa even if they do not ferment."* As such, this respondent described the nurseries as a "bottom-up approach" to an issue that farmers faced and was therefore based on farmer demand, while fermentation seemed to be a "top-down approach" where higher-level entities wanted farmers to ferment.[135]

Private-Sector Coordination: In KIIs with private-sector partners, all respondents described coordination between large-scale buyers as fruitful, especially in GP-SCPP areas where the private-sector partner has continuing relationships with farmers through buying beans and providing certification. In some instances (for example, Barry Callebaut), these companies have continued trainings to ensure their supply of certified farmers. In addition, these partners are still using training curricula in their supply chain management strategies. However, in KIIs, several private-sector consortium partner staff described the investments facilitated by GP-SCPP as "as yet nothing" or not sustainable by the private sector.[136] One respondent described farmer capacity building as "the job of the government, not the private sector."[137]

Certification: Sustainability certifications address current market conditions by meeting growing consumer demand for sustainably certified cocoa as determined by buyers themselves and reflected in recent research.[138] Furthermore, numerous KII respondents described this strategy as good way to improve farmer incomes. As described by one grantee staff *"prices go up and down but pulling farmers into certification networks has been the most useful. GP created the opportunity for companies to do this quickly. When GP-SCPP started, there were 5,000-10,000 farmers in certified networks. The number now stands at about 40,000 and will increase to 90,000 in the next year or two."*[139]

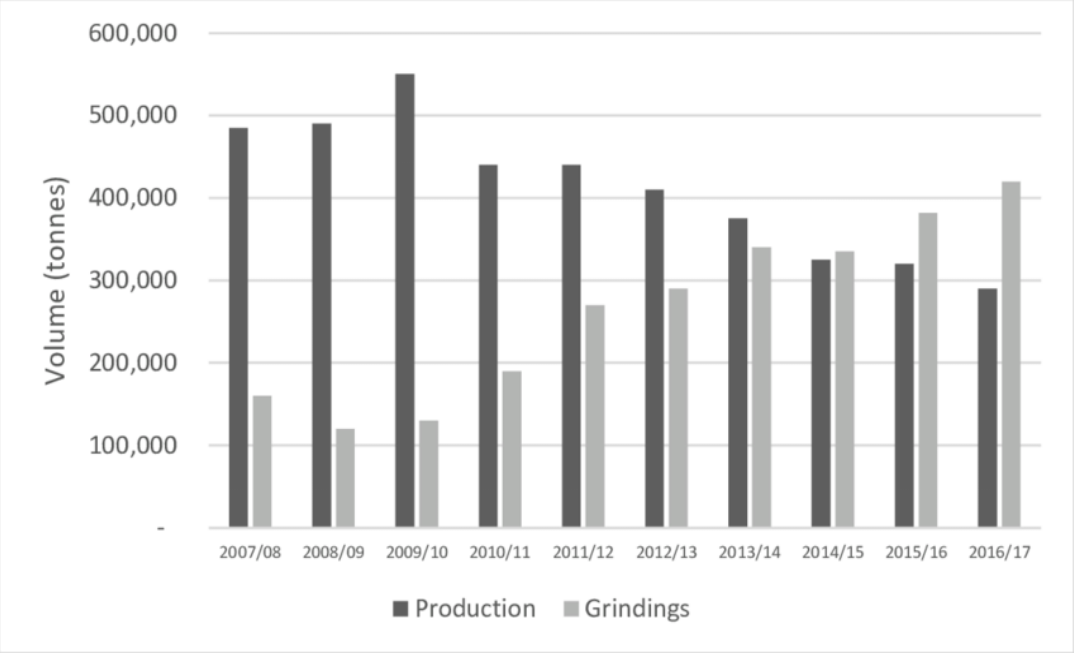
Fermentation: Although the establishment of a fermentation center as a self-sustaining enterprise was amongst the key objectives of the EQSI project, none of the farmers in FGDs reported currently fermenting beans because "there aren't guaranteed buyers," "the price difference (between fermented and unfermented beans) is negligible," and "it is too much additional work for not enough benefit."[140] A widely expressed sentiment in Southeast Sulawesi in relation to selling fermented beans is that farmers are restricted by the quantities that buyers seek for fermented beans. Buyers will only buy fermented beans in large quantity in response to blending requirements that they have to fulfill for specific orders.[141]

[135] KII, consortium partner staff, Kendari, October 26, 2019.
[136] KIIs, consortium partner staff, Jakarta, Makassar, Kendari, October 2019.
[137] KII, consortium partner staff, Jakarta, November 2, 2019.
[138] In a review of 36 consumer packaged goods, researchers at NYU Stern Center for Sustainable Business found that over 90% of the categories examined Sustainability-Marked Products grew faster than others in their category from 2013-2018 (including chocolate candy). NYU Stern. *Sustainable Share Index.* https://www.stern.nyu.edu/sites/default/files/assets/documents/NYUSternCSB_SustainableShareIndex_2019.pdf.
[139] Ibid.
[140] FGDs, Southeast Sulawesi, October 20-24, 2019.
[141] KII, consortium member staff, Skype, November 22, 2019.

6. CONCLUSIONS AND POLICY IMPLICATIONS

As noted, in response to the 2010 GOI imposition of a graduated export tax on unprocessed cocoa beans, major buyers have restructured their operations in Indonesia by introducing more processing operations in the country. With a growing domestic production deficit forcing these buyers to turn increasingly to imports in order to keep these facilities operating, the question of how to reverse the decline in cocoa production is likely to remain a pressing issue.

Figure 15: Indonesia - Annual Cocoa Production vs. Grindings 2007/8-16/17



Source: *"Annual Report, 2017/2018."* ICCO, Abidjan, Côte d'Ivoire, 2018.

The extraordinary growth of the Indonesian cocoa sector in the 1970s-80s was facilitated by the innovation of smallholders in Sulawesi coupled with their access to fertile and low-cost land and labor as well as robust global commodity markets for cocoa and a highly efficient marketing system. However, in common with similar "cocoa booms" in other countries, by 2010, this growth was reversed as emerging land and labor markets elevated production costs, a transformation further exacerbated by degraded soils and outbreaks of pests and disease, which inevitably mandated the application of capital inputs such as fertilizer and pesticides.

In addition, flat or declining commodity markets, coupled with more complex consumer demands for higher quality (fermented) beans and sustainable sourcing reduced the competitiveness of cocoa vis-à-vis alternative crops with lower costs of production or more accessible markets. In this context, the SCP grant program addressed these challenges through a co-financing mechanism in partnership with the private sector around its goal of "the development of a sustainable cocoa industry in Indonesia and improved smallholder incomes where smallholders and processors benefit equitably."

6.1 EQ 1: Theory of Change

- GP-SCPP: The GP-SCPP grant project built on the Mars CDC/CVC model for TA delivery to address GAP/GEP and coaching on intermittent challenges such as pests and disease based on experience built up in West Africa and Sulawesi. It also leveraged Swisscontact experience in farmer training in less commercial development areas of the country. Furthermore, corollary activities to create smallholder relations with financial institutions addressed access to the finance required for capital inputs needed to reach higher productivity levels. Additional activities were aimed at gender, nutrition and community empowerment. However, while in terms of outputs the project was largely successful at disseminating the Mars model and the additional activities on a large-scale through collaboration with a number of major buyers acting as sub-partners, the outcome of some activities was limited in some cases. Notably, this includes access to finance for inputs, with few producers following up on banking relations to access credit due to its perceived low relevance. Likewise, the outcomes of some activities were limited by access to essential inputs, such as nutritious vegetables required to improve nutrition.
- CR: The CR grant project likewise addressed GAP to improve declining farmer productivity but worked through a more traditional approach revolving around demonstration plots and including a focus on nurseries and new planting. However, in the absence of the strong pre-existing foundation upon which GP-SCPP could build, this project was over-ambitious, and implementation suffered from logistics challenges such as haphazard delivery of saplings and in-actionable practices, such as solar dryers for which farmers had trouble accessing and financing the plastic sheeting.
- ESQI: The ESQI grant project was unique in its focus on grantee-implemented reforestation activities (air-seeding) and value-added fermentation at the producer level. However, this project suffered most from a curtailed implementation period and it is still too early to assess the success of some activities. Likewise, fermentation proved to be unviable due to low remuneration of farmers and logistics related to buying at economies of scale.

Unsurprisingly, given the long-term maturation period for perennial crops such as cocoa, value chain development projects related to these crops are most successful when they build on pre-existing permanent infrastructure, as GP-SCPP did in the case of Mars' TA delivery mechanisms in Sulawesi. Likewise, these projects are more successful where they enhance the pre-existing and on-going objectives and activities of implementers, as GP-SCPP did in the case of large-scale Mars and Swisscontact farmer productivity training and Mars' objectives related transition to supply chain sustainability. On the other hand, CR and EQSI were structured as "time-bound" interventions, suffered significant start-up delays and accordingly are highly unlikely to result in further positive outcomes in the absence of follow up. In addition, even where grantees were able to meet output targets, a number of corollary activities did not achieve outcomes as planned, such as those related to gender, nutrition and community empowerment, and it is highly unlikely that beneficiaries of all three grants will progress in these areas following grant implementation.

6.2 EQ 2: Implementation Approaches

- In general, while SCP grantees found adoption rates "low" or challenging," adoption of low-cost GAP were either moderate to high for many practices prior to the SCP grants due to previous

trainings. Adoption of low-cost practices such as pruning and composting was more likely than adoption of practices requiring farmers to source and fund inputs (i.e. cocoa-specific fertilizer and dolomite to improve soil quality). Additionally, farmers cite an important distinction between "training" and "coaching. While training is useful and tends to "regularize" certain practices, such as regeneration of trees through pruning, coaching is very important for dealing with intermittent problems for which training does not provide remedies.

- Changes in income and management practices were limited due to low farmer interest in accessing credit, and access to inputs such as cocoa-specific fertilizers was problematic due to distribution challenges. On the other hand, buyers experienced notable improvement in cocoa quality related to 'processability' over the grant implementation period i.e. standardization of bean size, avoidance of negative attributes, such as moldy or broken beans.
- Changes in access to markets was limited, and producers experienced lack of transparency regarding prices despite activities such as SMS price reporting systems which were designed to improve this. In addition, many farmers had a poor understanding of how quality determinants determine cocoa prices.

Implementation approaches that reflect traditional extension services i.e. where experts are on call to provide assistance as needed and are also built into on-going commercial operations to ensure continuity, work best as a source of TA delivery in value chain development projects such as the SCP grantee projects. For example, the Mars CDC/CVC model provided for both recurrent training as well as a source for "coaching" to address intermittent problems (i.e. through the CDC-based Cocoa Doctors and through CVC-based entrepreneurs). On the other hand, most farmers that worked with CR and EQSI reported problems in TA follow up related to unanswered questions or not knowing who to turn to in the case of post-project challenges. However, while these TA delivery approaches are applicable to agronomic challenges, they have not to date been effective at addressing producer business and financial management issues. For example, the majority of beneficiaries associated with all three SFP grants did not access credit to facilitate greater investment into their farming systems, nor did they enjoy significant changes in market access.

6.3 EQ 3: Knowledge Management

- GP-SCPP – CocoaTrace: Koltiva, a private company founded by former Swisscontact employees and based in Jakarta, created CocoaTrace to collect real-time project monitoring data. Feedback on this system from consortium members was positive, especially related to targeting and tailoring assistance to supplier farmers (for example, increasing focus on coaching as opposed to training), and sub-grantees continue to use the system in a proprietary way i.e. with access limited to company-specific data related to supply chain improvements. On the other hand, GOI staff and producers did not have access to the data nor a clear understanding of its purpose and some local partners had trouble accessing data required for project implementation. In addition, the outdated forestry registry maps made it difficult to confirm compliance with sustainability requirements.
- CR – Olam Information System (OFIS): As a pre-existing tool used for Olam global supply chain management, CR staff found it more difficult to share OFIS data due to confidentiality issues.

Quarterly monitoring facilitated adjustments to TA to focus more on coaching. However, similar to GP-SCPP, producers and GOI staff did not have access to data nor were fully aware of its purposes.

- EQSI - Cocoa Act data: After initially relying on GOI data, the EQSI data management system was launched late in project implementation, and feedback was limited to showing that the project was not on track to reach targets. As with the GP-SCPP and CR data management systems, producers reported lack of knowledge as to the purpose of the data and GOI staff reported not having access to the data.

Knowledge management systems perform better when they were structured to support functional operations. For example, the robust consortium partnership that implemented GP-SCPP was able to effectively target and tailor implementation based on timely feedback from the CocoaTrace system managed by Koltiva, including adjusting training curricula based on shared assessment of performance. In contrast, CR and EQSI were more limited in their ability to adjust some grant implementation areas through their OFIS and Cocoa Act data systems (especially related to targets and discontinuing implementation of some non-performing activities). However, producers and GOI staff had poor access to project data in all three cases, so this data did not inform decision making in any area for these stakeholders. A closer collaboration between grantees and local government entities including not only database accessibility but also training on interpretation and analysis of this data would assist in long-term ownership of data and future government cocoa project investments.

6.4 EQ 4: Sustainability

- The SCP grants addressed prevailing global market trends and priorities through activities to promote sustainability certification in order to meet surging global demand for sustainably sourced cocoa and in line with the Mars global supply chain plan as well as through promotion of fermentation in the case of EQSI in order to improve the quality of Indonesian cocoa beans. Likewise, both activities held potential to improve producer incomes through providing certification premiums to GEP-compliant producers in the first case and through increased value-added at the producer level in the second case. Certification proved to be a viable strategy for improving incomes in areas where large-scale buyers held the certification, though in the case of areas with lower commercial concentration, self-managed farmer organizations were required to hold the certification, and weak financial management capacity undermined their ability to provide this to producers. On the other hand, producer-level fermentation proved to be unviable due to the limited price differential between fermented and non-fermented beans as well as buyer requirements to buy at scale in response to specific orders. For the foreseeable future, fermentation is likely to be limited to Mars fermentation of wet beans and a small number of organized specialty producers.
- In addition to training, farmers require coaching by qualified experts in order to address intermittent problems such as pest and disease outbreaks. However, even with full adoption of low-cost GAP, farmers are not likely to achieve sustainable levels of production i.e. over 1 MT/ha. This productivity level will require a transition to larger investments into a smallholder farming system, which to date has proven difficult to foster.

- While private-sector actors appreciated the opportunity to collaborate in order to pursue common objectives, and in a number of cases have adopted long-term supply chain management strategies that entail ongoing producer support and intend to continue to use GP-SCPP-facilitated materials, most of them did not see a significant return on investment and have returned to a territorial and competitive approach.
- In value chain development projects such as the SCP grants program, activities need to be carefully built on demonstrated specialized capacity and meet existing demands to be sustainable, and even then, further innovation is required in some areas. For example, there are technically competent rural entrepreneurs in the cocoa producing areas that can manage nurseries, and these meet a producer demand for new saplings. Accordingly, despite some challenges related to logistics, nursery development proved to be sustainable under all three grants and it is likely these nurseries can serve as a foundation for the propagation of new varieties in the future. On the other hand, all three projects struggled to foster expanded smallholder capital investments into farming systems required to reach the minimum productivity level required to ensure the sustainability of future cocoa production, despite implementing variations on business and financial capacity development.

6.5 Policy Implications

- **Successful cocoa sector development requires investment into sustainable TA and coaching delivery infrastructure (as opposed to time-bound projects):** The nature of perennial agriculture favors investments into unlimited duration institutions as opposed to time-bound projects for several reasons. These include the annual production cycle of trees, how the *intermittent* nature of certain problems that affect perennial crops, such as disease and pest outbreaks, may not occur during the life of a finite 'project' and the slow realization of ROI, as well as the significant time that is lost in start-up and close out of 'projects'. As such, development funding is best invested into strengthening and expanding *permanent* and *sustainable* structures i.e. research institutions and commercially self-sustaining service delivery mechanisms.
- **Due to competition between buyers, investment into farming systems requires an autonomous investment delivery mechanism, such as a technical assistance fund (TAF) or similar:** The nature of private sector competition means that cocoa companies are averse to making investments into supply chains that may accrue to competitors. For example, cocoa exporters are resistant to make investments into farmer productivity enhancements if these producers may ultimately sell their crop to a competing firm. For this reason, investment capital and TA is best delivered through an autonomous structure in a way that reflects the common priorities of the sector. One such mechanism is a TAF, which combines a component of repayable loans with a grant component and aligns these investments with TA for specific products i.e. the TA addresses borrower weaknesses to reduce risk, create bankable investments, and improve repayment rates. This integration of TA into finance to de-risk lending is known as "blended finance". A TAF can ultimately receive capitalization from private investors or development finance institutions (DFIs), in order to expand operations and/or support new activities. Likewise, this entity can also adopt equity models in order to finance upgrades to farmer organizations and enterprises.

- **Smallholder resistance to self-investment (borrowing) into farming systems requires innovative capital delivery system i.e. public-private investment vehicle or similar:** The inevitable degradation of soil quality following 40 plus years of monocropping under cocoa and intensive use of nitrate fertilizers, coupled with rising factor costs (labor and other inputs), has simultaneously undermined once spectacular productivity while dramatically increased production costs. As such, cocoa production in Sulawesi, where the majority of smallholders that drive Indonesian cocoa production are located, has evolved from a quasi-subsistence activity generating high profit margins into a commercial farming activity that requires significant capital inputs in order to generate reasonable incomes. However, global evidence strongly suggests that smallholders themselves are unlikely to borrow the capital required to maintain cocoa farming as a competitive activity, especially vis-à-vis alternative crops that offers good returns on lower investments i.e. rice, corn for poultry feed. Therefore, investments are more likely to be viably sourced from other sources, such as government subsidies derived from fees or taxes or some form of public-private investment vehicle.
- **Initiatives investing in fine flavor cocoa production and 'bean-to bar' enterprises have the potential to help cocoa farmers break out of the 'commodity trap':** Commodity or 'bulk' beans are by definition priced at the equilibrium point of global supply and demand, in effect placing Indonesian producers in competition with other smallholders around the world to minimize costs and incomes. For this reason, production of this and similar commodities is often described as a 'commodity trap' because smallholders lack the economies of scale to generate profit for re-investment into their farming systems. In contrast, fine and flavor cacao trades at significant premiums of between 50-75% or more over this equilibrium commodity price, which enhances profitability and in turn fosters re-investment into farming systems. The Guittard-ICCRI Flavor Lab plays an important role in identifying fine flavor beans, as well as developing handling techniques and breeding new fine flavor varieties. As such, its work could be expanded. However, in addition, markets for fine flavor beans could be brought closer to farmers. To date, Indonesia has lagged behind most major fine cocoa producer countries, such as Ecuador, Vietnam, Venezuela and Madagascar where local 'bean-to-bar' enterprises have flourished and international companies have created single source products derived from their exports (African producers have also generally lagged in this respect). Future investments could foster the growth of MSMEs specialized in fine flavor products through policy initiatives and tailored financial products. In the end, this process of de-commodification through adopting specialty varieties may represent the most promising future for the world's smallholder cocoa farmers.

7. FUTURE ANALYSIS

7.1 Additional Analysis

The ET does not anticipate additional analysis at this time. However, there is some lack of clarity around the roles and activities of some sub-partners, especially regarding local partners for GP-SCPP in East Nusa Tenggara. Therefore, MCC expressed interest in a mapping of implementor relationships over the course of the GP-SCPP grants. However, the ET did not foresee undertaking this task at the time of the fieldwork and did not collect sufficient data to present a concise mapping here. This may be a topic for further investigation if interest warrants.

8. CITATIONS AND REFERENCES

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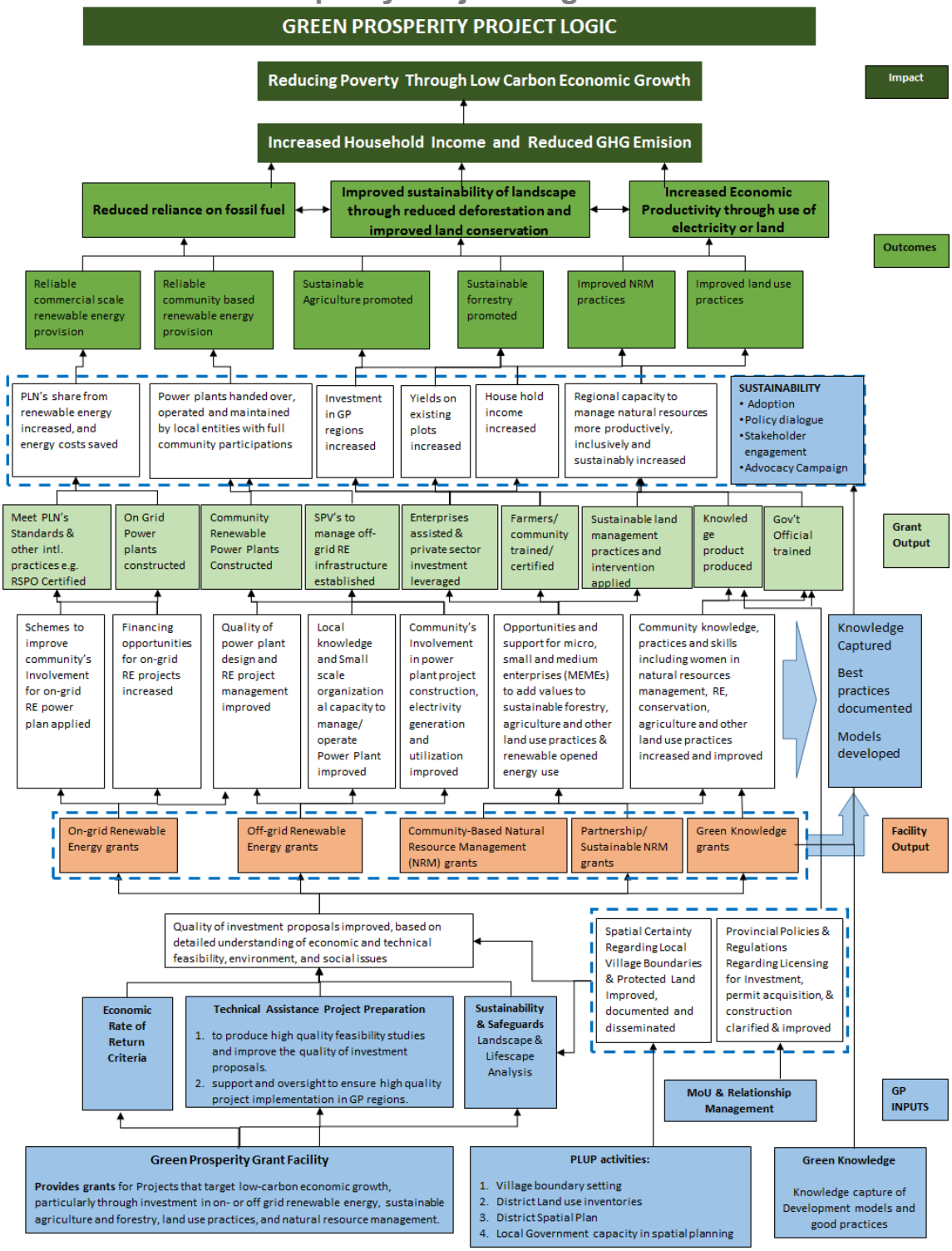
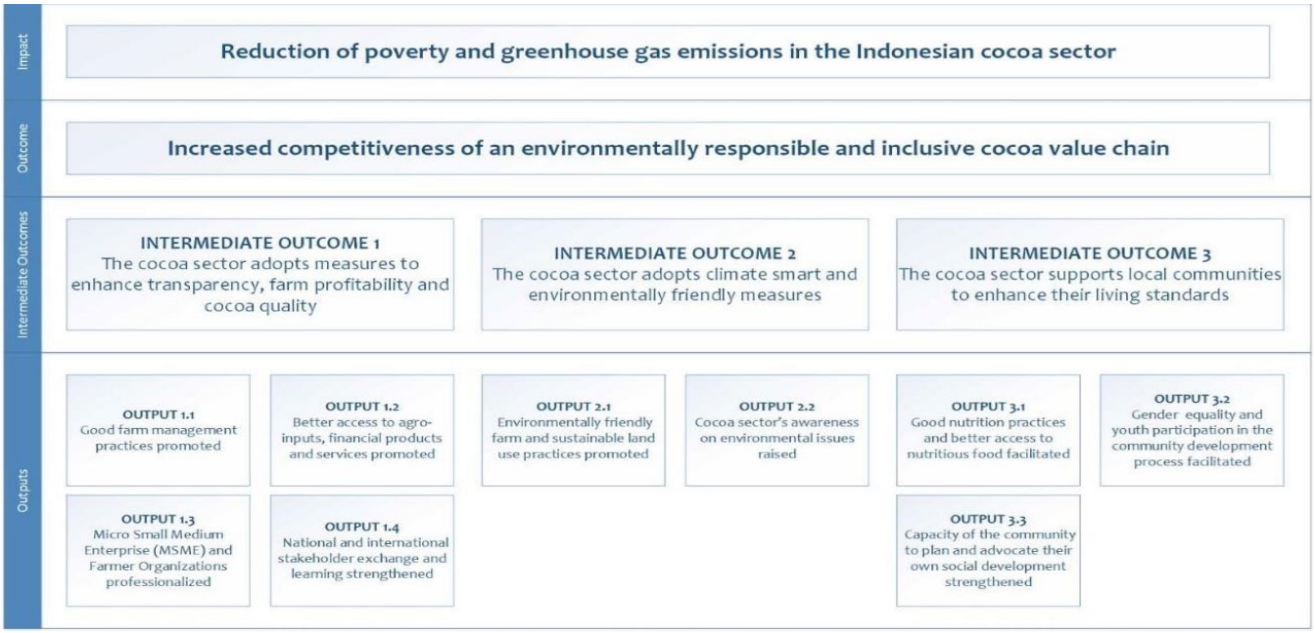
ANNEXES

Annex A: Green Prosperity Project Logic

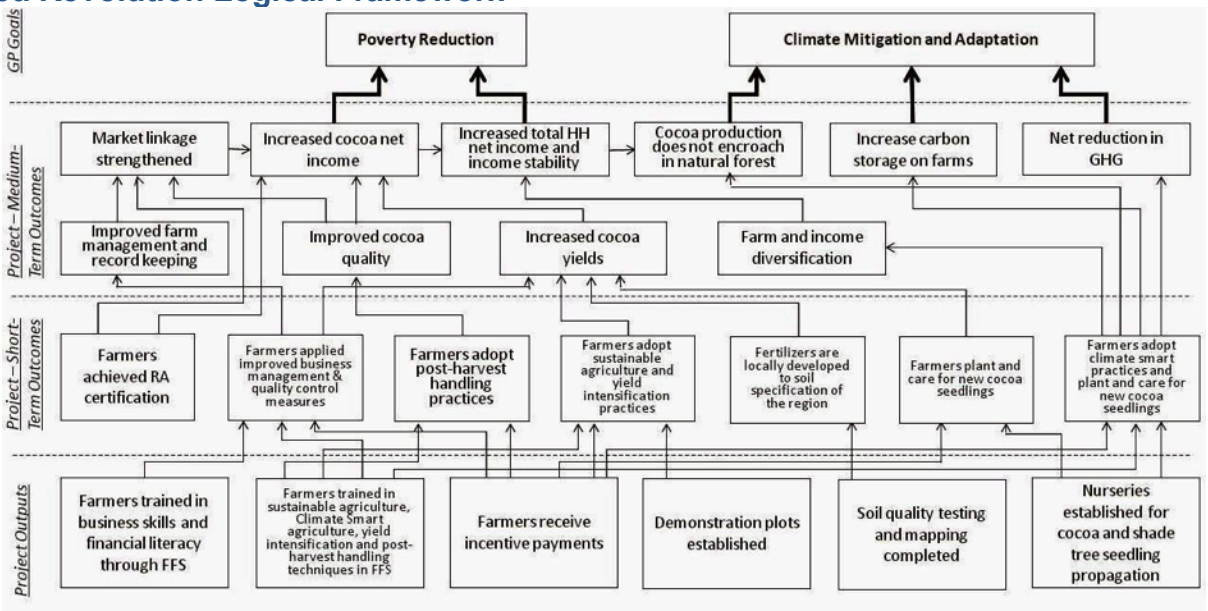


Annex B: SCP Grants – Individual Logical Frameworks

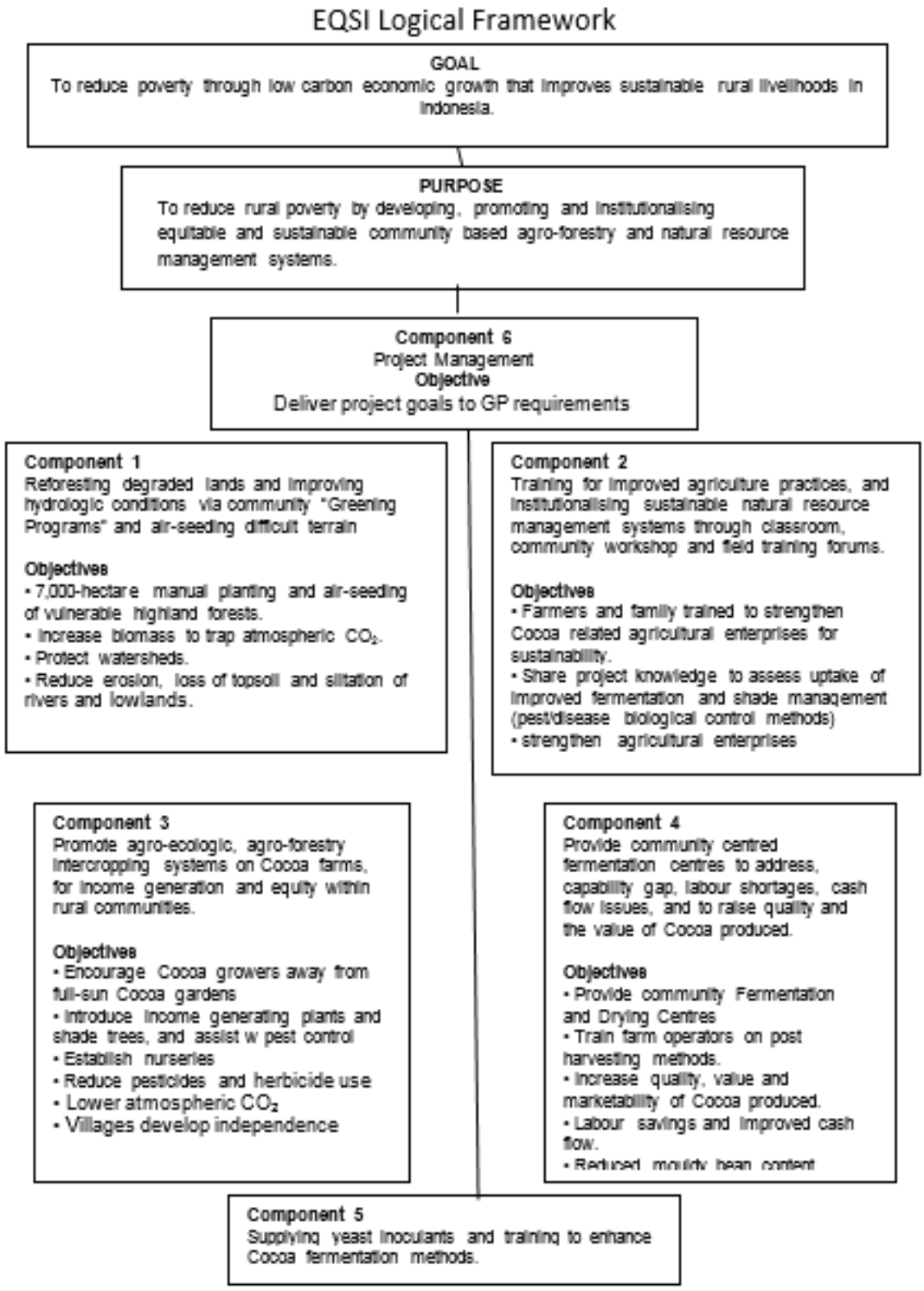
GP-SCPP Results Chain



Cocoa Revolution Logical Framework



EQSI Logical Framework



Annex C: SCP Grant Goals and Key Outcomes

Goal	Key Outcomes
Sustainable Cocoa Production Program (SCPP)	
Reduction of poverty and greenhouse gas emissions sector by addressing production and marketing factors that directly result in suboptimal yields and incomes.	• Increased farm productivity and cocoa quality. • Increased adoption of environmentally friendly practices by cocoa farmers. • Improved nutrition practices adopted by cocoa farmer households.
Cocoa Revolution (CR)	
Incentivize 8,000 cocoa smallholders to adopt best management and business practices that help them increase net cocoa income and household income stability; reduce land based GHG emissions; increase carbon sequestration; and establish long-term commercial partnerships.	• Optimized sustainable cocoa and other income opportunities on cocoa farms through timely on-farm techniques. • Improved cocoa bean quality through farmer incentives. • Development of national and global marketing channels. • Introduction of state-of-the-art climate smart agriculture.
Economic, Quality and Sustainability Improvement (ESQI)	
To improve the livelihoods of smallholder cocoa farmers by protecting water resources through reforestation, supporting sustainable, improved agricultural production practices, and changing post-harvest practices by introducing value-adding cocoa bean fermentation.	• Reforestation - Improved and stabilized hydrologic conditions on key upstream watersheds that protect cocoa production lands; increased capacity of land to trap atmospheric carbon in forest biomass and soil; generation of future incomes (to supplement cocoa) from sustainable timber harvest. • Farmer capacity building - Institutional development and farmer capacity; strengthened cocoa-based agribusinesses. • Agro-forestry - Introduction of agro-forestry intercropping systems on cocoa farms; increased & sustainable income generation. • Fermentation - Promotion and expansion of cocoa bean fermentation via community fermentation and drying centers; cocoa bean quality and value increased.

Annex D: Cocoa Grant Specific Training Approaches

GP-SCPP (9 sessions)	Cocoa Revolution (9 sessions)	EQSI (9 sessions)
GAP module covers topics: - Farm management: pruning, frequent harvest and sanitation, shading trees, and rehabilitation. - Chemical and natural pesticides/natural enemy and pest-disease - Soil and plant nutrition	**GAP module covers topics:** - Pest disease mitigation and natural enemy - Farming management, sanitation, pruning and shading trees management - Seedling propagation - Grafting techniques (side and top grafting) - Organic fertilizer and how to produce natural pesticide	**GAP module (Agroforestry) covers topics:** - Cocoa farm evaluation. - Soil fertility & soil conservation. - Preparation of soil and replanting. - Rehabilitation of cocoa plants and technical maintenance of cocoa grafting. - Pests and diseases of cocoa plants - Cocoa plant maintenance, pruning, fertilizing, frequent harvesting and sanitation (P3S), and crop management protection. - Planning, grafting & replanting cocoa farms - Technical (organic) composting and bio pesticides.
GEP/Certification module covers topics: - Sustainability principles: Local wisdom/knowledge practices, ecosystem, and (environmental) sustainability - Natural management based on a sustainable community - Climate adaptation and resilience	**GEP module covers topics:** - Climate smart practices and SAN Standard module, focus on traceability system and introducing the concept of climate change, and how to mitigate/minimise the effect of climate change in cocoa farming.	- No GEP modules included in training
Good Financial Practices covers topics: - Household financial management - Micro-finance institutions and products - Household financial planning	**Good Financial Practices covers topics:** - Business skills and financial literacy, focus on bookkeeping and simple analysis of cocoa farming business outputs - Farmer group development, focus on group financial management and upgrading farmer group into cooperative function.	**Good Financial Practices covers topics:** - Cocoa based agribusiness (GFP) module, focus on household financial management and for the group level focus on sustaining cocoa nurseries and fermentation centres.
Good Business Practices covers topics: - Introducing cocoa farm and agribusiness - Social and environment agribusiness oriented - Cocoa business management - Planning cocoa business		**Reforestation module covers topics:** - Planning, seedling and nursery management, land preparation and replanting

Good Nutrition module covers topics: - Balance nutrition and deficiency risks - Recognising vulnerable groups - Breast milk practices - Vegetable gardens and fish culture		**Fermentation module covers topics:** - Fermentation practices and microbiology of fermentation

Annex E: Evaluation Questions and Areas of Enquiry

Evaluation Question	Areas of Inquiry
1. Theory of Change To what extent were the TOCs valid in achieving the overall project objectives?	a. Regarding the design of each of the grants, to what extent was each implemented according to plan? What was the overall relevance and logic of the designs? b. How were contextual factors (i.e. factors such as history, crop diversity, topographic and soil and crop quality, access to land, private sector presence and commercial infrastructure, etc.) taken into consideration in the request for grant applications and by the grantees when designing the cocoa projects?
2. Implementation Approaches To what extent have the GP cocoa grants' (GP-SCPP, Cocoa Revolution and EQSI) approaches and activities proven successful in improving farmers' knowledge, attitudes, and practice of GAP/GEP?	a. How have GAP/GEP principles and measures been applied or adopted by trainees after training? What were the adoption rates by types of key training activities (i.e. pruning, grafting, etc.) and what are enabling or constraining factors related to adoption? b. To what extent were there changes in income, management/financial practices, productivity, product quality, access to inputs, and value chain integration? What are farmer and grantee/private sector perceptions of these changes? What are enabling or constraining factors related to changes? c. To what extent were there changes in access to markets? What are enabling or constraining factors related to access? d. How did the outcomes of the approaches vary in terms of changes in income, management/financial practices, productivity, product quality, access to inputs, and value chain integration? What are enabling or constraining factors related to outcomes?

3. Knowledge Management How did the GP cocoa grantees monitor grant progress toward results and outcomes during implementation, and how did they use this information to manage project performance?	a. Have grantees received any feedback from the cocoa consortium members, farmer associations, co-ops, or the GOI relating to cocoa quality, farmer performance, training, or specific activities? What changes have the private sector observed as a result of the intervention, and have actors in the industry learned anything new? Were any approaches changed as a result of learning from feedback? b. How effective were knowledge management systems in communicating changes, challenges, and successes and what could be improved? c. To what extent did/can M&E practices and systems provide useful data for future programming or activity assessments? Who are the data owners and how are they using the farmer data generated under the GP grants? d. What, if any, lessons, practices, or successes can be (and/or are already being) applied to other value chains and to MCC and/or other private and public stakeholders' work in (or outside of) the cocoa sector?
4. Sustainability What results or outcomes of the GP cocoa grants are likely to be sustainable and scalable, and what results do not appear to be sustainable and scalable?	a. What role do global market trends or priorities play in considering sustainability? b. What factors will enable continued success for farmers and smallholders, including key strategies or approaches (certification, fermentation, incentives)? What challenges or limitations may affect sustainability of grant outcomes? c. Do private sector actors believe that they achieved a good financial and social return on their investment? Will they continue similar approaches in the future?

Annex F: Evaluation Team

Position	Roles and Responsibilities
Headquarters-Based Personnel	
Program Manager: *Mike Duthie*	• Responsible for technical oversight and senior-level evaluation expertise. Primary point of contact for MCC. Also responsible for oversight of overall contract performance for SI-HQ, including quality assurance and technical support prior to submission of key client deliverables.
In-Country Team Members	
Agriculture and Natural Resource Specialist: *David Rinck*	• Supervise the ET's work, with overall guidance and technical input from SI's home office staff. Provide senior level expertise in agricultural value chains, economic development and NRM for smallholder farmers. • Direct evaluation design report production, travel to Indonesia for data collection, engage in analysis, final report writing, and debrief presentation (Jakarta and Washington). • Serve as point of contact for MCC and key government and private sector stakeholders.
Cocoa Sector Specialist/Junior Analyst: *Hariyadi Hariyadi*	• Support evaluation design development, data collection, analysis, and reporting. Assist in conducting debrief in Jakarta. • Provide country and region-specific insight on cocoa sector investments, smallholder cocoa farming livelihood considerations, and agricultural market and farm management priorities. • Liaise with government and private sector stakeholders.
Junior Analyst: *Leah Ghoston*	• Support evaluation design development and travel to Indonesia to complete data collection, analysis, and report writing. Conduct debrief activities with TL and Cocoa Sector Specialist (Jakarta and Washington). • Ensure ET follows SI and MCC quality assurance standards for evaluations, including rigor in data collection and troubleshooting. • Liaise with MCC.
Local Research Assistant*: Cininta Pertiwi*	• Provide support in data collection, analysis, and coordination of field travel and meeting logistics.
Local Administrative Assistant/Translator: *Hamsani Hambali*	• Provide logistical support including travel arrangements, meeting arrangements, translation, and other administrative tasks as needed.

Annex G: GANTT Chart of Final Evaluation Timeline

Phase	Task	Deliverables	Revised	2019 Year 1 A	M	J	J	A	S	2019 Year 2 O	N	D	2020 J	F	M	A
Phase I (Evaluation Design)	Task 1. Review Evaluation Design Report	Revise Evaluation Design Report, including additional elements in	7/12/2019		D	D										
		Obtain local stakeholder feedback w/response	7/26/2019			D	D									
		Obtain MCC feedback with response	8/5/2019			D	D									
		Revisions based on feedback	8/21/2019													
		Final MCC comments	9/11/2019													
		Final Evaluation Design Report (508)	9/23/2019				D		D							
		Nesstar Metadata Template for Evaluation Catalog entry	10/14/2019				D			D						
Phase 2 (Evaluation Implementation, reporting and dissemination)	Task 2. Develop Evaluation Materials	Draft English interview and survey protocols and consent	7/12/2019			D		D								
		Obtain MCC feedback with response	8/5/2019				D	D								
		Final English and translated survey protocols and consent	9/23/2019						D							
		Final approval of IRB package prior to submission *if applicable*	n/a						D							
	Task 3. Undertake Evaluation Data Collection	Submission and approval of IRB Package *if applicable*	n/a						D							
		Travel SOW	9/2/2019						D							
		Data collection trip (4 working weeks) - START	10/9/2019													
		Data collection Trip Report	11/15/2019							D						
		Data collection trip (4 working weeks) - END	11/1/2019							D						
	Task 4. Develop Final Report and Data Documentation Package	Draft Evaluation Report	1/5/2020										D			
		MCC and stakeholder feedback on report and response	1/31/2020											D		
		Executive Summary of final report translated in local language	4/15/2020													D
		Final Evaluation Report and Public Statement	3/20/2020												D	
	Task 5. Disseminate Final Report	Final submission of PPTs for presentation	2/10/2020											D		
		Presentation of final results to MCA-I (Indonesia)	2/19/2020											D		
		Presentation of final results to MCC (Washington)	3/5/2020												D	
		Data and analysis file submission per MCC guidelines	4/15/2020													D
All Phases	Quality Control / Sr Level	Misc. Tech Advisory & Quality Control														
All Phases	Management/Administration	Project Management and Administration														
All phases	Reporting	Monthly progress reporting														

Annex H: Data Collection Tools

Consent Statement

Thank you for taking the time to meet with us today. I would like to ask you some questions about your views on the Green Prosperity cocoa grant portfolio including the Swisscontact Sustainable Cocoa Production Program, Rainforest Alliance Cocoa Revolution and the Yayasan Kalla Economic Quality and Sustainability Improvement program [pick one or modify for interviewee]. This information will be used in a final report for MCC that will be publicly available. The purpose of this research is to help improve the performance of projects like this one. There is no direct benefit to MCC for your participation in this study. The information may be used by other organizations as well.

It is important to understand that while we would like your help in this study, you do not have to take part if you do not want to, and you do not have to answer any of the questions if you do not feel comfortable. We would like to record your answers so that we can review them later, but names will not be put into the transcriptions and the audio files will be encrypted. However, as your participation is entirely voluntary, you may choose not to be recorded. You may also choose to end the interview at any time. If you chose not to participate, we will not disclose your decision to anyone. If you decide to take part, your responses will be kept strictly confidential. Moreover, an evaluation team member will be taking notes. We will only use your contact information if we need clarification on any of the items we discuss today, and your name will not be shared with anyone outside of our team. This means that your name will not be mentioned anywhere in the report, and will not be provided to anyone, including Swisscontact/RA/Kalla or anyone in your community or agency. Any personal information we collect today will be stored in a secure computer file.

Uses of the Information

The information we receive from you will be used for research purposes only. The final study that summarizes this research *may* contain quotations from the sessions we conduct, but the MCC team will make every effort to ensure that no one can be identified using these quotations. After the research is completed, MCC and Social Impact will remove any identifying information from the transcripts and notes – such as names, dates, and specific locations – so that these sources may be made available for other researchers to use. Social Impact and MCC will require others who request access to this information to agree to use it for research purposes only and not to share this information with anyone else. In this way, we hope to ensure that others may benefit from the responses you provide, without risking your privacy.

The interview is expected to take about 60 minutes.

Do you have any questions? If you have questions or concerns about the research after we leave today, you can contact Leah Ghoston (lghoston@socialimpact.com) or David Rinck (drinck@socialimpact.com).

By saying “yes,” and participating in this study, you are indicating that you have heard this consent statement, had an opportunity to ask any questions about your participation, and voluntarily consent to participate. Will you participate in this interview? You may answer yes or no.

Yes, I will participate

No, I will not participate

Key Informant Interview Guides

KII Guide – MCC Staff

Interview date and location:
Respondent name(s):
Title(s):

Interviewer:
Organization:
Sex:

EQ 1: To what extent have the Theory of Change of each GP Cocoa grant (Cocoa Revolution, GP-SCPP and EQSI) proven valid in terms of achieving the overall objectives of GP?

1. What were MCCs priorities when reviewing grant applications? How do you think the design of each of the grant approaches aligned with greater Green Prosperity priorities? Are there any specific areas in the design that were overlooked or that could have been addressed more fully?

2. To what extent were the grants implemented as planned? Do you think the approaches have been effective? Why or Why not?

3. How well was the overall context of the Indonesian cocoa sector addressed by the programs? What do you think are the differences in implementing in different regional areas? How have these differences affected progress on the programs?

4. How did the programs take into account specific local contexts factors (for example, factors such as history, gender roles, crop diversity, topographic and soil quality, access to land, private sector presence and commercial infrastructure, etc.)?

5. Given the social context in Indonesia, how did the grantees ensure sufficient numbers of women participated in the programs? How did they include other poor and disadvantaged groups in the program? With regard to inclusion, what worked well, and what did not work well?

EQ 2: How did each grant progress in achieving its short and medium-term outcomes in terms of improving farmers' knowledge and practices?

1. To what extent were new farmer knowledge and practices applied or adopted by trainees after training? What factors contributed adoption rates of key training activities (i.e. pruning, grafting, etc.) and what are enabling or constraining factors related to adoption?

2. To what extent did the programs result in changes in income, management/financial practices, productivity, product quality, access to inputs, and value chain integration?

3. Can you comment on any business practices and or relationships that have been developed by the grantees and how successful have these been (*input markets, financial services, post-harvest processing and marketing arrangements*)? In what way have these business relationships helped farmers? Are these new/improved business relationships or practices likely to be sustained in the longer term? Why or why not?

4. What external factors do you see currently affecting cocoa farmers and how might these affect the outcomes of the program in the long-term? (probe land tenure, weather, price) What

changes have there been in the implementing context since the program commenced that may affect outcomes (probe economy, weather, market)? What are the specific external factors, if any, affecting women farmers?

EQ 3: What systems did the cocoa grantees use to monitor grant progress toward results and outcomes during implementation?

1. How did grantees receive feedback from the cocoa consortium members, farmer associations, co-ops, or the GOI on the changes in quality of cocoa, on farmer performance, on the impact of training or specific activities? What changes has the private sector reported as a result of the programs?

2. How effective were these the grantees' M&E systems in identifying successes and challenges over the course of implementation? How did the grantees use this information to make changes to improve project performance during the implementation period? To your knowledge, have any other entities (i.e. government, private sector) used this data and information, and if so, for what purposes?

3. Can you describe any lessons, practices, or successes from these programs that can be applied to other programs in the cocoa sector or in value chains?

EQ 4: What is the likelihood that the results of the programs will continue to improve outcomes in the Indonesian cocoa sector in the future? How will these be sustained?

1. How will the global cocoa market context impact on the long-term sustainability of the programs? Why?

2. How will strategies such as certification, fermentation, incentives impact on success of similar programs in the future? Are there any external factors that will impact success?
3. To what degree do you think private sector partners in the GP grant programs believe that these programs achieved a good financial and social return on their investment? How would they measure this? Will they continue similar approaches in the future?

Grant specific questions

SCPP specific question

How successful was GP-SCPP in working with the different certification schemes under their grant? How do you see the trajectory of these types of schemes in Indonesia or other countries in the future? Why?

CR specific question

How successful was the CR program in working with climate smart agriculture? What are the enabling and constraining factors to adoption? How success have they been effective in reducing tree cover loss or increasing tree cover? How could this be improved?

EQSI specific question

How successful was the EQSI in working with fermentation under their grant? How could this be improved?

KII Guide – Grantees and (Program Directors, Program Managers, etc.)

Interview date and location:	Interviewer:
Respondent name(s):	Organization:
Title(s):	Sex:

EQ 1: To what extent has the Theory of Change of your grant program proven valid in terms of achieving the overall objectives of GP?

1. To what extent was the grant implemented as planned? Do you think the grant approaches have been effective?

2. How was the overall context of the Indonesian cocoa sector addressed by the grant program? What do you think are the differences in implementing in different regional areas? How have these differences affected progress on the program?

3. How did the programs take into account specific local contexts factors (for example, factors such as history, crop diversity, topographic and soil quality, access to land, private sector presence and commercial infrastructure, etc.)? What local context factors affected cocoa farming before the grant programs started?
    a. What has been the role of local leaders in supporting cocoa farming?

4. Given the social context in Indonesia, how did your program ensure sufficient numbers of women participated in the programs? How did you include other poor and disadvantaged groups in your program? With regard to inclusion, what worked well, and what did not work well?

EQ 2: How did your grant progress in achieving its short and medium-term outcomes in terms of improving farmers' knowledge and practices?

1. To what extent were new farmer knowledge and practices applied or adopted by trainees after training? What factors contributed to the adoption rates of key training activities (i.e. pruning, grafting, etc.) and what are enabling, or constraining, factors related to adoption?

2. To what extent did your grant program results in changes in income, management or financial practices, productivity, product quality, access to inputs, and value chain integration? How did you measure this?
    a. Have farmers explored additional means of income generation (i.e. intercropping, non-agricultural activities)? Is there any difference noted between men and women farmers?

3. Can you comment on any business practices and or relationships that have been developed by your program and how successful this has been (*input markets, financial services, post-harvest processing and marketing arrangements*)? In what way have these business relationships helped farmers? Are these new/improved business relationships or practices likely to be sustained in the longer term? Why or why not?

4. What external factors do you see currently affecting cocoa farmers and how might these affect the outcomes of the grant program in the long-term? (probe land tenure, weather, price) What

changes have there been in the implementing context since the program commenced that may affect outcomes (probe economy, weather, market)?

5. What would you describe as being the most effective initiatives under your grant that contributed to achieving results? Why? (CR- incentives, CSA; GP-SCPP- certification, traceability; EQSI- fermentation, re-forestation) Which do you think contributed most to the likelihood of achieving long-term results?

EQ 3: What systems did the cocoa grantees use to monitor grant progress toward results and outcomes during implementation?

1. How did you receive feedback from the cocoa consortium members, farmer associations, co-ops, or the GOI on the changes in quality of cocoa, on farmer performance, or on the impact of training or specific activities? Has the private sector reported any changes as a result of the programs? If so, what are they? If no, why do you think feedback hasn't been received?

2. Are there any resources you drew upon during programming (i.e. World Cocoa Fed, ICCO, other global programs, etc.) to inform your implementation? How would you describe the availability of resources from these platforms, and how can they be used for learning?

3. How effective were your M&E systems in identifying successes and challenges over the course of implementation? What aspects of your M&E system worked best? Which required more work/oversight? Any aspects that didn't work as planned?
    a. How did you use this information to make changes to improve project performance during the implementation period? Do you have any examples?
    b. Has anyone else (entities) used the information and data generated during your project? If so, for what purposes?

4. Can you describe any lessons, practices, or successes from this program that can be applied to other programs in the cocoa sector or in value chains?

EQ 4: What is the likelihood that the results of your program will continue to improve outcomes in the Indonesian cocoa sector in the future? How will these be sustained?

1. How did the global cocoa market context impact the long-term sustainability of the program? Why?

2. How will strategies such as certification, traceability, incentives impact on success of similar programs in the future?
3. To what degree do you think private sector partners in the GP grant programs believe that this program achieved a good financial and social return on their investment? Will they continue similar approaches in the future?
4. Who are key players for ensuring sustainability of the cocoa sector? How can they best be utilized? (probe local leaders, youth involvement, local government/Kapela Desa, private sector, etc.).

Grant specific questions

SCPP specific question

What different certification schemes did you interact with? What are the strengths and weaknesses of these schemes in terms of costs and benefits to farmers? How do you see the trajectory of these schemes in Indonesia? Do you think the number of farmers who will join will continue to grow? Why or why not? What is the current state of traceability mechanisms for cocoa? Have they been successful or not, and why?

CR specific question
How successful was the program in working with climate smart agriculture? What are the enabling and constraining factors to adoption? How successful were you in reducing tree cover loss or increasing tree cover? How could this be improved? What we any real or perceived effects as the result of providing i) quality incentives and ii) behavioral incentives?

EQSI specific question
How successful was the program in working with fermentation under the grant? How could this be improved?

KII Guide – Private Sector Representatives (Consortium Partners)

Interview date and location:	Interviewer:
Respondent name(s):	Organization:
Title(s):	Sex:

EQ 1: To what extent was your company involved in the design of the GP grant programs? To what extent have approaches (assumptions) proposed in the GP grant program(s) proven valid?

1. To what extent were the grants implemented as planned? Do you think the grant approaches have been effective?

2. How was the overall context of the Indonesian cocoa sector addressed by the grant program(s)? What do you think are the differences in implementing in different regional areas? How have these differences affected progress on the program(s)?

3. How did the programs take into account specific local contexts factors (for example, factors such as history, crop diversity, topographic and soil quality, access to land, private sector presence and commercial infrastructure, etc.)?

4. Given the social context in Indonesia, how did the program(s) ensure sufficient numbers of women participated in the programs? How did you include other poor and disadvantaged groups in the activities? With regard to inclusion, what worked well, and what did not work well?

EQ 2: How did the grant(s) progress in achieving its short and medium-term outcomes in terms of improving farmers' knowledge and practices?

1. What role did your company play in the delivery of training? To what extend was your role what you anticipated? To what extent were new farmer knowledge and practices applied or adopted by trainees after training? What factors contributed adoption rates of key training activities (i.e. pruning, grafting, etc.)? What more needs to be done?

2. To what extent did the grant program(s) results in changes in income, management/financial practices, productivity, product quality, access to inputs, and value chain integration?

3. What would you describe as being the most effective GP initiatives that contributed to achieving results? Why? (CR- incentives, CSA; GP-SCPP- certification, traceability; EQSI- fermentation, re-forestation) Which do you think contributed most to the likelihood of achieving long-term results? Are there any approaches that will have less of an effect on the cocoa sector in Indonesia?

4. Can you comment on any business practices and or relationships that have been developed through these programs and how successful this has been (*input markets, financial services, post-harvest processing and marketing arrangements*)? In what way have these business relationships helped farmers? Are these new/improved business relationships or practices likely to be sustained in the longer term? Why or why not?

5. What external factors do you see currently affecting cocoa farmers and how might these affect the outcomes of the grant program(s) in the long-term? (land tenure, weather, price). What changes have there been in the implementing context since the program commenced that may affect outcomes (economy, weather, market)?

EQ 3: How did you work with the grantees to monitor progress toward results and outcomes during implementation?

1. How did you share feedback with the cocoa consortium members, farmer associations, co-ops, or the GOI on the changes in quality of cocoa, on farmer performance, on the impact of training or specific activities?
    a. If you did provide feedback, was this information used to make changes to improve project performance during the implementation period? Do you have any examples?

2. Can you describe any lessons, practices, or successes from this program that your company will apply to its activities in the cocoa sector or in value chains? Is there any data that could be used for future decision making?

EQ 4: What is the likelihood that the results of the program(s) will continue to improve outcomes in the Indonesian cocoa sector in the future? How will these be sustained?

1. How did the global cocoa market context impact the Indonesian cocoa sector in the long-term? Why?
2. How will strategies such as certification, traceability, and incentives impact your activities in the future? Are there any strategies that you think will be more successful / less successful in Indonesia moving forward? Why or why not?
3. To what degree do you think the GP grant programs presented a good financial and social return on investment? Will you continue similar approaches in the future?
4. Who are key players for ensuring sustainability of the cocoa sector? How can they best be utilized? (probe local leaders, youth involvement, local government/Kapela Desa, private sector, etc.).

Grant specific questions

SCPP specific question

What different certification schemes does your company employ? What are the strengths and weaknesses of these schemes in terms of costs and benefits to farmers? How do you see the trajectory of these schemes in Indonesia? Do you think the number of farmers who will join will continue to grow? Why or why not?

What is the current state of traceability mechanisms for cocoa? Have they been successful or not, and why? What will be necessary for them to be sustainable?

CR specific question

How successful was the program in working with climate smart agriculture? What are the enabling and constraining factors to adoption? How successful were you in reducing tree cover loss or increasing tree cover? How could this be improved?

EQSI specific question

How successful was the program in working with fermentation under the grant? How could this be improved? How will your company work with fermentation in the future? What is the future for fermentation of cocoa in Indonesia?

KII Guide – Government of Indonesia (BAPPEDA, BAPPENAS)

Interview date and location:
Respondent name(s):
Title(s):

Interviewer:
Organization:
Sex:

EQ 1: To what extent was your agency involved in the design of the GP grant programs? To what extent were the approaches coordinated with the approaches of your agency? To what extent have approaches (assumptions) proposed in the GP program(s) proven valid?

1. To what extent did the grants approaches support your agency's approaches? (probe for specific grantees in different regions/districts: GP-SCPP- certification and traceability, CR- climate smart agriculture, EQSI- fermentation). Do you think the approaches have been effective?

2. What are the differences in implementing in different regional areas? How have these differences affected progress on the grant program(s)? How do geographic considerations need to be weighted for any future programs?

3. In regard to cocoa farming history in Indonesia, what kind of role do specific local contexts play in farming successes and outcomes? (for example, factors such as history, crop diversity, topographic and soil quality, access to land, private sector presence and commercial infrastructure, etc.)? Are there any historical factors that you believe to be more important than others in considering how successful cocoa farming is?

4. Given the social context in Indonesia, how does your agency address women's participation in cocoa farming? What about other poor and disadvantaged groups? With regard to inclusion, what works well, and what does not work well?
    a. Do women receive any extension services? Why or why not? Are there service providers who can provide this support to women farmers?

EQ 2: To what extent have the GP Cocoa grants' (Cocoa Revolution, GP-SCPP and EQSI) training approaches proven successful in improving farmers' knowledge, attitudes and practice of GAP/GEP?

1. What needs to be taken into account with regard to training approaches, including the content and training method? How can training best suit the needs of the farmers?

2. How can you measure the likelihood that farmers apply and adopt approaches learned in training? *(probe: feedback forms, follow-up, observations)* What have you noticed about farmer's adoption of training content from the grant programs?

3. Which topics do you think are most useful to farmers? Which topics are less useful?

4. Which aspects are new to farmers and which aspects are already familiar to them? How does the training under the Cocoa grants differ from previous government training?

EQ 3: How does your agency monitor progress toward results and outcomes?

1. Can you tell me a bit about the Government's strategy for cocoa development? Nationally? In this district?

2. How did the grant programs coordinate within the Government's program to strengthen the cocoa sector and support cocoa farmers to achieve improved income? Were the programs compatible with the Government's support? Why or why not?

3. What business models does the government promote for cocoa farmers? Have the grants helped promote these business models or relationships? Do you think these will be maintained beyond the life of the program? Why or why not? In what way are these business practices different now to how they were at the commencement of the program in 2015?

EQ 4: What is the likelihood that the results of the program(s) will continue to improve outcomes in the Indonesian cocoa sector in the future? How will these be sustained?

1. What independent external factors affect cocoa farmer income that programs are not able to influence?? What changes have there been in the context of the sector over the past four years (probe economy, weather, market)?

2. Want are there specific challenges that women in cocoa farming face (prompt: transportation, workload, training inclusion, role in production and post-harvest)? How does your agency address some of these challenges?

3. Who are key players for ensuring sustainability of the cocoa sector? How can they best be utilized? (probe local leaders, youth involvement, local government/Kapela Desa, private sector, etc.).

Grant specific questions (may also be addressed under #1)

SCPP specific question
What different certification schemes are you familiar with? What are the strengths and weaknesses of these schemes in terms of costs and benefits to farmers? How do you see the trajectory of these schemes in Indonesia? Do you think the number of farmers who will join will continue to grow? Why or why not?
What is the current state of traceability mechanisms for cocoa? Have they been successful or not, and why? Is the government involved in any of these mechanisms?

CR specific question
How successful was the program in working with climate smart agriculture (CSA)? What are the enabling and constraining factors to adoption? How success were you in reducing tree cover loss or increasing tree cover? How could this be improved?

EQSI specific question
How successful was the program in promoting fermentation under the grant? How could this be improved? How will your agency work with fermentation in the future? What is the future for fermentation of cocoa in Indonesia?

KII Guide –Traders and Input Dealers

Interview date and location:
Respondent name(s):
Title(s):

Interviewer:
Organization:
Sex:

Questions:

1. Tell me about the main objectives of your business at the moment as it relates to buying cocoa. What are you looking for (probe- uniformity of beans, color, size, wet, dry, etc.?)? What challenges exist in buying cocoa? (probe- accessibility, pricing considerations, competition, quality, quantity)

2. Were you involved with the GP program in any way? How? Did you buy cocoa from farmers participating in the GP-SCPP/CR/EQSI program?

4. Prior to the project, how did you work with your supplier farmers to improve the quality / quantity of cocoa you procure? Did you work with farmers change over the course of the programs?
    a. How do you track information like quality, quantity, moisture content, etc.?
    b. Did you provide any feedback on bean quality directly to farmers? If so, how was this feedback received? Did you notice any change in their cocoa quality over time as a result of your feedback?
    c. Please describe the quality and standard of the cocoa you are currently receiving from farmers who benefited from this program (*if status is known*). Does the product meet your needs?

4. What are the enabling and constraining factors for farmers to provide good quality cocoa? What factors specifically related to GEP/GAP?

5. Has farmers' involvement in the GP-SCPP/CR/EQSI program resulted in them providing better quality cocoa? Why or why not?

6. What qualities of the cocoa product can affect the price that the farmers receive? How?

7. Do you purchase/sell fermented cocoa to? If so, what are the benefits of this process for farmers/your business i.e. price? If you do not require fermentation, why? How does fermentation affect the price that farmers receive?

8. Has farmers' involvement in the program(s) resulted in more of them producing fermented cocoa? Why or why not? What are the challenges to expanding fermentation?

9. What inputs do you provide the farmers in your area (if any)? How did this change over the course of the program?

10. What do you expect will happen to your supply when these projects end? Will they still be able to continue providing the same quality and yield? Will you do anything to help continue the result of the program?

11. What support do you think is most critical for improving quality and yield for smallholder cocoa farmers?

KII Guide – Local Community Leaders

Interview date and location:
Respondent name(s):
Title(s):

Interviewer:
Organization:
Sex:

EQ 1: How has each grant progressed in achieving its short and medium-term outcomes, and what is the likelihood of achieving long-term outcomes?

1. Do you think the program has helped to strengthen the role of cocoa in the local economy and household livelihoods? Why or why not?
    a. Has income improved for cocoa farmers in your area? What kinds of income generating activities do farmers and their families engage in?

2. What kind of support systems and services do you think are important to ensure farmers are successful? (Probe- farmer groups/organizations, family involvement, private sector/public sector, unions, access to finance, access to markets) Why?

3. Have you witnessed any changes in farmers' behavior as a result of the program (i.e. since 2015)? If so, please give examples (*Probe- accessing inputs, marketing cocoa, processing cocoa*). Why do you think these changes occurred? If not, why do you think there haven't been any changes?

4. What has the program achieved in terms of environmental management? Do you think the program has been successful in facilitating farmers to reduce fertilizer use and prevent land expansion? What have been the strengths and weaknesses of the approach? What are the opportunities and risks moving forward? How have participating farmers changed their behavior in relation to land expansion and the amount of fertilizer applied now compared with in 2015 when the program started?
    a. Do you think these new arrangements are better than what they had before the program commenced in 2015? Are they likely to continue? Why or why not?

5. What changes have there been in the implementing context since the program commenced in 2015 that may affect outcomes (probe economy, weather, market)?

6. Are there specific challenges that women in cocoa farming face *(probe: transportation, workload, training inclusion, role in production and post-harvest)?* Do you think the program has helped women to address some of these challenges?

EQ 2: To what extent have the GP Cocoa grants' (Cocoa Revolution, GP-SCPP and EQSI) training approaches proven successful in improving farmers' knowledge, attitudes and practice of GAP/GEP?

1. How you think that participants have responded to the training? Do you think it has helped them? Why or why not? Which modules/components do you think are most useful to farmers? Which modules/components are less useful?

2. Is the content provided through the training new to the majority of farmers? Which aspects are new to farmers and which aspects are already familiar to them?

3. Do you think the training on cocoa production has helped farmers to improve their cocoa production? Why or why not?

4. In regard to cocoa farming history in Indonesia, what kind of factors such as lifestyle, crop diversity, topographic and soil quality, access to land and land ownership, financing, commercial infrastructure, affect the success of cocoa farms or the uptake of cocoa farming as a practice? Are there any historical factors that you believe to be more important than others in determining cocoa farming as a livelihood for smallholders?

5. Who are key players for ensuring sustainability of the cocoa sector? How can they best be utilized? (probe local leaders, youth involvement, local government/Kapela Desa, private sector, etc.).

Grant specific questions

SCPP specific question
What different certification schemes does your community interact with? What are the strengths and weaknesses of these schemes in terms of costs and benefits to farmers? How do you see the trajectory of these schemes in Indonesia? Do you think the number of farmers who will join will continue to grow? Why or why not? (EQ2)

CR specific question
How successful was the program in working with climate smart agriculture? To what extent did farmers in your community use GEP such as solar dryers or engage in activities to reduce tree cover loss? What are the enabling and constraining factors to adoption? How could this be improved?

EQSI specific question
How successful was the program in working with fermentation under the grant? How could this be improved? How will your community work on fermentation in the future?

Focus Group Discussion Guide

Producers (Farmers)
Interview date and location:
Interviewer:
Province/District/Village:
Total Participants (number):
Youth (number):
Sex (number): Males: Females:

EQ 1: How has each grant progressed in achieving its short and medium-term outcomes, and what is the likelihood of achieving long-term outcomes? (reminder of short- inputs, practices, certification, marketing, stakeholder awareness- - and medium- productivity and access to markets, income)

1. Training under the GP projects ended in 2017/2018. Have you received any other training on GEP/GAP since then? If so, who implemented this training?

2. Do you think participating in the GP project helped you access inputs including fertilizer and improved seedlings/grafts? What impact has this had on your farm i.e. improved quality, practices, quantity, price?

3. Do you need financial services to purchase inputs? Did the project help you to access financial services? Why or why not? What impact has this had on your farm?

4. Did the program assist you with marketing or selling your cocoa? In what ways? How did you market your cocoa before the project compared to now? What impact has this had on your farm i.e. buyer relationships, access to markets?

5. Have you noticed any changes in the price you get for your cocoa since the commencement of the project in 2015? What about the quality of the cocoa? Have you noticed any changes in price since the project activities finished (2018)?

6. Overall has your cocoa crop income increased in the time after you were trained under the project and today? Why or why not? Are you receiving income from other sources (i.e. intercropping, non-farming activities)? Are you able to differentiate your income from cocoa to that from other crops or activities?

    a. Are you currently seeking out additional income generating activities? If so, what are they?

7. What challenges do you still face in regard to marketing your cocoa crop?

EQ 2: To what extent have the GP Cocoa grants' (Cocoa Revolution, GP-SCPP and EQSI) training approaches proven successful in improving farmers' knowledge, attitudes and practice of GAP/GEP?

1. How long have you been farming in the cocoa sector? How did you begin?

2. What types of training have you participated in? Have you been trained more than once in any specific area? If so, how often have you been trained and in what areas?
    a. Did the training you attended address any specific considerations for women farmers? If so, what were they and how were they addressed?

3. How were you selected to join the cocoa training? Do you know how male and female farmers are selected for the training? If so, what is the criteria? Do you see any problems with how farmers are selected? If so, what are they and why?

4. Which modules/components do you think are most useful to you? Which modules/components are less useful? Was anything not so useful? Was there anything you wanted to learn, but did not? (Probe- specific to GEP? Specific to GAP?) Do you think you will continue the practices that you have learned through the training? Why or why not?

5. Have you made any changes to your techniques or approaches to farming since you completed the GP training? If so, what are you doing that you were not doing before, and why did you decide to implement these changes? Are there any techniques or approaches you were doing before that you are not doing now? (probe for specific approaches- demo plots, nurseries, solar drying, composting, soil mapping)

6. Have you seen any differences in your farm practices? (*Probe - increases in production? Pest management? Fertilization? Land use? Planting?)* Are you doing different post-harvest practices now (e.g. fermentation, solar drying) than before you joined the program?

7. Were you part of a farmer group/association before you started the program? If yes, did you set up a new group or continue the existing group? Do you think participating in the group has any impact on your farming? If so, how?
    a. If you are not part of a group, what has prevented you from joining? *(probe- not interested, don't see value, don't know of any groups*) If you are in a group, what activities do you do as a group?

EQ 3: How did the GP cocoa grantees monitor grant progress toward results and outcomes during implementation, and how did they use this information to manage project performance?

1. After training, what kinds of monitoring and follow up was provided to you? How useful was this follow-up? What kind of data was collected from you and from your farm? Did anyone from the project ever share with you or your family how they used the data they collected? What do you think it was used for?

2. Did you ever report a problem (with your farm, knowledge after training, supplies or inputs) that went unresolved? If you faced ongoing challenges with adoption of specific practices, how were you assisted? What happened, did things improve or remain the same? Can you give examples? Are there specific challenges for women farmers?

EQ 4: What evidence is there that results or outcomes of the GP Cocoa grants will be further scaled and sustainable, and what results appear to be less sustainable? Why?

1. Do you think you will continue cocoa farming in the future? Why or why not?

2. In regard to your cocoa farming, do you think you will continue to practice what you have learned in the training after the program ends? (Probe- GAP? GEP?) What will help you do this? What may prevent you from doing this? Where will you turn for information in the future i.e. i.e. buyer you sell to, training, online information, etc.?

3. Do you believe that you will still be able to access the inputs (fertilizer & seedlings) you need? From where?

4. Are there specific challenges that women in cocoa farming face (prompt: transportation, workload, training inclusion, role in production and post-harvest)? Do you think the program has helped women to address some of these challenges? What do you see as the challenges and opportunities facing women, ethnic minorities and other vulnerable groups moving forward?

5. Now that these projects have concluded, have you had any additional training? What additional challenges will you face, or needs will you have as a cocoa farmer?

6. Who are key players for ensuring sustainability of the cocoa sector? How can they best be utilized? (probe local leaders, youth involvement, local government/Kapela Desa, private sector, etc.).

Mini-Survey Questionnaire

Pernyataan Kesediaan: Terima kasih atas waktunya untuk bertemu kami hari ini. Nama saya _____. Saya adalah seorang peneliti dari sebuah organisasi bernama Social Impact, sebuah perusahaan yang berbasis di Amerika Serikat. Tim kami berada di Indonesia untuk melakukan study tentang projek GP-SCPP/EQSI/Cocoa Revolution yang didanai oleh MCC. Kami ingin melakukan mini survey atau survey singkat hari ini untuk mempelajari pendapat Bapak/Ibu atas kemajuan projek tersebut. Informasi ini akan kami gunakan dalam laporan kepada MCC dan akan tersedia secara umum.
Penting untuk memahami bahwa walaupun kami membutuhkan bantuan Bapak/Ibu dalam studi ini, Bapak/Ibu boleh saja memilih untuk tidak mau atau tidak bersedia atau tidak mau menjawab sebagian atau sepenuhnya pertanyaan-pertanyaan yang kami ajukan jika Bapak/Ibu merasa tidak merasa nyaman. Jika Bapak/Ibu bersedia, kami memastikan bahwa jawaban Bapak/ibu akan kami jaga kerahasiaannya. Ini berarti bahwa nama Bapak/Ibu tidak akan disebutkan dalam keseluruhan laporan ini dan tidak akan juga disampaikan kepada Swisscontact/RA/Kalla atau kepada sesiapapun dalam komunitas Bapak/Ibu atau ke pihak-pihak lain. Semua informasi yang dikumpulkan hari ini akan disimpan dalam file komputer yang aman.

Tujuan dari penelitian ini adalah untuk meningkatkan pencapaian dari projek seperti GP-SCPP/EQSI/Cocoa Revolution. Hasil penelitian ini juga bisa dimanfaatkan oleh organisasi lainnya. Tidak ada keuntungan langsung buat MCC atas partisipasi Bapak/Ibu dalam studi ini. Tujuannya hanyalah untuk membantu kami meningkatkan kualitas layanan projek seperti ini.

Mini Survey ini diharapkan berlangsung selama 40 menit.

Jika Bapak/Ibu bersedia, silahkan mencentang kesediaannya, menuliskan nama serta menandatanganinya.

_____ Ya, Saya bersedia berpartisipasi dalam Mini Survey
_____ Tidak, Saya tidak bersedia berpartisipasi dalam Mini Survey

Nama: _____
Tanda tangan: _____
Tempat dan Tgl: _____

Pertanyaan Survey/*Survey Questions***:**

1.Usia/*Age***:_____**

2. Jenis Kelamin/*Sex***:_____**
Tolong centang pilihan yang benar

3. Pendidikan/Name:_____

Highest education level*: *(Silahkan centang salah satu)
Tidak menyelesaikan SD/Didn't finish primary school [ ]
Menyelesaikan SD/Finished primary school only [ ]
Menyelesaikan SMP/Finished lower high school only [ ]
Menyelesaikan SMA/Finished upper high school only [ ]

Menyelesaiakan Perguruan Tinggi/Achieved tertiary education [ ]

4.Desa/Kabupaten/Provinsi*Village/District/Province:*_____

5. Suku/*Ethnicity:*___ _____

6. Nama Kelompok Tani/ *Name of farmer group*:_____

7. Tahun berapa pertama kali taman kakao? *What year did you first commence cocoa farming?* _____

8. How many years have you been cocoa farming? _____
*How many hectares of cocoa do you own?*_____

9. Ada berapa petak tanah? *How many separate plots of cocoa do you own?* _____

10. Selain kakao, tanaman apa lagi yang ada di kebun Bapak/Ibu? *What other crops do you have?*

1. _____

2. _____

3. _____

11. Apakah ada ternak bapak/ibu dan berapa banyak?/*What livestock do you have and how many?*

1. _____

2. _____

3. _____

12. Apakah anggota keluarga bapak/ibu penya gaji tetap? Pekerjaan apa? *Does any member of your household have a wage earning job? Which job?*

1. _____

2. _____

3. _____

13. Tahun berapa pertama kali lkut pelatihan Swisscontact? *Which year did you first participate in training with GP-SCPP?* _____

14. Silahkan centang kursus pelatihan Swisscontact yang Anda sudah pernah mengikut
Please tick the modules of training that you have completed

GAP Basic [ ]
GAP Advances [ ]
GBP [ ]

GFP [ ]
GNP [ ]
Pelatihan sertifikasi [ ]

15. Sebelum Bapak/Ibu bergabung dalam program GP-SCPP, apakah Bapak/Ibu melakukan hal-hal seperti di bawah: *Before you participated in the GP-SCPP/EQSI?CR training did you do*

Tolong centang pilihan yang benar

	Melakukannya sebelum pelatihan/ *Did Before training*		**Mekalukan setelah ikut pelatihan Swisscontact/***Do after the training*	
	Ya	Tidak	Ya	Tidak
a. Sanitasi kebun/*Sanitation?*				
b. Pemangkasan/*Pruning?*				
c. Menanam pohon penaung /*Plant shade trees?*				
d. peremajaan dengan sambung samping atau pucuk/*Replace old stock with top or side grafts?*				
e. Meremajakan tanaman dengan bibit baru/*Replace old stock with seedlings?*				
f. Menerima bibit baru dari Pemerintah/ *Receive clones from the government?*				
g. Membeli jenis klon kakao yg lebih baik/ *Buy improved clones?*				
h. Menggunakan pupuk kimia/*Apply chemical fertilizer?*				
i. Membeli pupuk organic/ *Buy organic fertilizer?*				
j. Meminjam uang untuk membeli pupuk?/*Borrow money to purchase fertilizer?*				
k. Membuat kompos dan mengaplikasikan ke pohon kakao/*Make your own compost and apply to your cocoa trees?*				
l. Membuat pestisida organik/*Produce organic pesticides?*				
m. Mengaplikasikan pestisida kimia/*Apply chemical pesticides?*				
n. Mengunakan obat untuk membersihkan rumput/*Apply chemical herbicide?*				
o. Membuka lahan baru untuk kakao di hutan? *Open new land for cocoa in the forest*?				
p. Menanam tanaman selingan?/*Practice intercropping?*				

q. Selain menjemur biasa, menggunakan pengeringan tenaga surya yg memakai platik UV?/*Do Solar drying*?				
r. Melakukan fermentasi kakao?/*Ferment cocoa*?				
s. Memilah-milah bijia kakao yang kualitas bagus dan tidak sebelum menjual kakao?/*Sort cocoa before selling*?				
t. Menghitung pengeluaran dan pendapatan kebun kakao anda/*Count costs and income for your business?*				
u. Menjual kakao anda ke tengkulak?/*Sell your cocoa to traders*?				
v. Menjual kakao anda ke perusahaan?/*Sell your cocoa directly to processing companies?*				
w. Berpartisipasi dalam kegiatan kelompok?/*Participate in group activities?*				

16. Days of drying

Berapa hari anda menjemur kakao anda? *Before joining the training how many days did you take to dry your cocoa?*	
Setelah ikut pelatihan Swisscontact berapa hari Anda menjemur kakao anda? *How many days do you take to dry your cocoa after training*?	

17. Farming income

Sejak bergabung di proyek ini, apakah menurut Bapak/Ibu pendapatannya menjadi: *Since joining this project, do you think your income from cocoa farming has*:
(Silahkan centang salah satu)

1) Bertambah/Increased [ ]

2) Sama saja/Stayed the same [ ]

3) Berkurang/Decreased [ ]

4) Tidak tau/Don't know [ ]

(if they give any explanation you can write it here)

Dalam skala 1 sampai 5, bagaimana menurut Bapak/Ibu kegunaan dari pelatihan-pelatihan yang bapak/ibu ikuti?/*On scale of 1 to 5 overall, how useful did you find the pelatihan Kakao Swisscontact?:*
(Silahkan centang salah satu)

1) Sangat berguna sekali/Extremely useful [ ]

2) Sangat berguna/Very useful [ ]

3) Berguna/Quite useful [ ]

4) Sedikit berguna/A little bit useful [ ]

5) Tidak berguna sama sekali/Not at all useful [ ]

19. Sustainability

	Ya	Tidak
Apakah Bapak/Ibu akan terus berkebun kakao di masa yang akan datang/*Will you continue to farm cocoa in the future?*		
Apakah Bapak/Ibu berencana mengembangkan kebun coklat?/ *Do you plan to expand your cocoa business?*		
Apakah Bapak/Ibu bisa memperkirakan jumlah pendapatannya dalam tahun 2017 dari coklat/kakao? *Can you estimate your income in 2017 from cocoa?*		

Notes:

Direct Observation Tools

Direct Observation Tool for Cocoa Farms

Village/Sub-District/District/Province:_____
Farmer Name: _____
Farmer Group:_____
Project: _____

Instructions: *Meet with the farmer and asked her/his consent that you want to observe his/her cocoa farm. Let him/her know that you will be taking notes and photographs to document your observation.*

Items Observed	**Yes**	**No**
Cocoa trees		
1. 1. Are the cocoa trees mostly old? *(Old defines as more than 25 years old*)		
2. Are the trees side and top grafted? Who does the grafting?		
3. What, if any, variety of clones have been planted?		
4. Does he/she plant new/improved seedlings?		
5. Does he/she know where to access better seedlings? Where is this?		
Notes:		
Farm Sanitation		
6. Are the trees pruned? How often? By who?		
7. Are cocoa pods buried?		
8. Are there black/infested cocoa pods left in farm/on trees?		
9. Does the farmer use chemical fertilizers? What type (origin? custom mixed)? What is the farmer's source of information on fertilizer use?		
10. Does the farmer use pesticides? What type (why)? What is the farmer's source of information on pesticide use? Is there a place for safely		

cleaning equipment contaminated with pesticides?		
11. Has the area around trees been cleared and sterilized?		
Notes:		
Does the farmer do frequent harvesting (panen sering)?		
Notes:		
12. Shading trees (tanaman penaung) and intercropping		
13. Is there any shading tree on the farm? Want are they? Are the shade trees used for commercial use or household consumption?		
14. Are the shading trees pruned?		
15. The use of inorganic and organic fertilizer		
16. Do the farmer use inorganic fertilizer? Compost?		
17. Is it applied regularly?		
18. Does he/she know recommended dose?		
19. Does the farmer use organic fertilizer?		
20. Is it applied regularly?		
21. Does he/she produce the organic fertilizer?		
Notes:		
Addressing pest and disease		
22. Are there measures taken to address black pod/pod borer (PBK), VSD, stem borer?		
23. Post harvesting management and price		
24. Does he/she sort beans before selling?		

25. Does he/she do manual drying to reach standard minimum moisture content of 7%		
26. Does he/she use a solar dryer?		
27. Does he/she receive better price for better quality?		
Notes:		

Concluding Observations and Remarks:

Observer: _____
Date:_____

Direct Observation Tool for Buyers/Input Dealers Businesses

Village/Sub-District/District/Province:_____
Buyer Name: _____
Company:_____
Project: _____

Instructions: *Meet with the buyer and asked her/his consent to review his/her buying station. Let him/her know that you will be taking notes and photographs to document your observation.*

Items Observed	**Yes**	**No**
Tools for grading and scaling cocoa beans		
1. Does the buyer have the right equipment for bean count/100 gram?		
2. Does the buyer do cutting test?		
3. Does the buyer do moisture content testing?		
4. Does the buyer do mold testing?		
5. Does the buyer have trusted scaling?		
6. Is there any other means for bean grading apart from mentioned above?		
7. Does the buyer accept beans from certified farmers, farmer groups, suppliers?		
8. Does the buying unit recognize certified farmers, FG, and suppliers?		
9. Does the buyer accept beans from non-certified farmers, farmer groups, suppliers?		
10. Is the warehouse sufficient to maintain good quality for storage?		
11. Is the warehouse separate certified and non-certified beans?		
Notes		
Prices and documentation		
12. A. Is there any price differentiation between certified and non-certified beans? (where applicable)		
B. Is there any price differentiation between fermented and non-fermented beans? (where applicable)		

13. Apart from quality related discount, any other discount?		
14. Apart from quality consideration, any other to increase price to farmer?		
15. Does the buyer accept and pay for low quality beans?		
16. Does the buyer provide receipts or any documentation for his/her purchase of beans from farmers?		
Notes		
Services Provided by Buyer		
17. Does the buyer provide loans to farmer?		
18. Does the buyer also sell inputs (fertilizers, pesticides, tools, etc.)?		
19. Does the buy provide agronomic advice? What is the source of the advice they provide i.e. company they sell to, training, online information, etc.?		
20. Does the buyer provide solar dryers to farmer?		
21. Is there any services the buyer provides: pick-up bean/entrusted to temporary leave cocoa/sms daily price/ to farmer?		
Notes		

Concluding Observations and Remarks:

Observer: _____
Date:_____

Annex I: Data Collection Schedule

All Team Members (Jakarta)

DATE	TIME	LOCATION	EVENT	STAKEHOLDER	GRANT
10/08/19	All day	Jakarta	Team arrival in Jakarta		
10/09/19	9:00	Jakarta	Team Planning Meeting		
	4:00	Jakarta	KII	Consortium partner	SCPP
10/10/19	11:00	Jakarta	KII	Grantee	SCPP
	1:00	Jakarta	KII	Grantee	SCPP
	3:15	Jakarta	KII	Grantee	CR
10/11/19	3:00	Jakarta	KII	Grantee	CR
	5:00	Jakarta	KII	Consortium partner	SCPP
10/12/19	10:00	Jakarta	KII	Consortium partner	SCPP
10/13/19	All day	Makassar	Team flies to Makassar		
10/30/19	3:30	Jakarta	KII	Consortium partner	SCPP

Sub-Team-1 (South Sulawesi, ENT, Southeast Sulawesi)

DATE	TIME	LOCATION	EVENT	STAKEHOLDER	GRANT
10/14/19	8:30	Makassar	KII	Grantee	SCPP
10/14/19	10:30	Makassar	KII	Consortium partner	SCPP
10/14/19	13:00	Makassar	KII	Consortium partner	SCPP
10/14/19	9:00	Makassar	KII	Donor	
10/15/19	8:30	Makassar	KII	Consortium partner	SCPP
10/16/19		Luwu Utara	Team travels to Luwu Utara		
10/17/19	9:00	Luwu Utara	KII	Govt of Indonesia	
	10:00	Luwu Utara	KII	Grantee	SCPP
	12:00	Luwu Utara	DO buyer	Buyer/Trader/Input supplier	SCPP
	1:30	Luwu Utara	KII	Producer	SCPP
	2:00	Luwu Utara	MS	Producer	SCPP
	3:30	Luwu Utara	FGD, MS	Producer	SCPP
10/18/19	8:00	Luwu Utara	KII	Govt of Indonesia	
	9:30	Luwu Utara	FGD, MS	Producer	SCPP
	11:30	Luwu Utara	FGD, MS	Producer	CR
	1:30	Luwu Utara	DO farm	Producer	CR
	2:00	Luwu Utara	FGD, MS	Producer	CR
10/19/19	9:00	Luwu Utara	FGD, MS	Producer	CR
	11:15	Luwu Utara	KII	Buyer/Trader/Input supplier	CR
	3:00	Luwu Utara	DO buyer	Buyer/Trader/Input supplier	CR
10/20/19	7:30	Makassar	Team flies to Makassar from Palopo		
	3:30	Makassar	KII	Consortium partner	SCPP
10/21/19		Ende	Team flies to Ende		
10/22/19	9:30	Ende	KII	Govt of Indonesia	SCPP
	10:30		KII	Govt of Indonesia	SCPP

DATE	TIME	LOCATION	EVENT	STAKEHOLDER	GRANT
	2:00		KII	Community leader	SCPP
	3:00		FGD/MS	Producer	SCPP
	3:30		DO farm	Producer	SCPP
	4:00		DO buyer	Buyer/Trader/Input supplier	SCPP
	4:30		DO nursery	Buyer/Trader/Input supplier	SCPP
10/23/19	9:00	Ende	KII	Community leader	SCPP
	AM		FGD/MS	Producer	SCPP
	AM		DO farm	Producer	SCPP
	PM		KII	Consortium partner	SCPP
	4:00	Ende/Sikka	Team travels to Sikka		
10/24/19	AM	Ende/Sikka	Team continue travels to Sikka		
	1:00	Sikka	KII	Govt of Indonesia	SCPP
	3:00		KII	Consortium partner	SCPP
10/25/19	10:00	Sikka	KII	Community leader	SCPP
	AM		KII	Producer	SCPP
	AM		DO farm	Producer	SCPP
	PM		KII	Community leader	SCPP
	PM		KII	Producer	SCPP
	PM		DO farm	Producer	SCPP
	PM		KII	Buyer/Trader/Input supplier	SCPP
10/26/19	All day	Makassar	Team flies to Makassar from Sikka		
10/27/19	9:00	Konawe	Team travels from Kendari to Konawe		
	PM	South Konawe	FGD	Producer	EQSI
	PM		KII	Grantee	EQSI
	PM		DO supplier	Buyer/Trader/Input supplier	EQSI
10/28/19	AM	Konawe	KII	Grantee	EQSI
	PM		FGD/MS	Producer	EQSI
	PM		DO farm, fermentation, nursery	Buyer/Trader/Input Supplier	EQSI
10/29/19	AM	Konawe	KII	Govt of Indonesia	EQSI
	PM		FGD/MS	Buyer/Trader/Input Supplier	EQSI
	PM		DO farm	Producer	EQSI
	PM		KII	Buyer/Trader/Input supplier	EQSI
			DO buyer	Buyer/Trader/Input supplier	EQSI
	3:00	Kendari	Team travels to Kendari		
10/30/19	AM	Makassar	Team flies to Makassar from Kendari		
	PM	Makassar	Team debrief/meeting/analysis		
	10pm	Makassar	KII	Donor	SCPP

Sub-Team-2 (South Sulawesi, West Sulawesi, Southeast Sulawesi)

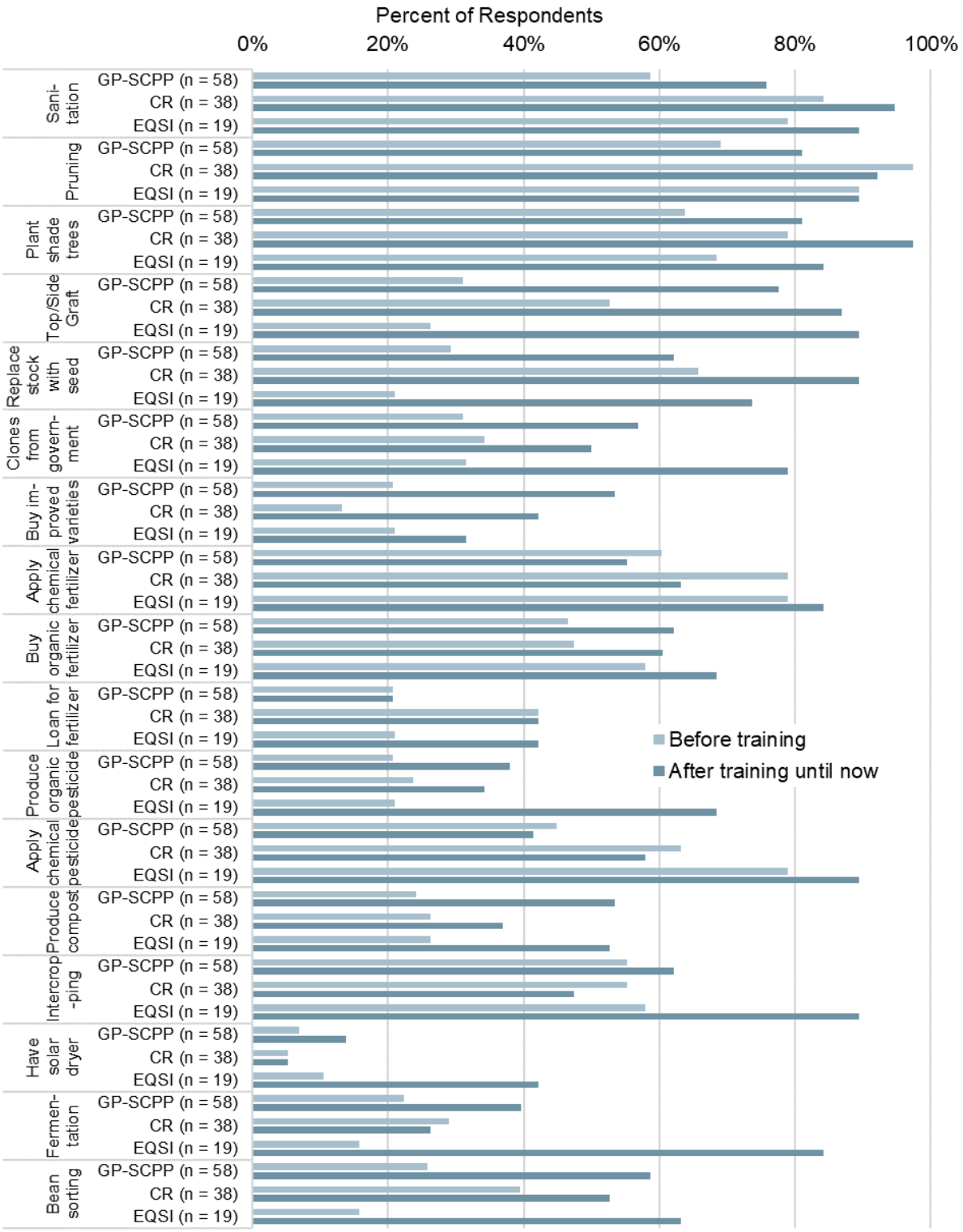
DATE	TIME	LOCATION	EVENT	STAKEHOLDER	GRANT
0/14/19	9:30	Makassar	KII	Consortium Partner	CR
10/14/19	2:30	Makassar	KII	Consortium Partner	SCPP
10/14/19	3:00	Makassar	KII	Consortium Partner	SCPP
10/15/19		Mamuju	Team flies to Mamuju		
	14:30	Mamuju	KII	Buyer/trader/input supplier	SCPP
		Mamuju	DO nursery	Buyer/trader/input supplier	SCPP
10/16/19	10:00	Mamuju	KII	Govt. of Indonesia	SCPP
	14:00	Mamuju	KII	Community Leader	SCPP
		Mamuju	FGD, MS	Producer	SCPP
		Mamuju	FGD	Producer	SCPP
10/17/19		Majene	Team travels to Majene		
	14:00	Majene	FGD, MS	Producer	SCPP
		Majene	FGD	Producer	SCPP
10/18/19	10:00	Majene	KII	Govt. of Indonesia	SCPP
	13:00	Majene	DO Farm	Producer	SCPP
		Majene	KII	Consortium Partner	SCPP
10/19/19	9:30	Polman	DO Farm	Producer	SCPP
	14:00	Polman	KII	Buyer/trader/input supplier	SCPP
10/20/19		Luwu Utara	Team travels to Luwu Utara		
10/21/19		Luwu Utara	KII	Community Leader	CR
		Luwu Utara	FGD	Producer	CR
		Luwu Utara	FGD/MS	Producer	CR
		Luwu Utara	DO Farm	Producer	CR
10/22/19	10:00	Luwu Utara	DO Farm	Producer	CR
	11:00	Luwu Utara	KII	Buyer/trader/input supplier	CR
			DO Supplier	Buyer/trader/input supplier	
	13:00	Luwu Utara	KII	Grantee	CR
10/23/19	9:30	Luwu Utara	DO buyer	Buyer/trader/input supplier	SCPP
10/24/19	8:00		Team travels to Kolaka Utara		
	13:00	Kolaka Utara	FGD/MS	Producer	CR
	15:00	Kolaka Utara	DO farm	Producer	CR
10/25/19	9:00	Kolaka Utara	KII	Community Leader	CR
	11:00	Kolaka Utara	KII	Buyer/trader/input supplier	CR
		Kolaka Utara	DO Buyer	Buyer/trader/input supplier	CR
		Kolaka Utara	DO Nursery	Buyer/trader/input supplier	CR
			Team travels to Kolaka Timur		

DATE	TIME	LOCATION	EVENT	STAKEHOLDER	GRANT
10/26/19	10:00	Kolaka Timur	KII	Community Leader	SCPP
	11:00	Kolaka Timur	FGD/ MS	Producer	SCPP
		Kolaka Timur	FGD	Producer	SCPP
	14:00	Kolaka Timur	DO Nursery/Buyer	Buyer/trader/input supplier	CR
	16:00	Kolaka Timur	DO Nursery	Buyer/trader/input supplier	SCPP
10/27/19		Kolaka Timur			
10/28/19	9:00	Kolaka Timur	KII	Govt. of Indonesia	SCPP
	11:00	Kolaka Timur	KII	Govt. of Indonesia	SCPP

All Team Members

DATE	TIME	LOCATION	EVENT	STAKEHOLDER	GRANT
10/29/19	10:00	Makassar	Team flies to Makassar		
10/29/19	18:00	Makassar	KII	Consortium Partner	SCPP
10/31/19		Jakarta	Team departs Jakarta		

Annex J: Changes in Farm Practices Before and After Training



Annex K: Stakeholder Comments and Evaluator Responses

MCC Comments and Responses

Reviewer Name/Position/ Institution	Page Number	Comment	Evaluator Responses
Agriculture Lead/MCC-Ag	3	Clear to me that EQSI led on diversification activities and it seems clear that evaluation timing makes it hard to compare the results of this but it would be ideal to compare the different approaches and how they ultimately affect farmer resilience.	Data is insufficient to make this comparison. Furthermore, as noted, it is still too early to understand the implication of implementation logistics or track results of large scale measures like air seeding.
Agriculture Lead/MCC-Ag	8	SCPP and CR bullets contain a confusing reference to revenue being driven by "reduced costs to the farmer for training" and then "new farmers trained". I just don't see how those are farmer costs--does this mean to say project costs in a CBA?	Amended this for clarity.
Agriculture Lead/MCC-Ag	10	Last paragraph makes the argument that overall traceability systems might not benefit farmers. I don't know if that is well balanced with other findings and then I'm wondering whether it's the literature making the case that this wasn't effective in GP or does the evaluation actually have findings that overall no positive effect was found, at leat for the systems that were implemented? I think maybe finding more literature about how traceability could impact farmers' revenues might be helpful for testing to see whether or not the interventions may have had positive impact and then place them against interventions that have demonstrated success to compare.	Findings related to positive impact are logistics-related i.e. where systems are managed by competent entities (large buyers) they are yielding benefits and this is later reflected in feedback from the evaluation, but where they are managed by entities with weak management structures, poor functionality undermines benefits. As this comment falls under the literature review we have provided additional literature in the footnote (26) to clarify this point.
Agriculture Lead/MCC-Ag	14	Project Monitoring Data: can you include the period for which data exists here?	This information has been included.
Agriculture Lead/MCC-Ag	15	Were MCA-I interviewed?	As the evaluation took place 1.5 years after compact ended, MCA-I was not considered nor recommended by MCC as a key informant for this evaluation.

Agriculture Lead/MCC-Ag	17	Table 5--I would find it useful to contextualize the period with how many production cycles have passed since retraining and eval.	Thank you. Additional information about production cycles is included in EQ2, Adoption of Practices Post Training.
Agriculture Lead/MCC-Ag	21	Last paragraph: Would be helpful to clarify meaning of "GP-SCPP" since it could be taken to mean all concerned parties when I think it is intended to just refer to private sector consortium members.	Amended to refer to just GP-SCPP consortium staff.
Agriculture Lead/MCC-Ag	22	Quote on KPIs: I think the quote on tracking and shifting indicators is a bit too open to interpretation and could use more detail on what was meant by this.	Thank you. This quote has been contextualized regarding CocoaTrace data updates.
Agriculture Lead/MCC-Ag	24	Why is "off-season" production being used as barometer. I have a bit of hard time understanding how this changes the analysis of the effectiveness. If it is as I interpret, "off-season" would of course not have high volume--I'm worried if we are making statements about the activity not succeeding based off a measurement that is not reflective of the primary production season.	Thank you. The quote in its entirety can be misleading without further discussion about the volume of beans accepted at buying stations and trends over time. This sentence has been revised to state only the challenges surrounding the short time period of implementation.
Agriculture Lead/MCC-Ag	25	Box 3: Is the parenthetical just remaining of the target or is it meant to say the target was reached? I'd also say that there is a big contradiction that 100% was reached or at least that administratively an effort was done to make these payments happen but that there was no evidence of producers receiving this--should certainly be followed up on!	Agreed. The parenthetical here is the overall achieved number and the percentage of the target. It has been amended for clarity.
Agriculture Lead/MCC-Ag	25	Box 5: Can this be reworded for clarity?	Thank you, this has been reworded.
Agriculture Lead/MCC-Ag	28	Graphic needs a legend	Added (page 26)
Agriculture Lead/MCC-Ag	43	From comment above about cross-window discussion on systems, I think the traceability and data platforms discussion could use some more interpretation and analysis for what the different experiences can offer for EQ 3.4	Expanded as possible given available findings.

Agriculture Lead/MCC-Ag	45	Wondering if more could be spoken on about the sustainability of buyer-seller linkages between producers and consortium buyers. The element of farmers not producing enough (either due to the seasonality or weather conditions) to attract buyer's attention may just be anecdotal or time -specific; can any discussion be included that speaks to overall commitment from private actors to continue working with these targeted communities? It's mentioned in the Callebaut example.	Added narrative where possible to indicate the commitment of GP-SCPP buyers. This is also reflected in Policy Implication 1 (Invest in Permanent Sustainable TA Delivery Infrastructure).
Agriculture Lead/MCC-Ag	48	Of course it makes sense to highlight what the main challenges were (increasing access financing, timing of projects, low capacity for fermentation) but without also mentioning the successful elements, the reader is left to assume that either those elements were very successful or just not worth mentioning. I propose incorporating the successful elements in as well to weigh against shortcomings.	Thank you. Additional information regarding successful practices is included in section 5.2.1 as well as in EQ2 conclusions.
Agriculture Lead/MCC-Ag	5 & 8 ERR	Wondering if more could be discussed on the model. Wondering first if there were parts of the model that might be proposed to be updated or make it more sensitive/refined. I can think of a number of things but "estimated uptake rate", value of conservation against potential income from expanding cocoa growth, fluctuations in global market prices are just a few of the ones that come to mind. How did the model originally take into account increased sales prices from certs or processing or was the model entirely based off increased productivity? I guess to summarize the comment would be to have some more discussion about how well the model accurately reflects the intention of the projects.	Added available analysis on ERR

Agriculture Lead/MCC-Ag	EQ discussion section	The information presented throughout each EQ and per project wing provides for very interesting findings--I'm wondering if SI would be willing to expand upon the "collaboration and learning across all grantees" section so that overall lessons learned / best practices for attaining aligned goals can be reached.	Thank you. Text has been amended to provide further clarity on findings and conclusions in section 5.3.
Agriculture Lead/MCC-Ag	ESQI, throughout but first mentioned on viii	One of the challenges in evaluating fermentation in ESQI is probably cause and effect. It remains unclear to me, even after reading the whole document, did farmers implement the trainings correctly or it just is not justified for them to do this due to market access? Was it originally built in that there would be specialty buyers that would purchase if minimum quantity and quality requirements were met?	Thank you. Text has been amended for clarity, but factors that led to unviability of fermentation are a combination of all of these elements
Agriculture Lead/MCC-Ag	Farmer GAP uptake	Is it possible to know whether beneficiaries are on the right trajectory to adopt these practices? The challenges mentioned throughout seem to say that producers are missing some external condition in order for them to adopt and so attribution to receiving training or not seems hard to determine. This is sort of my own commentary on this issue but the real test case will be when cocoa prices are very high and sustained for a few years whether farmers know these practices but are just hesitant to start employing or if they haven't actually internalized them.	Agreed, but available data make it difficult to assess trajectory of adoption.
Agriculture Lead/MCC-Ag	Intro/background	Is it possible to provide specifics on where grantee contribution funds were invested in? The eval makes it seem as if funds were pooled together and then attributed across activities but then in some sections it becomes apparent that this was not the case. I think a specific inventory of where private sector funds were	Unfortunately, grantees did not report on disaggregation of individual or matching consortium/private sector partner funds.

		used and, if possible, a discussion on why these actors felt their funds were more useful in certain areas than others.	
Agriculture Lead/MCC-Ag	ix certification discussion	Just a clarifying question on certification throughout the document whether and how purchasing agreements played a role in the success of these cert schemes--it is touched upon later in the doc but not in a way that offers clear understanding of how crucial it might be in sustaining producer commitments.	Thank you. The ET differentiated between purchasing agreement types only in relation to whether certificate holder was a major buyer or farmer organization.
Agriculture Lead/MCC-Ag	Overall	I think something that might be missing (and not sure can be generated without more quantitative data) is how well producers fare compared to each other after receiving the different windows and what elements were the important factor that makes them more resilient/productive/able to sell at higher prices. Similarly this could be an important comparison factor between the private sector groups and what differences can be highlighted for their 'MCC sustainability measure", which is continued investment in Indonesia--did this experience encourage them to consider further private sector investment and what would you do differently. If it's possible to frame private sector investment more in these terms, as opposed to 'do you see significant returns on your investment?' it might be more helpful to determining whether this mechanism is a successful approach for MCC in the future.	Thank you. there was only one window for these grants under evaluation (not to be confused with the window 2 coca grants, which were one year in length for local NGOs). Producer feedback was consistent across all grantees of challenges and successes, in large part in relation to the similar approaches of GAP. The 'approaches' to GAP training were similar across grantees, what differed is implementation logistics, as highlighted in the report i.e. esp. GP-SCPP having a large -pre-established infrastructure for TA delivery, while CR and EQSI did not and thus had to scale up, implement and close out within a constricted time frame.
Agriculture Lead/MCC-Ag	Overall	Just want to provide an initial observation that this final evaluation has really done an excellent job at trying to understand the different approaches, understand the specific challenges and opportunities for Indonesian cocoa	Thank you.

		and provide feedback for how well the approaches did to address both.	
Agriculture Lead/MCC-Ag	Throughout but certain sections more than others	There is a general need for a review for style and editing as there are sections in the document that are hard to read through and understand the meaning: (vii; EQ3 on viii;	Thank you. Text has been amended throughout for clarity.
Agriculture Lead/MCC-Ag	Throughout	There is a general trend that producers report not getting feedback/follow-up as anticipated under project strategy. I'm wondering if these claims were ever put back to project implementing members or is it generally the case that there was just not sufficient time left and that members are not implementing these elements outside of the project's timeline?	Producers reported inconsistent follow up during the GP period, no follow up after the grants concluded, and feedback was neither asked for nor given. Generally, grantees blamed truncated timelines when asked. Additional information has been added to solidify this point on page 30.
Agriculture Lead/MCC-Ag	Training vs. coaching under SCPP	A really valuable finding and interesting distinction on how to move the needle on best practices in a way that producers feel is accessible--I was hoping that this subject would be expanded later but was disappointed when it was not. I'm not sure where the best section is to put but it's clear that this is an important topic as we think about how to best reach producers.	Thank you. Text has been added to Policy Implications where relevant and highlighted as a common theme where possible.
Agriculture Lead/MCC-Ag	viii	The 'pre-existing foundation' for SCPP is mentioned throughout but I think it would be helpful to define this a bit more and give a sense of what the missing piece is.	Thank you. Text has been amended throughout for clarity.
Agriculture Lead/MCC-Ag	viii buyer perception	There seems to be a contradictory statement about buyer perceptions on program impact. Under EQ2 is states that buyers noted improvements in quality but later in document this is contradicted (I can find the other reference if needed).	Thank you. Buyer perceptions have been clarified.
Evaluation Lead	33	"farmers" is misspelled.	Thank you, all spelling errors have been corrected
Evaluation Lead	48	Grammar issue: "Likewise, fermentation provided to be unviable due to low remuneration	Thank you, all spelling errors have been corrected

		of farmers and logistics related to buying at economies of scale." I think this should say "proved".	
Evaluation Lead	Executive Summary	This section is a little choppy. It is also hard to follow the findings without a little more context on the grants themselves. Perhaps it would be better to restructure the section to give a bit more detail on each grant and then the findings. I would also recommend grouping the findings by grant instead of EQ. So, the structure would be something like GPSCPP grant description, EQ1, EQ2, EQ3, EQ4, then CR grant description, EQ1, EQ2...	CM: Let's discuss prior to restructuring since this was an area we had talked about previously and MCC emphasized a desire to see results aggregated across grants
Evaluation Lead	ix	The Next Steps is useful for the immediate future, but I don't think it is useful for the final report. Perhaps update this after the dissemination event.	This section has been deleted.
Evaluation Lead	Overall	*It may be a function of the project, but it is difficult to find the narrative thread of this report. Is it possible, at least in the executive summary, to try to draw some conclusions across the portfolio or is that too difficult given the variety across the grants?*	Thank you. Text has been amended throughout to try to highlight common themes
Evaluation Lead	vi	In the Methodology section, please state the explicit method as stated in the evaluation pipeline.	Thank you. All methods are explained in their entirety in this section.
Evaluation Lead	vii	In the infographic, OFIS is not defined previously. Because this isn't defined, the finding isn't clear.	Thank you. The OFIS acronym is defined in the infographic
Evaluation Lead	vii	I like the idea of the infographic, but it is a little crowded and it is difficult to understand the topline messages. Perhaps this is difficult because they are different across the grants. However, I wonder if there is a better way to convey the information.	Thank you. The infographic has been revised and spaced accordingly.
Former MCC Consultant	5	ERR calculation - critical to include a discussion of cocoa commodity prices as well as yield projections; in this case, world cocoa prices fell from almost $3,000/mt to close to $2,000/mt during the course of Green	Added narrative analysis of impact of global cocoa commodity prices to ERR section.

		Prosperity; more detailed ERR discussion bottom p.8, but still no mention of world prices	
Former MCC Consultant	7	Table 1 - I did not check these numbers; assume ok as they came from MCC/MCA-I	Correct, these numbers are derived from MCC data.
Former MCC Consultant	15	Table 4 - Does not seem like a very large number of data points considering they were working May-Dec; one wonders about drawing statistically valid conclusions	We have added a clarification that while the evaluation (from Desk Review through Report Writing) took place over 8 months, in-country data collection was one month. We added further clarification that the quantitative survey is meant to be illustrative, not statistically representative.
Former MCC Consultant	23	Table 7 - #1.3 - MSMEs; important to note that farmer organizations were created in order to access GERNAS (GoI) inputs	Added this note on origin and original purpose of farmer groups.
Former MCC Consultant	23	Table 7 - #1.4 - I'm not sure the evidence is clear that post-compact supply chain competition weakens the effects of GP interventions; might even be the opposite	Edited 1.4 to note that post-compact, companies have returned to competitive status, but removed language asserting the negative of this.
Former MCC Consultant	33	Not sure of the usefulness of this figure; first, references number of producers and not volume of bean; quantity of production seems more important; second, is it critical who farmers are selling to as long as they are getting paid what they (farmers) perceive to be a fair/good price?; and finally, how is it possible that the number of producers selling to traders AND to national companies both increased after training (SCPP and EQSI)? Seems that would be an inverse relationship (as in CR). See text below the figure; it is referencing the wrong figure.	Intention is to show impact of training on farmer sales decisions. Corrected figure number below figure 9.
Former MCC Consultant	34	Would be more useful to report % of producers receiving SMS market data	Agreed, unfortunately, this data was not available to the ET.
Former MCC Consultant	34	Section heading mentions certification and traceability, but no discussion of traceability. Important, because for some buyers/supply chains (e.g. Cargill), traceability is far more important than certification. Would be good	Thank you, the ET enquiry was limited to sustainability certification based on prevailing activity by Koltiva. However, it is important to note that traceability is a requirement under certification.

		to see some discussion of developments by Koltiva in this space. Note: CocoaTrace & Koltiva discussed on p.37, in section on knowledge management	We have clarified this in Section 5.2.4
Former MCC Consultant	35	Nice text box about Guittard	Thank you, this was an under-reported but significant success.
Former MCC Consultant	35	Knowledge Management; In general, where is the Indo cocoa sustainability consortium?	Assume this means CSP. ET had limited input from CSP, and KII with CSP reported limited activity following grant close out. The limitation to their effectiveness is noted in EQ3.
Former MCC Consultant	38	Access to farmer data by government entities was a huge concern, source of contention. My understanding is that we all agreed that GoI could access summary, anonymous data, but not individua farmer or other proprietary information.	Access by GoI was as reported, i.e. many GoI staff claimed to not have any access nor to know the purpose of data collected. For Olam specifically there was a belief that the government was accessing summary data, but this was not corroborated by government representatives interviewed. Additional information has been added under EQ3.
Former MCC Consultant	43	First mention that I saw re: Indonesia Cocoa Sustainability Partnership (CSP). From my experience, CSP represents the best opportunity for knowledge management and learning across all cocoa sector players, and warrants more discussion.	As per comment above, CSP reported very limited activity following close out.
Former MCC Consultant	44	Good discussion of exit strategies; the pivot to "coaching" (esp. SCPP partners) was an important shift toward end of compact.	Agreed
Former MCC Consultant	45	Sec. 5.4.2; Sustainability section would be strengthened by also discussion traceability. Where is GHG emissions?	As per comments above, ET focused on Sustainability certification. As to GHG emissions, MCC guidance was not to focus on this due to lack of available data. Additional information about GHG exclusion is in section 5.1.
Former MCC Consultant	46	Certification - any evidence for the claim of "growing consumer demand for sustainably certified cocoa"?	This was primarily reported by buyers in the evaluation, but we have included reference in the footnotes to a 2019 NYU study supporting this statement.

Former MCC Consultant	iv	(pt #4) Sustainability; why nothing about GHG emissions? Key objective of Green Prosperity	MCC indicated that this evaluation should not focus on GHG emissions due to lack of data. Additional information is included in section 5.1.
M&E Lead	6	The way this table is organized makes it difficult to understand. What is the main message? Is there a clearer way to present this – like a line graph showing the totals or a bar graph showing the differentials? You could also separate this into 3 times for contribution, expenditure, and funds used.	Agreed. We have revised and presented in the form of a bar graph instead. Thank you for the suggestion.
M&E Lead	Overall	Please insert a discussion about why no quantitative data are presented on yields and income. Please also include a discussion on why a consideration of GHG emissions, part of the theory of change, are not included in this evaluation report.	Data from GP-SCPP and CR are now included in the findings under EQ2; this data was unavailable from EQSI. Per request from MCC, Phase 2 evaluation did not include an assessment of GHG emission reduction since a full assessment was completed in 2018 on this topic from ICF. At the time of that assessment, it was determined that each grantee was not collecting and calculating GHG emissions data that would allow for comparison or measuring of progress.
M&E Lead	Overall	I have added many comments into the report itself in track changes, but please do another copy-editing sweep of the report.	Acknowledged with thanks.
	Overall	Key messages are always clear or presented consistency across the document. Please pay attention to this to ensure key takeaways are highlighted/the reader does not need to search as the report is already text heavy.	Thank you.
	Overall	There seems to be a tendency to put a positive spin on findings or to almost downplay disappointing outcomes. They should just state plainly whether something worked or did not. At the end of the day, readers want to know whether farmer productivity, incomes, access to markets, etc. improved or not.	Thank you. Text has been amended throughout for clarity.

Local Stakeholder Comments and Responses

Reviewer Name/Position / Institution	Page Number	Comment	Evaluator Responses
Team Manager/Rainforest Alliance	8	Figure 5: Summary of Grant Participants shown in CRP 2 lead implementor, actually RA as a lead of implementor and Olam and Blommer as consortium members refer to original agreement.	Corrected graphic.
Team Manager/Rainforest Alliance	25	numerous farmers reported that they did not receive their soil test results from the testing labs,-please note that the aims of soil test is to formulate the specific formula refer to local soil condition so we do not need to distribute the soil test to all farmers is not important, the important things that they receive the specific formula for fertilizer.	Thank you. Additional information has been included here. The ET wants to make a clear statement about the ability of farmers to make decisions about farm management.
Team Manager/Rainforest Alliance	40	Not Olam's Farm Identification Program (FIP) except for Olam farm development program (FDP).	Thank you. We have revisited the evaluation notes and final reports and worked to ensure the correct reference as noted in these documents.
Team Manager/Rainforest Alliance	48	Such as solar dryers for which farmers had trouble accessing plastic sheeting-please note that from the project already shared the information where farmers should find the UV plastic, the problem is not difficult to access the materials but the lack of financial from farmers as a barriers	Thank you. Clarification has been added to section 6.1 Theory of Change.
Senior associate/Rainforest Alliance	30-31	Data presentation on table 10 and table 11 are generate confusion which lead into misleading especially for percentage change from before inside the parentheses i.e. changes above 100% in the table10 rows 2 produce organics fertilizer under column 4 EQSI shows 225% increase it is need to be confirm the way to calculate the changes from before it is comparing the amount people adopt or the fertilizer produce before and after.it is not possible to exceed 100% percentage changes from before if it is calculate based on the percentages of people adopt. And there is similar	Thank you. The parentheticals in this case represent whole numbers, not percentages, and the differences between before training and after training.

		suspicious number in the table 10 and 11	
Senior associate/Rainforest Alliance	44-45	Some fair judgment need to be address to all project since almost all project has no concise exit strategy, CR exit strategy wording need to be rephrase with better lead words, for example instead of using "has no exit clear strategy", we can rephrase with word about "the project assumption about voluntary and farmer entrepreneurships spirit assumption in the beginning of project are far from ideal so that some entrepreneurship scenario provide by Olam to support its farmer leader through revolving nursery business, farm leader as bean collector and revolving agro-input supply are not optimally implement in order to support its long term impact.	Acknowledged with thanks. The ET stands behind our findings regarding clear exit strategies for each grantee, including the information we received from Olam and Rainforest Alliance.
Former MCA-I M&E director	JKT Presentation - Written Comments	Since these grants are implemented under the private sector partnership scheme, what is the most important take away point related to private sectors engagement in the context of Sustainable Cocoa, at the same time making sure that farmers can get the same amount of benefit from the program. If we are to open similar grants scheme again in the future, what will be the most critical component of the program?	We address this comment in policy implications i.e. that an autonomous entity (shielded from inter-firm competitivity) should be the focus on capital and TA delivery.
Former MCA-I M&E director	JKT Presentation - Written Comments	Slide no 23 point 2 stated that the producers reported poor price transparency especially how quality factors determine process; it would be good if we can have further explanation whether: (i) this is critical training component missing from the GAP modules; (ii) it is presented in the training module but the farmers need more training to fully understand; (iii) the fact that producers are not aware of price transparency is affecting the motivation of farmers to apply their GAP knowledge.	Thank you. Farmers lack equipment and knowledge of how to test beans on their farm. Additional information has been included.

Former MCA-I M&E director	JKT Presentation - Written Comments	Key lesson learned regarding the incentives schemes to encourage farmers in applying GAP knowledge/skills obtained from the trainings. What should we consider if we want to develop better incentives schemes in the future?	It is impossible to present lessons learned on how to improve the impact of the approach itself because logistics and time constraints undermined implementation. Therefore, key lesson learned is to allow for sufficient time to implement. This is related to Policy Implication 1 (Invest in sustainable permanent structures, as opposed to time-bound projects).
Former MCA-I M&E director	JKT Presentation - Written Comments	Utilization of the Knowledge Management such as Cocoa Trace – is there any recommendation worth highlighting to the government, particularly on the potential use of data for the benefit of farmers? In this context, how should the government play their role?	Thank you. Suggestions have been made in the Conclusions section.
Former MCA-I M&E director	JKT Presentation - Written Comments	Key points of Policy Implication: competition between buyers requires autonomous investment delivery mechanism if we want to invest on farming systems; is this applicable for other commodities as well (as long as the investment is focused on farming system) - or this is only applicable for Cocoa context in Indonesia?	This is applicable to investment into the production side of any supply chain where buyer compete for supply but do not want investments to accrue to competitors

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