

Document of
The World Bank

Report No: 150815 - ZM

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(P144254)

ON THE
PURCHASE OF VERIFIED EMISSION REDUCTIONS
BY THE
BIOCARBON FUND
FROM
COMMUNITY MARKETS FOR CONSERVATION (COMACO)
FOR THE
COMACO LANDSCAPE MANAGEMENT PROJECT

July 7, 2020

Agriculture Global Practice
Africa Region

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

ABREVIATIONS AND ACRONYMS

BioCF	Bio carbon Trust Fund
CO ₂ -e	Carbon Dioxide Equivalent
CCA	Community Conservation Area
CCP	Community Conservation Plan
CDM	Clean Development Mechanism
CFMG	Community Forest Management Group
CLMP	COMACO Landscape Management Project
COMACO	Community Markets for Conservation
COMESA	Common Market for East and Southern Africa
EPB	Environmental Project Brief
ERPA	Emissions Reduction Purchase Agreement
ERs	Emission Reductions
FD	Forest Department
FISP	Farmer Input Support Program
GHG	Greenhouse Gas
GRZ	Government of the Republic of Zambia
ICR	Implementation Completion and Results Report
IPFs	Investment Project Financing
ISR	Implementation Status Report
MIS	Management Information System
MTR	Midterm Review
NGO	Nongovernmental Organization
PDD	Project Description Document
PDO	Project Development Objective
PE	Project Entity
REDD	Reduced Deforestation and Forest Degradation
SALM	Sustainable Agricultural Land Management
VCS	Verified Carbon Standard
ZIFLP	Zambia Integrated Forest Landscape Project

CONTENTS

DATA SHEET	1
A. Basic Information	1
B. Key Dates	1
C. Ratings Summary	1
D. Sector and Theme Codes	1
E. Bank Staff	1
F. Emission Reductions Delivery to Date	2
Executive Summary	3
2. Project Context and Development Objectives	5
2.1. Context	5
2.2. Project Development Objectives	5
3. Achievement of Implementation Objectives and Outcomes	7
3.1. Basic Project Description and Summary of Any Significant Changes Since ERPA Signature	7
3.2. Project Implementation and Commissioning	9
3.3. Monitoring and Evaluation	10
3.4. Assessment of Achievement of Objective/Outcome	11
3.5. Carbon Revenues for the CLMP	13
3.6. Lessons Learned	14
4. Bank and Project Entity Performance	15
4.1. Assessment and Rating of Overall Bank Performance	15
4.2. Assessment and Rating of Overall Project Entity Performance	16
5. Comments from Project Entity and Other Partners	16
5.1. Project Entity	16
5.2. Other Partners and Stakeholders	18
6. Contribution to Scaled-up Integrated Approach to Landscape Management in Zambia	20
6.1. PE's Capacity to Carry Out Key Functions Related to Safeguards Requirements	20
6.2. Potential Issues in Post Completion Operation, including the PE's Capacity and Ability of the Project to Deliver the Contracted Emission Reductions	21
6.3. Sustainability of the CLMP	21

LIST OF TABLES

Table 1. Assessment of Achievement Against PDO and Intermediate Indicator	12
Table 2. Revenue Received by the Farmer Groups and COMACO	13

LIST OF FIGURES

Figure 1: COMACO Model: How the Model Works Through Levels of Leadership	8
Figure 2. Monitoring Capacity at Project Level	11

DATA SHEET

A. Basic Information

Country:	Zambia
Project Name:	COMACO Landscape Management Project (CLMP)
Project ID:	P144254
ICR Date:	
PDD volume:	415,150 tons (ex ante estimation for the period 2013-2017)
ERPA volume:	BioCF T1W2 ERPA – 155,578 tCO ₂ e BioCF T2W2 ERPA – 110,000 tCO ₂ e
Bank/IFC lending or grant:	No
Environmental Category:	B
Project Entity:	Community Markets for Conservation (COMACO)
ICR prepared by:	Ngao Mubanga
Approved by Regional Director:	Mark Lundell
Approved by Practice Manager:	Holger Kray

B. Key Dates

ERPA signing date	April 27, 2015
ERPA effectiveness date	June 10, 2015
Project commissioning date	July 1, 2012
MTR Review	February 26, 2018
Project closing date	June 30, 2019

C. Ratings Summary

Outcomes (project performance)	Satisfactory
Bank performance	Satisfactory
Project entity performance	Satisfactory

D. Sector and Theme Codes

Sector Code	Forestry (28%), General agriculture, fishing and forestry sector (35%), Agro-industry, marketing, and trade (24%), Animal production (13%)
Theme(s)	Other environment and natural resources management (13%), Biodiversity (15%), Land administration and management (25%), Rural non-farm income generation (35%), Rural markets (12%)

E. Bank Staff

Position	At ICR	At ERPA Signing
Regional Vice President	Hafez Ghanem	Makhtar Diop
Director	Simeon Ehui	Juergen Voegelé
Country Director	Mara K. Warwick	Kundhavi Kadiresan
Practice Manager	Holger Kray	Tijan M. Sallah

Project Team Leader	Ademola Braimoh	Indira Janaki Ekanayake
Deal Manager	Neeta Hooda	Neeta Hooda
Regional Safeguards Adviser	Nathalie Munzberg	
ICR Team Leader(s)	Ademola Braimoh/Neeta Hooda	N/A
ICR Primary Author	Ngao Mubanga	N/A

F. Emission Reductions Delivery to Date¹

Reporting Period	VERs (tCO₂e)
July 1, 2012–October 31, 2015	227,917 (214,695 tCO ₂ e REDD+ and 13,222 tCO ₂ e SALM)
November 1, 2015–October 31, 2017	36,661 (35,195 tCO ₂ e REDD+ and 1,466 tCO ₂ e SALM)
Total	264,578

VER = Verified Emission Reduction

tCO₂e = Tons of carbon dioxide equivalent

¹ Actual emission reductions that were delivered from the project for the July 1, 2012 to October 31, 2017.

Executive Summary

The Community Markets for Conservation (COMACO) Landscape Management Project (CLMP) was a pilot project designed to apply a climate-smart landscape management approach for addressing drivers of deforestation. The piloting was envisaged to provide lessons that could be useful in a future opportunity to scale up an integrated approach to jurisdictional landscape management in the Luangwa Valley or the Eastern Province of Zambia. The project is the first of its kind in Africa linking sustainable agriculture and reducing deforestation, forest degradation and enhancement of carbon stocks through conservation through results-based payments. The project was implemented by COMACO a non-profit limited-by-guarantee company pioneering innovative ways of rural livelihood development through integrating sustainable agriculture, smallholder market access, and environmental conservation – practices that served as entry point for leveraging carbon payments.

Through the project, 17,130 ha was brought under Sustainable Agricultural Land Management (SALM), with 19,399 smallholder farmers adopting sustainable agriculture practices such as agroforestry, residue management (for example, mulching and cessation of residue burning), alley-cropping, and reduced tillage, which have resulted in improved productivity on selected crops particularly during normal agriculture seasons while maintaining average productivity in seasons characterized by unforeseen shocks like droughts. Household income for individual farmers has also improved, driven by the diversification of livelihood options beyond subsistence agriculture like beekeeping for honey production. About 111,245 ha of forests was brought under protection thereby reducing vulnerability to forest deforestation and degradation. Therefore, the total hectares brought under sustainable agriculture and forest management was 128,375 ha at project closure.

The project preparation for carbon projects is different from investment projects in many aspects. There is no support from World Bank for investment funds for implementation, it is primarily the responsibility of the project entity (PE). The World Bank provided technical support to enable the setting up of monitoring system of emission reductions (ERs), the methodological knowhow, and data management which is required as part of standards for ER programs. In this case, the project conforms to the Verified Carbon Standard (VCS) for carbon projects. The preparation phase is geared towards ensuring a technically sound design with focus on activities that will lead emission reductions that have been generated among others, in an environmental and socially sustainable way. At preparatory stage, an assessment of hectares of area that can be targeted and potential ERs that project could generate is made with a view to assessing feasibility of generation of ERs and informing the scope of benefit sharing from ER payments. The target volume of ERs, unit price per ton of carbon dioxide (equivalent to 1 Emission Reduction) and total value of the ER payments is made with the signing of the emissions reduction purchase agreement (ERPA); which comes much later after initial project design.

Accordingly, per signed ERPA, a total of 264,578 tCO₂e was verified by a third party as greenhouse gas (GHG) emission reduction for the project. The project thus met its full commitment under the ERPA for the delivery of ERs. COMACO and the participating communities received carbon payments in the proportion 40 percent for COMACO and 60 percent for the communities as agreed in the benefit-sharing plan. The benefit-sharing mechanism developed and applied was well accepted because it was developed with clear roles and responsibilities and agreed with all the relevant stakeholders prior to the receipt of ER payments. Throughout the process, COMACO, the PE exercised transparency and openness in delivery of the message to the communities and was keen on managing expectations. The carbon payment was important in incentivizing the change in behavior and proved useful in overcoming some initial barriers in adoption of sustainable land management practices.

The project implementation model embedded CLMP interventions in the PE's overall activities for sustainable resource management in the Eastern Province of Zambia. Focus group discussions and interviews with beneficiaries indicated their interest to continue implementing the CLMP-supported activities. The community development projects undertaken using carbon revenues have been designed to support continued implementation of the CLMP activities, and activities that are beneficial for communities collectively. For instance, some community forest management groups (CFMGs) have used their resources to create youth community forest guards who have been equipped with transport, uniforms, and mobile phones to enforce compliance in forest management. Such initiatives among communities is an indication of continued implementation of the CLMP-related activities. In addition, in April 2017, the World Bank approved a jurisdictional carbon project, the Zambia Integrated Forest Landscape Project (ZIFLP), to be implemented in the entire Eastern Province of Zambia. The lessons from CLMP will inform the new operation.

The CLMP has shown that climate mitigation and socioeconomic development can be simultaneously achieved through active participation of private sector and local communities. Key recommendations in the implementation of similar carbon projects are as follows: first, a clear market incentive strategy beyond carbon payments that motivates long-term commitment and sustained practice of avoided deforestation and adoption of SALM practices is key to achieve results in a carbon project. It requires putting in place an attractive incentive strategy that helps to address the drivers of deforestation and forest degradation and articulates clear monetary and non-monetary benefits that local communities can directly access. Second, the use of innovative approaches to deliver project objectives contributed to better assimilation and buy-in of the project concept by beneficiaries. Carbon emission reduction is a new concept in community projects. Therefore, innovative spatial tools to collect and manage data were effectively deployed in the project. Specifically, the CLMP relied, among others, on the use of visual imagery (chiefdom-level land use and forest cover maps) to show forest loss/gain at the community level. Such initiatives have promoted community ownership to enforce compliance and long-term commitment to practices that sequester carbon. Lastly, strong partnerships between implementation actors and local stakeholders helped to improve project delivery and build sustainability.

2. Project Context and Development Objectives

2.1. Context

1. At the time of preparation of the CLMP it was reported that the country's deforestation rate was approximately at 250,000 to 300,000 hectares per year² and according to the Food and Agriculture Organization (2011) between 1990 and 2010, Zambia lost an average of 166,600 ha or 0.32 percent forest per year. The main drivers of deforestation have been identified as charcoal and wood fuel production, logging for timber, expansion of small-scale agriculture and unsustainable agricultural practices. Given that majority of rural population depend on natural resources for their livelihood, the increased unsustainable management resulting in a raise in deforestation and possible extinct of indigenous species was threatening the future of various landscapes including the Luangwa Valley in Zambia's Eastern Province. In addition, monitoring and enforcement guidelines were very weak, creating an environment conducive for illegal practices.

2. To address some of these challenges the CLMP was designed to address the poor farming practices such as residue burning that led to rapid soil nutrient depletion, destruction and fragmentation of forests resulting from a general lack of participatory and coordinated land use planning and forest management in the eastern province of Zambia. It was an innovative project that used market incentives where farmers in participating communities that implement sustainable agriculture and adopt land use practices that promote forest and wildlife conservation receive premium prices. It also adopted land use planning with traditional leaders and communities to identify and zone areas for conservation and forest management known as Community Conservation Areas (CCA) with sustainable non-extractive forest use, e.g. honey and mushrooms. The project also promoted legume-based alley cropping, residues management (e.g. mulching; cessation of residue burning) and reduced tillage of agricultural land.

2.2. Project Development Objectives.

3. The Project Development Objective (PDO) is to reduce emissions of GHGs through the sustainable management of 197,246 ha³ of land traditionally devoted to community activities, through both agricultural and nonagricultural interventions. Specifically, the project targeted to achieve ER for both Reduced Deforestation and Forest Degradation (REDD+) and SALM on 182,246ha and 15,000 ha⁴ respectively. However, the key performance indicator was to successfully deliver ERs according to the delivery schedule agreed upon in the ERPA. This is the results indicator monitored by the World Bank and independently verified by third-party over the ERPA duration (Box 1).

4. Additional performance indicators monitored by COMACO during the life of the project included:

- a. maintenance of green zones and community conservation areas in up to nine selected chiefdoms;
- b. 80 percent or more of small and medium-scale landholders participating in the project are receiving economic benefits and all (100%) participating farmer groups receive the contractually agreed payments for emission reductions through the project; and

² Integrated Land Use Assessment (ILUA, 2008)

³ The PDO target was revised from 270,698 ha to 197,246 ha during the project midterm review (MTR).

⁴ Revised during the MTR, from 88,452 ha to 15,000 ha. This was done to provide a more realistic target for the project considering that only an estimated 17,000 farmers farming on 6,800 ha would be recruited with SALM fields in the nine chiefdoms within the remaining duration of the project.

c. delivery of trainings on the multiple benefits of sustainable land management.

5. The project was implemented in the Eastern Province and included specific interventions in the implementation of two components: REDD+ and SALM. By promoting sustainable agriculture and forest conservation at the landscape level, the project has successfully demonstrated mitigation benefits through community engagement in REDD+ and sustainable agriculture in nine selected chiefdoms in Zambia's Eastern Province (Box 1).

6. *Component 1: Sustainable Agricultural Land Management (SALM):* This component aimed at promoting widespread adoption of climate-smart agricultural practices targeted at achieving sustainable agricultural production, increasing farmers' income, and sequestering carbon. The project sensitized, trained, and registered a total of 19,399 farmers working on 17,130 ha of agricultural land.

7. *Component 2: Reducing emissions from deforestation and forest degradation (REDD+), and the role of conservation, sustainable management of forests and enhancement of carbon stocks:* The REDD+ component was aimed at protecting and expanding areas under natural forest and biodiversity conservation. The activities included establishment of 14 'Green Zones' to protect the forest from deforestation/degradation through participatory demarcation of community conservation areas (CCAs); preparation of nine community conservation plans (CCPs); promotion of non-extractive use of the forest (for example, beekeeping for honey production); and training of farmers in improved agriculture land management practices to improve crop yields on farm plots without opening up new ones in forest areas. The project supported the demarcation of 14 CCAs in the nine chiefdoms for a total of 111,245 ha of forest cover.

8. *Component 3: Project Management:* This component was aimed at providing project development and implementation technical assistance during the project period. However, there was no upfront investment for implementation from the World Bank. Apart from the technical assistance provided during feasibility assessment for ERs, baseline preparation and verification, support from the world bank was primarily through purchase of emission reductions generated by the project. COMACO on the other hand front loaded its resources received from other donors to finance the activities under the CLMP.

Box 1: The CLMP is a Results-based Carbon Project

The CLMP is a Carbon Offset trust funded project. The ERPA was signed on April 27, 2015 and became effective on June 10, 2015. Bio carbon Trust fund Tranche Window 1 (BioCF T1W2) and Window 2 (BioCF T2W2) contributed to the ER payments. The results indicator (deliverable) monitored by the World Bank over the ERPA duration is the ERs, measured in tons of carbon dioxide equivalent (CO₂-e) according to the delivery schedule agreed upon in the ERPA. The expected carbon credits are valued at US\$1 million. The mechanism and due diligence of carbon finance operations is distinct from Investment Project Financing (IPFs). The key result indicator is ER and ensuring that underlying activities that contribute to ERs are well reasoned and result in good land use practices.

3. Achievement of Implementation Objectives and Outcomes

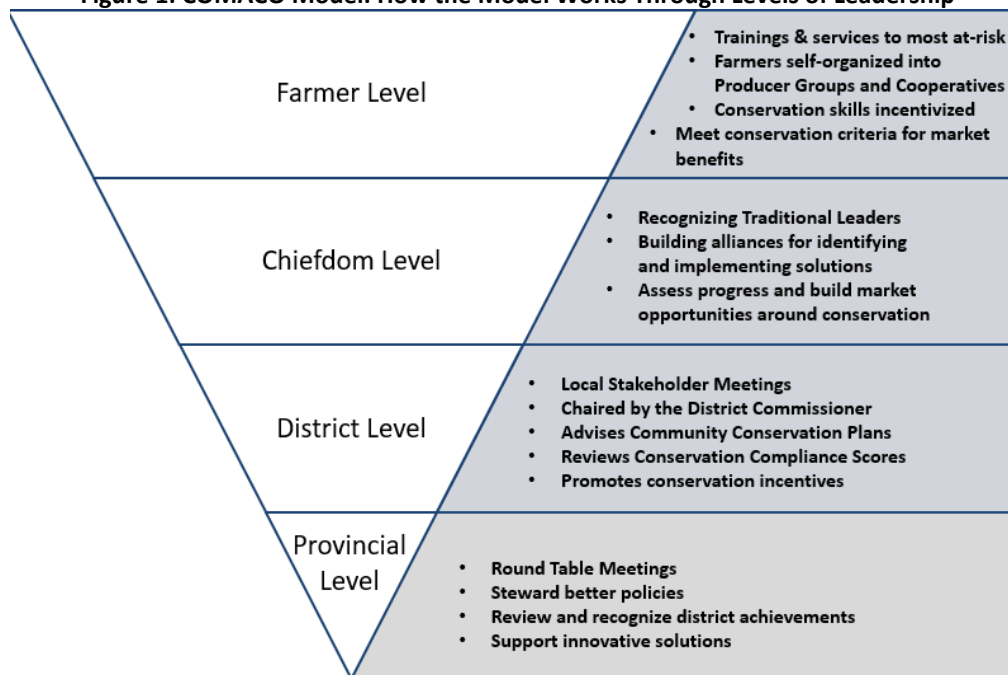
3.1. Basic Project Description and Summary of Any Significant Changes Since ERPA Signature

9. The CLMP was a pilot project to develop a climate-smart landscape and an opportunity to scale up an integrated approach to landscape management in the entire Luangwa Valley. The project is the first of its kind in Africa linking sustainable agriculture and forest conservation through results-based payments. The project implementation period was from July 2012 to June 2019. The primary performance indicator for the project was the delivery of emission reductions according to the schedule agreed upon in the ERPA. The project has successfully demonstrated mitigation benefits measured in terms of emission reductions through community engagement in REDD+ and adoption of SALM in the project area. The scale of emission reductions achieved under the verified carbon standard is 264,578 tCO₂e, and a total of US\$1 million has been paid to COMACO and through COMACO to the participating chiefdoms and farmer cooperatives. The resultant emission reductions and emission reduction payments generated from the project is a key co-benefit that complements the primary benefit in the form of sustained crop production. The emission reduction payments are an important source of revenue for community development activities that catalyze continued adoption and implementation of REDD+ and SALM. The carbon payment was important in incentivizing the change in behavior and overcome some initial barriers in adoption of sustainable land management practices.

10. The project was undertaken in the Eastern Province of Zambia characterized by a poverty incidence of 70 percent. The Eastern Province is facing several rural development challenges including unsustainable agricultural expansion, low agricultural productivity, deforestation, charcoal burning, soil erosion, nutrient depletion, and wildlife poaching. To address these problems, the World Bank engaged with COMACO to add the prospects of mitigation to complement ongoing COMACO efforts toward increasing farm productivity of smallholder farmers and conserving forests. The CLMP sought to increase agricultural production, link farmers to markets, and reduce GHG emissions through the adoption of sustainable, climate-smart agricultural practices and conservation of forests in community areas.

11. The project was implemented based on the COMACO model of sustainable conservation, which relied on a participatory group approach to provide extension services to farmers (see Figure 1). Using extension staff from COMACO, farmers were organized in groups led by a lead/principal farmer and trained on SALM practices. This is called a lead farmer approach in which a lead farmer is trained and is then tasked with the responsibility to train a group of farmers in his/her group. The lead farmer model facilitated an effective implementation and monitoring system for the adoption of the practices. Under REDD+, the project supported the demarcation of CCAs; creation of CCPs; and promotion of non-extractive use of the forest, particularly beekeeping. The traditional leaders and communities were engaged in the creation of CCAs and, while relying on community forest management groups (CFMGs) to develop and implement CCPs, undertake patrols of activities causing deforestation and degradation.

Figure 1: COMACO Model: How the Model Works Through Levels of Leadership



Source: COMACO.

Box 2: The COMACO Business Model

The project entity (PE) COMACO is a non-profit limited-by-guarantee company pioneering innovative ways of rural livelihood development through integrating sustainable agriculture, smallholder market access, and environmental conservation. COMACO has more than 15 years of experience in sustainable agriculture and forest conservation using a market incentive approach. COMACO incentivizes the adoption of sustainable agriculture and forest conservation by providing premium prices for crops marketed through it and technical support for farmers adopting sustainable land management and conservation practices. It receives its primary funding from different donors for its work in conservation in the Luangwa Valley of Eastern Province of Zambia. COMACO's unique model is a vertically integrated food-processing organization that works across the whole value chain. It divides its operations into two main parts:

- (i) Extension: A farmer-support service that helps train farmers to increase yields and adopt sustainable farming practices. Also, establishing cooperatives to coordinate selling crop to the business wing;
- (ii) Business: Commercial food-processing business that sells healthy nutritious products under Its Wild! brand to retail chains, institutions and other customers in Zambia.

How the COMACO model works at different levels of community leadership is presented in the figure below. Given the experience of COMACO and its interventions in the Luangwa Valley, the BioCarbon Partners and the World Bank partnered with COMACO on this project with the aim to pioneer a unique approach to landscape-wide carbon asset management that combines several approved Clean Development Mechanism (CDM) and Verified Carbon Standard (VCS) methodologies under an umbrella of grouped projects, to monitor, verify and monetize carbon increments in the most biologically and economically important carbon pools across the managed landscape.

12. The mid-term review (MTR), carried out in February 2018, confirmed the continued relevance of the PDO. However, the following three revisions were made to the indicator targets: (a) PDO target was revised from 270,698 ha to 197,246 ha; (b) the 'Sustainable Agricultural Land Management area covered (hectare)' end target was revised from 88,452 ha to 15,000 ha to include the 8,302 ha at MTR and the additional 6,800 ha from 17,000 additional farmers estimated to be recruited before the close of project; and (c) the intermediate indicator 'project coverage area (hectare)' was revised to include the SALM target of 15,000 ha. These changes had no significant impact on project implementation; they only provided more clarity in measuring the PDO and realistic targets for the SALM component.

3.2. Project Implementation and Commissioning

13. There was no up-front investment for implementation provided by the World Bank for the CLMP. Therefore, the PE used its resources to implement the CLMP activities. At time of project commissioning, COMACO, had secured financing from the Common Market for East and Southern Africa (COMESA) and Norwegian funding for approximately US\$1.5 million and US\$9.0 million respectively. This formed part of the funding for project implementation. COMACO financed the supervision, monitoring, and implementation of the CLMP within 9 chiefdoms out of 25 chiefdoms of the Eastern Province. The chiefdoms include Magodi, Zumwanda, Chikomeni, Masemphangwa, Jumbe, Chikuwe, Nyampande, Mwape, and Luembe. The total project area for active SALM (15,000 ha) and REDD+ (182,246 ha) interventions within the chiefdoms was about 197,246 ha.

14. The PE deployed agricultural extension staff as the primary channel to provide climate-smart advisory and monitoring services to farmers for implementing the project activities under the SALM component. In addition, the farmer group model has been used in this approach, where all members of the farmer groups learn collectively and are led by the group leaders, called lead farmers within their groups. In case of REDD+, the PE relied on the community and traditional leadership plus the district forest officers. However, once communities received carbon payments, they used it to create community forest guards, who are equipped with bicycles, mobile phones, and uniforms to take up monitoring and enforcement. The World Bank provided technical support by hiring a service provider to support the PE with drafting the Project Document, validation and first verification of emission reduction, and carbon sequestration in the landscape.

15. The benefit-sharing mechanism developed and applied was well accepted because it was developed and agreed upon with inputs from all the relevant stakeholders. It was even more attractive to the communities because it was agreed that the bigger share be given to the communities within which project activities were implemented. The benefit-sharing plan was divided according to the two components in line with the sub-agreements that COMACO signed with the participating communities/cooperatives. For revenues generated from REDD+, the distribution was done in the following proportion:

- 20 percent to the local chief's office for services including support of conservation areas and oversight and implementation of the CCP;
- 40 percent to be managed and disbursed by COMACO for the benefit of communities living in the project area through an equitable, efficient, and effective benefit-sharing plan that ensures community participation and enhances capacity to successfully implement CCPs; and

- 40 percent to COMACO for costs related to project implementation, governance, transaction expenses, extension services, and administration.
16. For revenues generated from SALM, the proportional distribution was as follows:
- 5 percent to the chief's office for services including oversight and implementation of the project activity;
 - 55 percent to the local multipurpose farmer cooperative for the support and implementation of a benefit-sharing plan with its individual members, developed in consultation with COMACO, and deemed acceptable to COMACO and the World Bank as included in the sub-agreement; and
 - 40 percent to COMACO for costs related to project implementation, governance, transaction expenses, extension services, and administration.
17. Throughout this process, the PE exercised transparency and openness in delivery of the message to the communities and was keen on managing expectations.

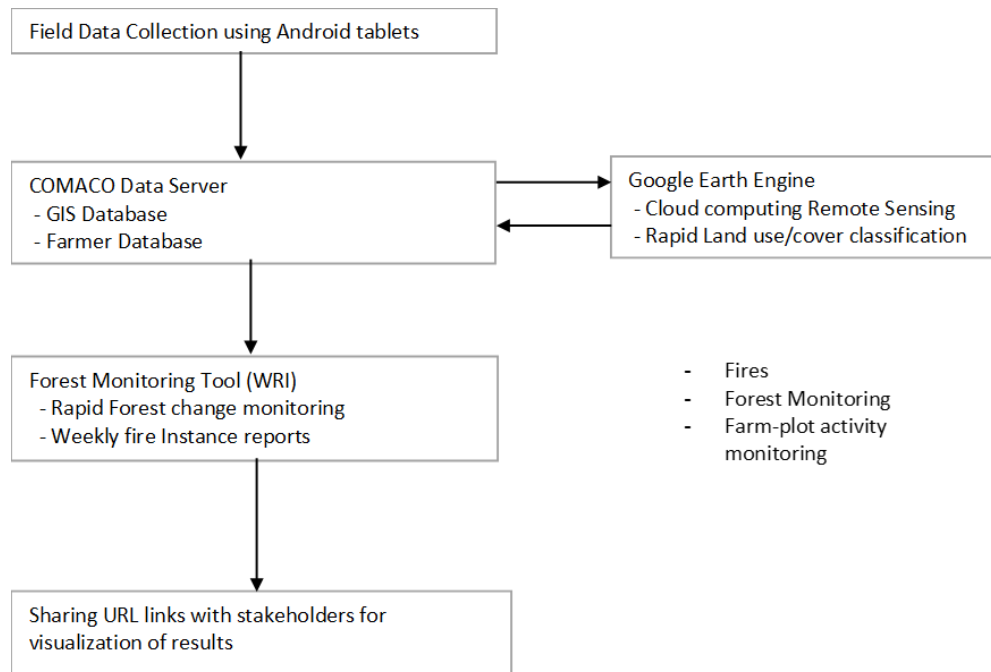
3.3. Monitoring and Evaluation

18. The PE has a well-maintained database with a complete record of all the farmers under the project. It has used digital data collection monitoring tools to monitor SALM practices (Figure 2). Data are collected on a monthly basis by COMACO extension staff, lead farmers, and data collectors using smartphones and are fed into an observatory survey. The survey data are then stored and analyzed using the project web-based management information system (MIS). The project MIS has been developed to accelerate data entry on a more standardized basis. In case of REDD+, the PE has introduced a Forest Monitoring Tool⁵ based on the Global Forest Watch to enable community leaders to access satellite-based information on fire occurrences, rates of deforestation, and the associated carbon emissions in their chiefdoms. All the data collected to monitor project performance are integrated into the MIS.

19. The 2012 emission reduction monitoring was done by COMACO with technical assistance from UNIQUE Forestry and Land Use, whereas the second monitoring (2015–2017) was undertaken by COMACO. The verification and validation in both cases was done by SC Global Services. The approved VCS (Methodology VM0017: Adoption of Sustainable Agricultural Land Management, version 1.0.) was applied for the adoption of SALM practices, while the approved VCS (VM0015 Methodology for Avoided Unplanned Deforestation, version 1.1.) was applied for the REDD+ component.

⁵ <http://my.gfw-mapbuilder.org/v1.latest/?appid=886c06ecd6424d4eb682cd50b1ffe49f>

Figure 2. Monitoring Capacity at Project Level



3.4. Assessment of Achievement of Objective/Outcome

20. The project has successfully achieved on the key performance indicator. The project attained emission reductions for both SALM and REDD+ according to the agreement. The project interventions have resulted in the reduction of uncontrolled forest loss and degradation in the project area and increased net forest cover within the demarcated CCAs. On the other hand, the project has promoted adoption of SALM practices such as residue management (for example, mulching and cessation of residue burning), alley-cropping, and reduced tillage which have resulted in improved productivity on selected crops particularly during normal agriculture seasons while maintaining average productivity in seasons characterized by unforeseen shocks like droughts. Household income for individual farmers have also improved, driven by the diversification of livelihood options beyond subsistence agriculture like beekeeping for honey production. The following key impacts have been recorded on the project and are summarized in Table 1:

- Over 19,399 farmers have adopted climate-smart agriculture and sustainable land management practices on 17,130 ha of agricultural land across nine chiefdoms (community areas).
- About 111,245 ha of forest have been protected from deforestation and degradation.
- A total of 264,578 tCO₂e was verified by a third party as GHG emission reductions for the project. This emission reduction corresponds to taking 57,160 passenger vehicles off the road for one year.⁶

⁶ <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.

21. The project promoted sustainable agriculture and forest conservation within the project area. However, the project did not fully achieve the REDD+ target and ultimately the project coverage area target. Given the uncertainty surrounding carbon projects it is difficult to measure them using the same yardstick. Therefore, following the first VCS monitoring (2012-2015), it was established that the existing farmer base that COMACO was already working with could not be included under SALM, due to methodological reasons. Thus, at MTR in 2018, the indicator targets in hectares for REDD+ and SALM were revised from the original target to keep in line with the feasibility for the project to deliver on ERs. Table 1 gives an assessment of the results against the project indicators.

Table 1. Assessment of Achievement against PDO and Intermediate Indicators

PDO and Intermediate Indicator Name	Baseline	End Target	Actual	Comment
Emission Reduction Delivery (tons of carbon dioxide equivalent (metric tons))	0	265,578	264,578	Fully achieved This is the primary indicator monitored by the World Bank. A total of 264,578 tCO ₂ e was verified by a third party as GHG emission reduction for the project.
SALM area covered (hectare [ha], custom)	7,372	15, 000	17,130	Fully achieved Total of 19,399 farmers and a total of 17,130 ha of agricultural land. In the first monitoring period, 18,310 farmers and a total of 7,372 ha of agricultural land was reached. In second monitoring period, the project registered an additional 1,089 farmers and 442 ha of agricultural land while 18,304 farmers from the first project activity instance have added 9,316 ha of agricultural land to the project activity instance for the second verification.
Maintenance of green zones and community conservation areas in chiefdoms	No	Yes	Yes	Fully Achieved The project successfully supported the demarcation of fourteen CCAs as a form of land use zoning to protect the forest from deforestation/degradation, namely: Nyamphande, Mwape, Jumbe, Luembe, Mphomwa, Mbenjele, Chamukoma, Kabinga, Magodi, Zumwanda, Lwasila, Kalungambeba, Kalindi, and Mwase all available on GIS Files. In addition, nine CCPs have been created and are being implemented in all 9 chiefdoms.
All participating farmers receive contractually agreed payments for emission reduction	No	Yes	Yes	Fully Achieved Through the PE, a total of US\$70,794 in carbon payments have been paid to all participating chiefdoms and farmer cooperatives for the first and second verifications (details in Table 2 below)
Delivery of trainings on the multiple benefits of sustainable land management.	0	6	9	Fully Achieved The project successfully held a total 9 sessions of trainings for producers, cooperatives and CFMGs. The trainings covered among the topics: crop residue management, compost making and application, bee keeping management, tree nursery establishment and transplanting, fire management, mobile phone data capturing, and use of chiefdom customized Web maps for fire and forest loss monitoring, financial management and procurement
REDD+ Coverage area	116,629	182,246	111,245	Partially achieved

PDO and Intermediate Indicator Name	Baseline	End Target	Actual	Comment
(hectare [ha], custom)				First, between 2013 and 2017, there was loss in hectares due to deforestation recorded in two chiefdoms (Chikomeni CCA [49.68 ha] and Magodi CCA [51.48 ha]) from the total of 101.2 ha. Second, the REDD+ target hectareage was modified to align with the participating chiefdoms.
Project coverage area (hectare [ha], custom)	124,001	197,246	128,375	Partially achieved Due to the loss in some hectares under the REDD+ component the project area was below target. However, the PE created new CCAs within the nine chiefdoms which were not included in the last monitoring.

3.5. Carbon Revenues for the CLMP

22. A total of US\$814,405 and about US\$70,794 in carbon payments have been paid to COMACO and participating chiefdoms and farmer cooperatives for the first and second verifications, respectively (Table 2). COMACO entered into sub-agreements with each of the nine project chiefdoms/cooperatives participating in the project to ensure a transparent and credible system of carbon payments. The agreed benefit-sharing plan stipulated 40 percent for COMACO and 60 percent for the communities of the total payments. Payments to the communities have been invested in a number of community development projects to support the continued practice of avoided deforestation and sustainable agriculture. Community projects include drilling bore holes in areas with limited access to clean water and launching additional income sources like community poultry farming and honey production. Payments to COMACO on the other hand covered its costs and expenditures related to project implementation, governance, transaction expenses, extension services, and administration.

Table 2. Revenue Received by the Farmer Groups and COMACO

Project Site	Number of Farmer Groups	Carbon Revenue Received (US\$) First Payment (2017)	Carbon Revenue Received (US\$) Second Payment (2019)	Total Carbon Revenue
Magodi	2 (1 CFMG and 1 cooperative)	105,951.39	7,025.25	112,976.64
Zumwanda	2 (1 CFMG and 1 cooperative)	111,329.74	14,321.85	125,651.59
Chikomeni	3 (1 CFMG and 2 cooperatives)	75,688.83	1,574.65	77,263.48
Mwasemphangwe	2 (1 CFMG and 1 cooperative)	93,355.67	9,740.07	103,095.74
Jumbe	2 (1 CFMG and 1 cooperative)	60,313.16	4,072.56	64,385.72
Chikuwe	2 (1 CFMG and 1 cooperative)	8,955.47	4,346.01	13,301.48
Nyamphande	2 (1 CFMG and 1 cooperative)	8,707.88	515.39	9,223.27
Mwape	2 (1 CFMG and 1 cooperative)	18,320.07	314.49	18,634.56
Luembe	2 (1 CFMG and 1 cooperative)	6,747.49	566.13	7,313.62
Subtotal		489,369.07	42,476.40	531,845.47
COMACO	PE	325,037.43	28,317.60	353,355.03
Total		814,406.49	70,794.00	885,200.49

23. Carbon payments are like the ‘icing on the cake’ for the benefits that have accrued to the farmers on this project. With continued adherence to the practices, crop productivity has increased, and farmers now manage to produce enough for household consumption and for sale. Most communities visited at the Implementation Completion and Results Report (ICR) time reviewed that they had not

received any food relief from the Government in the last season (2018/2019), which was characterized by droughts, because their production was enough to reach the next growing season. Their participation in the project has improved food security at the household level. With such co-benefits from the project, they are motivated to continue practicing sustainable agriculture and manage their forest.

3.6. Lessons Learned

24. The project shows that climate mitigation and socioeconomic development can be simultaneously achieved through active participation of private sector and local communities. The project offers the following 5 lessons for implementing similar carbon projects within Zambia and elsewhere:

- i. **Cross-sectoral coordination is an important factor to successful carbon project implementation.** Implementing climate-smart practices across landscapes to increase the resilience of agricultural communities to the impacts of climate change and reduce GHG emissions depends profoundly on cross-sectoral planning, co-ordination and integration among the various sectors dealing with climate change, forestry, agricultural development and food security. Better engagement and coordination between the Forest Department and the Ministry of Agriculture in the CLMP at the onset could have helped in better aligning the project to the country's overall climate change goal, overcoming the initial implementation bottlenecks, reducing farmers' SALM adoption inertia, as well as aiding prompt identification of CCAs.
- ii. **Strong partnerships between implementation actors and local stakeholders should be promoted at all levels to improve project delivery and build sustainability.** Collaboration should go beyond the government stakeholders and the PE. Chiefs, district conservation task forces, and the provincial roundtables are pivotal civic-based organizations that have proven very useful in enhancing and implementing the environmental agenda in the chiefdoms. Under the CLMP, collaboration between the PE and the traditional leadership resulted in effective enforcement and monitoring the adoption of sustainable agriculture and forest conservation practices at the community level. The traditional leadership was key to ensuring compliance among the members and using existing structures at the local level helped with law enforcement. The continuous monitoring and engagement between the PE and the participating communities ensured constant feedback, thus minimizing the risks of project performance failures. This type of collaboration also served to ensure sustainability of interventions after project closure. Thus, for projects seeking to undertake similar results in a landscape that has strong presence of traditional leadership, building strong partnerships at this level is key to minimizing the risk of project performance failures.
- iii. **Access to market incentivizes SALM adoption and is important to achieving results.** Linking farmers to market through the private sector provides productivity and climate benefits. Access to markets increases agricultural production and farmers' income, which in turn lead to enhanced resilience through consumption and income smoothening. Under the CLMP, COMACO trains small-scale farmers in sustainable agriculture and forest management and then buys their crop and honey at premium prices. With value addition the products are then sold across the country under the brand name 'It's Wild!'. With a market that is ready to buy, farmers increase their compliance because the benefits can be enjoyed even before the revenue from carbon finance. Several requests from other communities to be enrolled in the CLMP provides strong

evidence of the importance of results-based approaches in promoting forest conservation and adoption of sustainable practices by rural communities.

- iv. **There is potential for scaling up the CLMP model, but this will rely on viable public and private sources of finance.** Most carbon finance projects typically cover some of the project development costs but do not always provide the upfront capital costs needed to implement the projects. The scarcity of funds can markedly limit the scope of ER delivery and overall achievement of landscape management projects. The availability of non-World Bank donor funds enabled COMACO to bring different actors together in a robust contractual framework dictated by the Benefit Sharing Plan, in addition to making the CLMP operational structure functional for the duration of the project. Given that such donor funds may not always be available, it is important to explore all possible public and private financing options to close financing gaps. Integrated landscape management projects can benefit from the use of blended finance, that is, the use of public sector finance to crowd in or scale up private investment for emissions reduction. Blended finance can be particularly effective in catalyzing investments in sectors where perceived risk is higher than actual risk, which is especially true for new projects with which investors are unfamiliar. Blended finance can also help deliver enhanced development impacts.
- v. **Use of innovative approaches to deliver project objectives contribute to better assimilation and buy-in of beneficiaries.** Carbon emission accounting is an esoteric concept for both technical stakeholders and farmers. Therefore, it is important to apply tools that would lead to a better understanding of emission reduction estimates derived from forest conservation and better land use practices. Innovative spatial tools to collect and manage data were effectively deployed in the project. Methodologies consistent with the international monitoring and verification standard for monitoring GHG emissions reduction and field activities for REDD+ and agriculture were successfully applied. Specifically, the CLMP relied on the use of (a) visual imagery (chiefdom-level land use and forest cover maps) to show forest loss/gain at the community level, (b) an innovative training method of lead farmer and follower farmer model, (c) a compliance scoring system to validate compliance for individual chiefdoms, and (d) communication initiatives through radio and extension staff that use visuals explained in local languages. These initiatives, particularly the use of visuals, promoted stewardship among the traditional leadership and motivated members to enforce compliance and long-term commitment to practices that sequester carbon.

4. Bank and Project Entity Performance

4.1. Assessment and Rating of Overall Bank Performance

25. The overall World Bank performance is rated Satisfactory. Thorough review of project records and interviews with key informants during the ICR mission confirmed that the World Bank provided adequate supervision. In addition, the World Bank paid US\$1 million for a total volume of 265,578 ERs to COMACO in accordance with its agreement with COMACO, and this completed the terms of agreement with the World Bank on behalf of the BioCarbon Fund.

26. The World Bank team provided technical support to the PE during missions and remotely with expertise in carbon projects. The World Bank also hired an independent service provider to help the PE develop procedures for implementing and monitoring carbon, and specifically with validation and

verification. The World Bank team also responded appropriately and timely to the PE's requests regarding the validation and monitoring process. In addition, when the PE faced objection from the Forest Department after the first payment where the Forest Department indicated that the PE had acted outside the government regulations to receive the carbon payments, the World Bank legal team was engaged to provide guidance to the PE and assist with necessary clarifications in the context of ERPA. The task team also conducted three supervision missions and an MTR, in 2018, to take stock of progress. The supervision team produced clear and detailed Aide Memoires. The task team also provided technical support to the project during preparation and implementation missions for the ZIFLP.

4.2. Assessment and Rating of Overall Project Entity Performance

27. The PE performance is rated Satisfactory. Even though there was no up-front investment for implementation, COMACO managed to finance the project activities throughout the project duration possibly from other funding sources. The activities under the CLMP were priority in keeping with the agreement to receive payment after emission reductions. Therefore, the PE applied its implementation model to achieve results in this project. The model applies a business approach that provides a market for the produce of the farmers. This sure availability/access to the market contributed largely to the project achieving its results. In addition, the PE has built its structures and model within the existing community structures. This helped with increased mobilization of communities and increased adoption rates of improved farming technologies and forest management activities under the CLMP. The CLMP activities were built in the PE's existing initiatives within the target project area. Hence, the use of existing structures for COMACO helped build the message on the carbon project and resulted in smooth implementation of the project.

28. The PE maintained an up-to-date project database, which enabled effective third-party verification of carbon sequestration. The PE was also able to conduct the monitoring and reporting for the last monitoring period without help from the service provider, given the availability of data. Extension services were available for the farmers because the PE ensured to have dedicated extension staff working with the farmers.

29. During project implementation, the project complied with environmental and social safeguards requirements as evidenced during the MTR and last Implementation Status Report (ISR) ratings. Following carbon payments, once the communities prepared their business/project proposals, there is insufficient supporting evidence that the PE and the cooperatives/chiefdoms continuously adhered to the environmental requirements to ensure that environmental due diligence is fully adopted in the implementation of the community projects. Some of the beneficiaries' projects funded with resources from the carbon payments required environmental assessments to ensure that they are fully compliant with the national environmental requirements. For instance, with community poultry farming, there is need to ensure that aspects of waste management are well taken care of. However, during the ICR field mission it was observed that the communities did not receive adequate support from PE to ensure that environmental measures were fully considered.

5. Comments from Project Entity and Other Partners

5.1. Project Entity

30. Despite the strong community engagement by the PE, it was difficult to explain the scientific basis of carbon emission and reduction to the beneficiaries in a simplistic way. This demanded more sensitization and engagement to get the concept across to stakeholders. Therefore, the PE applied an

innovative approach to project implementation. Some of the methods used include radio programs in local languages explaining the benefits of not cutting down trees/adopting sustainable agriculture practices. COMACO also produced digital imagery of the community landscape (chiefdom maps) to help show the losses and gains expected if the good practices were followed. This innovative way of engaging beneficiaries has helped the community leaders and members to own the project.

31. The role of the Government in providing technical support in project implementation was not as expected, apart from the collaboration of the PE and the government staff at the district level from the Ministry of Lands and Natural Resources,⁷ Forest Department, and the extension officers from the Ministry of Agriculture.⁸ The PE experienced challenges in engaging the Government of the Republic of Zambia (GRZ) at the provincial and national level mainly because of budget constraints to involve them in most field visits. Nevertheless, the PE managed to engage strongly with district-level staff for the SALM and REED+ components. However, despite the limited GRZ collaboration from the two line ministries, the PE used one of its coordination platforms (called the Chipata Roundtable⁹), which included stakeholders from the GRZ, private sector, and nongovernmental organizations (NGOs), to get policy and strategic guidance from the provincial and national stakeholders on the project.

32. The PE also noted that at the start of the project, the GRZ did not clearly understand the concept of emission reduction. This has improved as the project advanced in implementation. In addition, following the first carbon payments, the provincial and national Forest Departments grew more interested to engage with the PE on the project. The project is taken to be one of the first projects in the country to advance the concept of emission reduction and the first to make carbon payments for both SALM and REDD+ to communities. It has contributed to the emission reduction agenda in the country by highlighting the main drivers of forest loss and showing that communities can be empowered to take care of their natural resources while drawing from it the core benefits in a sustainable manner.

33. The PE observed that a strong incentive structure is critical to support a mitigation project. The PE provides a ready market for farmer produce purchased at a premium price (approximately 10–20 percent above market price) for commodities that farmers sell to COMACO to produce ‘It’s Wild!’ products. This premium price is accompanied by use of a compliance scoring system to validate compliance for individual chiefdoms. The scoring system combines scores based on specific compliance criteria or parameters for measuring sustainable agriculture, forestry, community leadership, and wildlife. The carbon incentives were given to the communities as a plus, simply as ‘icing on the cake’. This helped manage community expectations, especially during the waiting period from the verification (2015) to the payments (2017), which took longer. It was important for the PE to first build awareness and understanding among communities of the benefits of sustainable forest management and agriculture practices before talking of carbon incentives. Strong commitment from the community leadership also helped get the information across and accepted.

34. The benefits from the carbon project have had positive effects beyond the nine chiefdoms. After the 2015 monitoring, the PE currently has a total of 36 new chiefdoms that have set aside CCAs. In addition, the payments have increased community engagement and enforcement. There is evidence in the SALM component, where the area brought under sustainable agriculture was lower in the first monitoring due to lower adoption rates, and this increased in the second monitoring. This is mainly

⁷ At project approval it was called Ministry of Land, Natural Resources, and Environmental Protection.

⁸ Previously called Ministry of Agriculture and Livestock.

⁹ The Chipata Roundtable comprises members of the Ministries of Agriculture and Lands and Natural Resources and Forest Department.

attributed to the increased commitment within the chiefdoms to increase their compliance levels. It was evident that in cases where adoption of the SALM practices was high, mostly in cases that recorded 75 percent compliance, the soil carbon per hectare was higher. Communities are committing more in taking control of their extension services to keep the benefits of having sustainable forests and agriculture.

35. The lack of technical skills and capacity in carbon-financed projects posed a challenge for the PE at the start of the project. The technical support received helped build long-term capacity, particularly for the geographic information system expert, who worked closely with the service provider contracted directly by the BioCarbon Fund to conduct an independent assessment of the emission reductions on a regular basis. This support has consequently built institutional capacity to the extent that COMACO was equipped to conduct the second validation for the emission reductions.

5.2. Other Partners and Stakeholders

a. Provincial Administration—Eastern Province

36. The COMACO approach to sustainable land use and environmental conservation in the Eastern Province is well known and the organization is recommended for its strong engagement with small-scale farmers. The provincial administration has recognized that COMACO has applied an effective community engagement strategy which has led to results. By using the local leadership (chiefs) to mobilize the communities and for governance and enforcement, the project principles are well adopted. This has also facilitated governance structure development at the community level. Having the local leadership on board provided more participation and compliance from the communities. Market access provided by COMACO is the biggest incentive that has encouraged a high participation rate within the participating chiefdoms. Small-scale farmers are encouraged to grow their crops given that they have a market to sell to. Thus, the outcome from the project is that better management of natural resources at the community level helped reduce poverty by increasing the incomes at the household level through providing a diversified source of livelihood and income from the sale of crops to COMACO.

37. Another useful strategy applied in this project is the use of a compliance scorecard by COMACO, which was a good way to monitor community performance and explain the benefit-sharing plan to communities. To some extent, this created competition among communities and encouraged better adoption and good practices. It is highly recommended that future projects have a built-in performance-based tool to monitor performance against project objectives among beneficiaries. The results payment for emission reduction was an encouragement for more communities to be part of the program and thus better manage resources and practice SALM. Lastly, COMACO extension staff worked well with the government extension staff at the district level; however, direct collaboration with the provincial staff was lacking. COMACO hosted a roundtable meeting with all key stakeholders in the province where lessons from the project and other activities were shared.

b. Ministry of Agriculture—Provincial Level

38. The Ministry of Agriculture provides extension services to farmers down to the lowest levels in communities at the ward level. However, the ministry is constrained in terms of the numbers of extension staff and capacity in providing this service. The extension staff to farmer ratio is at 1:1,000, making it difficult for the extension staff to provide quality extension services. Therefore, the ministry has been supportive of various NGOs in the Eastern Province that provide extension services to farmers in collaboration with the ministry staff. This helps meet the gaps experienced by farmers. COMACO is among the many NGOs in the area that has been providing extension support. COMACO has been using

a cooperative-led extension system, where a group of lead farmers are trained, who then train their follower farmers. Even though the PE did not work closely with the provincial agriculture officers, collaboration was reported at the district level on the CLMP.

39. The increased awareness on SALM among the farmers has resulted in a positive attitude toward the practices among farmers. For instance, it is easier for farmers to adopt and continue with the practices now than before. It has also been observed that the integration of SALM and REDD+ increased farmer productivity. In addition, the availability of a market by COMACO has contributed to increased productivity. Lastly, the promotion of livelihood diversification options has helped with adoption of SALM practices and increased household incomes.

c. Forest Department—Provincial Level

40. The Forest Department, which falls under the Ministry of Lands and Natural Resources, has the mandate to manage forests both on customary land and protected forests. Given the objective of the CLMP, it was expected, according to the project design, that COMACO would work closely with the Forest Department in promoting sustainable forest management and identifying areas to be declared as protected forest areas (in this case the CCAs). COMACO worked with district staff in the implementation of the project, especially with law enforcements regarding utilization of forest resources and extension work like forest patrols. However, at the provincial level, the coordination with the department staff was not done very well such that they were not involved in the identification of some CCAs.

41. After the first payment, the department's interest to collaborate with COMACO on the CLMP increased and they took part in field visits to observe and learn about the actual results achieved by the project on the ground. At the time of the ICR, the Forest Department (FD) confirmed that seven out of the nine chiefdoms under the CLMP, who had applied to be recognized as CFMGs, had advanced their applications for the agreements to be signed with the FD. This is considered as a huge contribution to the FD's work in line with the Forest Act (2015).¹⁰ The application process was facilitated by COMACO. The FD is also looking to learn from the CLMP in terms of the ERPA, as it is in the process of developing the Forest (Carbon Management and Trading) Regulations to regulate the sale of carbon, among others. The CLMP has been one of the first projects in the country to receive carbon payments and serves as an example for what can be achieved at a larger scale.

42. The project has resulted in increased realization of the importance of forest within the communities. Community law enforcement, using community forest guards who work in collaboration with the Forest Department officers, has been key in helping reduce uncontrolled forest loss and degradation.

d. Traditional Leadership in the nine chiefdoms

43. Traditional leaders were a key partner in the implementation of the CLMP. COMACO's long standing intervention in the Eastern Province helped it to gain the trust of the authority and buy in into the conservation activities it was promoting. The decisions on land delineation for specific management purposes rest with the chiefs in consultation with the communities. Thus, at the beginning of project implementation, there were challenges with issues of forest areas been allocated by chiefs for agricultural purposes to communities as a result the forested areas within the chiefdom shrinking over

¹⁰ Forest Act (2015): The Government gave direction on the new configurations of forests to increase people's participation in the management of forests and forest resources and in their ownership of forest benefits at the local level.

time. However, with several awareness raising, trainings and stakeholder consultation involving the chiefs and community members, several chiefdoms began to recognize the problem and were willing to set aside forest areas within chiefdoms for conservation purposes, the CCAs.

44. The traditional leaders expressed great appreciation for what the project has brought to their chiefdoms. They as part of the direct beneficiaries see the need to conserve the forest and they have taken this upon themselves to enforce the good practices for sustainable land management within their chiefdoms. Communities have engaged in several activities that has enhanced their livelihoods and even the welfare of the chiefdoms at large has improved. The payments from the ER has enabled the community members to engage in community development projects e.g. drilling of boreholes improving access to drinking water; communities now even own communal vehicles purchased through the resources from the ERs to facilitate transportation of goods within the community and to the market. This has also resulted in empowerment of youth in the community who have joined the community forest groups—where they have a uniform, bicycle and phones to use for monitoring. The interventions by COMACO through the CLMP shows that, there is a lot of confidence in the traditional leadership to lead by example and organize their subjects to adopt better practices.

6. Contribution to Scaled-up Integrated Approach to Landscape Management in Zambia

45. With limited number of examples and relatively little experience of large-scale carbon projects at the jurisdictional level that promote REDD+ and SALM practices, pilot projects like the CLMP serve as examples on what can be achieved. The CLMP was implemented as a pilot project for scaling up an integrated approach to landscape management. In April 2017, the World Bank approved a jurisdictional carbon project, the ZIFLP, to be implemented in the entire Eastern Province of Zambia. The CLMP activities will be scaled up on this project.

46. Zambia is actively seeking to reduce its emissions from deforestation and forest degradation. While implementing a jurisdictional project it will be important that the country builds on the experiences of the CLMP. Being first in the country to successfully receive carbon payments for both SALM and REDD+, the CLMP provides experience that the benefit-sharing mechanism is key to informing how the country develops its regulations in carbon trade and that development of a benefit-sharing plan allows for the improvement of livelihoods for local communities while reducing GHG emissions and contributing to biodiversity conservation for current and future emission reduction projects.

6.1. PE's Capacity to Carry Out Key Functions Related to Safeguards Requirements

47. The PE ensured project compliance with social and environmental safeguard requirements during implementation. Documents developed included the Environmental and Social Management Framework and Pest Management Plan to provide guidance on how to address risks/impacts on the various subprojects and activities. In addition, the PE adhered to the national environmental requirement. An Environmental Project Brief (EPB) for the program was prepared and submitted to the Zambia Environmental Management Agency in accordance with the requirements of the Environmental Impact Assessment regulations. The EPB was approved on August 17, 2015. Thus, the PE's capacity to carry out environmental and social due diligence during project implementation phase was Satisfactory. However, during the ICR mission, it was difficult to determine the PE's commitment to continue ensuring due diligence on community projects financed by carbon revenue.

6.2. Potential Issues in Post Completion Operation, including the PE's Capacity and Ability of the Project to Deliver the Contracted Emission Reductions

48. The PE has generated the emission reductions that were agreed upon in ERPA.¹¹ With growing interest from other chiefdoms to be part of a carbon project, COMACO has managed to train and expand the CLMP activities to additional 28 chiefdoms. At the time of the ICR mission COMACO was having discussions with another buyer for potential emission reductions from the additional chiefdoms.

6.3. Sustainability of the CLMP

49. The CLMP activities are imbedded in the PE's overall activities on conservation in the Eastern Province of Zambia. The PE has continued implementing the principles of SALM and REDD+ and has trained 28 new chiefdoms in addition to the 9 under the CLMP. Therefore, COMACO is exploring the possibility for sale of additional emission reductions generated by the project to other buyers. Focus group discussions and interviews with beneficiaries indicated their interest in continuing to implement the CLMP-supported activities. The community development projects undertaken using carbon finance have been designed to support continued implementation of the CLMP activities. For instance, CFMGs have used their resources to create youth community forest guards who have been equipped with transport, uniforms, and mobile phones to enforce compliance in forest management. In addition, participation in the use of community assets purchased through carbon finance is governed by a compliance approach, for example, the price at the hammer mill is high for community members who are noncompliant and lower for compliant members. Thus, such initiatives among communities is an indication of continued implementation of the CLMP activities under the SALM and REDD+ components.

50. The adoption of climate smart agriculture practices requires significant up-front expenditures on the part of the farmers, availability of inputs in the local market, a consistent flow of information about the potential improved techniques and the capacity to implement the techniques. Therefore, dependence on the funding from donors on projects such as the CLMP may not be sustainable. To ensure long term financial sustainability of these practices, it is encouraged to have these practices mainstreamed in the country's climate smart programs. For instance, through the Farmer Input Support Program (FISP), the government can forge a link with the agro-dealers and input providers as part of the chain that contributes to the affordable availability of inputs and improved technologies for the farmers.

51. Security of land tenure is another key factor in the sustainability of these practices that intel long term on-farm investments. In most of rural Zambia, customary tenure¹² is the most common. This type of tenure impedes productive investment and may complicate long term investments with CSA practices. However, in the case of the CLMP, the active engagement of the traditional leaders as key partners in the project ensured long term investments on the land This type of collaboration also served to ensure sustainability of interventions after project closure. Thus, for projects seeking to undertake similar results in a landscape that has strong presence of traditional leadership, building strong partnerships at this level is key to minimizing the risk of project performance failures.

¹¹ The PE entered into an agreement with the BioCarbon Fund Verified ERPA (BioCF T1W2 ERPA and BioCF T2W2 ERPA) for the sale and purchase of 155,578 and 110,000 contracted emission reductions to be generated under the CLMP and the project generated a total of 264,578 emission reductions.

¹² Customary tenure is governed by traditional norms under which land is administered by a headman such as a chief. Land under customary tenure cannot be legally transferred, and traditional leaders have a large degree of autonomy in making decisions about the use of land, which causes uncertainty and insecurity regarding property rights—usage rights, management rights, and transfer rights (World Bank, 2019, Zambia Climate Smart Agriculture Investment Plan)

Project Location Map

