FP026

Sustainable Landscapes in Eastern Madagascar

Madagascar

November 2025

Final Evaluation Report

This report presents the Final Evaluation of the Green Climate Fund (GCF)-funded project “Sustainable Landscapes in Eastern Madagascar”. The evaluation was independently commissioned by the Accredited Entity (AE), Conservation International, and submitted to GCF. GCF assumes no responsibility for the accuracy of the information in this report.

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ACRONYMS AND ABBREVIATIONS

AA	Atiala-Atsinanana
AAAP	Africa Adaptation Acceleration Programme
AAP	Accountability to Affected Population
ABCG	Africa Biodiversity Collaborative Group
AE	Accredited Entity
AFD	Agence Française de Développement
AWP	Annual Work Plan
APR	Annual Progress Report
BNCCREDD+	Bureau National des Changements Climatiques, du Carbone et de la Réduction des Émissions dues à la Déforestation et à la Dégradation des Forêts
CAZ	Ankeniheny-Zahamena Corridor
CARI	Consolidated Approach for Reporting Indicators of Food Security
CBO	Community-Based Organization
CCTF	Climate Change Trust Fund
CI	Conservation International
CI-M	Conservation International Madagascar
CNPERE	Centre National de Production de l'Energie Renouvelable
Co2e	Carbon dioxide equivalent
COBA	Communautés de Base
COFAV	Corridor Forestier Ambositra-Vondrozo
COP	Conference of the Parties
COPIL	Comité de Pilotage-PSC
COS	Comité d'Orientation et de Suivi
CRIC	Committee for the Review of the Implementation of the Convention
CSA	Climate Smart Agriculture
CSL	Climate-Smart Landscape
DRAE	Direction Régionale de l'Agriculture, de l'Élevage
DREDD	Direction Régionale de l'Environnement et du Développement Durable
DRM	Disaster Risk Management
E&S	Environmental and Social
EbA	Ecosystem-based Adaptation
EIB	European Investment Bank
ER	Emission Reduction
ESMF	Environmental and Social Management Framework
FAA	Funded Activity Agreement
FAO	Food and Agriculture Organization

FGD	Focus Group Discussion
FIE	Final Independent Evaluation
EIPM	Evidence-Informed Policymaking
EWS	Early Warning System
FP	Funding Proposal
FSI	Food Security Index
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gas
GoM	Government of Madagascar
GPS	Global Positioning System
GRM	Grievance Redress Mechanism
Ha	Hectare
HH	Household
IAC	Internal Audit Committee
ICT	Information Communication Technology
IEU	Independent Evaluation Unit
IFAD	International Fund for Agricultural Development
ILM	Integrated Land Management
IMF	International Monetary Fund
INSTAT	Institut National de la Statistique
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
KII	Key Informant Interview
KWhr	Kilo-watt hours
LDCF	Least Developed Countries Fund
LFA	Logical Framework
LORTA	Learning-Oriented Real-Time Impact Assessment
MAEP	Ministère de l'Agriculture, de l'Élevage et de la Pêche
M&E	Monitoring and Evaluation
MCC	Madagascar Coffee Company
MEDD	Ministère de l'Environnement et du Développement Durable
MGA	Malagasy Ariary
MRV	Measurement, Reporting and Verification
MW	Mega watt
NAP	National Adaptation Plan- PNA in French
NDC	Nationally Determined Contribution

NGO	Non-Governmental Organization
ODD	Objectifs de Développement Durable (French for SDG)
OECD/DAC	Organisation for Economic Development/ Development Assistance Committee
PA	Protected Area
PAM	Programme Alimentaire Mondial (World Food Programme)
PDM	Post Distribution Monitoring
PMU	Project Management Unit
PPR	Project Performance Report
PSC	Project Steering Committee
REDD+	Reducing Emissions from Deforestation and Forest Degradation Plus
REF	Renewable Energy Facility
RFP	Request for Proposals
RSF	Resilience and Sustainability Facility
SAC	Schema d' Amenagement Communal
SAP	Sustainable Agricultural Production
SDG	Sustainable Development Goal
SEA	Sexual Exploitation and Abuse
SLEM	Sustainable Landscapes in Eastern Madagascar
SMART	S= smart, M= measurable, A= attributable, R= realistic, T= trackable
ToC	Theory of Change
ToR	Terms of Reference
UN	United Nations
UNEG	United Nations Evaluation Group
USD	United States Dollar
VOI	Vondron'Olona Ifotony
WAs	Women's Associations
WFP	World Food Programme
WHO	World Health Organization
YEI	Youth Economic Inclusion

PROJECT DATA PROFILE

Project Details					Project Milestones	
Project Title	Sustainable Landscapes in Eastern Madagascar (SLEM)				**Funding Proposal Board Approval Date:**	14 October 2016 at B.14
GCF Project ID	FP026				**FAA Effectiveness Date**	8 May 2018
Country	Madagascar				**FAA Amendment 1 Date:**	7 April 2020
Region	Africa				**FAA Amendment 2 Date:**	27 February 2023
Focal Area/ Theme	Mitigation and Adaptation				**Interim Evaluation Review Completion Date**	17 March 2022
ESS Category	B				**Funded Activity Completion Date**	8 May 2025
Funded Activity Size Category	Small				**Final Evaluation Review Completion Date**	8 November 2025
GCF Result Areas	Ecosystems and ecosystem services	Forest and land use	Health and well-being food and water security	Livelihoods of people and communities		
GCF Accredited Entity	Conservation International Foundation					
GCF Executing Entity	Conservation International Madagascar supported by the Ministry of Environment and Sustainable Development (MEDD), which is the National Designated Authority (NDA)					

Financial Information		
Project	**At Approval (US$)**	**At Final Evaluation (US$)**
(1) Conservation International Contribution	$771,318	$771,318
(2) Government	0	0
(3) Private Sector	$15,500,000	0
(4) Total co-financing (1+2+3)	$16,271,318	$771,318
(5) Total GCF Funding:	$53,500,000	$15,199,555
(6) Total Project Funding (4+5)	$69,771,318	$15,970,873

Evaluation Information		
Evaluation Type	Project	
Final/midterm review/ other	Final	
Period under evaluation	8 May 2018	8 May 2025
Evaluators	Dr C. Inayatullah	Dr. H. Rajaonarivelo
Evaluator email address	ceo@srdglobal.org	manoaherimino@gmail.com
Evaluation dates	8 April 2025	8 November 2025

EXECUTIVE SUMMARY

Context

The Green Climate Fund (GCF) is a key institution in the global finance architecture. It supports developing countries to advance low-emission and climate-resilient development pathways in line with the United Nations Framework Convention on Climate Change (UNFCCC), the Paris Agreement, and nationally determined climate priorities.

Madagascar is highly vulnerable to climate change and faces mutually reinforcing pressures of poverty, food insecurity, and deforestation. The Government of Madagascar (GoM) has articulated its climate and development priorities through instruments including the National Adaptation Plan (NAP), the REDD+ roadmap, and its Nationally Determined Contributions (NDCs). As Madagascar's first GCF-funded initiative, the **Sustainable Landscapes in Eastern Madagascar** (**SLEM)** project was designed to support these priorities by enhancing the resilience of smallholder farmers and reducing carbon emissions in the Ambositra-Vondrozo (COFAV) and Ankeniheny-Zahamena (CAZ) forest corridors.

Evaluation Scope, Timeline and Methods

In line with GCF requirements, a Final Independent Evaluation (FIE) of the SLEM project was undertaken to assess its overall performance, results, and lessons from the implementation period from May 2018 to May 2025. The evaluation was guided by GCF evaluation practice, which is broadly aligned with the OECD/Development Assistance Committee (DAC) criteria of relevance, coherence, effectiveness, efficiency, sustainability, impact, and key GCF priorities including country ownership, innovativeness of results, paradigm shift potential, gender equality and social inclusion, environmental and social safeguards, additionality, and replication and scalability.

The evaluation was launched in April 2025, and data collection and analysis were conducted between May and August 2025. The independent evaluators applied a mixed-methods approach, combining an extensive desk review with field visits to the CAZ and COFAV forest corridors. The field work included stakeholder consultations with beneficiaries and partners through Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs). In total, the evaluation consulted 180 stakeholders across the pre-evaluation, inception, data collection and field visit phases. This included 14 KIIs and nine FGDs across nine project sites. The FGDs involved approximately 166 participants, including women, men, girls and boys; 56 percent of FGD participants were female.

Limitations

The evaluation was subject to two main limitations. First, the remote and geographically dispersed project sites created logistical constraints. Poor road infrastructure, particularly during the rainy season, increased travel times and limited accessibility. One field visit was partially cancelled due to impassable roads; the team mitigated this limitation by conducting remote interviews with community representatives via WhatsApp. Second, these logistical constraints limited the team's

ability to independently verify all quantitative outputs, such as the number of people trained. For some performance indicators, the evaluation therefore relied on project monitoring data, triangulated where possible with documentary evidence, interviews, and field observations. Despite these challenges, the team successfully gathered evidence from a sufficient range of representative sites to support the evaluation's findings.

Summary Achievements

The SLEM project delivered substantial results in community resilience, ecosystem restoration, and institutional capacity, establishing a strong foundation for scalable climate action in Madagascar. The project's key achievements include:

- Direct benefits to 131,259 individuals (in 21,921 households) and reaching more than 1.2 million indirect beneficiaries through improved ecosystem services and awareness activities.
- Strengthened local governance through support to more than 387 community-based farmer organizations and 161 Local Forest Management Structures (VOIs), enhancing forest monitoring, fire control, and restoration activities.
- Restoration of 23,334 hectares of degraded land and improved forest management across more than 46,000 hectares. The project also trained and deployed 671 patrollers, strengthening forest surveillance and compliance.

In terms of **relevance**, the project was closely aligned with the needs of communities, and with national strategies such as the Madagascar Climate Change Strategy, REDD+ Action Plan, and NDC commitments. It also contributed to Madagascar's enabling environment for climate finance and policy, including through support linked to the National Climate Finance Platform launched at COP26.

Effectiveness was demonstrated through the protection of **655,832 hectares of forest**, reducing the rate of degradation from 3.17 percent (2018 baseline) to 1.19 percent at project closure. This resulted in an emissions reduction of **9.34 million tCO_2e**, valued at approximately US$ 152 million (over nine times the project's cost)[1]. While more than 190,000 individuals were trained in Climate Smart Agriculture (CSA), the training did not uniformly translate into sustained adoption of all practices. This is partly explained by a positive, unintended outcome: many households prioritized investing their increased economic capacity in education and asset building rather than only reinvesting in agriculture, indicating a transformative shift in livelihood strategies. Gender inclusion was actively promoted: about 50 percent of project beneficiaries were women, and 151 Women's Associations (WAs) received technical and financial support.

[1] Calculated at a current rate of US$ 16.27 per ton

Efficiency was supported by adaptive management in response to significant external shocks, including the COVID-19 pandemic and two cyclones in 2022. The project adjusted delivery through digital training tools, local partner mobilization, and budget reallocation. Project management costs remained within the standard GCF benchmark of 10 percent, and adaptive planning enabled completion of 95 percent of planned activities by project closure. The average cost per beneficiary was US$ 11.2 per person, which is in line with a typical GCF funded adaptation project. Community engagement, participatory monitoring, and use of digital technologies, including drones and online data collection and sharing led to a reduced cost of carbon dioxide reduction per ton which was US$ 1.71 per **tCO_2e,** comparing favorably with similar GCF funded mitigation projects.

Sustainability was strengthened through local governance integration with decentralized development plans, and capacity building. The project promoted ownership by training 2,870 local officials and community leaders in planning, natural resource management, and social safeguards. Furthermore, private sector engagement, though modest, created pathways for green value chains, especially in vanilla and agroforestry. Although institutional and social ownership is strong, long-term financing for community-based forest patrols remains a key sustainability risk.

Ratings

The SLEM project received consistently high ratings across most evaluation criteria, reflecting strong performance and results. The project was rated Highly Satisfactory for its ***relevance*****,** aligning closely with Madagascar's national climate commitments and GCF priorities. ***Effectiveness*** was also rated Highly Satisfactory having exceeded several targets by reaching 131,259 direct beneficiaries (50.5 percent women), generating more than 9.34 million tCO_2e in emissions reductions, and restoring more than 23,334 hectares through ecosystem-based adaptation. ***Efficiency*** was rated Highly Satisfactory, due to strong budget execution, adaptive management and favourable unit costs for beneficiary reach and emissions reductions. Budget execution reached 99 percent.

Impact *potential* was rated Highly Satisfactory, given the scale of transformation achieved in forest protection and sustainable agriculture. The project also demonstrated Highly Satisfactory ***paradigm shift*** potential by supporting a transition from slash-and-burn agriculture toward climate-smart practices, and by contributing to reduced deforestation rates. ***Sustainability*** was rated Satisfactory: institutional, governance, social and environmental risks were limited, although the financial sustainability of community-based patrols remains a concern.

Replication and scalability were rated Highly Satisfactory, including because the project helped catalyze an additional US$50 million from the World Bank. ***Country ownership*** was also rated Highly Satisfactory, reflecting strong government leadership and integration into national planning frameworks. ***Environmental and social safeguards*** were implemented robustly, and ***gender equality and inclusion*** efforts were strong, including, support to 151 Women Associations and high female participation in leadership and technical roles. Overall, the ratings reflect a well-managed, transformative adaptation and mitigation project with notable achievements across the GCF performance criteria.

Conclusions

SLEM delivered significant results in ecosystem restoration, community resilience, and institutional capacity. **It provides a credible model for integrated, climate-resilient landscape management** in Madagascar and comparable ecological and socio-economic contexts. The project addressed critical development challenges while laying the foundation for scalable and sustainable climate action. Considering the OECD/DAC and GCF evaluation criteria (OECD/DAC and GCF), the project was assigned an **overall rating of Highly Satisfactory.**

Recommendations

Based on the findings and lessons learned, the FIE Team recommends the following actions to strengthen sustainability and inform future programming **(Table 1).** Each recommendation is linked to the relevant finding and identifies the responsible party for implementation.

Table 1. Recommendations to Enhance Sustainability, Scalability and impact of Future Interventions

Finding/Recommendation	Timeframe	Responsible Party
A. Project Design and Monitoring and Evaluation (M&E)		
Finding F1, F9, F10, L3. The project design was in order but lacked a savings and micro-finance component to support the long-term financial sustainability of community organizations and further promote social cohesion.		
Recommendation 1. Future multi-sectoral projects that rely heavily on community-led implementation and donor financing should incorporate structured financial sustainability mechanisms at the design stage. This may include micro-credit facilities, revolving funds, and VSLAs to strengthen local resource mobilization, enhance ownership, and reduce post-project financial vulnerability of community institutions.	Long-term (0-36 months)	CI, GCF, MEDD
Finding F10, L4. There was a major revision of FAA, after the loss of EIB co-financing and private sector investment but the Results Framework was not adequately revised, except dropping the energy component and adjusting targets for other indicators. This created a mismatch. The monitoring teams were collecting extensive data on the ground, but the outdated Results Framework could not accurately capture or report all the project's real impacts and achievements.		
Recommendation 2. In future programming, the Results Framework should be formally revised whenever there are substantive changes in project scope, funding structure, or activity design. Indicators should be reviewed and expanded, where necessary, to ensure they comprehensively capture outputs, outcomes, and higher-level impacts, including cross-cutting dimensions such as gender equality and biodiversity.	Long-term (0-36 months)	CI, MEDD
Finding F1, F10. The project achieved significant conservation results which likely produced positive impacts on flora and fauna, but there was no specific indicator in Results Framework to measure the impact of interventions on biodiversity.		
Recommendation 3a. Future conservation projects should incorporate biodiversity - specific indicators in the project level results framework for co-benefits to measure impacts on key species and ecosystems.	Long-term (0-36 months)	CI, GCF

Recommendation 3b. Commission a study, potentially with a local university or research institution to assess the project's impact on at risk species and agrobiodiversity, creating a baseline for future work.	Short-term (0-12 months)	CI
B. Climate Financing		
Finding F13, L3. The funds allocated for the Climate Change Trust Fund (CCTF) were returned to GCF as it was not on the immediate priority of GoM which is a strategic mistake, these could have been innovatively repurposed and channeled to the established community institutions as in-kind grants for community monitoring of Protected Areas (PAs), revolving fund as micro-credit, and seed funds to cooperatives for promoting contract farming/green value chains and termed as Payment for Ecosystem Services which still can serve the fundamental purpose of CCTF.		
Recommendation 4. In future programming, the GoM should abide by the agreements signed at project formulation stage and take innovative decisions to enhance resilient climate financing and communities.	Long-term (0-36 months)	MEDD
Finding F16, L3. Madagascar nationalized its forestry carbon markets in January 2022, through decree 2021-1113. This is not a problem when the investments that lead to emission reductions are funded by the government, but the regulation can potentially discourage existing conservation projects led by private companies and nonprofits that issue carbon credits and keep new ones from being set up. This jeopardizes the primary pathway to finance ongoing conservation activities - such as community patrols after GCF funding ends and discourages the private sector investment needed to replicate this successful model.		
Recommendation 5. To secure the long-term sustainability of the project's achievements, the MEDD should establish a clear and transparent regulatory framework or strategy for the nationalized carbon market. This framework must define benefit-sharing mechanisms that ensure community-led projects can leverage carbon finance and provide the certainty needed to attract and retain private sector investment in conservation.	Long-term (0-36 months)	MEDD
C. Community Governance of Landscapes		
Finding F15, L1. Community Governance of landscapes has been strengthened, a considerable number of community leaders and local officials have been trained in natural resource management, which enabled the project to sign off 46 community forest management contracts. Monitoring PAs by community patrollers and raising awareness resulted in decline of slash and burn and charcoal making practices, thus empowering the local communities as well as providing low-cost solution of PAs monitoring.		
Recommendation 6. The MEDD and local authorities should adopt and scale the community patrolling model in other areas and provide financial incentives to the existing community patrollers.	Medium-term (12-24 months)	MEDD, DRED
D. Inadequate Rural Road Access and ICT		
Finding F11, L5. Access to project villages located near Protected Areas (PAs) remains highly constrained due to poor rural infrastructure, including deteriorated dirt roads, large potholes, and makeshift wooden-log bridges—or in some cases, stream crossings without bridges. Conditions worsen significantly during the rainy season, hindering delivery of inputs and relief goods, limiting market access for community products, and complicating routine monitoring and supervision activities.		
Recommendation 7. The GoM should invest in rural infrastructure, especially on improvement of road and internet connectivity. Community participatory monitoring and use of digital technologies and drones for data	Long-term (0-36 months)	GoM

collection, as demonstrated by SLEM, should be adopted in government projects. The provision of high-speed internet in rural areas could enhance an enabling environment for market functioning and creation of online jobs.		
E. Scaling Successful Models		
Finding F1, F17. SLEM project stands as a model of integrated, climate-resilient landscape management having high reach and direct impact. It directly supported 21,921 small-holder farming households, many of whom were in vulnerable forest-adjacent communities. It also reached 1.2 million indirect beneficiaries through ecosystem services and awareness campaigns and is a potential case for replication/upscaling in Madagascar or other countries.		
Recommendation 8a. Madagascar and other countries should consider replicating/upscaling this model having deep community engagement, use of technology and engagement of private sector for developing green value chains/organic farming. The model was grounded in the nexus of agriculture-forestry. Inclusion of livestock (agriculture – livestock – forestry) in the model could further enhance socio-economic impacts at the household, commune and national level.	Long-term (0-36 months)	CI, GCF, MEDD
Recommendation 8b. To address a key driver of deforestation, CI should develop a follow-on initiative focused on establishing a sustainable charcoal production value chain. The project should promote efficient charcoal kilns, reduce post-production and transport losses, and scale up the adoption of fuel-efficient cookstoves to lower overall biomass demand. Sustainable management of high-calorific eucalyptus, particularly in areas such as Andasibe and Moramanga, where it is widely available, could serve as a pilot model to generate livelihood opportunities while reducing pressure on natural forests. The initiative should integrate ecological safeguards to prevent unintended impacts on groundwater and biodiversity and ensure alignment with broader landscape management objectives.	Short-term (0-12 months)	CI





Andasibe Field Visit – SLEM Cooperative Site
Evaluation team with community members at a GCF-supported climate-resilient livelihoods cooperative.

1. INTRODUCTION

The project **"Sustainable Landscapes in Eastern Madagascar"** (hereafter referred to as SLEM) is funded by the Green Climate Fund (GCF) and implemented by Conservation International (CI) as the Accredited Entity (AE), with Conservation International–Madagascar (CI-M) serving as the Executing Entity (EE). The project was in operation from 8 May 2018 and was concluded on 8 May 2025. In line with GCF requirements, a Final Independent Evaluation (FIE) was conducted to assess the project's performance and outcomes. This chapter outlines the purpose and objectives of the evaluation, defines its scope and methodology, and describes the overall structure of the report.

1.1. Purpose of the Evaluation and Objectives

The primary objective of the Final Independent Evaluation (FIE) was to provide an independent assessment of the SLEM project at completion. The evaluation assessed the extent to which project objectives and outcomes, as specified in the Funding Proposal (FP) and Funded Activity Agreement (FAA), were achieved. It also identifies lessons learned and provides forward-looking recommendations.

Specifically, the evaluation aims to:

- Assess overall project performance against stated objectives, outcomes, and planned results, including compliance with FP and FAA obligations.
- Evaluate the project's relevance, effectiveness, efficiency, sustainability, impact, and alignment with cross-cutting themes such as gender equity and country ownership, using GCF evaluation criteria and the ToRs.
- Assess both intended and unintended results (positive and negative).
- Document lessons learned and good practices.
- Provide actionable recommendations to support sustainability, replication, and scaling of successful approaches.

1.2. Scope and Methodology

This evaluation was conducted by a team of two independent consultants at the request of Conservation International (CI). Its purpose is to assess the status of implementation of the SLEM project and to ensure accountability for expenditures and the delivery of outputs.

The scope of the FIE covers the SLEM project at completion, focusing on outputs generated and funds disbursed during the period from 8 May 2018 to 8 May 2025. The assessment is based on documentation provided to the evaluation team, as well as observable results, and examines the dimensions described in section 1.2.1.

The evaluation team comprised an International Consultant (Dr C. Inayatullah) and a national consultant (Dr Manoa H. Rajaonarivelo). The SLEM Project Management Unit facilitated documentation access and stakeholder engagement but did not influence analytical findings.

An Evaluation Matrix **(Annex 4),** derived from the ToRs**,** guided data collection, including indicators, data sources, and methods. Stakeholder interview guides are provided in **Annex 5.**

Evaluation Design

The evaluation applied a mixed-methods design combining qualitative and quantitative data sources to enhance analytical rigor and triangulation. Data collection methods included:

- Review of over 89 key project documents (Project Document, logframe, annual reports, financial statements, safeguard reports, MTR findings, and policy frameworks) **(Annex 2).**
- Fourteen Key Informant Interviews (KIIs) were conducted with national and subnational government representatives, implementing partners, project staff, private sector actors, and development partners (Annex 3). The semi-structured interviews followed questions derived from the Evaluation Matrix and were conducted in person or via telephone calls, Zoom or WhatsApp communications as feasible.
- Nine Focus Group Discussions (FGDs) involving approximately 166 (56% women) community beneficiaries, cooperative members, and producer groups. Within communities, FGDs were organized to ensure participation of women, youth, and vulnerable groups where relevant. This ensured diversity of perspectives and minimized elite capture bias.
- Field visits to nine intervention sites across the two landscapes.
- Analysis of monitoring data and performance indicators.
- Triangulation was systematically applied across documentary evidence, interview data, field observations, and monitoring datasets to validate findings and mitigate respondent or selection bias.

Sampling Strategy and Justification

Given the project's geographic dispersion and multi-component structure, a purposive, criteria-based sampling strategy was employed to ensure analytical representativeness rather than statistical generalization. The evaluation did not employ probability-based sampling, as its objective was performance assessment rather than statistical impact measurement. However, the structured criteria, diversity of respondent categories, and triangulation across multiple data sources provide reasonable assurance of representativeness and analytical robustness consistent with UNEG and GCF evaluation standards.

Site Selection Criteria

The team undertook a three-week visit to the sites where activities were implemented and interacted with the beneficiaries and local government officials. The field itinerary is given in **Annex 1.** Intervention sites were selected based on:

1. Coverage of the project's principal components (e.g., sustainable land management, agroforestry/value chains, etc.).
2. Geographic representation across major intervention landscapes.
3. Inclusion of sites reflecting varying implementation performance (strong, moderate, and constrained) ensuring balanced perspectives.
4. Consideration of ecological and socio-economic diversity.
5. Logistical feasibility within the evaluation timeframe.

The selected nine sites in the two corridors capture the diversity of project modalities and environmental contexts. While not statistically random, this structured approach ensured sufficient coverage to draw credible conclusions about overall performance patterns. At each site a FGD was organized, and various questions related to evaluation themes were posed and opinion of the communities in groups or individually was solicited. Each FGD lasted for about two hours. The list of places where FGDs were conducted is given in **Annex 3.**

Transect walks in both the CAZ and COFAV corridors provided an opportunity for the consultants to have an overview of the level of deforestation/ degradation, the state of local communities and their lifestyles, which would help in data triangulation.

Stakeholder Selection

Interviewees were selected to ensure balanced representation across stakeholder categories, including:

- National ministries and decentralized authorities
- Implementing partners
- Community leaders and beneficiaries (with attention to gender balance)
- Cooperative and enterprise representatives
- Private sector buyers and value chain actors
- Project oversight and donor representatives

Progress Against Indicators

Project performance was assessed against targets in the Results Framework **(Annex 6),** using both quantitative and qualitative data. Data were validated through document review, stakeholder interviews, and triangulation. Only credible and verifiable information supported by multiple sources has been included in the report.

1.2.1. Evaluation of Evidence

The FIE Team reviewed and assessed the following categories of the project:

i. Project Strategy including project design and results framework/log-frame.
ii. Relevance, Effectiveness, and Efficiency.
iii. Progress Towards Results including progress towards outcomes and outputs analysis.
iv. Project implementation and adaptive management including management arrangements, work planning, finance and co-finance, coherence in climate finance delivery with other multilateral entities, project-level monitoring and elevation systems, stakeholder engagement, reporting, and communications.
v. Project Sustainability including key risks to sustainability (financial, socio-economic, institutional framework and governance, technical and environmental).
vi. Country Ownership.
vii. Gender Equity
viii. Innovativeness in Results Areas
ix. Unexpected results, both positive and negative
x. Replication and Scalability
xi. Adaptation Beneficiaries
xii. Paradigm Shift
xiii. Enabling Environment

The quality of the questions and responses was ensured through discussions among evaluation team members and review by the SRD Evaluation Oversight Manager. All interviews and FGDs were recorded, where appropriate, and reviewed carefully to accurately capture participants' perspectives. Triangulation was also conducted using project documentation to validate findings. Only credible and verifiable information was included in the report.

1.2.2. Limitations of Evaluation

The primary limitation was the remoteness and geographic dispersion of intervention sites, requiring significant travel time. Road conditions in both corridors are poor and particularly challenging during rainy seasons. One site visit was partially cancelled due to heavy rain and unsafe road conditions; in this case, community representatives were interviewed remotely.
Despite logistical constraints, sufficient site coverage was achieved to ensure representative data collection.

1.2.3. Ethical Considerations

The FIE was conducted in full compliance with the GCF Evaluation Guidelines and aligned with relevant GCF policies, including those on Gender Equality, Protection from Sexual Exploitation and Abuse (PSEA), and Indigenous Peoples (noting that no specific Indigenous Peoples groups have been formally identified in Madagascar).

The evaluation adhered strictly to the ethical standards of the United Nations Evaluation Group (UNEG) and CI, ensuring integrity, impartiality, transparency, and accountability throughout the process. Informed consent was systematically obtained from all participants prior to interviews and focus group discussions, including consent for photography where applicable. Interviews were conducted at the convenience of participants, and language barriers were effectively addressed through the engagement of the National NRM Specialist/Evaluation Expert and a local Research Assistant.

With respect to quality assurance, a structured quality control framework was applied throughout the evaluation cycle. This included: (i) methodological triangulation across document review, key informant interviews, field observations, and quantitative data analysis; (ii) systematic validation of findings through evidence cross-checking; (iii) internal peer review and cross-validation among evaluation team members; and (iv) formal oversight and technical review by the designated Evaluation Oversight Manager.

The evaluation was carried out fully independently, with all evaluators having signed the UNEG Code of Conduct **(Annex 8).** None of the evaluators had any prior professional engagement with CI or the SLEM project, thereby safeguarding impartiality and avoiding conflicts of interest. While no separate external peer review mechanism beyond the oversight structure was commissioned, the applied quality assurance processes meet the proportionality and independence requirements under GCF Evaluation Policy.

1.2.4. Dissemination Results

The Final Evaluation Report and its key findings are intended to be disseminated widely to ensure transparency, accountability, and learning. The report will be shared with the GCF, CI management, and relevant government counterparts to inform future policy and programming decisions. In addition, it will be made available to development partners and donors engaged with CI in the CAZ and COFAV landscapes, including the World Bank and other stakeholders supporting sustainable landscape management initiatives in Madagascar. Dissemination aims to promote transparency, accountability, adaptive learning, and coordination toward climate-resilient land-use outcomes.



Deforestation in CAZ



Deforestation in COFAV

2. PROJECT DESCRIPTION AND BACKGROUND CONTEXT

2.1. Development Context

Madagascar is at a pivotal juncture: endowed with unique biodiversity and growing sectors like mining and tourism, yet hindered by deep structural challenges—poverty, climate vulnerability, corruption, and infrastructure deficits. Its recent political stability and investment in major infrastructure and climate-financing initiatives offer modest hope. Still, sustained reform, inclusive governance, and external investment are essential to break cycles of poverty and environmental degradation. This section provides a detailed overview of the baseline information at national level, challenges, opportunities and priorities related to the SLEM project's scope of work.

1. Country Overview

Madagascar is the world's fifth-largest island, located in the Indian Ocean about 400 km off the southeastern coast of Africa. Covering roughly 587,000 km^2, it is renowned for its unique biodiversity—over 90% of its wildlife species are endemic. The country's natural resources include abundant arable land, fisheries, precious stones, and strategic minerals such as nickel, cobalt, and graphite. However, the population reached an estimated 30.3 million in 2023, growing at more than 2.4% annually, exerting pressure on social services, employment, and natural resources. Chronic malnutrition remains severe, with stunting affecting nearly half of children under five (World Bank Madagascar Economic Update, 2024).

Madagascar remains one of the poorest countries in the world, with the poverty rate persistently high at around 75% of the population living below the national poverty line (World Bank, 2024). Dependence on low-productivity subsistence farming makes communities highly vulnerable to climate shocks such as droughts and cyclones. As a result, an estimated 1.3 million people are food insecure, and nearly 40% of children under five are chronically malnourished (WFP, 2023; World Bank, 2022). Limited infrastructure, weak market access, and inadequate social protection exacerbate these challenges, underscoring the urgent need for climate-resilient agriculture, improved nutrition services, and expanded safety nets to build household resilience.

2. Political Context

Madagascar's political history has been marked by repeated crises and transitions, but recent developments suggest growing stability. President Andry Rajoelina was re-elected in December 2023 after winning the first round of elections held on November 16, 2023. His party consolidated power in May 29, 2024, legislative elections, securing an absolute majority in the National Assembly with 84 out of 163 seats. Following the elections, Christian Ntsay was reappointed as Prime Minister, and a new cabinet was formed with 27 ministers and two secretaries of state, including 12 women, reflecting modest progress toward gender balance in governance.

At the local level, the presidential coalition dominated the communal and municipal elections on December 11, 2024, winning over 960 out of 1,695 mayoral seats nationwide (World Bank, 2025). Despite this political stability, governance challenges persist, including high levels of perceived corruption - Madagascar ranks 140th out of 180 in Transparency International's 2024 Corruption Perceptions Index.

3. Economic Context

Macroeconomic Trends

Economic growth is estimated to have remained stable at 4.2% in 2024, but this level is insufficient to meaningfully reduce poverty or create enough jobs for the growing population. The services sector, particularly tourism and telecommunications, has been the main driver of growth. Improved international air connectivity, the entry of new airlines, and a liberalized telecom licensing regime have boosted investment and activity in these areas. On the demand side, private investment rebounded in 2024, supported by reforms to improve the business climate and attract foreign capital.

The medium-term outlook is cautiously optimistic. Real GDP growth is projected to average 4.7% from 2025 to 2027, driven by continued expansion in services and industrial production, including textiles and mining. Madagascar aims to capitalize on its unique natural assets to position itself as a prime ecotourism destination while advancing the value chain for strategic minerals.

However, significant structural constraints limit the country's economic resilience. Frequent power outages, poor transport infrastructure, and vulnerability to climate shocks—such as cyclones and droughts—pose persistent risks to agricultural and manufacturing productivity. The government's flagship projects, such as the Antananarivo–Toamasina toll highway (expected to be completed by 2027) and renewable energy investments, are intended to address infrastructure bottlenecks (IMF, 2024).

Fiscal and External Balances

Madagascar's fiscal position has improved slightly but remains fragile. The fiscal deficit is projected to narrow to about 3.8% of GDP by 2027, supported by efforts to boost domestic revenue mobilization and rationalize spending. Yet revenue collection is still hampered by informality and limited administrative capacity.

On the external front, the current account deficit widened to an estimated 5% of GDP in 2024, reflecting weaker exports of key commodities like vanilla, cloves, cobalt, and nickel, partly due to fluctuating global prices and logistical challenges. Inflation averaged 7.6% in 2024, eroding purchasing power and disproportionately affecting low-income households. High population growth continues to dilute per capita income gains.

4. Development and Climate Vulnerability

Madagascar is one of the world's most climate-vulnerable countries. Its exposure to cyclones, droughts, and coastal erosion threatens livelihoods, especially in agriculture, which employs about 70% of the labor force. The Grand Sud (southern region) remains highly food insecure due to recurrent droughts exacerbated by El Niño effects and deforestation.

From an environmental perspective, Madagascar faces growing pressure despite formal conservation efforts. Over 150 forest areas have been designated as protected, yet they remain vulnerable to deforestation and human encroachment (Jones et al., 2019). Nevertheless, studies suggest that the establishment of PAs has had a moderating effect on deforestation rates since 2010 (Eklund et al., 2016; Desbureaux & Damania, 2018), indicating that protection measures, while imperfect, do contribute to forest conservation and can be effective when properly supported.
Madagascar is also highly vulnerable to climate change and is considered one of the countries that are most severely impacted by climate-related hazards. Between 2000 and 2019, it ranked 12th on the Global Climate Risk Index (Eckstein et al., 2019). The country is already experiencing an average temperature increase of 0.27°C per decade, longer dry seasons and more intense torrential rains, an 8% decrease in annual precipitation since 1990. Projections for 2050–2080 are alarming with 8% further reduction in rainfall, 25% to 40% decline in available freshwater, a temperature increase of 1.2°C to 2.1°C, and a sea level rise of up to 43 cm by 2080 (NDC Madagascar, 2022).

Regarding deforestation Suzi-Simmons (2023) reported that Landsat images (2001-2021) empirically show that Madagascar, which covers an area of about 59 million hectares (230,000 square miles), has lost 4.85 million hectares of tree cover since 2000, equivalent to a 25% decrease in tree cover, and a gross estimate of 2.52 gigatons of CO2e – carbon dioxide equivalent greenhouse gas emissions (*Figure 1*). Without breaking the intertwined cycle of poverty and deforestation, increasing rates of extinction will continue to impact Madagascar's flora and fauna.

Climate change coupled with exorbitant deforestation leads to natural disasters. Madagascar experiences over US$ 100 million in combined direct losses from earthquakes, floods and tropical cyclones each year. However, a specific event such as severe tropical cyclone can produce significantly larger losses. GFDR[2] analysis suggests that a 100-year return period tropical cyclone event would produce direct losses of US $ 819 million and require approximately US$190 million in emergency costs.

In 2024, Madagascar launched a country platform for climate finance in partnership with IMF and World Bank, including innovative tools like the Resilience and Sustainability Facility (RSF) and green bonds to mobilize climate investment. However, the financing gap to meet its Nationally Determined Contributions (NDCs) remains significant- estimated at $24.4 billion by 2030 (IMF, 2024).

[2] *https://www.gfdrr.org/sites/default/files/madagascar.pdf*

5. Agriculture

Agriculture remains the backbone of Madagascar's economy and the main source of livelihood for its predominantly rural population. The sector contributes about 24–26% of GDP and employs nearly 70% of the working population, primarily through smallholder and subsistence farming (World Bank, 2024).

The agricultural landscape in Madagascar is diverse:

- Rice is the principal staple, cultivated by nearly 80% of farmers, though domestic supply often falls short.
- Vanilla makes Madagascar the world's leading producer, supplying about 80% of global demand, but prices are volatile, and quality varies.
- Other important crops include cloves, lychees, coffee, pepper, and staples like cassava, maize, and sweet potatoes.

The key challenges to agriculture in Madagascar are (i) low productivity due to limited mechanization, low fertilizer use, and traditional practices; (ii) environmental degradation driven by deforestation, soil erosion, and unsustainable land management; (iii) climate risks, including cyclones, droughts, and irregular rainfall, threatening yields and livelihoods; and (iv) weak infrastructure and market access hinder farmers' ability to reach profitable markets.

In 2023, over 40% of the population faced moderate or severe food insecurity. The southern regions are especially vulnerable to droughts and chronic hunger. Child malnutrition remains alarmingly high, with stunting rates near 47% (World Bank, 2024).

Under the National Emergence Madagascar Plan, the government prioritizes agricultural modernization, irrigation development, and climate-resilient practices. Ongoing initiatives include: (i) expanding irrigated rice production; (ii) strengthening vanilla supply chain governance; and (iii) promoting climate-smart agriculture and cooperative models. Despite these efforts, progress is hindered by limited financing, weak governance, and institutional challenges. Unlocking agriculture's full potential will require greater investment in infrastructure, productivity, market systems, and climate resilience.



Figure 1. Forest Loss from 2000 to 2021. Map data ©2023 NASA, TerraMetrics.
https://doi.org/10.1016/j.gecco.2023.e02389

6. Outlook and GoM Priorities

Looking ahead, Madagascar's development prospects rest on the effective implementation of structural reforms to strengthen governance, expand access to quality basic services, diversify the economy, and improve infrastructure. Sustained growth will require:

- Enhancing energy access and reliability to support industrialization.
- Expanding climate adaptation measures to build resilience against natural disasters.
- Strengthening human capital, particularly education and health, to address malnutrition and underemployment.

- Improving governance and transparency to restore investor confidence and ensure more equitable benefits from economic growth.

While recent political stability provides a window of opportunity, tackling entrenched poverty and vulnerability will require sustained commitment from the government, communities and development partners alike.

2.2. Concise Summary of Project Evolution

The SLEM Project is an integrated climate and conservation initiative. It was originally designed to be led jointly by CI and the EIB, with the GoM Climate Change Office (BNCCREDD+) and Althelia Climate Fund as co-executing partners. The project aimed to promote climate-smart landscapes by combining public grant funding, private sector investment, and an innovative financing mechanism to ensure sustainability and replication at scale.

The original project design aimed to mobilize three main financial streams:

i. Public sector grant-funded activities, managed by CI and the BNCCREDD+, focus on not-for-profit adaptation and mitigation interventions. These include strengthening the adaptive capacity of smallholder farmers, improving forest management, raising climate awareness, and building local institutional capacity.
ii. Private sector activities, managed by EIB through an Investment Fund overseen by Althelia, target climate-related investments in sustainable agriculture and renewable energy, including agri-energy and efficient cooking systems.
iii. Both the public and private components aimed to contribute to establishing and capitalizing a new National Climate Change Trust Fund (CCTF), a national priority under Madagascar's climate policy, to sustain and scale up landscape-level measures beyond the life of the project.

The project requested a total of US$53.5 million from the GCF, comprising a US$15.3 million grant for not-for-profit interventions, a US$3.2 million grant to help establish the Trust Fund, and a US$35 million equity investment for the Investment Fund, which aimed for a total fund size of US$50.5 million through co-investments from the EIB and Althelia. A portion of the private capital was planned to be raised via an innovative US$300 million EIB Green/Climate Bond, with at least US$10 million channeled specifically to Madagascar's climate adaptation and mitigation needs — a first-of-its-kind approach for leveraging large-scale institutional finance into a least-developed country. The funding mechanism is graphically explained in **Figure 2**.

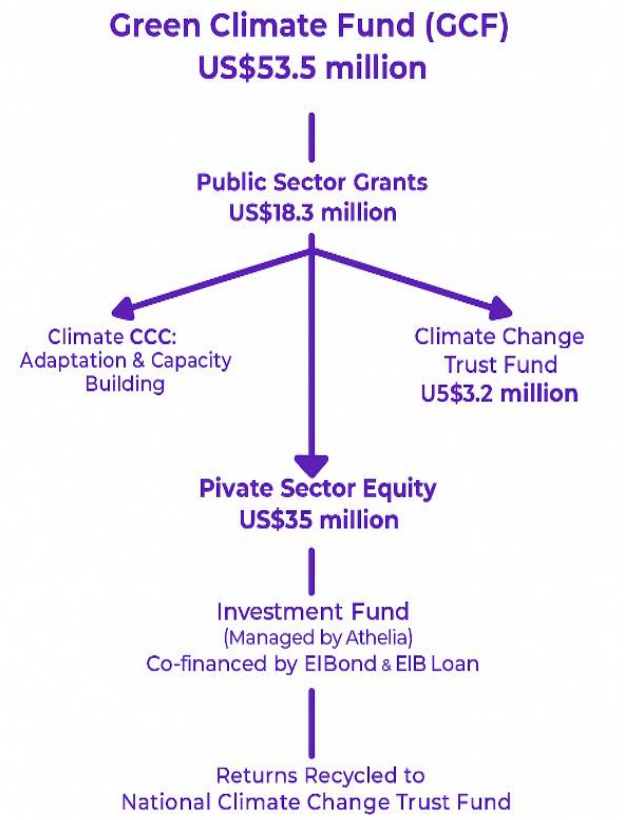


Figure 2. Funding Mechanism as Envisaged in the Funding Proposal.

The Investment Fund was designed to provide longer-term, more affordable finance through mechanisms like profit participation loans, enabling communities, cooperatives, and sustainable businesses to adopt new practices that reduce deforestation and emissions. Profits and capital from the Fund's investments were planned to be eventually recycled into the CCTF to ensure continued financing for future climate actions. The components with a total outlay of USD 69.8 million were envisaged in the Funding Proposal.

This blended finance model prioritized environmental and social impacts alongside modest financial returns, aligning the interests of investors with community benefit. By unlocking private capital, strengthening local governance, and building smallholders' resilience, the project envisaged an innovative and replicable blueprint for sustainable land management and climate-smart development in Madagascar.

Project Revision

On 16 March 2018, the Parties entered into a FAA for Funded Activity FP026 SLEM, which became effective on 8 May 2018, and was amended by Amendment No. 1. On 14 November 2019, the Parties entered Amendment No. 1 to the FAA, which became effective on 7 April 2020. In its emails dated 1

June 2020 and 3 June 2020, EIB informed the GCF of its decision to withdraw from the Funded Activity as a Co-Accredited Entity. Further, CI, through its letter dated 8 September 2022, requested an extension to the closing date and completion date by 24 months from the current dates of 8 November 2022 and 8 May 2023 respectively, principally because of the time lost during 2019-2020 COVID-19 lockdown and halting of activities due to cyclones thereafter.

The withdrawal of EIB from the project was due to differences in the operational modality with the GoM. The EIB formally withdrew from its participation as co-AE of SLEM in June 2020[3]. EIB, nor its EE (Mirova Natural Capital, formerly Althelia) had started implementation of EIB components of the project at the time of withdrawal. A summary document was prepared by CI and provided to the GCF Secretariat along with the approval of the Project Steering Committee (PSC) and Nationally Designated Authority (NDA - BNCCREDD+). This document describes the potential impacts of this withdrawal on both the overall Project, as well as impacts on implementation of CI's components of the Project[4].

The withdrawal of EIB meant the withdrawal of sub-component "Private Sector (Investment Fund) Sustainable Agriculture Investment (US$ 26.5 million), and Component M6.0. Increased number of low-emission power suppliers" sub-component "Private Sector (Investment Fund) investments in low-emission energy generation and distribution" {USD 24.0 million). Thus, the remaining total budget was US$ 19,271,38 (GCF US$ 18.5 million and CI Co-financing US$ 771,318[5]).

The change in project logframe, indicators and targets are explained in detail in **Table 2.**

Table 2. Changes in the Project GCF Level, Outcome and Output Targets

#	Outcome/Output	Indicator	Original Target	Revised Target
	Fund-Level Impacts			
1	A1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions	Number of people less affected by climate-related disasters (disaggregated by vulnerable groups) due to the Project	119,995 (CI & EIB)	119,952 (CI)
2		Number of people adopting a wider variety of livelihood strategies that make them more resilient to climate change.	119,995 (CI & EIB)	119,952 (CI)
3	**A2.0** Increased resilience of health and wellbeing, and food and water security	Number of food-secure households due to the Project	119,995 (CI & EIB)	19,992 (CI)

[3] Primary difference was on the control of Climate Change Fund, the GoM was not ready to decentralize the control on fund management.
[4] APR 2020, last paragraph
[5] Funding Activity Agreement page 12.

4	**A4.0** Improved resilience of ecosystems and ecosystem services	Area of agroforestry projects (ha), silvopastoral systems, or other Ecosystem-based Adaptation strategies established or enhanced.	11,166 ha (EIB and CI)	9,996 (CI)
5	**M1.0** Reduced emissions through increased low emission energy access and power generation	Level of capacity (MW) from low emission sources	33 (EIB)	Dropped
6	**M4.0** Reduced emissions from land use, reforestation, reduced deforestation, and through sustainable forest management and conservation and enhancement of forest carbon stocks	tCO2eq reduced from forest/land use	10 million (EIB and 5 million for CI)	Target of 5 million tons for CI was increased to 9 million tons
7	**Outcome** A7.0 Strengthened adaptive capacity and reduced exposure to climate risks.	Number of vulnerable farmers, businesses, and public sector services use improved tools, instruments, strategies and activities for responding to climate variability and climate change.	119,952 (EIB and CI)	119,995 (CI)
8	**Output** A7.1. Vulnerability of smallholder farmer communities to climate change impacts is reduced through the establishment of a Sustainable Agriculture (including Climate-Smart Agriculture) Program	Number of individuals with vulnerability reduced.	119,952 (EIB and CI)	119,952 (CI)
9	**Output** A7.2 Market and crop production information available at local level to inform crop production type) and to improve market access.	Number of high potential crops with location specific market study updated.	28 (EIB)	Dropped
10		Proportion of women from supported households integrated in producer groups (women's association and farmers' associations)	60% (CI and EIB)	60% (CI)
11	**Output** A7.4. An Investment Fund is established and managed to invest in sustainable agriculture and renewable energy enterprises.	US$M co-financing committed to fund	15.5 EIB	Dropped
12		US$M returned to investors and the CC Trust Fund	64.5 (EIB)	Dropped
13		US$M provided to CC Trust Fund	44.7 (CI and EIB)	Dropped
14		US$M committed to businesses	19 (EIB)	Dropped

15	**Output** A7.5 Climate resilient sustainable agriculture businesses are invested in	# of businesses supported	8 (EIB)	Dropped
16		# of people employed	26,840 (EIB)	Dropped
17		Of which % women	50% (EIB)	Dropped
18		Ha under sustainable management	26,840 (EIB)	Dropped
19	**Output** A.5.3. The monitoring and evaluation system for CSLs is operational and informs adaptive management	M&E system operational	1 (CI and EIB)	1 (CI) ⇨
20		# annual reports and annual workplans using M&E data	10 (CI and EIB)	7 (CI)
21	**Output** A.5.4. Financial sustainability of project activities is achieved through a combination of trust fund and performance-based payments	Amount ($) provided to Trust Fund capital	47.9 million (CI and EIB)	1 with $ 3.2 million seed capital from GCF (later dropped)
22	**Outcome** M6.0 Increased number of small, medium and large low-emission power suppliers	6.1 MW of capacity from low emission sources	33 (EIB)	Dropped
23	**Output** M.6.1. Private sector investment made in renewable energy installations and supply chains	US$M committed to renewable energy installations/suppliers.	18 (EIB)	Dropped
24		# of low-emission energy installations / suppliers invested	7 (EIB)	Dropped
25	**Output** M6.2. Clean energy generated and distributed.	# of people benefitting from low emission energy sources	448,000 (EIB)	Dropped
26		# of deals sustainably exited as percentage of portfolio	100% (EIB)	Dropped
27		# of jobs created	1460 (EIB)	Dropped

The impact of EIB withdrawal on the reduction of targets was significant. For example, the communities missed opportunities of having clean and sustainable energy, (33 MW) project coverage by 201,170 ha, one million ton of carbon emissions, market opportunities for 28 potential agricultural commodities, 28,300 jobs lost, and deprivation of 448,000 beneficiaries from clean energy in the project area, plus risk to financial sustainability after project completion.

It is recorded that EIB has been working in Madagascar since 1970, financing over 40 projects totaling approximately **€0.9–1.0 billion**. These cover strategic infrastructure (roads, dams, Antananarivo

water supply) and SME loans through local financial intermediaries[6]. In February 2025, EIB committed **€15 million** to the I&P Afrique Entrepreneurs 3 (IPAE 3) fund. This fund supports SMEs in West Africa and Madagascar, particularly in sectors like agriculture, health, energy, and nutrition, aiming to create over 4,000 jobs with at least 40% for women[7]. In mid-2023, EIB provided a **€20 million** loan their first agricultural loan in Madagascar since 2005 to Sahanala, a social enterprise. The funds support mechanization, food processing facilities in western regions, and fishery infrastructure in the north, benefiting smallholder farmers and fishers and creating ~1,500 jobs[8]. Also in 2023, EIB renewed support for **WeLight Madagascar** with a **€10 million** loan to develop solar-powered mini-grids in isolated villages, integrated within broader EU rural electrification efforts totaling €19 million[9]. These initiatives could be regarded as parallel financing for SLEM.

2.3. Main Stakeholders

- Ministry of Environment and Sustainable Development of Madagascar: GCF National Designated Authority, through BNCCREDD+
- BNCCREDD+ for the constitutional capacity building on climate change and for the project monitoring to ensure alignment with the national and international climate change policies.
- Conservation International- GEF AE
- Conservation International, Madagascar, GEF-EE
- Conservation International, East Africa, oversight of activities
- 7 Sub-regional Directorates of Environment and Sustainable Development (DREDD)- implementation of activities
- 6 Sub-regional Directorates of Agriculture and Livestock (DRAE)- implementation of activities
- 73 mayors and municipal authorities in intervention zones
- 20 local NGOs and civil society partners (sub-grantees) such as: ONG Tandavanala ou CMP in COFAV; Haonasoa (COFAV); Ny Tanintsika (COFAV); Organe de Developpment du Diocese de Toamasina (ODDIT)
- Private actors in vanilla, honey, ginger, and spice value chains such as RAMEX and SOPRAL
- 387 local associations: (created by 60-133 Law) engaged in implementation of activities.
- 18 Cooperatives: engaged to manage Local Transformation Units and market access
- 151 Women's Groups: engaged in implementation of activities.
- Village Organizations (VOIs): engaged in implementation of activities and management of local forests including forest patrolling.

[6] *developmentaid.org+4eib.org+4eib.org+4*
[7] *african.business+10agenparl.eu+10africanews.it+10*
[8] *african.business+6climatebusiness.africa+6agenparl.eu+*
[9] *energynews.pro*

2.4. Project Implementation Arrangements

The project was led by CI-Madagascar and the MEDD, through its directorate BNCCREDD+. Upon the withdrawal of EIB, CI-GCF Agency served as the Accredited Entity. A PSC, led by MEDD, had oversight responsibility. It comprised CI, BNCCREDD+, and ministry representatives. At the regional level, DREDDs and DRAEs played major implementation and oversight role. Local NGOs were engaged in some target sites to provide training, awareness and technical support to beneficiaries. Women Associations (WAs), VOIs, Farmers' Associations and Cooperatives were the beneficiaries as well as implementers at the landscape level.

GCF Independent Evaluation Unit (IEU) provided support for the collection and analysis of baseline, midline and endline data and production of LORTA reports.

2.5. Project Timing and Milestones

The project was approved in October 2016 and officially commenced on May 8, 2018. It was initially designed with a 10-year duration for the private-sector component and a 5-year period for the public-sector component. However, following the withdrawal of the European Investment Bank (EIB), the overall project duration was reduced to five years. Implementation was further affected by delays caused by the COVID-19 pandemic and the impact of two cyclones in 2022. As a result, the project was granted a no-cost extension, extending the public-sector component to a total of seven years, with completion in May 2025. Key milestones and events throughout the project lifecycle are summarized in **Figure 3.**



Figure 3: SLEM Project Milestones



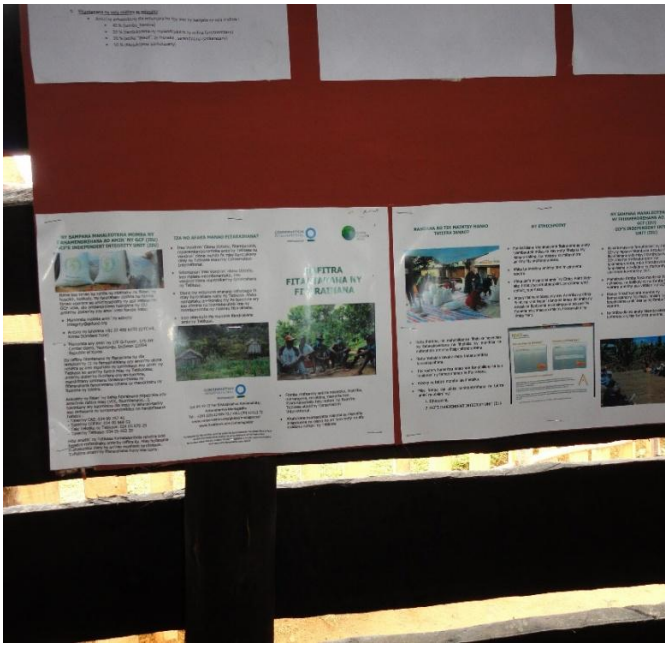
Mayor Moramanga, Fianarantosa Addressing the FIE Team



Community Nursery at COFAV



Eastern Madagascar Field Visit:
Team Leader documenting access challenges as his vehicle crosses a deteriorated wooden bridge in a remote project area.



Operational Guidelines for Community Rice Milling Unit Displayed at a Cooperative Building – Fisnarantsoa, Madagascar

3. FINDINGS

3.1. Project Strategy

3.1.1. Project Design

The SLEM project aimed to enhance the resilience of smallholder farmers and reduce carbon emissions in two key PA areas of Eastern Madagascar, namely CAZ and COFAV. These forest corridors encompass 683,452 ha across 15 districts, representing the remaining large forest block in the region. The CAZ covers 369,962 ha and five districts, while COFAV spans 314,186 ha and 10 districts **Figure 4.** The project was designed in response to rampant poverty and forest degradation in Madagascar **Section 2.1 and 2.2**.

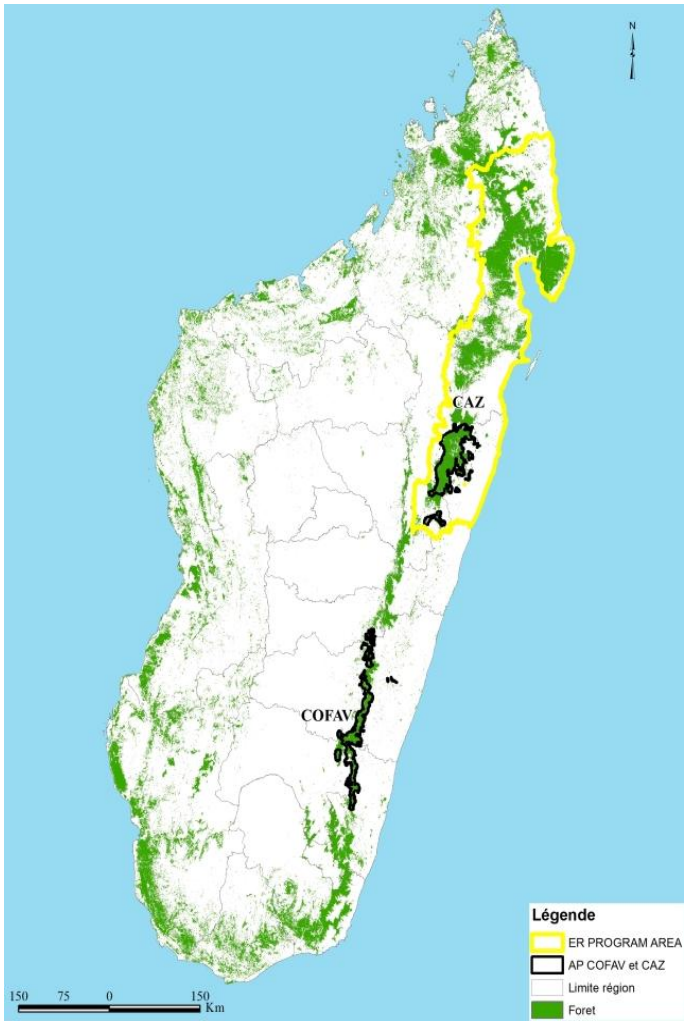


Figure 4. Map of Madagascar Showing CAZ and COFAV Corridors

The project has two components, namely, climate change adaptation and climate change mitigation. The climate change adaptation focused on building resilience among smallholder farmers, whereas the mitigation component focused on tree plantation, forest protection and quantification of carbon emissions, institutional capacity building and policy interventions. The project outcomes and outputs are listed as follows:

1. **Outcome: A7.0. Strengthened adaptive capacity and reduced exposure to climate risks.**
    - **Output A7.1:** Smallholder farming communities are supported and trained in Sustainable Agriculture (including Climate-Smart Agriculture- CSA).
    - **Output A7.2:** Market and crop production information available at local level to inform crop production and to improve market access.
    - **Output A7.3:** Resilience to climate induced shocks and other risks is improved by supporting farmer-led, gender-sensitive analysis, planning and risk management.
    - **Output A7.4:** Critical ecosystems providing essential ecosystem services to smallholder farmers communities in current and future climate conditions are monitored and protected or restored as Ecosystem-based Adaptation (EbA) measures.

2. **Outcome: A8.0. Strengthened awareness of climate threats and risk reduction processes.**
    - **Output A8.1:** Strengthened capacity of government employees, local conservation and development NGOS, farmer groups and local communities to implement mitigation and adaptation measures to achieve Climate-Smart Landscapes.
    - **Output A8.2:** Improved knowledge by the CAZ and COFAV population (including school children) about climate change issues and responses.

3. **Outcome 3: A5.0. Strengthened institutional and regular systems for climate-responsive planning and development.**
    - **Output A5.1:** Strategies and actions identified in national climate change policies are integrated into decentralized planning at regional and local levels.
    - **Output A5.2:** Intervention capacity on climate change issues of decentralized technical services are strengthened.
    - **Output A5.3:** The monitoring and evaluation system for CSLs is operational and informs adaptive management.
    - **Output A5.4:** Financial sustainability of project activities is achieved through a combination of trust fund and performance-based payments.

4. **Outcome 4: M9.0: Improved management of land or forest areas contributing to emissions reductions**.
    - **Output M9.1:** Key planning documents for CAZ and COFAV are updated.
    - **Output M9.2:** Improved forest management as outlined in the CAZ and COFAV management plans and emission reductions verified.

- **Output M9.3:** A system of efficient and transparent governance is strengthened for CAZ and COFAV.
- **Output M9.4:** Forest restoration on degraded lands within the CAZ and COFAV PAs/carbon project areas.

The ToC was redesigned after the withdrawal of EIB component and is provided in the ToRs (**Annex 1).** The detailed Results Framework is given in **Annex 6**, which lists the outputs, outcome, GCF level indicators, baseline and achievements at the midpoint and at project completion. The project design followed the following key principles:

- Community-led natural resource management approach
- Integrated landscape approach
- Public-private partnerships
- Climate change mitigation and adaptation co-benefits
- Gender mainstreaming and social inclusion

The FIE Team found the ToC/project design in order, except that it missed the element of micro-credit. The sustainability of Village Organizations (VOIs), Women Associations (WAs), and other community structures is dependent on the common interest of community members and their financial resources. The project should have a micro-credit element in design to further generate interest of members to participate in joint activities and help each other in hard times/natural disasters. Micro-credit provides economic incentives for members to remain in these grassroot institutions and further cement the social cohesion among households.

As the lead institution for environmental oversight, DREDD was central in selecting and shaping project activities, particularly forest management transfer (VOI), forest restoration, and environmental monitoring. These activities were fully integrated into ministry's planning, reflecting national ownership and relevance... Director, DREDD, Fianarantsoa, COFAV

3.1.2. Results Framework/ Logical Framework

The project Results-Framework/ Logical Framework was revised after the withdrawal of EIB. Some outputs and activities were dropped, and changes were made to the end-of-project targets. This has been discussed in detail in **Section 2.1 and Annex 6.**, and it is summarized in **Figure 5.**

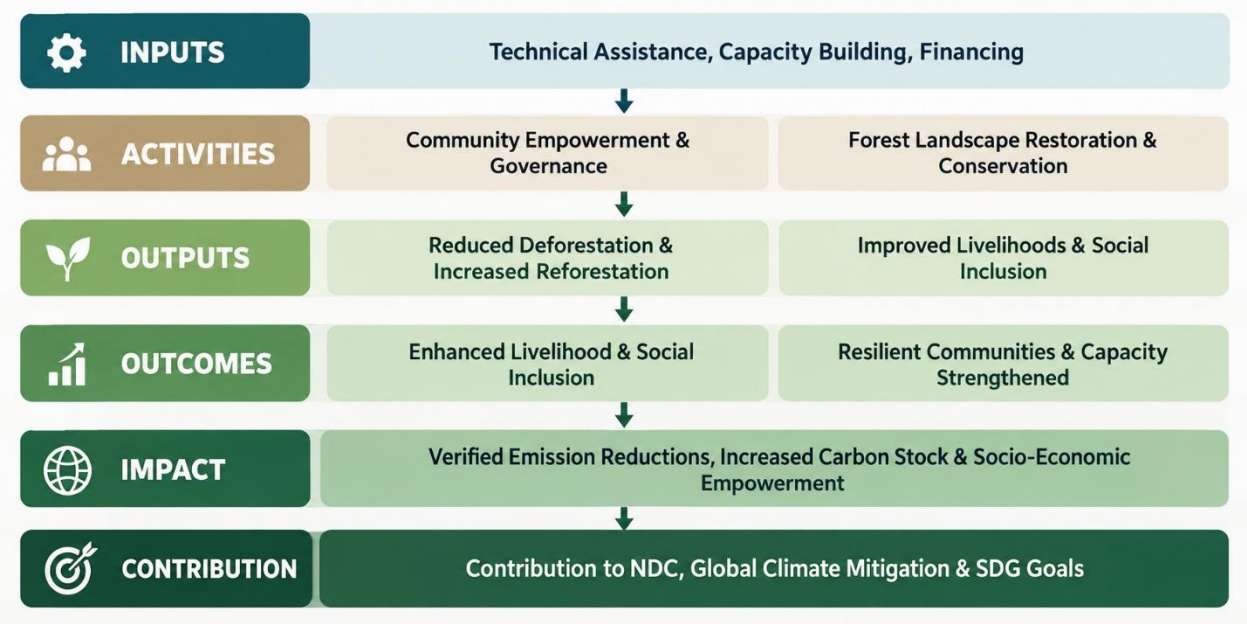


Figure 5. Summarized Results Framework of SLEM.

The project also adopted the additional core indicators, viz.,

1. Expected total number of beneficiaries, target 85,700.
2. Cost per ton of Co_2 decreased for all Fund-funded mitigation project- target - $ 1.27/ton
3. Volume of finance leveraged by GCF funding (1:1 (CI 19.2 million/GCF 18.5 million).

The FIE Team carefully analyzed all the statements of core indicators, outcomes and outputs and indicators associated with these and observed that SMART (S= specific, M=measurable, A= Attributable, R= Realistic and T= time-bound or trackable) criteria were applied, and baseline data figures were adequately referenced in the FP, and set targets were achievable, except that the *target of finance leveraged by GCF funding to the tune of 1:1 (CI 19.2 million and GCF 18.5 million) which was unrealistic. CI at the time of project formulation mobilized EIB which later withdrew its application because of differences in the operational modalities with the GCF. Establishment of CCTF is a novel idea to ensure continued availability of funds to the vulnerable communities, which was dropped in 2024 due to other priorities of GoM. GoM should have played a proactive role in further mobilization of funds or providing its own core funds for the deferred activities either through CI or through its departments as parallel financing.*

Since Malagasy people are energy deprived, especially in rural areas, they are obliged to cut trees to meet their energy needs (forest cover reduced by 25% from 2001 to in 2021- 4.85 million ha

equivalent to 2.52 gtCo_2e)[10]. Ironically the per capita electricity available in Madagascar is 84 KWhr[11], whereas in its neighboring Mozambique it is 400kwh[12], and in South Africa 3,546 KWhr[13]. This also emphasizes the possible negative impact of withdrawal of EIB in the project area and need for possible future financing in renewable energy, sustainable charcoal production and promotion of fuel-efficient cookstoves.

The FIE Team observed that the project has collected a great deal of data as evidenced in the EIPM, LORTA and Annual Monitoring and Evaluation Reports, and the LFA should have been revised at mid-point to include the additional indicators/sub-indicators at the output level so that the Results Framework becomes representative of the Annual Reports.

3.2. Relevance

Eastern Madagascar's rainforest corridor is globally significant for its rich biodiversity and critical ecosystem services. Yet, unsustainable land use practices, shifting cultivation, and illegal deforestation continue to degrade the landscape, undermining livelihoods and climate resilience. The SLM practices offered a viable pathway to reconcile conservation with socio-economic development, helping local communities thrive while contributing to Madagascar's climate commitments and its 2030 Sustainable Development Agenda. ***The FIE Team observes that the project is relevant to the needs of the local communities, private sector, priorities of the GoM and the Sustainable Development Goals (SDGs), which is further elaborated as follows.***

Relevance to Local Community Needs

Over 90% of rural households in Eastern Madagascar rely on subsistence agriculture and forest resources for food and income. Land/forest degradation and climate change have reduced soil fertility, increased vulnerability to cyclones and droughts, and threatened livelihoods. Based on the observations and stakeholder interviews, the FIE Team is convinced that the underlying vulnerability index described in the Funding Proposal remains largely valid throughout the project, and found that the activities have contributed to the well-being and social cohesion of local communities in the following ways:

The project provided cash and food crops in-kind grants to most vulnerable communities for raising tree nurseries, forest and fruit trees (cloves, vanilla vines, and coffee), seeds of high yielding varieties of crops (rice, ginger, white beans,) and vegetables to establish seed banks in villages and thus improve crop productivity and nutrition. Participants in FGDs confirmed that their crop production (rice, groundnut, vanilla, coffee, beans and cloves) has almost doubled or even higher (see Section 3.3.1 for details).

[10] *https://www.sciencedirect.com/science/article/pii/S2351989423000240*
[11] *https://www.worlddata.info/africa/madagascar/energy-consumption.php*
[12] *https://tinyurl.com/mubk8ez5*
[13] *http://bit.ly/3GEJGD5*

We never had the financial means to produce 100 kg of beans per harvest season per household. Thanks to the project, we now have this opportunity, which provides us with enough to eat, enough to save for seeds, and enough to sell -a member of a Women Association in COFAV

SLEM promoted CSA, improved watershed farming, terrace farming, composting and the use of organic fertilizers, improved soil and water management, forest restoration, and alternative income sources such as sustainable value chains (e.g., vanilla, coffee, cloves, honey, etc.), directly addressing community priorities for food security, resilience, and poverty reduction.

The project provided awareness of climate change, equipment for processing rice, cassava, and coffee, and trained communities in efficiently functioning of cooperatives and community groups, thus promoting collective marketing and increasing profitability. Both men and women were equitably treated by the project which promoted social cohesion in the society. The project further cemented the relationship with communities by providing in-kind grant after severe cyclones. During FGDs, the FIE Team clearly observed that men, women, boys and girls were equally knowledgeable and vocal about the issues and proposing indigenous solutions.

SLEM followed Ecosystem-based Approach (EbA), raised awareness among communities about PAs, and provided training and equipment to communities for afforestation and patrolling of forests to minimize resource pressure (slash and burn and charcoal making) within the PAs to conserve the important remaining rainforests in Madagascar which provide tremendous ecosystem services to the local communities.

The project trained community patrollers and provided them with GPS, tents, personal gears and other equipment to patrol within the PAs and monitor afforestation, slash and burn, charcoal making and teaching/advocating the ill-informed/ignorant people to abandon such practices, used peer pressure and with the support of the Regional Forest Departments to enforce the law, thus empowering the local communities to manage natural resources.

Alignment with Government Priorities

Madagascar's long-term vision, as articulated in the "Plan Emergence Madagascar" (PEM), which focuses on transforming the nation into a potentially emerging economy by 2030. The PEM outlines a path to achieve this vision through three pillars: social, economic, and environmental, with governance as a cross-cutting theme. A key goal is to reduce the poverty rate to 35 percent by 2040[14]. ***The SLEM project directly contributed to the achievement of these three long-term goals of the GoM (see Section 3.3 for details).***

Madagascar has published its National Adaptation Plan (PNA) in 2021, which explicitly references the Plan Emergence Madagascar and aims to strengthen adaptation governance and mainstream

[14] *https://tinyurl.com/4rv7d7ay*

adaptation in priority sectors, and mobilize finance[15]. It includes a diverse array of actions, with a 10-year perspective, including the creation of a "green belt" to prevent desertification and enhance climate resilience; promoting adaptation in agriculture, especially in the Grand Sud; improving access to drinking water; strengthening Early Warning Systems (EWS); accelerating reforestation and conserving natural forests; protecting coastal infrastructure; and making cities more sustainable and resilient. ***The FIE Team observes that SLEM significantly facilitated the achievement of the objectives of the Adaptation Plan, particularly preventing desertification, accelerating afforestation and conserving natural forests, climate resilience and promoting CSA.***

Madagascar's NDC, mainly focused on energy and land use, land-use change and forests. The initial NDC, submitted in 2016 with commitments to 2025, laid out a package of actions projected to cost US$42.1 billion. Most of the near-term goals in the initial NDC were not achieved, so it was updated in 2022 aiming at setting more realistic, achievable goals[16]. It pledges to reduce cyclone-related loss of life, lower GHG emissions (by 32.6 Mt Co_2, or 24 percent relative to business as usual), increase land-based carbon sinks, boost the share of renewable energy in the electricity mix to 80 percent, scale up adoption of improved stoves by households, slow coastal erosion in vulnerable areas, triple marine PAs, and restore 55,000 ha of degraded land and mangroves. Thus, SLEM aligns with the National Strategy for Sustainable Land Management and supports key policy instruments, including the GELOSE[17] and GCF frameworks, by strengthening community rights and governance.

It is evident that the SLEM project has directly contributed to ambitions of GoM as narrated in the NDC, particularly lowering GHG emissions, and increased land-based carbon sinks. It is unfortunate that the GoM did not agree to creation of CCTF, and EIB withdrew its application , otherwise, the project could have contributed further to reducing carbon emissions and upscaling of the climate change adaptation activities.

Contribution of SLEM to the SDGs

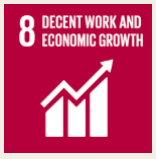
Sustainable Land Management is a critical enabler for multiple SDGs, including: Goal1 (Poverty), Goal 2 (Zero Hunger), Goal 8 (Decent Work and Economic Growth), Goal13 (Climate Action), and Goal 15 (Life on Land). The SDG indicators to which the project contributed are given in **Table 3.**

[15] Republic of Madagascar. 2021. "Plan National d'Adaptation Au Changement Climatique (PNA) Madagascar (National Adaptation Plan of Madagascar)." Antananarivo: Ministry of Environment and Sustainable Development. https://unfccc.int/documents/488094

[16] Republic of Madagascar, 2022, "Deuxieme Contribution Determinee Au Niveau National de La Republique de Madagascar."

[17] GELOSE (Gestion LOcale SÉcurisée) framework refers to a Malagasy law and policy focused on the local management of natural resources

Table 3.Sustainable Development Goals and Indicators to which the SLEM Project Contributed

Goal	Goal and Indicators
	**Goal 1. End poverty in all its forms everywhere.** 1.1.1. Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural) 1.2.1. Proportion of population living below the national poverty line, by sex and age 1.2.2. Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions 1.5.2. Direct economic loss attributed to disasters in relation to global Gross Domestic Product (GDP) 1.a.3 Sum of total grants and non-debt-creating inflows directly allocated to poverty reduction programmes as a proportion of GDP
	**Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture.** 2.1.2. Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES) 2.2.2. Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight) 2.3.1. Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size 2.3.2. Average income of small-scale food producers, by sex and indigenous status
	**Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all** 8.1.1. Annual growth rate of real GDP per capita 8.4.1. Material footprint, material footprint per capita, and material footprint per GDP 8.4.2. Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP 8.5.2. Unemployment rate, by sex, age and persons with disabilities 8.6.1. Proportion of youth (aged 15-24 years) not in education, employment or training 8.8.2 Level of national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status
	**Goal 13. Take urgent action to combat climate change and its impacts** 13.1.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population.

	13.1.2. Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030 13.1.3. Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies
	**Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.** 15.1.1. Forest area as a proportion of total land area 15.1.2. Proportion of important sites for terrestrial and freshwater biodiversity that are covered by PAs, by ecosystem type 15.2.1. Progress towards sustainable forest management 15.3.1. Proportion of land that is degraded over total land area 15.4.1. Coverage by PAs of important sites for mountain biodiversity 15.4.2. Mountain Green Cover Index

Relevance to Private Sector

The SLEM project was designed with a strong private sector dimension, recognizing that sustainable landscape management and climate-resilient livelihoods require market-based incentives and investment partnerships. The original design envisaged EIB-supported financing for renewable energy initiatives as a catalytic mechanism to crowd in private capital, reduce investment risks, and demonstrate scalable green business models. This approach aimed to promote systemic transformation through blended finance and structured engagement with financial institutions and energy investors.

The withdrawal of EIB, due to operational issues with GCF, necessitated a strategic recalibration of this private sector engagement pathway. While the exit reduced the scale of anticipated renewable energy investments and limited the project's ability to leverage large-scale private finance, it did not eliminate private sector relevance. Instead, the project shifted from a finance-driven model of engagement toward a value chain–driven approach. It strengthened producers' cooperatives, supported the establishment of agro-enterprises, and facilitated structured linkages with private buyers for providing inputs and buying products such as coffee and cloves.

This strategic shift represented a trade-off: the ambition for systemic financial market transformation in renewable energy was moderated, but private sector engagement was preserved through commercial partnerships embedded in climate-resilient commodity value chains. Consequently, while the scale and transformational leverage originally envisioned under the EIB component were reduced, the project remained relevant to private sector development by fostering locally anchored enterprises, market integration, and income-generating opportunities aligned with sustainable landscape objectives.

3.3. Effectiveness

3.3.1. Progress Towards Outcome Analysis

Overall Objective: To improve the climate resilience of vulnerable smallholder farmer households and reduce greenhouse gas emissions from deforestation in the eastern rainforests of Madagascar	
Progress towards achieving the objective is rated as	Highly Satisfactory

The revised Results Framework is given in **Annex 6,** which gives details of indicators at outcome and impact level, baseline data, endline target and ratings assigned to outcomes and outputs. The project had four GCF level impact indicators. The first indicator was expected total number of beneficiaries, for which the target was 85,700, and the endline achievement was 131,259 individual beneficiaries[18], which was 40 percent higher than the target. The second core indicator was cost per tCo_2e decreased for all GCF funded mitigation /program. The baseline was US$ 1.27 and based on the total Emission Reduction (ER) result of project (9.34 million tCo_2e), the cost per ton of Co_2e comes US$1.7, which is higher than the baseline. For the 4th core indicator, the baseline was 9 million tCo_2e, and the achievement was 9.34 million, and the target was fully achieved. The 3rd indicator ratio of funds leveraged by GCF fund {GCF:CI 1:1) was over ambitious, and the project could only leverage US$ 771,318 **(Table 2 and Table 12).**

For the impact A 1.0 "Increased resilience and enhanced livelihoods of most vulnerable people, communities and regions", there were two indicators, viz., number of people less affected by climate related disasters due to project, and number of people adopting a wider variety of livelihood strategies that make them more household resilient to climate change. For both the targets the baseline was 34,272, and the achievement was 131,259, which is 3.9 times higher than the baseline **(Table 2 and Table 4).**

[18] ***Direct beneficiaries*** *are individuals, households, or groups who directly receive support, services, or benefits from SLEM project interventions. They are actively engaged in or directly targeted by project activities implemented. These include: smallholder farmers, producer groups, and local cooperatives participating in* ***climate-resilient agriculture, agroforestry, or livelihood diversification*** *activities, COBAs ; involved in conservation agreements and sustainable forest management; beneficiaries trained in* ***natural resource governance, value-chain development, and climate-smart land-use practices****; households directly supported through* ***restoration, reforestation, or sustainable land management activities*** *financed by project funds; and l****ocal authorities and technical staff*** *who received targeted capacity building through the project. In short, direct beneficiaries are those who* ***personally engage in and benefit from*** *project-supported actions, capacity building, and livelihood interventions.*

Indirect beneficiaries *are individuals or groups who* ***benefit as a secondary effect*** *of the project's interventions, even if they did not directly participate in project activities. These may include: c****ommunities living in or near CAZ and COFAV*** *who gain from improved ecosystem services such as* ***enhanced water regulation, soil fertility, and biodiversity conservation****; l****ocal and regional economies*** *benefiting from increased agricultural productivity, market linkages, and ecosystem stability; f****uture generations*** *who benefit from reduced deforestation, improved land-use governance, and enhanced climate resilience; and g****overnment institutions, NGOs, and private-sector partners*** *that benefit from improved coordination mechanisms, data, and capacity developed through SLEM's institutional strengthening efforts. In essence, indirect beneficiaries are those who experience positive environmental, social, or institutional outcomes resulting from the project's broader systemic impacts.*

For the impact A2.0. "increase resilience of health and well-being and food and water security", the baseline was 5,712 households, whereas the project resulted in improving the resilience of 19,992 households, which is about four times higher than the baseline. Likewise, for the impact A4.0, the indicator was "improved resilience of ecosystems and ecosystem services", and the indicator was area of agroforestry projects (ha), silvopastoral- systems, or other EbA strategies established or enhanced. The baseline was 1,170 ha, and the end-of-project achievement was 23,334 ha, which is 19 times higher than the target. For the impact A4.0 on reduced emissions, the achievement was 9.34 million tCo_2e **(Table 4).**

Table 4. GCF Level Impact Indicators and Achievements of SLEM Against Baseline

#	Indicator	Baseline Level	End-of-project Target	End-of-project Achievement	Trend
GCF Level Impacts					
1	Core indicator 1: Expected total number of direct beneficiaries of GCF funded project (people)	0	85,700 (50% females)	131,259 (50.5% females)	⇧
2	Core Indicator 2: Total number of indirect beneficiaries of GCF funded project (people)	0	1,105,419 (50.18% females	1,105,419 (50.18% females	⇨
3	Core indicator 2: Cost per tCo_2e eq decreased for all Fund funded mitigation projects/ programmes -	$19.30/ ton	$1.27/ton	1.71/ton	⇧
4	Core indicator 3: Volume of finance leveraged by Fund funding	0 (both from public & private)	1:1	Funds mobilized US$ 771,318 from private, nil from public	NA
5	Core indicator: Tonnes of Co_2e reduced as a result of Fund- funded project	1 million	9 million tons	9.343,807 tons	⇧
A 1.0 Increased resilience and Enhanced livelihoods of the most vulnerable people, communities and regions					
6	Number of people less affected by climate related disasters (disaggregated by vulnerable groups) due to the Project	34,272	119,952	131,529	⇧
7	Number of people adopting a wider variety of livelihood strategies that make them more household resilient to climate change	34,272	119,952	131,259	⇧
A2.0 Increased resilience of health and well-being, and food and water security					

8	Number of food-secure households due to the Project	5,712	19,992	21,922	⇧
A4.0 Improved resilience of ecosystems and ecosystem services					
9	Area of agroforestry projects (ha), silvopastoral systems, or other Ecosystem-based Adaptation strategies established or enhanced	1,170 ha	9,996 ha	23,334	⇧
M4. 0 Reduced emissions from land use, reforestation, reduced deforestation, and through sustainable forest management and conservation and enhancement of forest carbon stocks					
10	t Co_2e reduced from forest/land use	One million	9 million tons	9.343,807 tons	⇧

Outcome 1. GCF Ref A7.0. Strengthened adaptive capacity and reduce exposure to climate risks	
Progress towards achieving Outcome 1 is rated as	Highly Satisfactory

The outcome indicator was "# of vulnerable farmers, businesses, and public sector services use improved tools, instruments, strategies and activities for responding to climate variability and climate change". The baseline for this indicator was 34,272 people and end-of-project target of 119,997 people. The project surpassed the target and benefited 131,259 people.

Under this outcome, there were the following outputs:

1. **Output 1.1.** GCF Ref A7.1 Smallholder farmer communities are supported and trained in Sustainable Agriculture (including CSA)
2. **Output 1.2.** GCF Ref A7.2 Market and crop production information available at local level to inform crop production type) and to improve market access.
3. **Output 1.3.** GCF Ref A7.3. Resilience to climate-induced shocks and other risks is improved by supporting farmer-led, gender-sensitive analysis, planning and risk management.
4. **Output 1.4.** GCF Ref A7.4. Critical ecosystems providing essential ecosystem services to smallholder farmers communities in current and future climate conditions are monitored and protected or restored as EbA measures.

The project was instrumental in achieving the stipulated targets of all the outputs, except minor variations for indicators 2 and 4, whereas it surpassed all the target for all the remaining indicators of outputs **Table 5, Fig 6).**

A key strength of the project was its investment in equipment like rice and coffee

processing units, which helped households develop income-generating activities. By working at the household level, the project ensured practical impact, allowing entire families to benefit from improved agricultural and forest management practices. Community organisation was notably reinforced, contributing to fewer forest fires. DREDD staff also received drone piloting training, although the drones were not delivered to DREDD..... Director, DREDD, Fianarantsoa.

Table 5.Indicators and Achievements of SLEM Outcome 1 and its Associated Outputs Against Baseline

#	Indicator	Baseline Level	End-of-project Target	End-of-project Achievements	Trend
	Outcome 1. GCF Ref A7.0 Strengthened adaptive capacity and reduced exposure to climate risks				
1	# of vulnerable farmers, businesses, and public sector services use improved tools, instruments, strategies and activities for responding to climate variability and climate change	34 ,272 people	119,952 people	131,259 people	⇧
	Output 1.1. GCF Ref A7.1 Smallholder farmer communities are supported and trained in Sustainable Agriculture (including Climate-Smart Agriculture)				
2	Number of individuals with vulnerability reduced	34,272 people	119,952 people	104,067 people	⇩
3	Number of households adopting sustainable agriculture techniques	5,712 households	19,992 households	21,921 households	⇧
	Output 1.2. GCF Ref A7.2 Market and crop production information available at local level to inform crop production type) and to improve market access				
4	Proportion of women from female-headed households who are supported by the project and become member of Women Associations	5%	60%	55.9%	⇩
	Output 1.3. GCF Ref A7.3. Resilience to climate-induced shocks and other risks is improved by supporting farmer-led, gender-sensitive analysis, planning and risk management				
5	% of households losing more than 25% of field crops after climate shocks	70% of households losing more than 25% of crops	40% of households losing more than 25% of crops	47%*	⇧
	Output 1.4. GCF Ref A7.4. Critical ecosystems providing essential ecosystem services to smallholder farmers communities in current and future climate conditions are monitored and protected or restored) as Ecosystem-based Adaptation measures				
6	Hectares of critical habitats managed sustainably by the local communities within the agricultural landscape	4,135 ha	9,261 ha	22,472 ha	⇧

	Hectares of agricultural landscape restored for production	6 ha	3,570 ha	3,569 ha	

Outcome 2. GCF Ref A8.0 Strengthened awareness of climate threats and risk reduction processes.	
Progress towards achieving Outcome 2 is rated as	Highly Satisfactory

The baseline for outcome 2 "strengthened awareness of climate threats and risk reduction processes" was 15,000 people, whereas the target was 150,000 people. The project surpassed the target and the number of people informed was 1,236,947, which was 8.24 times higher than the target. This outcome has the following two outputs:

1. GCF Ref A.8.1 Strengthened capacity of government employees, local conservation, and development NGOS, farmer groups and local communities to implement mitigation and adaptation measures to achieve Climate Smart Landscapes.
2. GCF Ref A.8.2. Improved knowledge by the CAZ and COFAV population (Including school children) about climate change issues and responses proposed by the project.

For all the indicators of the above two outputs, the project either achieved or surpassed the target **(Table 6).**

Table 6. Indicators and Achievements of SLEM Outcome 2 and its Associated Outputs Against Baseline

#	Indicator	Baseline	End-of-Project Target	End-of-Project Achievements	Trend
Outcome 2. GCF Ref A8.0 Strengthened awareness of climate threats and risk reduction processes					
1	8.1 Number of people informed on the potential impacts of climate change and range of possible responses	15,000 people	150,000 people	1,236,947 people	
Output 2.1. GCF Ref A.8.1 Strengthened capacity of government employees, local conservation, and development NGOS, farmer groups and local communities to implement mitigation and adaptation measures to achieve Climate Smart Landscapes					
2	# of Training tools developed and shared including best practices and lessons learned	1 manual and one poster	10	10	
3	# of men and women trained	65 people are trained	115,019 people	222,686 people	
Output 2.2. GCF Ref A.8.2. Improved knowledge by the CAZ and COFAV population (Including school children) about climate change issues and responses proposed by the project					

4	# of packs of training tools distributed	0	3,500	22,973	⇧
5	Number of people informed about climate change, Sustainable Agriculture and Ecosystem based Adaptation	10,608 people	150,000 people	150,000 people	⇨

Outcome 3. GCF Ref A5.0 Strengthened institutional and regulatory systems for climate responsive planning and development	
Progress towards achieving Outcome 3 is rated as	Highly Satisfactory

The baseline for the outcome 3 indicator "strengthened institutional and regulatory systems for climate responsive planning and development" was zero commune (Schema d' Amenagement Communal- SAC), and the target was 40 SACs, however, the project worked with 46 SACs and strengthened these to respond to climate change. The number of beneficiaries in these communes has already been discussed. Thus, the target was fully achieved **(Table 7)**.

There were four following outputs under this outcome:

1. Strategies and actions identified in national climate change policies are integrated into decentralized planning at regional and local level. The project has developed two guidelines for integration of climate change and climate smart landscape concepts into regional and local development plans, and the target was fully achieved.
2. Intervention capacity on climate change issues of decentralized technical services is strengthened with two indicators. The achievements of the indicator "# of co-executing entities and key decentralized technical services and local authorities with necessary resources to support Climate-Smart landscape'" surpassed the target of 56, whereas the second target for indicator "# of decentralized technical services supported" was fully achieved and the project supported seven regional governments.
3. Monitoring and evaluation system for CSLs is operational and informs adaptive management M&E system at the landscape level was developed and fully operationalized through monitoring by community patrollers and VOIs and WAs, thus the target was fully achieved.
4. Financial sustainability of project activities is achieved through a combination of trust fund and performance-based payment- under this indicator there were two indicators, viz., establishment of CCTF, and registering SLEM as a part of the REDD+. No work was conducted on CCTF as this activity was dropped (as discussed in Section 3.1.1) but the project has been registered as REDD+ project.

Table 7. Indicators and Achievements of SLEM Outcome 3 and its Associated Outputs Against Baseline

#	Indicator	Baseline	End-of-Project Target	Project Achievements	Trend
Outcome 3. GCF Ref A5.0 Strengthened institutional and regulatory systems for climate responsive planning and development					
1	# of communes trained in Climate Change (CC) and incorporate it into local planning	0	40 SACs	46 SACs	⇧
Output 3.1. GCF Ref A.5.1 Strategies and actions identified in national climate change policies are integrated into decentralized planning at regional and local levels					
2	# of guidelines developed for integration of CC and climate-smart landscape concepts into regional and local development plans	PANA and one manual guide on climate change	2 guidelines	2 guidelines	⇨
Output 3.2. GCF Ref A.5.2 Intervention capacity on climate change issues of decentralized technical services is strengthened					
3	# of co-executing entities and key decentralized technical services and local authorities with necessary resources to support Climate-Smart Landscape (CSL)	0	56	174	⇧
4	# of decentralized technical services supported	0 DRED	7 DREDs	7 DREDs	⇨
Output 3.3. GCF Ref A.5.3 The Monitoring and evaluation system for CSLs is operational and informs adaptive management					
5	M&E system operational	No M&E system at CSL level exists	1 M&E system at CSL	1 M&E system at CSL	⇨
Output 3.4. GCF Ref A.5.4 Financial sustainability of project activities is achieved through a combination of trust fund and performance-based payment					
6	Trust Fund created with $3.2 million seed capital and operational	No trust fund exists	1 CCTF	0 as CCTF was cancelled by GoM	NA
7	1 REDD+ pilot project is part of accredited carbon offset programs	SLEM not registered as REDD+	SLEM registered as REDD+	SLEM registered as REDD+	⇨

Outcome 4. GCF Ref A5.0 Strengthened institutional and regulatory systems for climate responsive planning and development	
Progress towards achieving Outcome 4 is rated as	Highly Satisfactory

The outcome 4 focused on strengthening institutional and regulatory systems for climate responsive planning and development, and it has one indicator, namely "forest area under improved management and reduced emission practices". The baseline for both the corridors was 655,832 ha, with the same acreage as end-of-project achievement" which was fully achieved **(Table 8).** This outcome has the four following outputs:

1. Key planning documents for CAZ and COFAV are updated- at the time of initiation of project there was no comprehensive document, whereas the project has developed comprehensive PA Plans for both the corridors, and the target has been fully achieved.
2. Improved forest management as outlined in the CAZ and COFAV management plans, and Emission Reductions (ER) verified. This output has three indicators:
    a. Management Effectiveness Index following IUCN assessment methodology- the baseline for this indicator was 58.5%, whereas the end-of-project target was 68.5%, and the project has fully achieved this.
    b. Percent of planned activities in PAs workplans that are completed- achievement is 95% completion against a baseline of 25%.
    c. # of emission reduction reports produced- six reports have been produced against a target of six reports and baseline of zero report.

3. GCF Ref M9.3 A system of efficient and transparent governance is strengthened for CAZ and COFAV. The target for indicator for this output was the # of annual workplans and other reports produced, and the project has produced 26 reports, and the target is fully achieved.
4. Forest restoration on degraded lands within the CAZ and COFAV PAs/carbon project areas- the baseline for indicator for this output was 1,401 ha. The project has restored 4,160 ha against a target of 2,500 ha.

Table 8. Indicators and Achievements of SLEM Outcome 4 and its Associated Outputs Against Baseline

#	Indicator	Baseline	End-of-Project Target	End-of-Project Achievements	Trend
	Outcome 4. GCF Ref M9.0 Improved management of land or forest areas contributing to emissions reductions				
1	9.1 Forest area under improved management and reduced carbon emissions practices	655,832 ha	655,832 ha	655,832 ha	⇨
Output 4.1. GCF Ref M9.1 Key planning documents for CAZ and COFAV are updated					

2	# of planning documents updated every 5 years: Management Plan (PAG)	0 PAG	2 PAG updated	2 PAG updated	
Output 4.2. M9.2 Improved forest management as outlined in the CAZ and COFAV management plans, and Emission Reductions verified					
3	Management effectiveness index (IEG) following IUCN assessment methodology	58.5%	68.5%	69.91%	⇧ ⇨
4	% of planned activities in PA workplans that are completed	25%	95%	95%	
5	# of emission reduction reports produced	0	6	~~6~~	⇨
Output 4.3. GCF Ref M9.3 A system of efficient and transparent governance is strengthened for CAZ and COFAV					
6	# of annual work plans and other reports approved by regional authorities and stakeholders	0	26	26	⇨
Output 4.4. GCF Ref M.9.4. Forest restoration on degraded lands within the CAZ and COFAV PAs/carbon project areas					
7	# of hectares of forest land restored	1,401 ha	2,500ha	4,160 ha	⇧

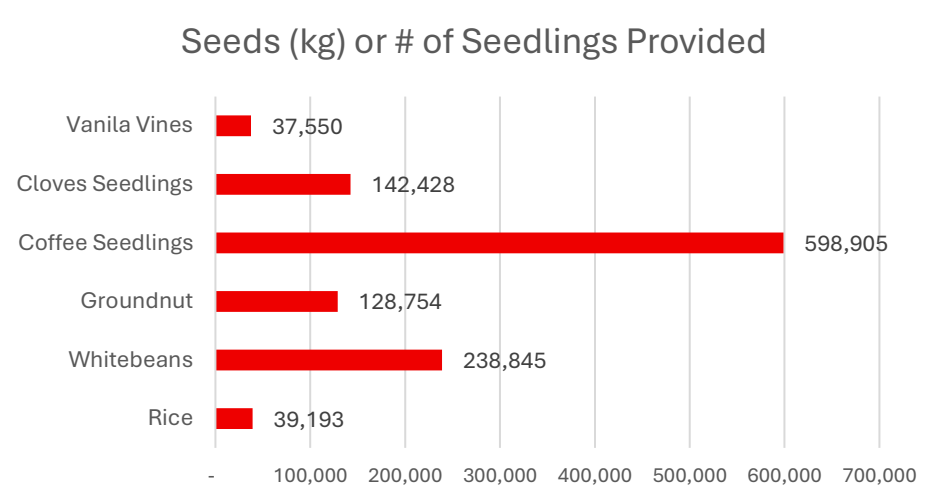


Figure 6. Quantity of High-quality Seed/Saplings of various Crops Provided by the Project

3.3.2. Barriers to Achieving the Project Objective

Barriers Identified at the Design Stage

During the project design stage, a range of critical barriers through stakeholder consultations, baseline assessments, and contextual analysis were identified. These barriers included high rates of

deforestation driven by unsustainable land use, weak local governance and institutional capacity, insecure land tenure, and limited livelihood alternatives for forest-dependent communities.

Additional challenges included poor access to finance, vulnerability to climate risks, insufficient data for effective monitoring and reporting, and low levels of awareness around sustainable land management practices. Each of these barriers was systematically addressed in the project design through tailored interventions — such as community-based forest management, capacity building, tenure security support, diversified value chains, and robust Measurement, Reporting and Verification (MRV) systems **(Table 9).** ***By identifying and addressing these barriers from the outset, the project aimed to ensure its relevance, sustainability, and alignment with local needs, government priorities, and global climate goals. The FIE Team observed that the following barriers are still remaining.***

Remaining Barriers

Among the barriers identified at design stage, limited access to finance and limited or no rural road network and remoteness of project sites impacted the execution of project activities and may impact project long term impacts **(Table 9)**. Non-availability of access roads on one side is a blessing in disguise as it prohibits humans to encroach into the PAs, but it limits the access of communities to markets resulting in reducing profitability and availability of products in cities which also reduces the overall export potential of Madagascar. In fact, there are a lot of challenges related to market access due to the remoteness of the area where the project focused on improving the livelihoods of vulnerable communities. Despite efforts to strengthen the cash crop sector, the limited presence of local and international market partners may reduce farmers' motivation and jeopardize the sustainability of their efforts over time. Further, the risk of natural disasters, such as cyclones could reverse economic gains. This warrants the ***GoM and stakeholders to enhance financing for integrating Disaster Risk Management (DRM) in development and overall rural infrastructure development to meet the needs of communities in urban areas as well as to exploit export potential. It is worth noting that the products from these landscapes are mostly organic which could fetch higher prices in international markets. With a little investment on value addition, traceability, branding and use of overall Good Agricultural Practices, Madagascar could significantly enhance socio-economic development.***

Despite strong outcomes, overlaps with other partners (e.g., Ny Tanintsika) created confusion in patrol assignments and restoration efforts. Enforcement of forest laws remains weak, particularly due to judiciary absence and the need for stronger collaboration with the gendarmerie.... Director DREDD, Fianarantsoa.

Regarding climate financing, Madagascar could earn US$44 million per year and $286 million to $1.4 billion by 2030 through carbon market. One option would be to support efforts by large mining companies looking to improve their sustainability by funding large-scale reforestation and forest restoration activities. Potential collaboration with an existing quasi-private forest plantation

concession could expand afforestation and restoration of degraded forests activities within an existing 200,000 ha concessions in central Madagascar, and produce wood products, biofuels and emission reduction credits to sell into carbon markets. However, several constraints now prevent Madagascar from accessing climate finance from forest carbon markets. ***Madagascar nationalized its forestry carbon markets in January 2022, through decree 2021-1113. This is not a problem when the investments that lead to emission reductions are funded by the government, but the regulation may have potentially discouraged existing conservation projects led by private companies and nonprofits that used to issue carbon credits and kept new ones from being set up, which warrants a revision of the decree to improve climate financing enabling environment[19].***

The local management of PAs had great impact on the protection of the forest. However, the main barrier remained is the law enforcement which is outside CI's mandate though it tried to support patrols and monitoring by including local communities which was very effective..... CI Staff

Table 9. Status of Barriers to Achieving the Project Objectives at Project Completion

Barrier / Risk	Description	How Addressed in Project Design and Current Status
1. High Rates of Deforestation & Degradation	Unsustainable land use practices such as shifting cultivation (*tavy*), illegal logging, and charcoal production driving deforestation in the Eastern Rainforest Corridors.	Promoted sustainable land management, local community-based forest management, restoration of degraded lands, and protected area strengthening. Deforestation rate has been reduced from 3.17% in 2018 to 1.19% at project completion- barrier fully addressed.
2. Weak Local Governance & Institutional Capacity	Limited capacity of local communities and authorities to manage forests sustainably, enforce rules, or monitor land use.	Included capacity building for community-based organizations, local governance training, and supported participatory land use planning- barrier fully addressed.
3. Insecure Land and Resource Tenure	Lack of clear or secure rights discourage long-term investment in conservation or restoration.	Strengthened the roles and responsibilities of local communities forests management and use through GELOSE and GCF processes, and community-based natural resource management agreements. Forty-six community-based forest management agreements signed covering the project communes. There is a need to work on the remainder non-project communes.

[19] *https://tinyurl.com/bdddedst*

4. Poverty & Limited Livelihood Options	High poverty levels created dependence on unsustainable forest exploitation for short-term survival.	Integrated CSA, diversified income sources, and development of sustainable value chains. Income levels in project communes significantly increased.
5. Limited Access to Finance	Smallholders and cooperatives lacked access to credit for adopting improved practices or investing in value chains.	Blended finance mechanisms, and microcredit support were dropped due to operational differences between EIB and GCF, and partnerships with private sector actors. Access to finance remains a challenge.
6. Climate Vulnerability	Exposure to cyclones, floods, and changing rainfall patterns threatened agriculture and forest ecosystems.	Designed climate-resilient restoration and agriculture interventions; integrated risk management into planning and land management; and community resilience improved in project communes. Exposure to cyclones and floods is a recurring threat which needs intervention at the national level. Increase in household income has addressed this barrier to some extent.
7. Insufficient Data & MRV Systems	Limited baseline data and capacity for carbon stock measurement, reporting, and verification for REDD+ performance payments.	Established robust MRV systems, built local capacity for carbon monitoring, and developed participatory monitoring tools- barrier fully addressed.
8. Low Awareness & Behavior Change Challenges	Limited awareness among stakeholders about the long-term impacts of unsustainable practices and benefits of SLM.	Included community outreach, environmental education, and sustained engagement for behavior change; and reached to 1.2 million beneficiaries. Barrier fully resolved.
9. Remoteness of project sites & Difficulties to Access	The project sites/villages are in remote areas without good road network, which is especially bad during rainy season.	Recruited Field Agents locally to guide communities but still some sites were difficult to access, and drones were used to monitor forest degradation and afforestation. Attention from the GoM is needed to improve rural road network.
10.Access to climate finance	The combination of these following issues limits the country to access funding from climate finance mechanism: ▪ Political (instability, ownership) ▪ Technical (lack of capacity to submit impactful projects, skilled negotiator or lobbying capacity) ▪ Institutional (difficulty in procedures, number of institutions to be considered)	Engagement with the MEDD at all hierarchical levels (Secretary General, Climate Change Directorate, and regional authorities) to ensure political ownership and continuity of initiatives. Targeted capacity-building programs for national and regional government staff on climate finance mechanisms. Cooperation of the BNCCREDD+ with other donors focusing in developing national adaptation plans to continue the project. Development of PSC working groups to improve

	▪ Systemic factors (poverty, corruption).	coherence and reduce bottlenecks. Development and implementation of robust financial governance frameworks, including independent audits, community monitoring mechanisms, and transparency platforms. Use manuals and standardized procedures for fund management to reduce risks of corruption. Social safeguards and equitable benefit-sharing mechanisms to ensure local accountability and inclusion. Use of participatory approach in local consultation, and co-design activities to ensure community priorities are reflected in projects. Training local actors in climate adaptation and fund management. By adopting the above measures, the project successfully averted the underlying risks.

3.3.3. Project Implementation

The SLEM project was designed with a multi-tiered management structure to ensure efficient delivery, strong governance, and alignment with national frameworks. The project was led by CI-Madagascar and the MEDD, through its directorate BNCCREDD+. Upon the withdrawal of EIB, CI was the principal implementer. A Project Steering Committee led by MEDD, had oversight responsibility. It comprised CI, BNCCREDD+, Ministry of Mines, Ministry of Agriculture, Forests, Ministry of Land Management, and the Ministry of Education, etc.), Regional Directorates from the Environment and Sustainable Development Agency (DREDDs), Regional Directorates from Madagascar's Agriculture, Livestock, and Fisheries (DRAEs), and administrative authorities (Governors).

Sub-regional Steering and Monitoring Committees were established for each target landscape (CAZ and COFAV) for field coordination, and resolution of issues. The structures include local authorities, DREDDs (Sub-regional Directorates for Environment and Sustainable Development), representatives of VOIs (community forest management structures), and civil society partners.

At the regional level, DREDDs and DRAEs played major implementation and oversight role. Local NGOs were engaged in provision of training, awareness and provision of supplies and inputs to beneficiaries. WAs, and VOIs were the beneficiaries as well as implementers at the grassroot level. The project used a robust MRV system aligned with Madagascar's national REDD+ guidelines (NERF, SOPs). Community VOIs conducted participatory monitoring of forest conditions using GPS, drones,

and SMART tools, supported by regional DREDDs and technical partners. CI and BNCCREDD+ consolidated data for reporting to the GCF and national climate platforms.

GCF Independent Evaluation Unit (IEU) provided support for the collection and analysis of baseline, midline and endline data and production of LORTA reports. MEDD, BNCCREDD+, GCF, CI-AE, CI Foundation, CI-M, CI Regional Office, Nairobi provided oversight and monitoring support.

Smallholder farmers were organized into producer groups, Women's Associations, and cooperatives to coordinate CSA, value chain development, and marketing activities. DREDDs and commune-level officials supported the formalization of land tenure agreements, community contracts, and law enforcement.

This integrated implementation arrangement ensured strong community ownership, transparent governance, multi-stakeholder oversight, and effective coordination from the national level down to the fokontany (village) level. The record of PSC meetings was reviewed by the FIE Team, and no serious observation was found in the record.

3.3.4. Adaptive Management

The SLEM project employed adaptive management as a guiding approach to address the complex and evolving challenges of landscape restoration, climate resilience, and sustainable livelihoods. The project was prepared in 2015, and approved in 2018, thus there was a great deal of change in cost estimates and prices of various inputs. Further, recognizing the dynamic nature of local ecosystems and community needs, the project adjusted strategies and interventions based on real-time evidence, stakeholder feedback, and lessons learned.

Key elements of adaptive management and examples

- **Withdrawal of EIB from the project:** In June 2020, the EIB withdrew itself from the project, due to disagreements with GCF on managing cash grant. EIB did not sign its cash grant agreement with GCF. The national and Sub-regional authorities were interested in CCTF creation, but it was not a priority of GoM at that time. Therefore, the project revised its FAA, and the funds allocated for CCTF by GCF were returned.

- **Lockdown Due to COVID 19:** The outbreak and consequent lockdown significantly impacted the project activities. Due to travel restrictions, in-kind grants were delivered to only 1,313 households during the first quarter of 2020. Due to lockdown and poor communication infrastructure in Madagascar, meeting with the GoM officials, stakeholders, partners and beneficiaries were not possible which prevented the implementation of a variety of additional project planned activities, including household surveys of beneficiaries and updates to the management plans of the CAZ and COFAV. **There the local key partners such as lead farmers, tree nursery workers and forest patrollers continued project activities without the support of project staff.**

- The economic impacts of the pandemic on the Project's beneficiary population were severe. Trade between towns and the larger cities of Madagascar was halted, public transportation was banned, access to markets was greatly reduced, and much higher prices for all goods were observed. Largely due to this economic insecurity, more deforestation took place in the PAs of CAZ and COFAV in 2020 than in 2019 **(see Figure 12).** A compounding factor was the reduction in project- supported patrolling of forests and reduced enforcement activities by government officials. To secure food and income, communities illegally cleared land, sought out Non-timber Forest Products (NTFPs), timber, and pursued mining opportunities in the project's target geographies. The delivery in 2020 was very low, however, thereafter, the project was able to quickly catch up with its targets.

- **Mid-term Evaluation:** At the recommendation of mid-term evaluation, the project submitted 2-year no-cost extension which was approved in 2022; revised its logical framework and results framework; improved its communication with the Nationally Designated Authority (NDA) and the MEDD and improved technical guidance to communities on crops and agricultural practices.

- **Cyclone 2022:** Cyclones were particularly severe during implementation, notably in 2022, when Cyclones Batsirai and Emnati were especially intense and impacted certain communities to the extent of wiping out entire harvests. Adaptive management of the project was strongly implemented during these episodes, where emergency support for livelihood recovery helped restart activities and restore essential community resources. This included the provision of seeds, tools, and technical assistance to help farmers recover quickly and rebuild their agricultural systems.

- **Regular Monitoring & Feedback Loops:** The project conducted routine field monitoring and community surveys to assess the effectiveness of activities such as agroforestry training and reforestation efforts. For example, when initial seedling survival rates were found to be low at certain sites due to unexpected drought, the project revised its nursery management practices and diversified the species mix to include more drought-tolerant native species.

- **Participatory Decision-Making:** Adaptive management was reinforced through participatory structures. These platforms bring together local communities, implementing partners, and government representatives to review progress and identify emerging issues. It was informed by communities during FGDs that the **feedback from community farmers led to adjustments in the seasonal timing of training sessions to align better with planting cycles and local labor availability.**

- **Evidence-Based Adjustments:** The project uses data and stakeholder inputs to refine its interventions. For example, livelihood diversification activities were expanded to include

beekeeping and small-scale poultry/fish farming after household economic assessments indicated that these were more culturally appropriate and market-viable than the original options proposed.

- **Grievance Redress Mechanism (GRM): T**he project managed complaints related to the project management from the target farmers or key partners at the right time. Complaints such as delay in the in-kind grant delivery due to the bad roads or damage to goods due to the local transportation had been addressed by adjusting the procurement policy to allow purchase of goods at local level. Grievance mechanism flyers were shared to stakeholders and included within contract agreements with key partners. The FIE Team observed that the grievance mechanisms were displayed in the offices of cooperative and VOIs for ease of communities.

By applying the aforementioned adaptive management practices, the SLEM Project enhanced its effectiveness, resilience, and sustainability, ensuring that interventions remain relevant and responsive to the unique challenges of Madagascar's eastern landscapes and communities.

3.3.5. Project-level Monitoring and Evaluation Systems

The project has the following four GCF core indicators to measure its impact:

- Expected total number of beneficiaries
- Cost per ton of Co_2e decreased for all GCF funded mitigation projects/programmes
- Volume of finance leveraged by fund funding
- Tonnes of tCo_2e reduced because of GCF funded project.

It has four impacts and five indicators, four outcomes (outcome 1 with 4 outputs; outcome 2 with 2 outputs; outcome 3 with 4 outputs; and outcome 4 with 4 outputs). All the impact, outcome and indicator statements were logically interconnected and followed the SMART criteria. The targets set at the time of project development were realistic and achievable, except the target of fund mobilization.

Based on review of APRs and M&E data, the FIE Team concludes that the methodology for identifying and counting beneficiaries is consistent throughout implementation, and no discrepancy was observed in the reports.

As explained in **Section 2.2**, the GoM did not agree with CCTF model as proposed in the project design, therefore, the project lost the opportunity of additional fund mobilization. This issue was extensively discussed in the PSC meeting, and consequently, the total project budget was reduced only to GCF financing of USD 18.5 million. It has been well documented in the project files, and consequently, the FAA was amended.

The CI-GCF Agency and CI-EE, and GCF provided overwhelming oversight **(Figure 7-9)**. The project record revealed that during the project period, in total 118 monitoring missions to the project area

were conducted by the senior officials of the GoM, GCF, CI-GCF Agency, CI-EE, and Chief of the Party, SLEM **(Table 10)**. The Secretary General of the MEDD and directors of various departments visited the project. GCF staff, including directors and specialists from various departments, conducted monitoring missions.

Twelve senior staff members of CI-Headquarters, six of CI-GCF Agency and two of CI-M conducted oversight missions during the project life. The Chief of Party, SLEM served the project throughout its tenure and conducted regular oversight missions.

The FIE Team highlights that the road network in Madagascar, particularly in rural areas is extremely poor. Access to project villages which are at the proximity of the PAs is particularly difficult- dirt roads with large potholes, bridges made of only two wood logs or none (pass through streams). The situation gets worse during the rainy day. This makes the routine monitoring work difficult. The FIE Team experienced this issue at three locations, and at one site the team must abandon the trip and interview communities over WhatsApp. The project provided support to communities from offices at distant places, which was not a welcome sign from the communities. Under such situations, the Field Agents (1-2) from the same village should have been appointed to closely interact with communities and monitor progress.

Table 10. Visit of various GCF, GoM, CI-HQ, CI-GCF AE, CI-M Officials and Chief of Party, SLEM to the Project Sites

#	Staff Title	Organization	# of visits Over Project Period	Year of Visit
1	MEDD	MEDD	1	2024
2	Secretary General	MEDD	2	2024
3	DGGE	MEDD	1	2023
4	Executive Director	GCF	1	2025
5	Portfolio Management Specialist	GCF	1	2024
6	Restoration Specialist	GCF	1	2024
7	Director of Communication	GCF	1	2025
8	Communication Specialist	GCF	1	2025
9	Regional Director for Africa	GCF	1	2025
10	IEU, GCF	GCF	1	2018
11	Chief Executive Officer, CI	CI HQ	1	2025
12	Executive Vice President Field Programs	CI HQ	2	2022 and 2025
13	Executive Vice President Conservation Partnerships	CI HQ	1	2022
14	Managing Director Safety and Security	CI HQ	2	2019 and 2024

15	Managing Director Compliance and Risk Management	CI HQ	2	2021 and 2024
16	Deputy Director ERM	CI HQ	1	2024
17	Managing Director Restoration Portfolio Delivering	CI HQ	1	2019
18	Senior Director Global Internal Audit	CI HQ	6	2019 to 2025
19	Regional Senior Internal Auditor	CI HQ	6	2019 to 2025
20	Senior Director of Operations	CI HQ	3	2019, 2022
21	Director of Social Safeguard and Senior Gender Advisor	CI HQ	1	2019
22	Senior Director ESMF	CI HQ	1	2022
23	Chief Field Officer Africa	CI Africa	2	2024 and 2025
24	Vice President	CI GCF Agency	3	2018 and 2024
25	Senior Director GCF Projects Development	CI GCF Agency	3	2018, 2022, 2024
26	Senior Manager GCF Project Oversight	CI GCF Agency	2	2022 and 2024
27	GCF Grants Director	CI GCF Agency	3	2018, 2022, 2024
28	Country Director	CI Madagascar	10	2018, 2019, 2023, 2024, and 2025
29	Senior Operations Director	CI Madagascar	6	2019, 2020, 2021, 2023, 2024, 2025
30	Director of Regional IT and Service Management	CI Madagascar	1	2019
31	Chief of Party	CI Madagascar	50	From 2018 to 2025

Participation in LORTA

The project record indicated that it participated in LORTA in collaboration with IEU- GCF, and produced LORTA baseline, mid-line and end-line reports. The FIE Team observed that the reports document gender disaggregated data on all the project indicators. The baseline report provides clear and concise analysis of the data. However, the FIE Team found that the midline report provides complicated analysis of the data. In the opinion of FIE, one would be interested to know the percentage increase or decrease of a given variable from the baseline rather than regression coefficients which are difficult to interpret as a range of values of the independent variables are not

available. A simple t-test or F-test could provide a good comparison of the means before and after the intervention. The report has been published on Science Direct website[20].

The LORTA midline report argues that several variables contribute towards one dependent variable. In our view in such a situation, multivariate analysis of variance and discriminant analysis could provide more comprehensive information.

Monitoring by Communities

The project team and implementing partners rigorously monitored the participating communities. The FIE Team observed the financial records of the Farmers Cooperatives, quantity of the goods produced, processed, procured and sold, and it was in order. The Cooperatives are managed by a committee of members which are gender balanced, and all the Cooperatives regularly submitting the mandatory documentation to the GoM and maintain bank accounts which are jointly operated by two co-signatories. Further, on all the premises of Cooperatives, GRM is properly displayed, contacts of the staff concerned are provided, and procedures for using the machines and cost of processing the machines are clearly displayed. Likewise, the Men and Women Associations, though not registered with the GoM, maintain their record of activities. The FIE Team observed that all the commodity processing machines, tree nurseries and showcase plots were well maintained. ***For instance, all the machines (rice huskers, bean and cassava mills, coffee processing, etc.)*** provided to communities are manufactured locally, thus there is no risk of abandoning machines due to non-availability of spare parts or mechanics. It was informed by KIIs that the proceeds collected from members for utilizing machines is sufficient to keep the machines running. It was pointed out that the cooperatives provided building for the installation of machines and sufficient space for storage of processed goods.

Monitoring by the GoM Counterparts

The SLEM project allocated USD 525,000 to BNCCREDD+ under the umbrella of MEDD to regularly monitor the project activities, align these with national climate strategies and NDCs, coordination with other ministries to streamline climate policy, and developing communication tools and launch awareness campaigns). However, due to lack of prioritization of the BNCCREDD activities, it could not complete several activities in time and thus not able to fully utilize funds (only 27% delivery). ***The MEDD needs to be proactively engaged in mainstreaming climate change in other sectors, develop/refine policies, proactively monitor projects and launch awareness campaigns.***

Monitoring of Forests

Besides in-person field visits by the staff, the SLEM project adopted an innovative approach to monitor forest degradation, and afforestation by using drones, and analyzing data using GIS. The project has trained staff of the Forest Department to fly drones and analyze data.

[20] *https://www.sciencedirect.com/science/article/pii/S2667010025001507?via%3Dihub*

Monitoring forests, and identifying deforestation, illegal forest clearing and charcoal making by drones is an innovative approach followed by the SLEM. The project has trained about 671 forest patrollers from 161 VOIs or local associations for forest management (4 to 5 Forest Patrollers per VOI) and equipped them with proper gears, GPS, etc., who regularly patrol in their village area. The project fly drones and once they detect any forest clearing or charcoal making activities in the PAs, they send local coordinates to the nearby patrollers, who immediately proceed to the spotted site(s) and convince them to stop forest degradation. If the person does not adhere to them, they use peer pressure to stop the offenders. In case of their failure, the matter is reported to the concerned Regional Forest Department, who then take necessary legal action.

The FIE Team asked several patrollers whether they came across any conflict in their villages because of their actions, but none reported any social conflict and reported that the tree loggers generally submit to the peer/community pressure and stop illegal activities.

However, the FIE Team observed charcoal making activities around the peripheries of the PAs, within Eucalyptus tree plantation which warrant constant PA monitoring. It is further observed that although PAs are demarcated by posting signposts, it is important to plant any fast-growing tree species around the periphery of PAs to conspicuously highlight the boundaries of the PAs for avoiding humans exploiting resources within the PAs.

As the country lacks sufficient energy for cooking/space heating, charcoal value chain is one of the major activities in both the corridors, providing hundreds and thousands of jobs to local workers. Further lack of decent jobs and rampant poverty compel the poor people to adopt charcoal business. KIs informed that charcoal made from pine trees sells at 15,000 AR per bag, whereas that made of eucalyptus sells at 25,000 AR due to difference in calorific value of the wood. They also informed that they use trees on their private lands or buy trees from neighbors for charcoal making and seek approval from the Forest Department. Nevertheless, the FIE Team observed several charcoal making sites by drones in the Eucalyptus tree plantation areas. The FIE Team also observed that eucalyptus is available in abundance in both the corridors. It was planted during colonial times to meet wood and energy requirements- there is no new plantation but all sprouts from the main stumps. ***It is recommended to develop a follow on Sustainable Charcoal Production and Livelihoods Project to introduce efficient charcoal production processes, reduce losses during transportation of charcoal and fuel-efficient cookstoves. The high calorific eucalyptus should be used for efficient charcoal production and thus create livelihood opportunities. Andasibe, Moramanga areas are probably the best case for a sustainable charcoal production project as eucalyptus was seen growing miles around both sides of the road.***



Figure 7



Figure 8



Figure 9

Figure 7 and 8. GCF Executive Director Mafalda Duarte with Minister of Environment and Sustainable Development Max Andonirina Fontaine.

Figure 8. GCF Executive Director Mafalda Duarte, CI Madagascar Director Bruno Rajaspera and CI CEO Sanjayan visiting SLEM Sites in Madagascar.

Mid-term and Final Evaluation

As per the FAA, the project was subjected to mid-term evaluation during 2022, and it provided revised ToC in the light of reduced budget due to non-establishment of CCTF and withdrawal of EIB. The CCTF was cancelled in 2024. The original ToC was still applicable, except that the mitigation activities in the energy sector were dropped. It also rationalized the end project targets in the scenario of reduced budget. The final evaluation has been conducted in time (April-July 2025), and the FIE Team met with the key staff members, communities and other stakeholders who provided valuable insights about the project.

Budget Allocated for Monitoring and Evaluation

In a standard GCF adaptation project, the M&E budget typically falls within the range of 1% to 3% of the total project budget. However, in the case of SLEM project 3.97% of the total project budget was allocated for M&E, indicating rigorous monitoring of the project. The budget breakdown is given in **Table 11.**

Table 11. SLEM Project Budget Breakdown for Monitoring and Evaluation

#	Description	Amount (USD)
1	Baseline	9,202
2	Midline LORTA	125,818
3	Endline LORTA	90,937
4	EIPM	93,628
5	Midterm Evaluation	51,634
6	Final Independent Evaluation	50,805
7	Community Patrollers total cost	208,444
	Total	**630,468**

3.3.6. Stakeholder Engagement

The SLEM Project placed stakeholder engagement at the heart of its implementation strategy, recognizing that meaningful and inclusive participation is key to achieving sustainable impacts in climate resilience and landscape management. The main project stakeholders are discussed in **Section 2.3** and key features of their engagement are explained as follows.

Key Features of Stakeholder Engagement

1. **Multi-Level Participation:** Stakeholders included national, Sub-regional and local government agencies, communities, civil society organizations, smallholder farmers, women's groups, youth associations, and private sector actors.

2. **Participatory Planning and Decision-Making:** Biannual steering committee meetings brought together local communities, government technical staff, and partners to share main achievements and collect feedback to improve the next operational plan, ensuring that priorities reflected local realities and community needs. The Community Patrollers were fully engaged in monitoring forests and using peer pressure to stop deforestation and degradation. The Lead Farmers and nursery growers became the major source of information and inspiration to the local communities.

3. **Third-Party Monitoring of Project Activities and Emission Reductions:** The project sub-contracted BNCCREDD+, under the MEDD, to undertake monitoring missions to project sites and report progress achieved and any suggestions and recommendations. It regularly conducted monitoring missions and verified the ERs.

4. **Community Consultations and Dialogue Platforms:** Consultations with VOIs, WAs, and cooperatives were regularly conducted to discuss training needs, nature and kind of supply of inputs/equipment, growing of tree nurseries, establishing demonstration plots, reforestation activities, agroforestry techniques, sustainable farming practices, use and maintenance of machines provided and engagement with the private sector. Communities shared their success stories through social media and articles on Soan'Ala local Magazine (The project Magazine, published at local level twice a year). Community members were free to voice concerns and provide valuable feedback on interventions, e.g., on agricultural seasonal calendar, information about local festivals/ holidays and alignment of activities, demand of seeds of various crops, and trees/saplings of commercial tree species, e.g., cloves over other species. This was also helpful in raising resources from communities, e.g., their time to implement activities, farmland provided by them for demonstration plots/tree nurseries, building for the installation of milling machines which were provided by the project, and maintenance of machines, nurseries and demonstration plots These community contributions are usually never accounted for.

5. **Knowledge Sharing and Peer Learning:** Community listening groups and farmer-to-farmer exchanges enabled farmers to share success stories on climate-smart agriculture and restoration practices, community patrolling, building local ownership and practical skills.

6. **Inclusive Engagement with Women and Youth:** Women were specifically supported to participate in capacity building on climate change adaptation, forest management, and income diversification activities. Among 1,236,946 total number of beneficiaries (direct and indirect beneficiaries) close to 51% were women. Youth were involved in tree plantation and support tree nursery workers, and environmental education initiatives in 25 pilot schools, nurturing future stewards of the landscape.

7. **Accountability Mechanisms:** A GRM was followed by the project which allowed community members to raise concerns or launch complaints, with clear processes for resolution. Regular

PSC (COPIL) meetings provided oversight and accountability among implementing partners and government stakeholders.

The FIE Team interacted with concerned government officials, and local communities **(Annex 3)**, and found that through these diverse engagement mechanisms, the SLEM Project strengthened local ownership, ensured that project activities were culturally appropriate and community-driven and economically viable which promoted lasting behavioral change for sustainable landscapes.

3.3.7. Reporting

The project followed a structured and participatory reporting system to ensure transparency, accountability, and adaptive management throughout its implementation period. It produced all the required financial and technical reports on time. The Annual Progress Reports, the final Completion Report, and the Quarterly Progress Reports (QPRs) provide excellent information as per the format of GCF. Besides the APRs and QPR, the project also produced baseline, midline and endline LORTA reports which provide the opportunity to assess the progress overtime. The project also used the Management Effectiveness Tracking Tool (METT) to measure the management efficiency of the two PAs which showed a significant and permanent increase in management efficiency during the project implementation. It monitored annual deforestation rates and carbon emissions. The deforestation rate and gains in carbon emissions were verified by the nationally designated authority BNCCREDD+. All the reports were endorsed by the COPIL.

3.3.8. Communication/ Visibility

The SLEM Project adopted a multi-faceted Communication Strategy to inform, engage, and empower stakeholders at all levels from school children and farmers to policymakers and the public at large. The strategy prioritized local languages, gender inclusion, and accessible formats to ensure widespread understanding and impact. The key communication approaches are activities performed during the project life are as follows:

Key Communication Approaches and Activities

Environmental Education in Schools

- 25 pilot schools were supported to implement a climate change-focused environmental education program.
- Teachers and students were actively engaged in climate action initiatives, helping build the next generation's climate resilience mindset.

Gender-Sensitive Rural Radio Programs

- 107 radio programs were developed and broadcast on rural radio stations, ensuring gender-sensitive content and inclusive messaging.

- Topics covered included climate change adaptation and mitigation, climate-smart agriculture, forest management, reforestation, restoration, and cross-cutting issues like gender and social inclusion.

Local Radio Transmissions on Best Practices and Success Stories

- 301 radio broadcasts on sustainable agricultural production, climate adaptation, and local success stories were aired through multiple channels — including four stations in CAZ, five in COFAV, and the national radio station.
- Prior to production of radio programs, local journalists visited beneficiaries to collect real-life stories, ensuring authenticity and community relevance.

Community Listening Groups

- 42 community listening sessions were organized, engaging both beneficiaries and non-beneficiaries. These groups deepened farmers' understanding of improved cultivation techniques and provided a platform for peer exchange.

Local Magazine Publications

- 11 series of the "Soan'ala" magazines (2,000–5,000 copies per series) were produced and distributed to key stakeholders.
- Sign-boards were placed at all the sites.

Demarcation of the PAs boundaries

- During the project, 2,883 small signs and 15 large signs or information panels were installed.
- 382 km of PA boundaries were marked, and 143 km of PA hard core were successfully installed. This is to remind and show to the local population of the prohibition limits, the presence of the PA and avoid frustration with law enforcement.

Engagement with Social Media

- The project developed films showcasing the changes in beneficiaries' lives over the life of the project.
- The FIE Team observed that social media was effectively used to enhance project's outreach. By the end of the project, about 500 Facebook posts, including 20 films were published on the CI Madagascar Facebook page. These posts reached more than one million people, with about 100,000 interactions, 45,000 reactions, 15,000 comments and 515 shares **(Figure 10).**

Scientific Publication

The project published two scientific publications entitled:

- "Drone as a patrol method in eastern forest corridors in Madagascar" published by Princeton University, New Jersey (USA).

- Sustainable Landscapes for Eastern Madagascar – A Midterm Impact Evaluation. Environmental Challenges. Volume 20, September 2025, 101231. Elsevier Scientific Journal. https://doi.org/10.1016/j.envc.2025.101231

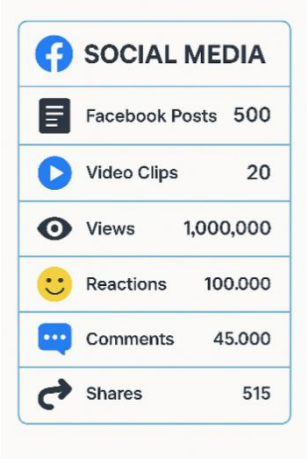


Figure 9. Coverage of SLEM Project on Social Media



Project Site Signboard – Sustainable Landscapes in Eastern Madagascar (GCF-Funded Initiative)

3.4. Efficiency

Efficiency was assessed using several key indicators, including cost per beneficiary, disbursement performance against planned budgets, adherence to activity timelines (actual vs planned), the proportion of administrative cost relative to the total budget, and the volume of co-financing mobilized.

1. **Cost per Beneficiary:** The project directly supported 31,699 households. Using a standard household size of six persons per household in Madagascar, this corresponds to 190,194 direct beneficiaries. With a total GCF budget of US$ 15.3million, the cost per direct beneficiary is approximately US$ 80.

   The project also included a mitigation component, achieving emissions reductions of 9.34 million tCo_2e. In addition, activities such as afforestation and efforts to halt forest degradation contributed to improved ecosystem health, reduced drought risk, enhanced awareness and strengthened watershed systems. These broader environmental and social benefits indirectly reached approximately 1.2 million people across both project corridors. When these additional beneficiaries are included, the cost per beneficiary decreases to approximately US$ 11.2. Comparatively, a US$8.7 million GCF project in Bangladesh 'Rising Above: Building Climate

Resilience in Bangladesh's Char Communities', reported a cost of US$ 46 per beneficiary[21]. Similarly, the US$ 70.6 million 'Vanuatu Community-Based Adaptation Project', reported a cost of US$ 19.5 per beneficiary [22].

An independent analysis of about 50 GCF adaptation projects found that the average project reaches about 500,000 direct beneficiaries and 2.7 million indirect beneficiaries, with typical per beneficiary costs ranging between US$ 20 - 60, depending on project scale and scope[23]. **Overall, these comparisons indicate that the SLEM project demonstrates strong efficiency performance relative to typical GCF adaptation projects.**

2. **Cost per ton of Co_2e:** The GCF primarily supports both mitigation and adaptation projects; however, the cost of reducing CO_2e per ton is a metric that applies predominantly to mitigation projects. These projects—such as renewable energy, energy efficiency, or forest conservation—aim to directly reduce greenhouse gas emissions. Based on available data, the average cost of CO_2e reduction in GCF mitigation projects is approximately USD 10.70 per ton CO_2e, with a range that can vary significantly—from under USD 5 to over USD 40 per ton[24] [25], depending upon the sector and project design. Some projects, especially those with complex implementation environments, may report even higher costs per ton reduced. In case of SLEM (forest conservation component), the cost of reducing Co_2e per ton was US$ 1.71, which is a little higher than the target cost (US$ 1.27), but far lower than the baseline (US$ 19.3).

   In contrast, GCF adaptation projects—which aim to enhance resilience to climate impacts—do not typically quantify emissions reductions and therefore do not report a cost per ton of CO_2e reduced. Their impact is instead measured through indicators such as the number of beneficiaries, avoided losses, improved infrastructure resilience, or enhanced adaptive capacity. As such, while adaptation projects may yield indirect mitigation co-benefits, their primary value lies in protecting lives, livelihoods, and ecosystems from the effects of climate change, rather than in reducing emissions per se.

3. **Disbursement Rates vs Planned Budgets:** The total funds allocated by GCF were USD 15,970,873. Of which the project had expended about 99%. BNCCREDD+ was unable to spend the funds allocated to it due to lengthy bureaucratic hurdles. The overall expenditures incurred

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[21] GCF Annual Report 2023

[22] https://www.greenclimate.fund/?utm_source=chatgpt.com

[23] https://dspace.library.uu.nl/handle/1874/396887

[24] As of March 2021, based on GCF's project portfolio data, the average cost of emissions reduction across mitigation projects was estimated at approximately USD 10.70 per tCO_2e https://www.oxfam.org.au/wp-content/uploads/2021/10/OXF063-Climate-Finance-Report-WEB.pdf (accessed 25 July 2025)

[25] Other independent assessments found that GCF-funded projects ranged widely—from under USD 5 per tCO_2e (e.g. REDD+ forest protection initiatives) up to over USD 40 per tCO_2e, with some outliers as high as USD 156 per tCO_2e https://www.cgdev.org/blog/new-money-green-climate-fund-how-tackle-climate-change-more-effectively (accessed 25 July 2025)

by the project on a yearly basis are given in **Table 12.** The project was started in May 2018, and FIE Team observed that it quickly recruited the staff and activities began as indicated by the expenditure data in 2018, and in 2019 it reached to a level of US$ 2,882,071, however, due to COVID-19 lockdown in 2020 and its aftereffects in 2021, the implementation process slowed down, but the project gained momentum thereafter, and an expenditure of over 2 million was observed in each year **(Table 12).**

Nevertheless, when percent delivery (ratio of approved budget and expenditure) is considered, the project delivery in 2018 -2021 was 100%, however, in 2022 it was 70%, in 2023 44% but improved in 2024 (104%) and 2025 (715%).

In 2022, the cyclone Batsirai formed on January 24, 2022, and made landfall near Mananjary and Nosy Varika on February 5–6, 2022 as a Category 3 cyclone. It brought torrential rains and high winds, causing widespread flooding, infrastructure damage, and about 1,377,652 ha of forest landscapes—critical operational zones for SLEM— faced heightened climate risks. The cyclone Emnati developed in mid-February 2022, making landfall in eastern Madagascar on February 22–23, 2022. It struck approximately 18 days after Batsirai, exacerbating damage already inflicted—deepening vulnerabilities in both ecological systems and smallholder livelihoods across SLEM operational landscapes. The occurrence of cyclones negatively impacted the delivery as the areas were unapproachable due to already sub-minimal damaged infrastructure and engagement of communities in their priority rehabilitation activities. Consequently, another no-cost extension up to May 2025 was requested which was approved by the GoM and GCF.

The project executed rapid damage assessments, distributed emergency seeds and tools, rehabilitated damaged nurseries, and restored agroforestry plots. incorporated resilience-building measures and adjusted annual work plans to accommodate disruptions caused by these cyclones. **During FGDs, the communities expressed their gratitude to SLEM for its proactive guidance and support and endorsed project's adaptive response showcasing robust resilience measures and operational flexibility in the face of sequential climate hazards.**

In 2024 and 2025, the project delivery far exceeded than the planned project budget in FAA2 **(Table 12).** Since the CCTF could not be established, the allocated seed funding of US$ 3,180,445 was returned to GCF.

Table 12. Annual Budget and Expenditure of SLEM Project during its Life.

Year	FAA2 Approved Budget (US$)	GCF Project Expenditure (USD)	Percent Delivery	FAA2 Approved CI Funds Committed	CI Fund Expenditures	% Delivery
2018	490,883	490,883	100%	185,605	185,605	100%
2019	2,574,091	2,574,091	100%	307,980	307,980	100%
2020	1,474,800	1,474,800	100%	242,159	242,159	100%
2021	1,598,229	1,598,229	100%	35,575	35,575	100%
2022	3,548,611	2,501,028	70%			
2023	6,013,731	2,653,920	44%			
2024	2,655,020	2,758,491	104%			
2025	144,635	1,033,620	715%			
Total	**18,500,000**	**15,085,062**	82%	**771,318**	**771,318**	**100%**
	Total project budget (GCF + CI)				19,271,318	
	Total project expenditures (GCF+CCI)				15,856,381	
	Funds returned or to be returned to GCF (CCTF)				3,180,445	

The project's intervention context still posed a limiting factor for its implementation. The targeted intervention area was too broad in relation to the resources mobilized on the ground.
— Coordinator of a project partner organization

4. **Activity delivery timelines (actual vs planned:** Project followed a structured, participatory workflow to plan, implement, and adapt activities in alignment with community needs, national priorities, and climate goals. This ensured that interventions remain relevant, efficient, and responsive to changing local conditions. The following steps were followed in the work planning process, and the workflow is illustrated in **Figure 10**.

   i. CI and the BNCCREDD+ set clear annual objectives based on the project's overall climate adaptation and mitigation goals.
   ii. The CI and the BNCCREDD+ conducted several public consultation meetings at national level and four at Subregional level prior to the submission of the project full proposal.
   iii. Annual work plans were reviewed and refined through meetings of the PSC (COPIL) and Sub-regional Steering and Monitoring Committees (COS) for the CAZ and COFAV landscapes. These multi-stakeholder forums ensured alignment with national REDD+ strategies and local development plans.
   iv. Local communities, including VOIs (community forest management associations), cooperatives, producer groups, and women's associations actively participated in identifying priorities based on their climate change impacts, risk coping mechanism, and scheduling activities keeping in view the local festivals/holidays. This ensured that field-

level plans reflect seasonal agricultural cycles, local capacities, and socio-economic realities. **The communities informed the FIE Team that the plans were developed keeping in view their agricultural/seasonal cultural calendars.**

v. Detailed work plans were developed at the landscape and commune levels, translating annual targets into specific, time-bound activities. Responsibilities and timelines were clearly defined for community groups, local authorities, and technical partners.
vi. DREDDs, local NGOs, lead farmers, and technical advisors coordinated the on-ground delivery of activities. Field progress was tracked regularly through participatory monitoring, ensuring transparency and accountability.
vii. Regular progress was reviewed at all levels allowing for real-time adjustments to work plans. Lessons learned and feedback from communities feedback into national and Sub-regional planning and its strengthening.

The project was originally planned for a period of five years for the public sector under the lead by CI and 10 years for the private sector under the lead by EIB with different cash grants from GCF. 15.8 million+ GCF budget for CI but upon the withdrawal of EIB, the FAA was revised, and the project duration remained the same for CI, with a total GCF grant of US$ 15.8 million. This also resulted in the deletion of the energy component from the project scope. Despite external shocks such as the **COVID-19 pandemic** and **cyclone-related disruptions**, the project adjusted its work plans promptly, maintained implementation momentum through revised timelines and risk mitigation strategies **(see Section 3.3.4 on Adaptive Management)**, and requested 2-year no-cost extension, and has either achieved or surpassed the end-of-project targets.

5. Ratio of administrative/transaction costs to total budget

In the revised FAA, the planned project management cost was US$ 2,884,977 which is approximately 15% of the total project cost. For a small-sized project (USD 10M–50M), GCF has capped project management cost at 7% of the total project cost, unless a valid justification for higher cost is provided[26]. In case of SLEM, the project area is widespread, and access to remote sites is extremely difficult due to rudimentary road infrastructure. ***The FIE Team also experienced that visiting a site sometime takes the whole day, which leads to higher travel and personnel cost to cover distant areas. Thus, a higher project management cost is understandable.***

[26] *https://www.greenclimate.fund/sites/default/files/decision/b19/decision-b19-09-b19-a09.pdf*

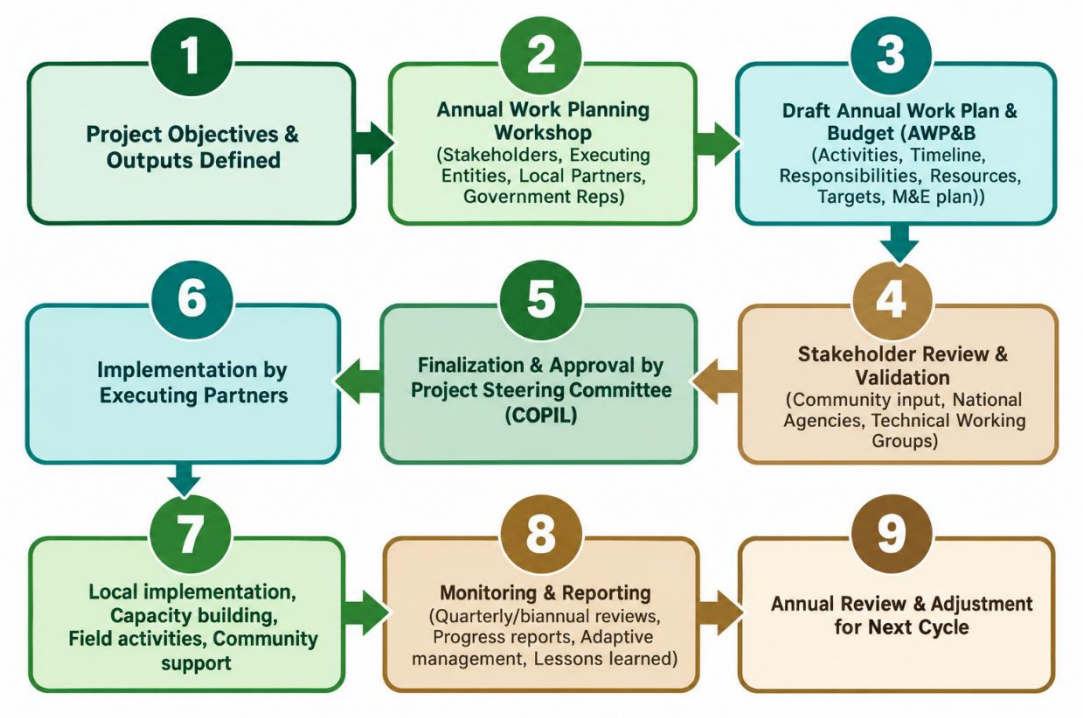


Figure 10. Annual Work Planning Cycle Adapted by the Project

6. **Volume of co-financing mobilized:** The project was instrumental in mobilizing additional funds (total USD 771,318) from various donors/projects as committed in FAA2 **(Table 13).** An amount of USD 552,175 was mobilized from Ambatovy which is a major industrial operation mining and refining nickel and cobalt in Madagascar. It is the largest-ever foreign investment in the country – and one of the biggest in Sub-Saharan Africa. ***The FIE Team appreciates the engagement of the private sector by SLEM in environmental management. CI should further work with Ambatovy and other mining companies and explore possibilities of a successor project for recovering degraded lands due to mining operations.***

   In the opinion of FIE Team, the target of mobilizing funds from other sources by CI was in the ratio of 1:1 with GCF, which is unrealistic.

Table 13. Funds Mobilized by SLEM from other Sources

#	Company Name	Amount USD
1	Ambatovy Project	552,175
2	Helmsley Charitable Trust	40,221
3	Lemur Project	129,016
4	Africa Biodiversity Collaborative Group (ABCG) II	8,012
5	Lemur Project II	41,895
	Total	**771,318**

7. **Staff Retention and Turnover:** There were a total of 45 staff members in the project, 10 at Project Implementation Unit, Antananarivo, 18 at Project Office in Fianarantsoa/COFAV, and 16 at Project Office Toamasina/CAZ. Of these 15 staff members stayed with the project throughout its life, while at other positions, there were staffing gaps. These gaps were primarily due to transitions between staff, compliance with national labor laws, and restructuring of project roles. ***The FIE noted the followings:***

- The Chief of Party (COP) position had a notable staffing gap of **four months**, primarily attributed to mandatory labor law provisions, including a one-month break and additional time for contractual transition. The gap was further extended due to administrative procedures involved in onboarding a Senior Project Advisor.
- The Deputy Chief of Party was changed to a position of Filed Advisor Consultant due to Malagasy Labor Law. Then this position was absorbed by the Technical Director.
- The Adaptation Lead, a critical position overseeing resilience and climate adaptation activities, also experienced a three-month staffing gap.
- The COFAV Field Director position encountered a total of 5 months of staffing gap, largely due to the role changing hands three times. These transitions reflected internal reorganization and shifting responsibilities, which temporarily disrupted field-level oversight and coordination.
- **One of the most critical gaps was in the COFAV Adaptation Lead position, which saw a prolonged 11-month gap.** This was due to the incumbent transitioning to consultant status upon reaching retirement age, and a delay in appointing a successor. The gap may have affected the continuity of adaptation-focused activities in the region.
- Similarly, the COFAV Mitigation Lead position experienced a 4-month gap, reflecting routine turnover challenges and possible recruitment delays.
- The CAZ GIS specialist had a 6-month staffing gap. As GIS plays a crucial role in spatial monitoring and landscape-level planning, this vacancy may have affected the timely processing of geospatial data and mapping deliverables.

- Lastly, the COFAV Grants Manager role was unfilled for three months due to the departure of the initial staff member and the subsequent onboarding of a replacement. This may have introduced temporary delays in field-level financial processing and sub-grant management.

The staffing gaps highlight the challenges of sustaining competent technical and administrative capacity, particularly in remote field settings. While the project demonstrated adaptability through temporary reassignments and interim arrangements, the aforementioned staffing gaps **underscore the need for strong succession planning, local capacity building, and flexible recruitment mechanisms to avoid operational slowdowns in critical landscape-level interventions.**

3.5. Impact

The SLEM project has had a transformative impact across environmental, social, economic, and institutional domains. Implemented in the biodiversity-rich yet vulnerable forest corridors of CAZ and COFAV, it focused on building climate resilience, reducing greenhouse gas emissions, and promoting sustainable rural development as explained in the following paragraphs.

From an environmental perspective, the project protected approximately 1.3million ha of forest cover and restored over 4,161 ha of degraded land through reforestation and agroforestry initiatives, and activities like monitoring by drones and Community Patrollers to curb injudicious use of forest resources. The project has prepared a force of 671 Community Patrollers from 161 VOIs for close monitoring the forest. This trained and well-capacitated force is available to continue patrolling voluntarily or with a little stipend[27].

In the CAZ corridor, the deforestation was calculated as 3.01% in 2018, which declined to 2.1,8% in 2019, then increased in 2020 (2.78%), followed by constant drop (except in 2023) thereafter, reaching a level of 1.35%. In COFAV corridor, the baseline in 2018 was 3.41%, declining to 0.06% in 2024 **(Figure 12).** Collectively, the deforestation was 3.17% in 2018, followed by 2.06% in 2019, then increased to 2.12% in 2020. Thereafter it declined in 2021 (1.4%), 2022 (1.07%) but slightly increased in 2023 (1.20%) and ***reached a level of 1.19% in 2024, indicating an overall decrease in deforestation of 62.5% (Figure 13), which is highly impressive achievement***. Slight increase in 2020 is probably due to increased land clearing as the community patrolling in the corridors was suspended due to COVID-19 lockdown from March to July 2020[28].

[27] SLEM provide a stipend of MAR 7,000 to 15,000 per day for 5 days patrolling per month.
[28] Increase in forest fires was also observed by Ekund et al during March-July 2020, when monitoring was suspended (see Section 1.0).

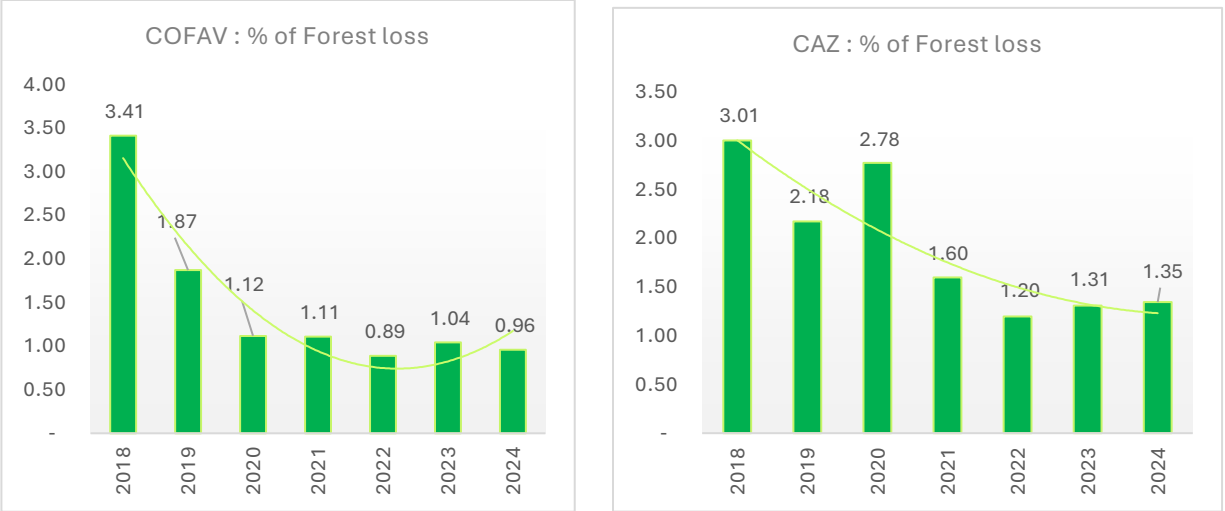


Figure 11.Forest Cover Change (deforestation in CAZ and COFAV corridors)

Ekund et al (2022) analyzed the forest fire data collected by NASA satellite from all the PAs of Madagascar in 2020. According to them during the COVID-19 lockdown in Madagascar, many PAs experienced a halt in on-site management activities **(Figure 14)**. This disruption coincided with a noticeable increase in fire incidents, likely linked to communities' growing reliance on natural resources for their livelihoods.

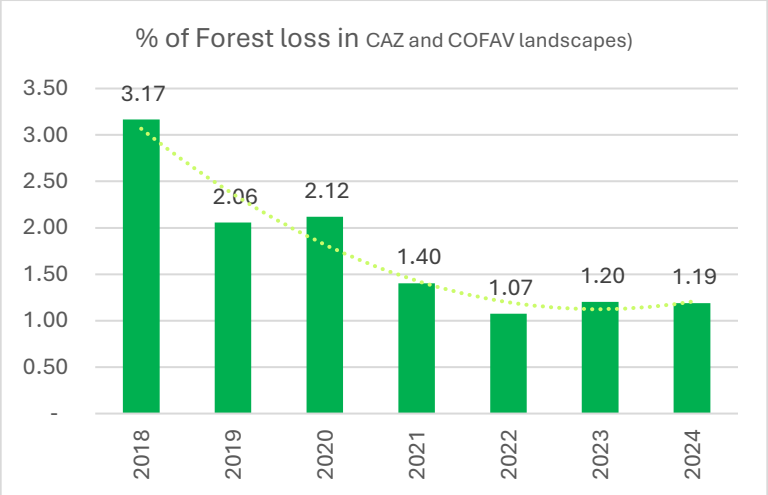


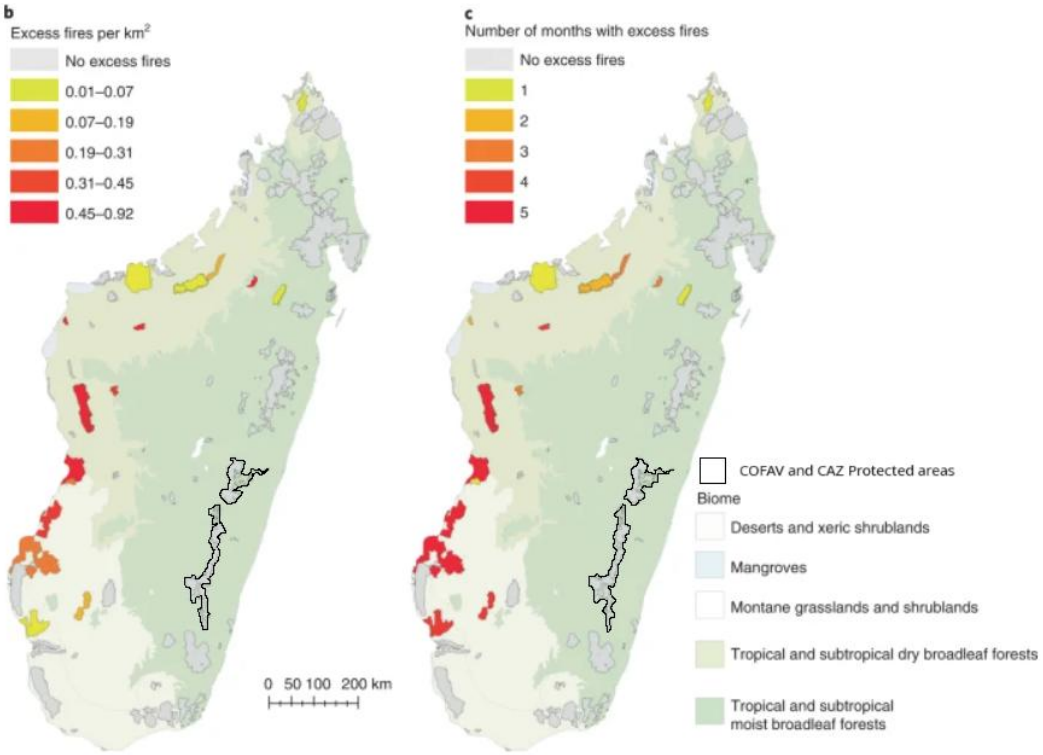
Figure 12. Cumulative Percent of Forest Loss (deforestation) in CAZ and COFAV

However, in CAZ and COFAV PAs, fire activity remained minimal even at the height of the pandemic, though the deforestation increased in 2020 compared with 2019, as reported by SELM **(Figure 13**). ***The FIE Team is of the opinion that the communities might have practiced deforestation within COFAV and CAZ but not charcoal making to evade from being noticed by the local communities as the fire smoke is visible from a distance.*** This behavior, though still has some negativity to forest conservation, reflects the effect of continued implementation of project activities and the strong

involvement of local communities. Their participation appears to have helped maintain management functions and may have contributed to limiting land-use pressures—an outcome that adds nuance to the broader debate about the effectiveness of local involvement in conservation under crisis conditions. The findings also suggest that deforestation and fire prevention within PAs is closely tied **to active, on-the-ground management.**

GOM- community engagement - a good example of public-private partnership for monitoring PAs, has significantly contributed to emissions reduction and enhanced ecosystem services such as biodiversity conservation and watershed protection. The total official and validated emission reductions during the project life was 9.34 million tons of Co_2e. Like deforestation patterns there was a steady increase in ER over time, maximum from CAZ (6,692,561 tons) than COFAV (2,651,246 tons) corridor **(Table 14)**[29]**.**

Thanks to our awareness-raising efforts directed at non-members of associations, slash-and-burn practices (tavy) have significantly decreased
— COFAV beneficiary



Source: Eklund et al., 2022 - https://doi.org/10.1038/s41893-022-00884-x, modified with COFAV and CAZ demarcation).

[29] *The GHG emission data has been extracted from the Project Completion Report. The GHG emissions calculations followed the NERF methodology, and the data was validated by BNCCREDD+*

Figure 13. The Spatial Distribution of Excess fires among Madagascar's PAs shown as the sum of excess fires March–July 2020 divided by size of protected area. c, the number of months (out of five, March–July) for which a protected area experienced excess fire.

Table 14. Official and Validated Results of ER, according to the Methodology and National Standard

Forest Corridor	Year							TOTAL ER (2019-2024)
	NERF	2019	2020	2021	2022	2023	2024	
CAZ	3,807,235	1,473,936	1,301,416	1,694,273	1,536,129	357,254	329,553	6,692,561
COFAV	1,676,795	670,445	240,115	428,780	-49,515	612,226	749,195	2,651,246
TOTAL	**5,484,031**	**2,144,381**	**1,541,531**	**2,123,053**	**1,486,614**	**969,480**	**1,078,748**	**9,343,807**

According to Gold Standard, the price of carbon per ton in Europe is 13€/ tCo_2e + 1€ Fairtrade premium (total US$ 16.28/tCo2e[30]). It turns out to be monetary benefit from carbon credits as much as US$ 152 million which is several-fold to the total project cost.

The use of innovative monitoring tools, including SMART technology, drones, and NERF, further improved forest management and transparency in climate reporting. These proven technologies could be used in future projects. ***Additionally, 31,699 smallholder households adopted sustainable agricultural practices, moving away from environmentally damaging slash-and-burn methods. This transition led to improved soil health and greater resilience to climate-induced shocks like cyclones and droughts.***

Socially and economically, the project contributed to improved food security and increased household income by enhancing access to inputs, training, and markets. It supported the formation and strengthening of 387 farmer organizations and 18 cooperatives that manage Local Transformation Units (LTUs), which allowed communities to process and market value-added products such as vanilla, coffee, cloves, rice, white beans, and ground nuts. Notably, commercial partnerships were established with companies like SOPRAL and RAMEX for green vanilla and Madagascar Coffee Company (MCC), resulting in the sale of 2.3 tons of green vanilla[31] and 126.7 tons of groundnuts—boosting income and rural livelihoods. During FGDs, one cooperative informed that it is in process of preparing an approximate over 10 tons of coffee order from MCC, and another informed that it has stocked about 10 tons of rice ready for sale. ***The contract farming by cooperatives and collective marketing has eliminated the role of middlemen in marketing, thus enhancing net income of the vulnerable households***. Another farmer at Beforona village informed that he has planted 30 clove seedlings out of which 26 survived, and last year from 10 trees he harvested five kg of cloves (sale price MAR 28,000/kg). ***Besides financial and food security at household level, the increased income is being used for health and education by communities (unintended positive impact- see Section 3.15).***

"18 households benefited at the start of the project.

[30] https://tinyurl.com/zufbeppx *(accessed 20 July 2025).*

[31] *The retail price range for Madagascar vanilla is between US$ 8.87 and US$ 34.50 per kilogram* https://www.selinawamucii.com/insights/prices/madagascar/vanilla/#google_vignette *(accessed 20 July 2020).*

Currently, there is an increase of 32 members.
This is as communities observe the showcase sites.
They are convinced by our approach."
VOI members in CAZ.

Besides training in CSA, the project provided high quality rice seeds, white beans, ground nuts, coffee and clove saplings and vanilla vines, besides seeds of many other crops, vegetables and forest species. The quantity of seeds/saplings and area planted is given in **Table 15**. The highest area came under coffee, followed by cloves, vanilla, white beans, ground nuts and rice in descending order. The crop yield increased by 233% for cloves, 200% for rice (a staple food of Madagascar), 108% each for groundnut and white-beans, and 50% each for coffee and vanilla **(Figure 15 and 16).**

Since the cooperative's formation in 2023 (presently 136 members of which 70% are women), and with technical and coffee seedling support from CI since 2019, members have received continuous training on improved coffee cultivation and post-harvest processing. Now, members possess between 50 and 2,000 coffee plants each which has been expanded. Thanks to CI's support, this support has led to a marked increase in quality, allowing them to secure a contract with Madagascar Coffee Company at 30,000 Ariary/kg—well above the national average and previous local prices. Although only 80 kg of coffee has been collected this year so far, the cooperative has won a purchase order for supply of 10 tonnes indicating significant future potential.

The processing machine is locally manufactured, reinforcing long-term sustainability. Members are trained in its upkeep, and only major repairs require external intervention. Profits are managed collectively, with member contributions tracked. Revenue of this year has been reinvested in cooperative operations……. Cooperative Vononona Miaradia Cooperative, Kianjavato, Vatovavy District.

The communities informed the FIE Team that in general one-third of the produce is sold in the market, one-third is kept for household consumption and one-third is sold as seed to other farmers, thus increasing household food security and income. ***In a way, seed banks have been established at local level, and it is anticipated that the local traditional varieties will be replaced by high yielding varieties over time, thus leading to higher production at the landscape level.***

Due to high costs and inaccessibility of the majority of the area, natural farming methods were favored, and seeds were sourced locally to strengthen community ownership. We also ensured collaboration with export industry with growing interest in coffee and clove marketing such as Madagascar Coffee Company to access international markets. The local mayor has expressed support for further partnerships to exploit export potential….. IP Ny Tanintsiaka.

Table 15. Quantity of High-quality Seeds/Saplings Provided by SLEM and Area under New Varieties

#	Commodity	Seeds (kg) or # of seedlings provided	Total areas planted (ha)
1	Rice	39,193	118
2	White beans	238,845	2,388
3	Groundnut	128,754	1,288
4	Coffee Seedlings	598,905	89,836
5	Cloves Seedlings	142,428	17,848
6	Vanila Vines	37,550	4,531

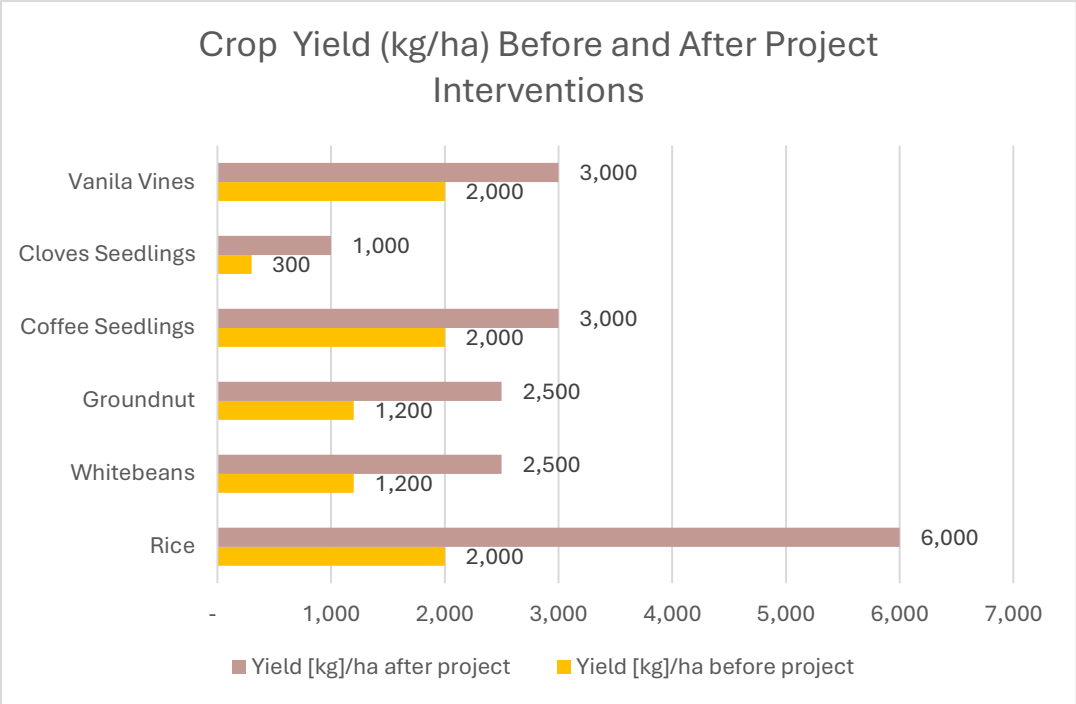


Figure 14. Crop Yield Before and After Project Interventions

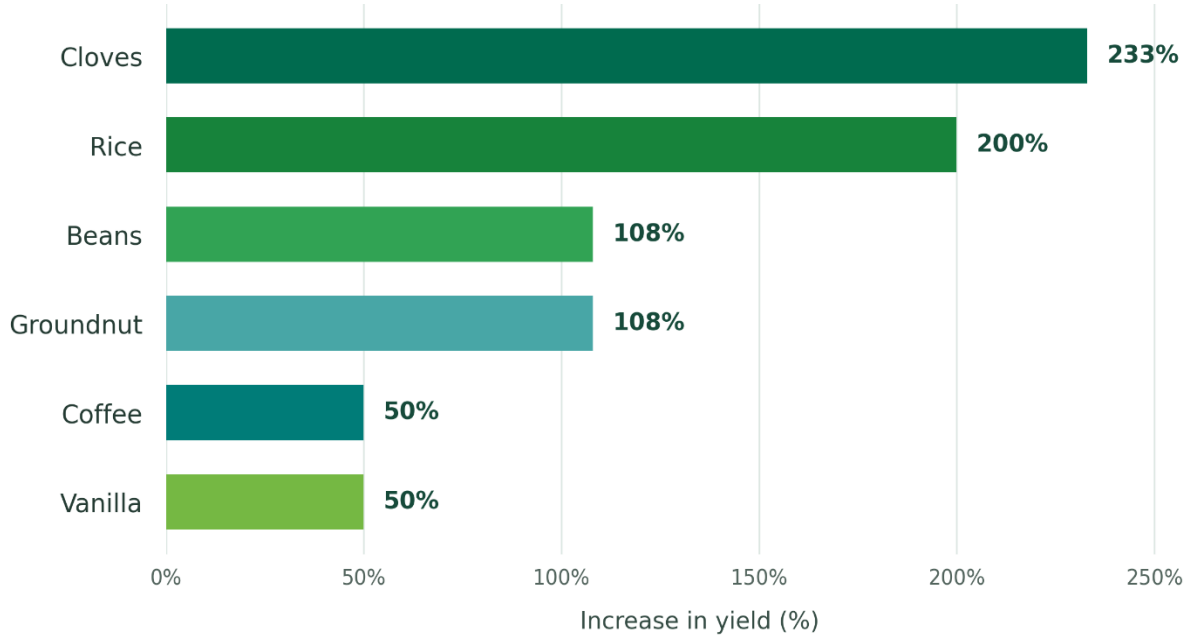


Figure 15. Percent increase in Yield of Various Crops due to Project Interventions

The project also made significant strides in **gender empowerment and social inclusion (see details in Section 3.13 on Gender Equity)**. 151 women's associations were created or strengthened, with many outperforming other community-based organizations in governance, restoration, and production activities. These efforts led to increased participation of women in leadership roles and income-generating activities, advancing gender equity. ***During the FGDs, it was observed that the women were more vocal and forthcoming than males. This was a major change towards women empowerment.***

One of the aspects that stood out for us was the responsiveness of the project technicians, they regularly visited our areas and helped us improve our production.
— COFAV beneficiaries

Additionally, 25 pilot schools implemented climate education programs, fostering environmental awareness and behavioral change among youth and their families. The impact of this intervention will be systemic and appear over time.

On the institutional front, the SLEM project enhanced decentralized natural resource governance by empowering local forest user associations (VOIs), cooperatives, and communes. Climate resilience was integrated into local planning instruments such as Communal Development Plans and community agreements (Dina), reinforcing policy alignment and ownership. Moreover, the project strengthened the MEDD's capacity to implement climate actions effectively, which is clearly visible in the form of more climate change initiative. According to IMF, the GoM has unveiled a

"**country platform for climate finance**" in mid-November 2024 designed to mobilize over US $100 million in development investments from international financial institutions. **The SLEM project facilitated this platform**.

The behavioral and systemic changes driven by the project are also notable. Communities adopted traditional organic inputs (e.g., *Ady gasy*) in place of chemical pesticides and fertilizers. In an innovative local practice, individuals responsible for environmental infractions were required to plant trees as a corrective measure. These examples illustrate a growing environmental ethic and sustained community engagement.

From Food Insecurity to Self-Reliance in Eastern Madagascar

*In the forest corridors of **CAZ and COFAV**, where more than two-thirds of households once faced **moderate to severe food insecurity (68.6%)**, the SLEM project brought a quiet but meaningful transformation. Before 2018, many farming families survived on a single annual harvest and often went **weeks with insufficient meals** during the lean season. The lack of alternative livelihoods and recurrent cyclones forced some to rely on charcoal making or forest clearing to feed their families.*

*Through the **SLEM project**, farmers began adopting **climate-smart agricultural practices** and diversifying their production with **beans, ground nuts, Bambara peas, and short-cycle crops** that withstand erratic rainfall. By 2025, analysis of **1,603 panel households** showed that participating families increased the number of crops grown by **13.4%**, and the total value of crop production rose by **148%**. Income from rice sales surged nearly **20-fold**, while earnings from beans and groundnuts increased by **339%** and **218%**, respectively.*

*These gains translated into measurable though nuanced improvements in food access. The **number of days households went without food** declined from an average of **20 days among comparison households to 13 days among participants**, a **46% reduction**. Moreover, the **value of food consumed from own production** increased by **30%**, signaling greater self-reliance and reduced market dependency.*

*While the aggregate **Food Security Index (CARI)** did not show statistically significant improvement—largely due to national-level shocks such as the 2022 cyclone and lingering post-COVID inflation—the behavioral shifts were unmistakable. Families reported **less food begging (–51.5%)** and a noticeable drop in negative coping strategies. FGDs revealed that women's groups played a pivotal role in this progress: "Before, we relied on forest tubers when food ran out. Now, we have beans and Bambara peas that keep us through the dry season," shared one participant from the CAZ corridor.*

*Beyond immediate food access, SLEM households demonstrated **strategic resilience**. Many began prioritizing long-term well-being—female-headed households investing more in children's education and male-headed ones improving homes and farm tools—indicating a gradual transition from survival to stability.*

Extracted from LORTA Endline Report, 2025

Savings on account of abandoning the use of fertilizers and pesticides has not been quantified by the project but it is worth to calculate, as these directly impact on reduction of import bill of Madagascar. Likewise, no information is available on impact on biodiversity in the project files, but it must be tremendous and worth recording.

The SLEM project partially responded to the expectations of the Ministry. The achievements at the local level were highly significant. — Secretary General, Ministry of Environment and Sustainable Development.

In summary, the SLEM project has delivered substantial and lasting impacts in Madagascar by fostering a paradigm shift in how climate resilience, forest conservation, and rural livelihoods are addressed. Its integrated, landscape-based approach has laid a strong foundation for continued progress toward national climate goals, the SDGs, and inclusive sustainable development.

3.6. Paradigm Shift

The GCF style Paradigm Shift includes systemic transformation, scalability, replicability, and sustainability. The assessment of SLEM on these criteria is given in **Table 16**. The scalability and replicability are rated as HIGH, whereas sustainability is rated as MEDIUM as there are challenges to financial sustainability. **Keeping the three criteria collectively, an overall MEDIUM RATING is assigned to the paradigm shift contribution by the project.**

Table 16. GCF Scorecard for various Criteria of Paradigm Shift

#	Criteria	Rating	Justification
1	Scale	High	The SLEM project demonstrates strong potential for scalability, as its integrated model of climate-smart agriculture, forest conservation, and community-based resource management has proven both effective and adaptable to similar contexts across Madagascar. The project's participatory approach, use of existing local institutions (VOIs, WAs and cooperatives), and alignment with national climate and forestry policies provide a solid foundation for replication. Ongoing and successor initiatives, such as the World Bank's PRE-AA and the DEFIS+GCF value chain project, further enhance prospects for scaling up SLEM's successful practices to other forest corridors and regions. See Section 3.17 for details.
2	Replicability	High	The SLEM project offers high replicability potential, as its integrated model of sustainable land management and climate-resilient livelihoods has demonstrated tangible benefits across varied ecological and socio-economic settings in Madagascar. Its use of drone technology for monitoring landscapes has high potential to replicate with minimum cost and greater coverage. Its use of community-based governance structures (VOIs, cooperatives, and women's associations), combined with strong alignment to national climate and forestry policies, makes the approach adaptable to other regions and programs. The project's participatory design, emphasis on local ownership, and cost-effective interventions—

			such as agroforestry and livelihood diversification—provide a tested model that can be replicated by government, donors, and development partners in similar forest landscapes across the country and beyond. See Section 3.17 for details
3	Sustainability	Medium	There are no major institutional, governance, socio-economic, environmental, or technological risks to sustainability; however, financial risks persist. Successor projects—World Bank's PRE-AA and DEFIS+GCF's inclusive value chain project—may help sustain financing. While cooperatives appear financially viable, the long-term sustainability of VOIs, WAs, and community patrols depends on continued support from these follow-up initiatives. See Section 3.14 for detailed analysis.

The Mijoro Cooperative has 195 members, of which 67 are women We are thankful to CI and SLEM project interventions which effectively responded to our agricultural and organizational needs. Since 2020, the community has benefited from climate-smart agriculture training, quality seeds (beans, coffee), and equipment such as watering cans and shovels offered by the project. These investments significantly improved productivity—especially among women, who have produced 8,000 seedlings as part of their association's contribution. Yield of agricultural crops has tripled or quadrupled for many farmers, boosting household food security and allowing parents to support their children's education. Governance of PAs has been improved through regular reporting to DREDD and inclusive consultations. Rice milling machine provided by the project has provided a great opportunity for members and non-members to interact. The project's support has helped the cooperative establish transparent financial procedures which has increased transparency and leading to a savings of one million MGR. High quality seed of beans and CSA training has yielded benefits-- one kg bean seed now yields up to nine kg of beans. Out of nine kg, selling 7.5 kg can earn between 56,000 and 80,000 MGA, depending upon the season.

We also faced some challenges like delays in payment to patrollers due to procedural constraints which were too long but was addressed. The remoteness and accessibility to the area is a major impediment to development in our area..... Members of Mijoro Cooperative Ialamarina, Lalangina District, Vatovavy Region.

3.7. Additionality

The SLEM project has demonstrated strong additionality across financial, environmental, social, institutional, and policy dimensions. The project delivered benefits and catalyzed actions that would not have occurred in the absence of GCF support, making a compelling case for its strategic value and impact.

1. Financial Additionality

Catalytic Use of GCF Resources: GCF funding enabled the project to de-risk investments in vulnerable landscapes where commercial or public investment was historically limited. These

areas had previously received little climate finance due to low perceived returns and high implementation risks.

Leveraging Co-Financing

- Although the EIB later withdrew from SLEM due to disagreement with the GCF, the project initially mobilized significant co-financing commitments from EIB and attracted partnerships with private sector actors **(see Section 3.4),** demonstrating the ability of public funds to unlock private engagement.

- EIB is still actively involved in various projects in Madagascar, particularly in areas like infrastructure development, renewable energy, and support for small- and medium-sized enterprises. For example, the EIB recently provided a €19 million investment for WeLight Madagascar's access to energy initiative, which aims to build solar mini grids in rural areas. Additionally, the EIB is supporting the expansion of mobile broadband networks in Madagascar and Tanzania through a US$ 100 million investment in AXIAN Telecom. The EIB also supports other infrastructure initiatives for sustainable and inclusive development in Madagascar[32]. These projects could be considered as parallel financing[33] by EIB.

2. Environmental Additionality

- **Avoided Emissions and Sequestration**: The project enabled emissions reductions that would not have occurred otherwise by supporting the protection of over 655,832 ha of forest and restoring more than 4,160 hectares of degraded land. These interventions contribute directly to Madagascar's NDCs and global climate goals.

- **Reduction in Slash-and-Burn Agriculture**: Behavioral change among thousands of households by practicing the SAP led to the voluntary reduction in tavy (slash-and-burn), directly contributing to reduced deforestation and degradation in key biodiversity hotspots, which was not possible without the support of GCF.

3. Social and Economic Additionality

- **Increased Resilience of Vulnerable Communities**: By engaging over 24,862 households and more than 380 farmer organizations in sustainable agriculture, the project created tangible resilience benefits—including improved household food security and incomes—that would not have emerged through business-as-usual development assistance.

"Before, we didn't have the opportunity to receive training on rice cultivation: we used to get about one ton of rice per ha, but after collaborating with CI, we learned new techniques and received rice seeds that produce at least three tons per ha." Beneficiaries from CAZ

[32] *https://www.eib.org/en/index*

[33] *Parallel financing means that the funds are managed by the funding entity by itself or its agent but not by the main project, however, the activities of parallel financing project support the main project in one or the other way.*

- **Empowerment of Marginalized Groups**: The creation of and support to 151 women's associations and youth engagement in schools produced long-term empowerment and inclusion outcomes, exceeding traditional development models in scope and impact.

4. Institutional and Policy Additionality

- **Strengthening of Local Institutions**: The project bolstered the capacity of decentralized entities (e.g., schools and Sub-regional and local governments) and created mechanisms for participatory monitoring, which did not previously exist in many intervention areas.

- **Support to National Climate Architecture**: The project supported Madagascar's climate governance through platforms such as the COS/COPIL and the NERF, thus embedding climate actions into institutional and policy frameworks.

5. Knowledge and Innovation Additionality

- **Introduction of Digital Tools and Real-Time Monitoring**: The use of drones, SharePoint, Power BI, and SMART tools provided advanced data-driven approaches that were previously unavailable to national or local actors, representing a leap forward in transparency and adaptive management capacity.

- **Scaling Up Agro-ecological Innovations**: The farmer-to-farmer extension system and organic pest control practices (Ady gasy) expanded the scope and reach of CSA knowledge in a highly cost-effective and sustainable manner.

Despite challenges, 1,324 households were reached. Forty-five lead farmers and 20 nurseries were established, producing 55,000 seedlings. Composting systems were adopted widely, and 112 people were trained in crop sales. Farmers reported improved food security and cash income, using 40% of harvest for food and selling 60%. Many farmers saw their bean yields jump from approximately 40 kg to 150 kg with equal or fewer inputs. Community members diversified their income and participated in national events like FAIR MADA, which helped us access broader markets. The project's influence extended beyond productivity—it reinforced local organization and fostered economic resilience through cooperative models and partnerships with larger buyers..... Chief Executive Haonasoa NGO, Fianarantsoa.

The SLEM project clearly demonstrates high additionality. GCF and project partner support enabled climate action, institutional strengthening, and social transformation in Madagascar's eastern landscapes that would not have been realized without this intervention. The results extend well beyond project targets and provide a replicable model for delivering additionality in other climate-vulnerable regions.

3.8. Contribution to Sustainable Development

The SLEM project has played a catalytic role in advancing sustainable development agenda in Madagascar. The project integrated climate adaptation, mitigation, sustainable livelihoods, and biodiversity conservation, aligning directly with the country's national development goals and the UN SDGs.

1. Environmental Sustainability and Climate Action (SDG 13, 15)

- **Forest Protection and Restoration**: 1,377,652 ha of forest were protected, and 4,160 ha were restored, contributing to biodiversity conservation, carbon sequestration, and watershed protection in one of the world's richest biodiversity hotspots. The project also updated the PA Management Plans for both the corridors.

..... VOI is committed to watershed conservation as ecologically resilient watershed is our lifeline. The association has four active patrollers who conduct 3-4 patrols per month. Thanks to training and material support for patrolling and improved agricultural techniques provided by SLEM, we are now able to triple our crop production. For example, where one kg of ginger previously yielded only three kg but now it produces up to nine kg. However, market access remains a challenge for us, as we must struggle to sell our produce at fair prices.

Cloves present a promising income opportunity for us which is currently sold at MGA 28,000 per kg. Each household has received around 20 clove seedlings and 24 litchi trees, and we are expecting good earnings from cloves and litchi. In our area, compared with others, members own relatively large plots of land, offering a high potential for plantation expansion, as well as integration of livestock in the agro-forestry model as in this area livestock is negligible, even milk is purchased from other villages. Integration of livestock could also provide us an opportunity to produce biogas and give up our dependency on firewood and charcoal, thus conserving our forests..... VOI Fandrefiala, Ambohimarina.

- **Climate-Smart Land Management**: Adoption of sustainable practices by 31,699 households led to reduced deforestation, improved soil quality, and enhanced adaptive capacity to climate risks such as droughts and cyclones.

- **Contribution to Madagascar's NDCs**: Emissions reductions from forest protection and community-based monitoring supported Madagascar's national climate targets under the Paris Agreement. The SLEM project contributed to 9.3 million metric tCo_2e.

2. Inclusive and Resilient Livelihoods (SDG 1, 2, 8)

- **Improved Livelihoods and Food Security**: The project increased agricultural productivity, diversified incomes, and promoted food self-sufficiency through agroecological farming, benefitting thousands of smallholder farmers.

- **Support for Local Value Chains**: 387 producer organizations and 18 cooperatives that manage LTUs were strengthened, facilitating the production and sale of value-added crops (e.g., coffee, vanilla, cloves, ground nuts) through market linkages with private firms like SOPRAL and MCC.

- **Job Creation and Enterprise Development**: The establishment of cooperatives and women's groups contributed to rural employment, economic inclusion, and entrepreneurship.

3. Gender Equality and Social Inclusion (SDG 5, 10)

- **Empowerment of Women and Youth**: 151 women's associations were actively involved in production, restoration, and governance activities. Women assumed leadership roles and gained financial independence, strengthening gender equity at the community level.

- **Youth Climate Education**: Environmental curricula in 25 pilot schools helped embed sustainable development values in younger generations, fostering long-term behavior change.

4. Institutional Strengthening and Governance (SDG 16, 17)

- **Strengthened Local Governance**: Community-based natural resource management structures (VOIs), cooperatives, and communes were trained in planning, implementation, and monitoring—ensuring local ownership and decision-making power.

- **Policy and Planning Alignment**: SLEM supported integration of climate resilience into local development plans and reinforced national platforms such as COS and COPIL for multi-stakeholder engagement and policy oversight.

5. Knowledge, Innovation, and Monitoring Systems (SDG 9)

- **Technology-Driven Monitoring**: Use of drones, Power BI dashboards, and mobile-based data collection introduced advanced tools for real-time monitoring and adaptive management.

- **Sustainable Extension Models**: The **farmer-to-farmer system** using 1,192 Local Trainers ensures ongoing knowledge transfer and capacity building beyond the life of the project.

The SLEM project has made a profound contribution to Madagascar's sustainable development by promoting integrated landscape management, enhancing resilience among vulnerable populations, and supporting national and local policy frameworks. Its cross-cutting interventions have generated tangible results across key SDGs, offering a replicable and scalable model for sustainable development in other ecologically sensitive and climate-vulnerable regions.

3.9. Country Ownership

At project formulation stage CI involved structured, multi-level consultations, collaborative planning, and strategic alignment activities which are summarized as follows:

1. Initial Stakeholder Identification: Key government stakeholders, including ministries such as MEDD, Ministry of Agriculture and Livestock (MinAE), Sub-regional authorities, and the BNCCREDD+, were identified early on.

2. Consultative Workshops and Meetings

- Consultative meetings and workshops were conducted at national, regional, and local levels, involving relevant government officials and technical experts.

- Discussions included identifying priorities, assessing needs, setting project objectives, and ensuring alignment with national strategies.

3. Participatory Baseline Assessments

- The government participated actively in baseline assessments, particularly in identifying local vulnerabilities, climate impacts, land-use practices, and gaps in institutional capacities.
- The baseline involved comprehensive data collection through collaboration with government agencies, providing a robust foundation for project design.

4. Technical Working Groups: Technical working groups comprising governmental representatives, experts from CI Madagascar, BNCCREDD+, and relevant ministries, collaborated closely to finalize the project components, particularly around adaptation, mitigation, and policy alignment.

5. Alignment with National Policies and Strategies

- A structured analysis ensured that the project is aligned with Madagascar's existing climate frameworks, including the National Adaptation Plan (NAP), national REDD+ strategy, biodiversity action plans (SPANB), and international commitments (Paris Agreement, Kyoto Protocol).
- MEDD and BNCCREDD+ specifically provided strategic inputs, ensuring that proposed activities matched government priorities and goals.

6. High-Level Governance and Validation

- The government, represented by the MEDD Secretary-General, committed to playing a governance role by chairing the COPIL.
- This governance structure was jointly defined during the project formulation phase, ensuring ownership and leadership from the onset.

7. Formal Approval and Endorsement

- Final design documentation was reviewed, validated, and endorsed formally by government authorities, ensuring transparency and explicit governmental approval before submission to the GCF.
- Upon the withdrawal of EIB in 2020, CI-M prepared the amendment to the FAA in consultation with the BNCCREDD+ and PSC, which endorsed it for approval by the GCF.

8. Continuous Feedback Loop

Throughout the design phase, iterative exchanges occurred between government stakeholders, CI Madagascar, and BNCCREDD+, allowing for feedback, adjustments, and consensus-building, which further reinforced government ownership and engagement. This structured and participatory process created strong buy-in from government stakeholders, establishing a foundation for effective implementation and long-term sustainability.

..... The SLEM Project was developed to address Madagascar's climate change priorities. The project was successfully implemented across all eight regions. A climate change guide, translated into Malagasy was distributed during local trainings to enhance local practices and awareness. Municipalities also benefited from tailored training on development planning for PA management. The project was flexible in adjusting activities as per recommendation of the ministry to fully match local expectations. Some planned activities were not completed by BNCCREDD+ as staff were juggling with other national responsibilities, and field visits were restricted to twice a year per site. ..... National Coordinator BNCCREDD+.

During the implementation, besides engaging with the national ministries and institutions mentioned before, the project fully engaged with local authorities, commune-level leaders, and community-based organizations or VOIs which played an active role in planning, implementing, and monitoring activities. This local engagement promoted shared responsibility, built trust, and strengthened governance at the grassroots level.

"The Project has already provided material support to the DRAE. However, as the population of the Alaotra Mangoro region works mainly in rice production, this has not been the project's main activity, given the various areas in which it operates. In this area, the rehabilitation of dykes, the cleaning of canals, and support for communities in terms of agricultural inputs would be areas of continuity for future interventions." Manager at DRAE, CAZ

The project invested in strengthening the technical capacity of government officials (transfer of new knowledge about climate change, global practices, etc., and equipment), local institutions, and communities to manage forests sustainably, implement climate-smart agriculture, and monitor results. Tools such as monitoring of forests with drones, the ESMP and the GRM were institutionalized to ensure compliance, transparency, and accountability.

The SLEM M&E tools and plans inspired other projects such as DIP, IPTT, Datasheets: GEF6- Boeny and GEF- CBIT[34] to use the SLEM M&E system which was rigorously tested.

..... we see SLEM as a pioneering GCF-funded initiative for both Madagascar and Africa. It addresses intertwined national priorities—supporting local livelihoods and protecting forest ecosystems. The initiative succeeded in meeting its dual goals, contributing both to improved living conditions and strengthened forest conservation. BNCCREDD+ actively supported municipal capacity-building to integrate climate concerns into local development plans. Difficult terrain and remoteness of intervention zones hampered regular field monitoring. At the impact level, the project brought noticeable improvements in both ecological outcomes and municipal governance.

Future interventions are envisaged to be focusing on stronger community-driven planning to ensure that solutions reflect local priorities and foster long-term resilience, which will require strategies to enhance community autonomy and institutional ownership, including stronger government roles..... Director BNCCREDD+ and NDA.

[34] *Project Completion Report, page 25*

3.10. Coherence in Climate Finance Delivery with Other Multilateral Entities

Madagascar actively engages in climate financing to tackle its significant vulnerability to climate impacts. The SLEM Project effectively maintained coherence in climate finance delivery by aligning closely with national and international climate priorities, including Madagascar's NAP, REDD+ roadmap, and commitments under the Paris Agreement. The project was originally designed with parallel financing from the EIB to leverage private-sector climate investments. Although the EIB ultimately withdrew, the project's strategic alignment with multilateral climate objectives ensured its effectiveness and adaptability. Regular interactions, collaborative workshops, and joint planning with national entities such as MEDD and BNCCREDD+, as well as alignment with multilateral frameworks, contributed to harmonized climate finance delivery, enhancing the project's sustainability and impact at both national and regional levels.

The notable climate finance projects in operation or pipeline in Madagascar are given in **Table 17**.

Table 17. On-going and Pipeline Climate Finance Projects in Madagascar

#	Project	Implementer	Type	Budget (USD)	Timeline
1	Strengthening Strategic Frameworks and Processes to Facilitate Access to Climate Finance (Madagascar & Djibouti)	FAO with GCF Readiness Grant	Readiness (GCF)	1.67 million	03/2024–08/2026
2	GCF Workshops for Investment Planning & Pipeline Development (Madagascar & Djibouti)	FAO with GCF Readiness Grant	Readiness (GCF)	27,835	08/2023–01/2024
3	Inclusive Agricultural Value Chains Programme	DEFIS-GCF Funded	Full GCF Investment	150 million	Started 06/2025 (6 years)
4	Scaling up Renewable Energy and Climate Resilience. Programs: Scaling up Renewable Energy Program (SREP) and Pilot Program for Climate Resilience	Under CIF	Pipeline programmes	TBD	Ongoing
5	GEF Programming	Additional allocation of ~USD 50 million over the next 18 months for climate and biodiversity projects	Pipeline	50 million	Next 18 months

6	Lemur bond (Nature-based bond)	Under consideration by GEF to finance biodiversity and climate resilience efforts	Pipeline	TBD	Under development
7	Africa Adaptation Acceleration Programme (AAAP) - Upstream Facility	Accelerate ~USD 100 million in resilience investments via GCF and World Bank support	Pipeline	100 million	Planned

Source: GEF, GCF, IFAD and AAAP websites

While these projects demonstrate Madagascar's proactive approach to accessing and utilizing international climate finance, challenges remain, including limited national financial resources, institutional capacity constraints, and reliance on external donor funding. Strengthening national systems and enhancing coherence among climate finance initiatives is crucial for ensuring sustainable outcomes and long-term resilience.

3.11. Adaptation Beneficiaries

The SLEM project reached a wide range of adaptation beneficiaries by enhancing the resilience of vulnerable communities, ecosystems, and institutions in Madagascar's CAZ and COFAV forest corridors. The project directly supported 31,699 smallholder households through CSA, sustainable land management, and livelihood diversification. These beneficiaries experienced reduced exposure to climate risks such as drought, soil degradation, and erratic rainfall due to improved watershed management. Indirect beneficiaries included the broader population of 1.2 million people in the CAZ and COFAV regions who benefit from reduced flooding, drought impacts, improved ecosystem services and updated climate knowledge.

Particular attention was given to marginalized and vulnerable groups, especially women and youth. The project established and supported 151 WAs, empowering them through capacity building, leadership roles, and income-generating activities, thereby improving their adaptive capacity. Additionally, 25 pilot schools implemented environmental education programs that engaged youth as future stewards of climate action.

At the institutional level, the project strengthened the capacities of community-based organizations (e.g., VOIs and cooperatives), local governments, and national agencies such as MEDD. These actors benefited from training, planning tools, and participatory governance mechanisms that enhanced their ability to manage climate-related challenges over the long term.

Through this multi-tiered approach, the SLEM project created a solid foundation for sustained adaptation impact across individuals, institutions, and landscapes.

During FGD with the Tsinjo Association, comprising of VOI and a Women-led Coffee Planting cooperative at Fotobohitra, Ranomafana, Ifanadiana District members reflected on the significant support received through the project, including training in improved agricultural techniques, in-kind support with seeds and trees seedlings for plantation, nursery tools, and individual equipment. These interventions were directly aligned with local needs and helped strengthen both environmental restoration and livelihoods.

Since 2019, the group has produced nearly 50,000 seedlings, achieving a 70% survival rate thanks to shared responsibility for the community nursery. A small stipend of 100,000 MGA per month was provided to nursery caretakers, ensuring continuity. Crop yields improved by 90%, especially for beans, peas, and groundnuts. Diversification was reinforced with coffee, clove, and fruit trees, while improved coffee quality attracted buyers and market connections. The ripple effect was strong: other villagers, witnessing the benefits, began adopting the same practices.

Beyond agriculture, members led awareness efforts against slash-and-burn farming, now reduced to just 10% of local practice. Reforestation also contributed to the recovery of a nearby spring and a noticeably improved rainy season. Household income has more than doubled, enabling education access and better living standards. Members proudly cited five achievements: natural spring restoration, forest regrowth, better livelihoods, strengthened women's rights, and enhanced agricultural skills.... Members of Tsinjo Association

3.12. Improvement in Enabling Environment

The GCF enabling environment criteria include: (i) Institutional and Regulatory Frameworks; (ii) Technology Deployment, Dissemination, and Innovation; (iii) Market Development and Transformation; and (iv) Knowledge Generation, Capture, and Learning. The situation before the project and at its completion against the above four criteria is assessed in **Table 18.** The enabling environment created by the SLEM project has significantly strengthened the foundations for sustainable and climate-resilient landscape management in Madagascar. **All the criteria were rated as high, therefore, the overall rating assigned is also HIGH.**

Table 18. GCF Scorecard for various Criteria of Enabling Environment

#	Criteria	Rating	Justification
1	Institutional and Regulatory Frameworks	High	Before the SLEM project, institutional coordination for forest and land-use management in project corridors was weak, with limited enforcement capacity, fragmented mandates among agencies, and minimal integration of climate-resilience priorities into local development planning. VOIs lacked formal recognition and operational support, and national frameworks for REDD+ and climate adaptation were still emerging. By the end of the project, SLEM had significantly strengthened the institutional and regulatory environment by operationalizing

			VOIs under co-management agreements, improving coordination between CI Madagascar, BNCCREDD+, and MEDD, and mainstreaming climate-smart land management practices into local planning. The project also contributed to implementing Madagascar's National Climate Change Policy and REDD+ Strategy, laying a stronger foundation for decentralized, climate-resilient landscape governance.
2	Technology Deployment, Dissemination, and Innovation	High	Before the SLEM project, smallholder farmers in the target landscapes relied largely on traditional shifting cultivation, with limited access to improved technologies, climate information, or agricultural innovations. Knowledge of climate-smart and conservation agriculture techniques was minimal, and there were few mechanisms for technology transfer or farmer-to-farmer learning. The monitoring of PAs was dependent only on rangers. By the end of the project, SLEM had introduced and disseminated a range of climate-resilient technologies—including agroforestry systems, improved seed varieties, soil conservation techniques, off-season cultivation, and weather information services. Demonstration plots, lead farmer networks, and farmer field schools helped accelerate local innovation and adoption. The project introduced monitoring of PAs by drones and community-based monitoring through community Patrols to halt slash and burn practices, and charcoal making practices. Once a degradation practice is observed in PAs by drones, the coordinates are sent electronically to the nearby Community Patrollers who take immediate necessary action by applying peer pressure, rather than cumbersome legal process adopted by the Forest Departments. This was a highly preferred activity by the communities as now they are fully aware of the dependence of their livelihoods on sustainable landscapes. These technologies not only improved productivity and resilience but also fostered a culture of continuous learning and innovation within community institutions.
3	Market Development and Transformation	High	Before the SLEM project, market access in the CAZ and COFAV regions was severely constrained by poor infrastructure, weak producer organization, and limited value-chain integration. Most smallholders sold raw or low-value products locally, often at unstable prices, with little bargaining power or access to financial services.

			By the end of the project, SLEM had facilitated the formation and strengthening of agricultural cooperatives and producer groups, enabling collective marketing, better price negotiation, and linkage to regional and national markets. The promotion of cash crops such as beans, groundnuts, ginger, and Bambara peas diversified income sources, while training on value addition and business management improved market competitiveness. These changes mark a shift from subsistence-based production toward market-oriented and sustainable rural enterprises in the targeted landscapes.
4	Knowledge Generation, Capture, and Learning	High	Before the SLEM project, knowledge on sustainable land management and climate-resilient agriculture in Madagascar's eastern forest corridors was fragmented and largely undocumented. Learning was confined to individual projects, with minimal mechanisms for capturing or sharing lessons among communities, institutions, or policymakers. By the end of the project, SLEM had established a strong foundation for knowledge generation and learning, through systematic monitoring, community training, and collaboration with the LORTA programme for real-time impact assessment. Best practices in climate-smart agriculture, forest co-management, and livelihood diversification were documented and shared across VOIs, cooperatives, and local authorities. The project produced three LORTA reports, six Emission Reduction Reports, quarterly and annual progress reports, published 11 series of a magazine (2,000 to 5,000 copies per magazine) to reach at a wider scale, aired 107 radio programs, organized community listening groups and introduced climate change and sustainable land management in schools (Section 3.3.8). The integration of data-driven evaluation and participatory learning has strengthened local capacities and informed national dialogue on sustainable landscape management.

3.13. Gender Equity

The Project prepared and implemented Gender Action Plan which emphasizes the integration of gender considerations across project activities to ensure inclusive and equitable participation, targeting the specific needs of women and vulnerable groups. Key components include:

Strengthened Adaptive Capacity and Reduced Climate Risks

- Training all regional agriculture service staff in gender sensitivity.
- Annual gender-sensitive monitoring to track household vulnerabilities.
- Participatory planning in villages with full gender integration.
- Ensuring 50% women participation in sustainable agriculture training.
- Promoting women's membership in producer associations (60% women).
- Creating jobs specifically for women.

Enhanced Awareness of Climate Threats

- Development of gender-sensitive training materials on climate change, sustainable agriculture, and gender mainstreaming.
- Gender-balanced training sessions targeting 50% female participation.
- Information dissemination reaching 142,800 individuals, (50% women).

Strengthened Institutional and Regulatory Frameworks

- Developed gender-sensitive guidelines for local authorities for climate-responsive planning.
- Inclusion of gender mainstreaming in 100% of local planning documents.
- Establishment of a gender policy and strategic plan for the Madagascar Climate Change Trust Fund.
- Ensuring that monitoring and evaluation systems collect gender-sensitive data.

Improved Management of Land and Forest

- Encouraging women's participation in local forest management structures, with at least 25% women membership targeted by the end of year five.

Cross-cutting Actions

- Professional training for project staff on gender mainstreaming.
- Deployment of gender specialists to ensure integration.
- Incorporating gender indicators within the project's monitoring and evaluation system.
- Reporting on gender-related impacts and outcomes annually.

The Gender Action Plan included specific milestones, outputs, and targets, such as conducting gender-sensitive assessments, creating women-led farmer associations, and enhancing the representation of women in decision-making roles, thereby promoting gender equality and women's empowerment within the project framework. The achievements against the indicators in Gender

Action Plan are summarized in **Table 19.** The project either achieved or surpassed the gender-related end-of-project 4targets.

CI conducted a gender empowerment assessment in 2022 applying principles of the Women's Empowerment in Agriculture Index (WEAI) having five domains of power[35], viz., (i) level of participation in agricultural decision making at the household level, (ii) Level of control over productive resources, (iii) level of control over use of income, (iv) leadership in the community, and (v) women's time allocation. The following results were derived from this analysis:

1. Decision-making in Agricultural Production

- **Pre-project:** Majority reported low (46%) or very low (33%) participation; none reported high levels.
- **2022 situation:** Medium participation significantly increased to 67%; very low participation dropped sharply to 4%; still, none reported high-level participation.

2. Control over Productive Resources

- **Pre-project:** Men predominantly controlled resources (44%); equal control was low (31%), women's sole control was 25%.
- **2022 situation:** Equal control rose significantly to 57%, men's control reduced notably to 14%, women's sole control slightly improved to 29%.

3. Decision-making Power over Income

- **Pre-project:** Women had relatively high control over small livestock (64%) and self-earned income (66%) but low control over large livestock (49%) and agricultural wages (49%).
- **2022 situation:** High-level control improved across all categories, notably for small livestock (72%) and self-earned income (70%), with a reduction in low-level control from 32% to 9% overall.

Since we grouped into a community association, we've been recognized — one of us even gained a seat on the Commune's decision-making committee. — VOI member in COFAV

4. Community Group Membership and Participation

- **Pre-project:** 64% of women were active members of community groups.
- **2022 situation:** Active membership increased significantly to 77%; participation in multiple groups rose from 27% to 45%.
- **Public Speaking**: Overall comfort in public speaking showed modest growth (from 46% to 53%) but remained notably low (20%) for women aged 18-25 years.

5. Time Allocation

- 62% reported increased time in community activities.
- 46% experienced increased leisure/free time.

[35] *Alkire, S., Meinzen-Dick, R., Peterman, A., Quisumbing, A., Seymour, G., Vaz, A. (2013) The Women's Empowerment in Agriculture Index. Oxford Poverty & Human Development Initiative.*

- 35% noted increased time spent on productive activities, whereas 32% reported reduced caregiving time.

The survey revealed that 45% women cited increased labor associated with new agricultural techniques as challenging and 21% struggled with conflicting responsibilities and late seed distribution.

Overall, 52% women reported increased income, 31% noted improved food production and security and 22% each mentioned increased technical knowledge and confidence in public speaking. ***The FIE Team met with several VOIs and WAs, and the encouraging sign was that the participation of women and girls in the meetings was overwhelming, and they openly shared their views about the project activities and the achievements.*** A great majority mentioned that at present they are engaged in the growing of nurseries and CSA following the project's guidelines and training. ***All the groups reported 3-5 times higher income from CSA, and majority responded that they control the household funds either singly or jointly with their husbands. No group reported any case of Gender Based Violence (GBV).***

The project has contributed to enhance our livelihoods and motivation to forest conservation and restoration. The members received substantial support: 120 coffee seedlings per person, thousands of native trees (5,000–7,000 yearly), 10 kg seed of either peanuts, potatoes, or beans per member and tools for nursery growing. Training in sustainable agriculture and composting has led to impressive outcomes. For example, one kg of beans produced up to 10 kg of beans, which was sold at 7,000 MGR/kg. Income improvements have enabled us to improve food security, education, health, and meet our social needs. Tree planting efforts had 100% survival in the early weeks, thanks to mutual support among members.

Environmental impact of tree plantation and patrols is notable as communities have halted illegal logging, and we have observed improvements in rainfall. We feel that women's leadership and financial management capacities have been strengthened significantly, and we continue patrols through VOI brigades…. Women Associations in Ambohimitombo, Ambositra.

In FGDs, the women reported that extra funds generated from new income generating activities are mainly used for education. In the groups visited, almost all reported that all the children are going to school and there is no drop out. There were many instances that the women reported that their children have gone to college/university but lack of job opportunities for the educated youth was mentioned as a major disappointing factor for the youth. The ***FIE Team observed that in all the locations visited, internet was available, and people have mobile phones. It is recommended that the GoM, in a bid to reduce digital divide, should provide laptops to educated youth with high-speed internet in villages/small towns so that the people can have access to online job opportunities and education to keep them engaged in positive activities.***

The structured gender-focused strategy has achieved substantial gains in women's empowerment. However, enhanced interventions targeting public-speaking confidence and reducing labor demands of agricultural techniques remain essential.

Table 19. Achievements against Indicators of Gender Action Plan

#	Indicator/Sub-indicator	Unit Type	Baseline	Target	Achievements	Trend
	Output 7.1. Smallholder farmer communities are supported and trained in Sustainable Agriculture					
1	# of gender-sensitive knowledge and vulnerability monitoring conducted	Surveys	0	3	3	→
	1.2 Encourage both men and women to engage as Local Trainers (LTs).					
2	% of women among respondents	Percentage	0	30%	36%	↑
3	% of women working as Local Trainers	Percentage	0	40%	47%	↑
4	# of gender training sessions conducted for CI and partner staff	Sessions	0	4	6	↑
5	# of LTUs and FG leaders trained on gender	Persons	0	793	853	↑
6	# of groups whose board members received gender training	Groups	0	354	401	↑
7	% of women participating in FGs meetings	Women	0	30%	30%	→
8	% of women benefiting from agricultural training	Women	0	33%	47%	↑
9	% of women among agricultural in-kind grant beneficiaries	Women	10	33%	48%	↑
	A7.2 Market and crop production information available					
10	# of gender workshops to disclose GAP with DRAE and other government agencies and NGOs	Workshops	0	2	3	↑
11	# of LTUs feasibility studies conducted considering gender dimension	Feasibility studies	0	5	18	↑
12	% of women representation in the Board/Management of LTUs	Women	0	30%	30%	→
13	# of Women's Associations supported	WAs	0	112	151	↑
	Outcome A8.0 Strengthened awareness of climate threats					
14	# of training modules developed	Training modules	0	1	1	→
15	% of training sessions using timing, venue, and methods suitable for men and women	Training sessions	0	100%	100%	→

16	% of women participating in listening group sessions	Women	NA	40%	40%	
	Outcome M9.0 Improved management of land or forest areas					
17	% of women among VOI members	Women	17%	25%	30%	
18	# of women patrollers maintained	Women	NA	14	13	
19	% of women among tree nursery keepers- 277 nursery workers were female	Women	NA	30%	37%	

3.14. Sustainability

3.14.1. Financial Risks to Sustainability

To fulfill its NDC targets, Madagascar estimates that it requires approximately US$ 24.4 billion by 2030. A World Bank supported analysis forecasts that executing priority climate-resilient investments across key sectors (e.g., agriculture, water, infrastructure) will cost about US$ 7.5 billion by 2050—nearly 46% of Madagascar's 2022 GDP. Madagascar has already instituted a climate-smart public investment framework (PIM manual) in March 2023. However, challenges remain due to limited domestic capacity and budget allocation. Strengthening procurement processes, public financial management, and climate budget tagging is critical, requiring both technical assistance and financial support.

No official figures are readily available showing current domestic climate spending by government line ministries, however, a 2022 Wikipedia summary noted that meeting adaptation needs would require spending up to 15% of GDP, highlighting a substantial gap between budgetary needs and actual allocations.

The National Climate Change Trust Fund is a strategic financing mechanism proposed under Madagascar's *National Policy for Action on Climate Change* (*Politique Nationale de Lutte contre le Changement Climatique — PNLCC*)[36]. Its primary aim is to ensure the long-term financial sustainability of climate change adaptation and mitigation initiatives across the country. At COP29 (November 14, 2024), Madagascar, together with the IMF and other international financial institutions, introduced a Country Platform for Climate Finance. This platform aims to mobilize climate financing through several mechanisms, including a results-based grant facility and market-based instruments like the innovative Lemur Bond, contributing to the country's trust fund ecosystem.

[36] *Politique Nationale de Lutte contre le Changement Climatique (PNLCC), Government of Madagascar*

Key donors such as the Global Environment Facility (GEF) have committed nearly US$ 50 million through its trust fund and the Least Developed Countries Fund (LDCF) for implementation within 18 months. The World Bank is also exploring a grant-based trust facility for decentralized renewable energy, enhancing the structure of Madagascar's CTF, however the instruments to operate the CCTF are still under development.

Under the SLEM project, a CCTF was envisaged to ensure that once the initial project cycle ends, funding remains available to scale up successful models, replicate landscape-level solutions, and strengthen local resilience to climate risks. With seed financing of GCF grant of US $ 3.180.445, it was envisaged that the returns generated from the dedicated Investment Fund (which channels private equity into sustainable agriculture and renewable energy) will be recycled into the Trust Fund's capital base. This helps establish the funding gaps. By creating an institutional structure with clear governance and oversight, the Trust Fund was expected to attract additional public and private resources and build confidence among donors and investors. However, due to differences in operational mechanisms of CCTF with GCF/GoM and withdrawal of EIB, this component was dropped and funds returned to GCF.

In the project area a World Bank funded project "Atiala-Atsinanana Emission Reductions Program (PRE-AA)" is in operation and some project staff have already joined this project. Likewise, a GCF funded project entitled "Inclusive Agricultural Value Chains Programme", implemented by IFAD has been initiated in June 2025 for a period of six years, therefore, it is expected that some financial support will be available to the GoM institutions and local communities for the SLEM related activities.

The FIE Team records the following points pertaining to the financial sustainability of SLEM activities:

- The key intervention in CSA is the provision of high-quality seeds of crops and vegetables. It was informed during FGDs, that the Lead Farmers keep one-third of the harvest as seed for next crop, one-third is sold in the market, and one-third is kept for household consumption. Thus, the supply of high-quality seeds to other farmers will remain available, and it is expected that the old varieties will be replaced by high-yielding varieties- **there is no risk of financial sustainability to this important activity.**
- The farmers do not use any artificial fertilizer or pesticides, rather they practice composting or rotating crops with legumes to maintain soil fertility and use natural control methods to manage pests- **no financial risk.**
- Community forest patrollers are volunteers who are paid a stipend of USD 2.2 per day for five days work in a month. They are equipped with proper gear and have expressed their eagerness to continue this activity even without stipend- however, it may not be the case for all the patrollers, therefore, **some risks to financial sustainability for this activity are foreseen**.
- The cooperatives are charging a fee for the use of machines from community members which is used for repair and maintenance, therefore, **there is no financial risk to this intervention**.

- The project provided seeds and saplings to nursery growers for community plantation. **This modality is not financially sustainable, except for the trees of commercial plants such as coffee, clove or fruit trees.** Ideally, the project should have introduced nursery growing as a business for women who grow and sell saplings. To incentivize the farmers, the project should have borne 50% cost and paid that amount to the nursery grower, and after completion the nursery growers could have continued this activity as a business with 100% cost recovery.
- **There is no financial risk to the sustainability of cooperatives as they are operating on a contract farming and profit basis. However, the VOIs, and WAs, may have some financial risks to cover their running costs**. Ideally, the project should have introduced a micro-credit component in these community structures to keep the members motivated and avert the financial risks.

------- support to the VOI structures to improve forest management strengthened via patrols, "Dina" (community rules), and local enforcement resulted in reduced deforestation. However, the absence of dedicated government forest officers and rising costs of agricultural inputs are major challenges to sustainability. There is a need for continued monitoring of PAs by drones, stronger support for local livelihoods and reforestation…. though we did our best to achieve our target, challenges persist, including weak law enforcement, reliance on NGOs, funding constraints for hired staff, and the need to pre-finance activities……. VOI Familiana and Women's Associations Ambatondrazaka.

3.14.2. Socio-Economic Risks to Sustainability

The project design was to work at the macro- and micro-level. At the macro level it supported BNCCREDD+ and built the capacity of the concerned national and regional departments such as DREDs and DRAEs and established its credibility. At micro- level (village level), it focused on the vulnerable farmers and facilitated them to organize themselves in the form of groups (WAs, VOIs) and reactivated the existing groups. The Lead Farmers and Nursery Growers and groups implemented project activities. A novel initiative was to train community volunteers to patrol and monitor forests, and stop harmful practices such as slash and burn, illegal logging and charcoal making.

The project organized 161 VOIs, 151 WAs, and supported 18 cooperatives in the project area. The FIE team interviewed several cooperatives and found that they are performing very well socially as well as economically. For example, one cooperative is negotiating with a coffee company (MCC) to earn a contract to provide 10 tons of coffee, and another received an order to supply 10 tons of rice. ***This practice of collective marketing and increase in income will further cement the relationships among members.***

The FIE Team observed high spirit of the community forest patrollers, and members of groups to conserve forests and promote CSA and improve their livelihoods. The community patrollers

expressed their interest in working voluntarily (no stipend) as they are convinced now that the conservation of forests is the key to their sustainable livelihoods. The team did not observe any social conflict among the communities visited, record keeping at the group level was in order and no riots or forced migration was reported in the project area. ***Therefore, there is no socio-economic risk to sustainability***.

3.14.3. Institutional Framework and Governance Risks to Sustainability

At the national level Madagascar has a well-defined institutional and governance framework to combat climate change. Madagascar's Environmental Charter (Law No. 2015-003) provides a framework for environmental management and includes principles for promoting efficient waste management. Madagascar's environmental policy is a comprehensive framework designed to promote sustainable development and protect the country's unique biodiversity. Key aspects include the Environmental Action Plan (EAP) and the National Policy to Combat Climate Change, which focuses on adaptation and mitigation strategies. Madagascar is also a signatory to the UNFCCC, the Kyoto Protocol, and the Paris Agreement. It has prepared its 2nd NDC in 2024 and outlined its targets up to 2030, focusing on emission reduction, enhancement of carbon sinks and mitigation and adaptation. It presents a holistic and conditional strategy, leveraging nature-based solutions for carbon sequestration and prioritizing resilience for its highly vulnerable populations and biodiversity-rich environments. As mentioned earlier, at COP29, Madagascar has announced Climate Finance Platform in coordination with IMF and other donors. The MEDD is responsible for implementing and coordinating climate-related actions, and BNCCREDD+ with the MEDD ensures the coordination and monitoring of climate change initiatives.

The State needs support in its sovereign role to carry out regular monitoring… The equipment provided by the project was substantial. Nevertheless, the donation of drones would have been a great help in facilitating forest patrols- Regional Directorate of Environment official.

At the ground level, the project has strengthened cooperatives, VOIs and WAs, who have their well-defined structures, rules of business and operational mechanisms. **Therefore, no institutional or governance risk to sustainability is foreseen.**

3.14.4. Environmental Risks to Sustainability

The project promoted natural resource conservation, effective and efficient forest management to reduce degradation, deforestation, and afforestation. It promoted CSA and organic farming (no use of chemical fertilizers and pesticides). **The project followed the ESMP, so sustainability faces no environmental risk.**

3.14.5. Technological Risks to Sustainability

The project provided machines to process coffee, rice (rice huskers), and flour mills (for casava). It was informed by the communities that all the machines are made locally, and in case of any breakdown spare parts and mechanics are easily available, thus there is no risk to technological sustainability.

3.14.6. Innovation in Results Areas

The SLEM project demonstrated significant innovation in both design and execution, producing transformative results in climate adaptation and mitigation. Notable innovations include:

1. **Digital and Real-Time Monitoring**
   The project introduced a robust, technology-enabled M&E system, integrating:
   - **Smart data collection** via tablets and drones.
   - **Kobo toolbox and Power BI dashboards** for real-time analysis.
   - **SMART patrol tools** and the national NERF system for emission tracking.

   These tools enhanced evidence-based decision-making and adaptive management.

2. **Community-Driven Forest Monitoring and Restoration**
   The use of **drones and community patrollers** enabled efficient monitoring of over 1.3 million ha of forest, while over 4,160 ha were restored. Locals were trained in nursery management and restoration, ensuring ecological impact and livelihood benefits. The community patrollers were trained and provided with necessary gear to undertake reconnaissance in the field to identify slash-and-burn (tavy practices), charcoal making in PAs and logging, and to stop them with peer pressure or through the engagement of Forest Department. They were guided to various sites observed by drone operators. This practice reduced the number of slash-and-burn cases without any social conflict and covered a large area.

……Communities also have been able to produce and plant 18,000 seedlings, with a reported 100% survival rate. Monthly and seasonal patrols have resulted in reduced forest degradation, while local governance has ensured effective reporting of infractions which led to decrease in fire and deforestation risks. However, while some tension arose during forest patrols, collaboration with local authorities helped manage conflicts.

Thanks to CI which guided us to follow good governance practices and training on dispute resolution, helping us to prepare a five-year business plan, ensure an equitable women participation, a transparent financial management system which helped the cooperative to make a saving of MGA 400,000. CI's presence in the area is crucial and broadening support to access mechanized tools is required to match evolving needs…… Members of Cooperative Miarasoa, Moramanga.:

3. **Farmer-to-Farmer Extension System**
   A decentralized, community-driven model mobilized 1,192 Local Trainers (LTs) who facilitated SAP and peer learning across 21,921 households. This approach enabled contextually relevant, low-cost dissemination of climate-smart practices, contributing to widespread behavioral shifts and sustainability. ***This was a highly useful practice in the light of weak agricultural extension services by the government departments.***

4. **Integrated Agroforestry and Market Access Innovations**
   By establishing 18 LTUs and strengthening 312 farmer organizations, the project added value to local produce and improved income. Cooperatives entered direct trade relationships with companies like SOPRAL and MCC, bridging the gap between rural producers and commercial markets—an innovation in value chain inclusivity.

5. **Behavioral and Social Innovation**
   The project moved communities from slash-and-burn practices to sustainable land management, shifted household decision-making to include women, and promoted organic agriculture (integrating legumes with cereals and composting to enhance soil fertility, and natural control of pests). ***This reflects a shift not only in farming techniques but in social norms and gender dynamics***. Consumption of pesticides in Madagascar is expected to reach 990 metric tons by 2026, from 813 metric tons in 2021. This would represent a 3.1% year-on-year growth from 2021 to 2026. Since 1995, Malagasy pesticide consumption has increased by an average of 10.5 percent per year.[37]. The heavy use of pesticides often leads to pest resurgence and resistance and drains the economy because of imports. ***A shift to organic agriculture provides an opportunity for the GoM and Malagasy traders to explore markets for organic products locally and internationally.***

……..The VOI has been managing 3,366 hectares of PA since 2015 and has benefited from in-kind support of SLEM like improved rice and bean seeds and fruit trees as well as help in patrolling activities. With the project support we have restored 10 hectares of forests and enhanced forest patrols. The patrol system operating every five days in a month has helped limit illegal logging and conflict with loggers and charcoal producers. However, like elsewhere in remote areas, for meeting energy needs community relies on the use of wood-energy- charcoal (40%) and firewood (60%), but charcoal production is limited to a few specialized households in this area.

Thanks to the project, some project beneficiaries have improved their housing or acquired livestock, creating incentives for non-members to join. During the project period membership has more than doubled—from 52 to 113—indicating strong interest in the VOI and activities of association…. : VOI of Fitaratra and the Fanambinana Women's Associations, Moramanga.

[37] *https://www.reportlinker.com/clp/country/13/726257#:~:text=Madagascar%20Pesticide%20Industry%20Outlook%202022,Other%20Top%20Countries%20about%20Pesticide*

6. **Gender Empowerment Innovations**
   With 151 WAs engaged (45% of all project-supported groups), the project catalyzed inclusive governance and economic participation. Women's roles in agroforestry, cooperatives, and leadership settings expanded notably. ***During FGDs, the women informed that at the household and community level, they feel empowered in terms of controlling finance and taking part in productive activities.***

7. **Communication for Change**
   The project innovatively combined radio, TV, social media, and school-based environmental education to build climate literacy. This multilayered approach influenced over 1.2 million people, deepening climate resilience at the grassroots.

These innovations demonstrate how the SLEM project not only achieved targets but also laid the foundation for scalable, sustainable change through inclusive, locally led approaches.

3.15. Unexpected Results, both Positive and Negative

The SLEM project yielded the following positive and negative results:

Unexpected Positive Results

1. **Rapid Market Linkages with the Private Sector**
   Although not fully anticipated at design, the project facilitated commercial linkages between farmer cooperatives and private companies such as SOPRAL and NCC. For example, 2.3 tons of green vanilla were sold at premium price, and over 126.7 tons of groundnuts were marketed, demonstrating stronger-than-expected outcomes in market access and income generation. A cooperative has received an order of 10 tons of coffee from a Coffee Company. The collective marketing approach has led to increased returns to farmers and serve as one-stop shops to collect ready products from difficult to access rural areas.

2. **Impact on Health, Education and Digital Connectivity**
   In almost all the groups visited, the women informed that their income has been increased substantially due to CSA, and they spend more money on education of children, even some households had been able to afford college level education of their children. **During all the FGDs, participants shared that there are currently no children out of school because families can now afford education expenses.** It was also informed that due to increased production, household food security has been enhanced, and in general there is an improvement in the health of household members. ***The FIE Team also observed during FGDs that almost 50% of participants had mobile phones and are active internet users. This is a good sign of community awareness,***

possible use of digital technology in future projects and creation of online jobs for unemployed youth.

> *The project had a real and tangible impact on our lives — our children were able to go to school, others were able to build their houses, and widows were able to feed their families — COFAV beneficiary*

3. **Adoption of Organic Farming Practices**
   Generally, the campaign of pesticides companies is very aggressive, and farmers use chemical pesticides without realizing whether the pest population is above its economic threshold. Initially, it was considered that farmers may not easily give up the use of fertilizers and pesticides. A significant and voluntary shift from chemical inputs to traditional and organic pest control methods ("Ady gasy") was observed. ***Farmers showed heightened awareness of environmental and health impacts, leading to a broader uptake of eco-friendly practices than projected.***

Unexpected Negative Results

1. **Withdrawal of the EIB and Abandoning of the CCTF**
   The EIB withdrawal from co-financed private sector components halted expected climate investment in energy and agriculture sectors Additionally, the planned ***CCTF was abandoned due to lack of political will of GoM, leaving a critical gap in long-term financing mechanisms, and risking sustainability.***

2. **Transport and Logistics Challenges**
   Poor, rather rudimentary road network to the project areas is a blessing in disguise as the people do not have easy access to the PAs. However, road inaccessibility led to delays of provision of inputs and damage to saplings during transportation. The poor condition of rural infrastructure, especially during rainy seasons, was more disruptive than anticipated, affecting the timeliness and quality of implementation in remote areas. ***During FGDs, the communities also highlighted the need for more frequent visits of staff which was deficient in some villages due to remoteness and lack of access road***[38].

3. **Partial Law Enforcement and Corruption in Conservation Areas**
   Rampant corruption related to illegal mining and precious wood trade hindered law enforcement. Limited collaboration with anti-corruption institutions like BIANCO was flagged as a missed opportunity, pointing to systemic challenges in conservation-related governance.

[38] *The FIE Team also experienced difficulties to reach remote village on rainy days, the unmetalled road was dangerously slippery and the team had to abandon reaching that site and instead interviewed communities over WhatsApp.*

4. **Climate Disasters Exacerbating Vulnerabilities**
   The occurrence of major cyclones (e.g., Batsiraï and Emnati) and persistent droughts severely impacted crop yields and delayed recovery. These compounded risks required emergency responses beyond initial project planning and reduced resilience gains in some zones.

5. **COVID-19 Lockdown**
   Like other countries, Madagascar also faced lockdown during March-July 2020, and the SLEM project activities were suspended. Consequently, CI had to request project to provide no-cost extension to cover the time lost. ***Forest monitoring was suspended during the lockdown period, consequently, the deforestation rate in 2020 in both the corridors increased compared with 2019.***

   Eklund et al. (2022)[39] studied the forest fires in Madagascar PAs using NASA satellite data, and reported that during March to July 2020, when the PA management was suspended due to lockdown, 76–248% more fires were recorded more than predicted, after which burning returned to normal. ***Of the 113 PAs the group examined, 29 showed increased fire activity compared to the previous year, and nine were heavily impacted, including Tsingy de Bemaraha. This warrants constant monitoring of the PAs.***

These unexpected results - both positive and negative - highlight the complex, adaptive nature of the SLEM project and underscore the importance of flexibility, local innovation, and systemic resilience in climate-focused development programming.

3.16. Progress on the Environmental and Social Safeguards and Gender Action Plan

The SLEM project demonstrated a strong commitment to environmental and social sustainability by effectively integrating GCF safeguard standards into all phases of project planning and implementation. Guided by its ESMP, the project prioritized risk mitigation, inclusive engagement, and adaptive management to ensure activities were both responsible and resilient. The following highlights summarize key measures undertaken to uphold ESS commitments across target landscapes and stakeholder groups.

- **Integration of ESS in Planning and Implementation:** All project activities were screened for environmental and social risks with inputs from local communities, like seasonal calendar, choice of intervention/variety, etc. Mitigation measures were incorporated into activity design, particularly in reforestation, restoration, and agroforestry interventions to prevent unintended impacts on biodiversity or local livelihoods.

[39] *https://www.nature.com/articles/s41893-022-00884-x*

- **Capacity Building:** Community members, implementing partners, and local authorities received training on environmental and social standards, including codes of ethics, GRM, and prohibited practices. The list of prohibited practices was made a part of the sub-grant contracts.

- **Operationalization of a GRM:** A participatory complaints and feedback mechanism was established, with local access points for reporting grievances. Contact details of the focal people and GRM procedures were displayed in the offices of VOIs and cooperatives. This strengthened transparency and community trust.

- **Stakeholder Engagement:** The project ensured inclusive participation through consultation processes at community and institutional levels, with a strong focus on vulnerable groups including women and indigenous populations.

- **Monitoring and Oversight:** Regular internal and external monitoring was conducted. The use of SMART monitoring tools, LORTA and participatory platforms like COS and COPIL helped track safeguard compliance and address emerging issues.

- **Response during COVID-19 Pandemic:** The project also adapted its ESS measures during the COVID-19 pandemic, ensuring that activities were implemented in compliance with public health guidelines and without compromising safeguard standards.

- **Response during Cyclones:** During the life of the project, several major storms—including Cyclones Batsirai and Emnati in 2022—severely affected the CAZ and COFAV landscapes. Key responses by the project included: rapid assessment and emergency support such as provision of seed kits, tools and planting materials to farmers whose fields had been damaged; restoration of damaged tree nurseries, enhancement of restoration activities, support to repair community infrastructures such as LTUs and cooperatives; awareness and early warning and planning.

In summary, the SLEM project effectively mainstreamed environmental and social safeguards into its operations, upholding GCF principles and reinforcing sustainable and equitable implementation.

Progress on Gender Action Plan has been discussed in **Section 3.13**.

3.17. Replication and Scalability

The SLEM project introduced several tested, locally adapted, and innovative approaches to climate-smart agriculture, forest management, and rural development across the two key landscapes. The project's design and results offer substantial opportunities for replication and scale-up both within

Madagascar and in comparable global contexts. The FIE Team observed the following interventions which are worth scaling.

Key Elements Supporting Replication and Scalability

1. **Digital Tools for Monitoring and Planning**
   The introduction of drone-assisted forest monitoring, Power BI dashboards to share data online, and mobile data collection enhanced project transparency, efficiency, and evidence-based decision-making***. Identification of 'hot spots' of slash-and-burn for land clearing by using drones and informing the community patrollers to visit the sites and take necessary action is an innovative approach.*** This system could be replicated in other regions or countries.

2. **Farmer-to-Farmer Extension Model**
   The use of over 1,190 trained Local Trainers (LTs) demonstrated an effective, low-cost, and community-driven mechanism for technology transfer. This model can be readily adapted and replicated across other regions to disseminate sustainable land management and agroecological practices at scale.

3. **Integrated Landscape Management (ILM)**
   SLEM's landscape-based approach—integrating conservation, restoration, livelihoods, and governance—provides a holistic framework that aligns with national policies and international climate commitments**. Its replicability is high in areas where ecosystems and rural livelihoods are closely interlinked.**

   The model lacked integration of livestock (sheep, goat, pigs, cows, etc.) and poultry (especially ducks), and sustainable charcoal production to meet energy requirements which if also integrated could lead to further scaling up. In rice fields, ducks could be used as effective pest control agents besides providing meat and eggs. Extensive plantation of eucalyptus done during the colonial times provides excellent opportunities for sustainable charcoal production. Since eucalyptus wood has high calorific value, its charcoal is sold at a higher price in Malagasy market (US$ 6.8/bag of about 15 kg) compared with charcoal made from pine species. The low cost of pine charcoal could motivate communities to buy it to save money, if energy choices remain limited. Supporting communities to adopt biogas plants could substantially address the energy deficit. ***Depending upon the interest of communities in different areas, different models could be designed for upscale.***

4. **Agroforestry and Value Chain Linkages**
   Establishing LTUs and strengthening producer cooperatives created inclusive value chains for products such as vanilla, coffee, cloves, rice, and groundnuts. These models are scalable in regions where similar cash crops are grown, especially when linked with private-sector buyers. Introduction of cloves particularly in the development model of SLEM, provides enhanced opportunities for additional income.

The cloves are harvested between the two rice seasons, thus providing extra income to farmers when there is no income from rice. A tree lives for 50-60 years and starts producing cloves after the age of five years. A farmer in Beforona village informed the FIE Team that he earns substantial income from the sale of cloves. A dried kilo of cloves is sold at US$ 6.35.

> *……. I received 30 seedlings of cloves in 2019, out of which 26 plants are now growing in about an area of one ha. The plants are about 1.5 meters tall now and produce flowers. This year from 10 trees, I have collected five kg of dried cloves, which have been sold for AR 123 million- about US$ 32. For a typical household in Madagascar an income of about US$ 140[40] is considered enough for a month. A farmer at Beforona village.*

Further, it was informed that compared with rice or beans, it is very easy to transport cloves as they are not bulky but high in value than other commodities. Madagascar is the top exporter of cloves (fruits, stem, buds) in world- in 2023 the export value was US$ 248.431 million[41],[42],[43].

Likewise, vanilla is also a high-priced crop, and Madagascar supplies about 80% of world supply. Introduction of high value species such as clove, vanilla, coffee, and fruit trees in SLEM's model is likely to increase farm income and enhance nutrition besides replacing the aging trees of coffee and cloves which are less productive.

5. **Gender and Youth Empowerment Structures**
   WAs and school-based climate education initiatives not only delivered strong results but also offered scalable models for building inclusive community resilience. Their replication can strengthen social cohesion and adaptive capacity in new settings. ***The FIE Team observed that in the FGDs, the women were more proactive than the men and were keen in raising nurseries and tree plantation. In FGDs, the communities informed that when their children come home from school, they discuss climate change and measures to address the arising issues and how to adopt or mitigate the impact of climate change.*** This enhances awareness in the whole society. Further, women informed that because of increased income from livelihood activities, they have more access to money at the household level, and they feel empowered.

6. **Policy Alignment and Institutional Collaboration**
   SLEM worked closely with Madagascar's MEDD and supported platforms such as COS/COPIL, provided grant to BNCCREDD+ for field monitoring of activities, and regional institutions and local NGOs to implement activities and validation of emission reduction to enhance transparency and accountability and trust building of the GoM. This multistakeholder hybrid

[40] *https://www.globallivingwage.org/wp-content/uploads/2020/11/Rural-Madagascar-LI-Reference-Value-FINAL.pdf*
[41] *https://tinyurl.com/yk7a99jh*
[42] *https://tinyurl.com/2wszneyu*
[43] *https://www.madagascarspices.com/cloves.html*

model (government-INGO-NGOs) of governance helped to build trust between GoM and INGO/NGOs which can be replicated in other decentralized governance environments.

Enabling Factors for Scale-Up

The enabling factors for scaling up for such a project are (i) strong community ownership and tendency to have behavior change toward sustainable practices; (ii) institutional alignment with national adaptation and mitigation policies; (iii) private-sector partnerships offering market pull for expanded production; and (iv) availability of georeferenced data for patrolling and knowledge products from the project.

Challenges to Consider in Scaling

The challenges to consider while scaling up include (i) road network, especially rural transport which can hinder expansion; (ii) continued political will at the local and national level; (iii) long-term financing strategies, especially the government's budgetary commitments; and (iv) capacity development of local government community institutions to keep pace with geographic expansion to maintain quality and ownership.

In the case of SLEM, the GoM did not agree to the mode of operation of CCTF thus lost GCF seed funds to establish CCTF. Further as discussed earlier and highlighted by IMF[44], Madagascar has a potential to raise US$ 44 million per year and $286 million to 1.4 billion by 2030 from carbon markets. However, GoM has nationalized its carbon market in January 2022. This regulation discourages existing or new conservation projects led by private companies and nonprofits that used to issue carbon credits and keep new ones from being set up. This warrants a revision of the decree. By using the funds earned from carbon projects alone, the GoM or any other government can make up the financial needs of projects like SLEM.

In conclusion, the SLEM project offers a robust, proven model for replication and scalability. By leveraging community-based mechanisms, digital innovation, inclusive value chains, and policy alignment, the project created a scalable blueprint for sustainable landscape restoration and climate resilience in Madagascar and beyond.

[44] *https://tinyurl.com/bdh8jrrs*



Nursery managed by a community



Evaluation Team with Community at Toamasina

4. RATINGS

The performance of the SLEM project has been assessed using GCF's standard evaluation criteria, aligned with good international practices and the OECD/DAC framework. Each criterion—ranging from relevance and effectiveness to sustainability, gender equity, and paradigm shift potential—has been rated using a six-point scale, supported by qualitative and quantitative evidence drawn from project documentation, stakeholder consultations, and performance data. This section provides a consolidated rating matrix summarizing the project's achievements, strengths, and areas for improvement, reflecting its overall contribution to climate resilience and low-emission development **(Table 20)**.

Table 20. Evaluation ratings of various evaluation themes of SLEM Project

#	Evaluation Criteria	Rating	Justification / Key Evidence
1	Relevance	Highly Satisfactory (HS)	Strong alignment with Madagascar's NDCs, national strategies for socio-economic development land and forest management, and GCF's adaptation priorities.
2	Effectiveness	Highly Satisfactory (HS)	Achieved most of the planned outcomes: over 21,921 households benefited (131,259 persons- 50.5% females, directly benefited; ER was 9.34 million tCo2e surpassing the target; cost per ton of ER is much lower than the baseline but close to the target; food secure households are 21,922 which is higher than the target; and the area under EBA systems is 23,334 ha which is 2.5 times higher than the target. Achievements of all the indicators of four outcomes surpassed the targets. The reports, PA Plans and other publications produced are of high quality with a great deal of data. Project has high visibility in print and electronic media. Project was extensively monitored by M&E staff, CI and GCF.
3	Efficiency	Highly Satisfactory (HS)	Implementation faced delays (COVID-19, cyclones, and staffing gaps). Adaptive management system triggered effectively to provide support to communities during difficult time. Staffing gaps managed with internal arrangements. Estimated cost per direct beneficiary was US$ 80, however, by including over 1.2 million indirect beneficiaries as the project had a major mitigation component which resulted in overall improvement of the ecosystem, the cost per beneficiary is US$ 11.2, which is within acceptable GCF benchmarks. The project expended almost 99% of the allocated budget.
4	Impact Potential	Highly Satisfactory (HS)	Positive impacts were observed on forest conservation, emission reductions, and smallholder climate resilience, some examples are: • All the project targets were either achieved or surpassed • 99% allocated funds utilized

			• Direct beneficiaries 131,529 people • Indirect beneficiaries over 1.2 million people • Cost per beneficiary US$ 11.2, which falls within GCF standards • 23,800 households adopted CSA • 22,472 ha critical habitat within the agricultural landscape brought under sustainable community management • 18 post-harvest processing LTUs established which secured purchase agreements from traders • Supported 151 Was, empowered women to take leadership role in cooperatives and VOIs • Women constituted 61% of local farmer-trainers and 47% nursery workers • ER 9,343,807 tCo2, worth of US$ 152 million at current rate of per tCo2 • 655,832 ha project area improved significantly with METT of 69.91% • Facilitated integration of CC into regional and local planning documents. Success played a pivotal role in mobilizing US$ 50 million by GoM from World Bank
5	Paradigm Shift Potential	Medium as per GCF scale of low, medium or high	Project promoted landscape-level transformation and multi-source climate finance and full systemic shift is evolving at a rapid rate. The most significant shift was the move by 21,921 beneficiary households away from slash-and-burn agriculture to CSA; the annual deforestation rate has been declined from nearly 4% in 2018 to about 1% by 2024; some 23,000 ha are now under the landscape-based approach; the communities now run their own tree nurseries, integrating tree planting into cultural events, and have restored 4,160 ha of forest through their own efforts. The project has transformed fragmented value chains into empowerment and structured cooperatives. 387 farmers' organizations have been formed (VOIs), each with a sales committee for economic coordination. Eighteen cooperatives were supported and are fully functional, some have secured heavy purchase orders of coffee, vanilla, rice, groundnuts, etc., from private sector. SLEM's learning has resulted in the securing of major financing by GoM from other donors (see details under Replication and Scalability). Participatory monitoring supported with technology like use of drones to monitor illegal deforestation and observing progress of afforestation activities, use of community volunteers (including 13 women patrollers) to patrol forest and organization of 185 mixed

			brigades to conduct forest control missions is a major paradigm shift to halt forest degradation[45].
6	Sustainability	Satisfactory (S)	There is no institutional and governance, socio-economic, environmental and technological risks to sustainability, however, the financial risks remain. There are three similar successor projects, World Bank PRE-AA (in CAZ), and DEFIS+GCF funded project on inclusive agricultural value chains, which are likely to provide financial support in the area. The cooperatives are financially sustainable as these operate on profit: loss basis, however, for VOIs, and Was, it is yet to be seen whether these will be supported by the successor projects. Without financial support, VOIs, Was, and Community Patrolling are at risk.
7	Replication & Scalability	High on GCF scale of low, medium and high	The project's verified results were instrumental in helping Madagascar unlock up to US$50 million in results-based finance from the World Bank's Forest Carbon Partnership Facility (FCPF). GCF's grant investment effectively served as essential readiness funding to bridge the country toward larger-scale international climate finance from other development partners. The project's integrated approach – combining community-based forest management, climate-resilient agriculture, and strong institutional partnerships – proved bankable and is being directly replicated and scaled up. The 'Initiative CAZ,' a new 18-month, US$1 million project funded by the World Bank and the Government of Madagascar, explicitly builds on the successes and lessons learned from SLEM to continue and expand work in the CAZ landscape. Learning from SLEM will also lead to further effective and efficient program development for GCF and other trust funds.
8	Country Ownership	Highly Satisfactory (HS)	Strong involvement of the BNCCREDD+, MEDD, and regional authorities and local communities. The project was integrated with national strategies, such as National Adaptation Plan, National Biodiversity Strategies and Action Plan, NDCs (2015 and 2024) and National REDD+ process, adopted the National Emission Reference Level (NERF) methodology developed by BNCCREDD+ for emission reduction calculations. The project supported the design and implementation of the subsequent Program de Reduction des

[45] *This approach involved joint patrol teams made up of DREDD, local patrollers and project staff operating in effective collaboration to monitor the forest and carry out law enforcement activities. The mixed-brigade model leverages the official authority and technical capacity of government agents alongside the invaluable local knowledge and vested interest of communities, hence strengthening legitimacy and transparency and helping reduce rates of illegal logging and land clearing.*

			Emissions Atiala Atsinanana (PRE-AA) positioning it as a foundational building block for larger, national scale REDD+ initiatives.
9	Environmental & Social Safeguards	Highly Satisfactory (HS)	ESMP implemented, GRM was effectively operational; E&S issues monitored effectively; and code of ethics and prohibited practices envisaged by GCF and CI were shared with stakeholders, and compliance was ensured at all levels. Regular consultations with stakeholders were facilitated through COPIL (national level) and Sub-regional Monitoring and Guidance Committees (COS). The project produced two scientific publications on the use of drones in monitoring and women empowerment, published a biannual local magazine (*Soa an'Ala*), contributed to the MEDD's *MADA Vert* magazine, and used social media to share news and updates and solicit their views. Project kick-off and closing ceremonies were held at national and regional levels.
10	Gender Equality & Inclusion	Moderately Satisfactory (MS)	Gender Action Plan was implemented in letter and spirit; three gender sensitive knowledge and vulnerability monitoring surveys conducted; monitoring and reporting on Gender Action Plan Indicators was effective; project supported 151 Was, promoted women into leadership and non-traditional roles- 47% Local Trainers and 41% of tree nursery keepers and six out of 18 cooperatives are now led by women. The FIE Team observed that women were more vocal than men and expressed their proactive role in decision-making at household level.

In summary, keeping in view all the 10 evaluation criteria, an overall rating of **HIGHLY SATISFACTORY** is assigned to the project.



Demonstration of CSA Practices at Fianarantosa (at the periphery of Protected Area)



Andasibe Field Visit – SLEM Cooperative Site

Evaluation team with Children at a GCF-supported climate-resilient livelihoods cooperative; right hand lower corner – a drone ready for flying.

5. CONCLUSIONS AND RECOMMENDATIONS

The SLEM Project has made significant strides in addressing the dual challenges of climate vulnerability and forest degradation in two of Madagascar's most critical biodiversity corridors. Through a combination of community-based interventions, and institutional strengthening, the project demonstrated meaningful progress toward building climate resilience and reducing emissions. This conclusion synthesizes the project's achievements, lessons learned, and strategic insights, offering a set of recommendations for ensuring sustainability and future programming to achieve national climate goals, sustainable development, and the priorities of the GCF.

5.1. Conclusions

5.1.1. Key Findings

A. Areas of Strong Performance

F1. Strategic Design and Landscape Approach
The SLEM project stands as a strong model of integrated, climate-resilient landscape management with significant direct and indirect reach. It directly supported 21,921 smallholder households—many in vulnerable forest-adjacent communities - and indirectly benefited approximately 1.2 million people through ecosystem services and awareness campaigns.

The project effectively applied an Ecosystem-Based Approach, combining conservation, afforestation, climate-smart agriculture, and community governance strengthening. It supported 161 VOIs, facilitated their legalization, trained 2,870 local officials and community leaders, and enabled 46 community forest management contracts. Community patrolling mechanisms have been effective in ensuring compliance with forest protection norms, with 671 trained patrollers deployed across the corridors.

The project helped the community to become a model for climate-resilient, community-driven development..... Mayor Moramanga.

F2. Biodiversity Conservation and Forest Management
The project significantly contributed to the protection and improved management of over 565,000 hectares of forest ecosystems within CAZ and COFAV landscapes. It restored 6,149 hectares and placed 46,000 hectares under improved forest management. These corridors are globally significant biodiversity hotspots and carbon sinks.

However, while conservation outcomes are highly likely to have improved species density and ecosystem health, biodiversity impact indicators were not included in the Results Framework, representing a missed opportunity for stronger ecological outcome documentation.

F3. Gender and Social Inclusion
The implementation of a Gender Action Plan resulted in 151 women's associations being supported, increased women's participation in governance structures, and improved economic inclusion through producer groups and value chains.

F4. Private Sector Engagement and Value Chains
The project strategically engaged the private sector through green value chains (coffee, vanilla, cloves, rice, beans). It strengthened producer cooperatives, improved quality standards, and linked farmers to responsible buyers. This approach catalyzed market-based incentives for conservation and reduced forest pressure.

F5. Efficiency and Cost-Effectiveness
The project demonstrated strong cost efficiency:

- Estimated cost per beneficiary: approximately US$ 11.2.
- Emission reduction cost: approximately US$ 1.71 per ton CO_2e.

These figures compare favorably with typical adaptation and mitigation projects.

F6. Multi-Source Co-Financing Mobilized
SLEM effectively leveraged GCF resources to catalyze additional financing, including private sector investment (notably from a mining company) and in-kind public sector contributions. The project supported the launch of Madagascar's National Climate Finance Platform at COP26 and served as a catalytic model for subsequent funding mobilization, including the World Bank's PRE-AA project and additional GCF engagements.

F7. Adaptive Management and Safeguards
The project demonstrated strong operational flexibility during COVID-19 and cyclones, adjusting modalities and maintaining delivery. ESMP compliance, Code of Ethics training, and GRM awareness were effectively implemented.

F8. Support to Government Plans and Policies
SLEM actively strengthened national and regional climate governance by engaging key institutions, including BNCCREDD+, MEDD, DRED, and DRAE. The project contributed to the launch of Madagascar's National Climate Finance Platform at COP26 and supported alignment with the National Adaptation Plan and NDC commitments. Through afforestation, forest conservation, climate-resilient agriculture, and strengthened land-based carbon sinks, SLEM directly advanced national climate mitigation and adaptation objectives. However, the non-establishment of the Climate Change Trust Fund (CCTF) limited the project's potential to further scale emissions reductions and expand adoption of improved cookstoves and other low-carbon interventions.

B. Areas of Moderate Performance / Strategic Gaps

F9. Project Design – Microfinance Gap

While the Theory of Change was broadly sound, it did not incorporate a micro-credit or revolving finance mechanism. Sustainability of VOIs and WAs depends heavily on continued collective interest and internal resource mobilization, posing medium-level financial sustainability risks.

F10. Results Framework and Monitoring

Following EIB withdrawal and FAA revision, outputs were adjusted but the Results Framework was not comprehensively updated to reflect:

- Additional indicators,
- Sub-indicators for outcomes,
- Higher-level women's empowerment metrics, and
- Biodiversity impact indicators.

While monitoring was rigorous (baseline, two LORTA surveys, three gender-sensitive surveys), outcome measurement could have been strengthened.

F11. Uneven Adoption of CSA

Although 131,529 individuals were trained in CSA, adoption rates vary across sites. In more remote areas, sustained uptake depends on continued technical backstopping and market access. This indicates strong capacity-building outputs but uneven long-term outcome consolidation.

F12. Operational Systems at Community Level

VOIs and WAs were trained in record keeping but were not provided with standardized registers. This creates risks for institutional continuity and transparency over time.

C. Areas of Underperformance / Risks Requiring Priority Action

F13. Climate Change Trust Fund (CCTF)

The decision to return US$ 3.18 million allocated for the CCTF represents a significant missed strategic opportunity. This fund could have been used to support community-based microfinance, Payment for ecosystem services, sustained patrolling, and CSA scale-up which serve the same purpose of CCTF. The absence of a long-term financing mechanism constitutes the most significant sustainability risk.

F14. Co-Financing Assumptions

The original 1:1 leverage target was ambitious and became unrealistic following EIB withdrawal. The GoM did not fully operationalize its commitment to establish the CCTF. Co-financing reporting also did not systematically account for in-kind contributions from communities and public institutions.

F15. Financial Sustainability of Community Patrolling

While institutional sustainability is strong, financial sustainability remains vulnerable. The annual cost per patroller (US$ 31) is modest (~US$ 19,000 annually for all patrollers), yet no long-term budgetary commitment has been secured from MEDD or any donor.

F16. Enabling Environment – Carbon Market Regulation

The 2022 nationalization of forestry carbon markets (Decree 2021-1113) may discourage private conservation investment if not refined. This policy warrants review to maintain a favorable climate finance environment.

F17. Future Outlook: Sustainable Charcoal Production and Landscape Safeguards

Madagascar faces a significant energy deficit, with widespread dependence on charcoal and fuelwood. Charcoal derived from eucalyptus commands a higher market price compared to that produced from conifers and other species, and the rapid expansion of eucalyptus plantations—particularly in areas such as Andasibe and Moramanga—reflects growing demand. However, unmanaged proliferation of eucalyptus risks altering landscape ecology, potentially affecting groundwater levels and biodiversity. This context underscores the need for a dedicated Sustainable Charcoal Production and Livelihoods Project focused on promoting efficient charcoal kilns, reducing post-production and transport losses, and scaling up fuel-efficient cookstoves. By sustainably managing high-calorific eucalyptus resources, such an initiative could generate livelihoods, reduce pressure on natural forests, and lower emissions across the charcoal value chain, while incorporating ecological safeguards to protect biodiversity and water resources.

Value chain development and broader territorial planning is key for future sustainable development, sustainability would benefit from renewed legal frameworks and inclusive forest governance involving the entire community..... Director, DREDD, Fokonolona.

5.1.2. Lessons Learned

Lessons learned reflect evidence-based insights derived from the implementation and results of the SLEM. They explain why certain approaches worked or did not work, and under what conditions, without prescribing future actions, which are addressed separately in the Recommendations Section. Each lesson is mapped for what was observed (evidence), why it mattered, conditions for transferability and link to various findings and the results are presented in Table 21.

L1. Deep Community Ownership Is Central to Landscape Sustainability
(Relevance, Sustainability, Impact)

Strong engagement of VOIs, WAs, and local governance structures enhanced legitimacy, trust, and compliance with conservation measures. However, long-term sustainability of community institutions requires embedded financing and continued capacity support.

L2. Integrated Landscape Approaches Deliver Synergistic Results
(Relevance, Effectiveness, Impact)
The Ecosystem-Based Approach—integrating conservation, CSA, governance, and gender—generated mutually reinforcing outcomes. Integrated models are more likely to achieve lasting climate and biodiversity benefits than isolated sectoral interventions.

L3. Financial Sustainability Mechanisms Must Be Built Early
(Sustainability, Efficiency, Coherence)
The absence of an operational Climate Change Trust Fund (CCTF) and revolving finance mechanisms highlights the importance of institutionalizing long-term financing instruments during project design. Financial sustainability cannot rely solely on grant funding.

L4. Results Frameworks Must Evolve with Project Adjustments
(Effectiveness, Efficiency, Impact)
Following structural adjustments (e.g., EIB withdrawal), results frameworks must be updated to capture revised pathways and higher-level outcomes (biodiversity, women empowerment). Static logframes limit the ability to fully assess transformational change.

L5. Capacity Building Alone Does Not Guarantee Uniform Adoption
(Effectiveness, Sustainability)
Although large numbers were trained in CSA, adoption rates varied. Sustainable behavioral change requires complementary market access, financing options, and ongoing extension services.

L6. Early and Structured Private Sector Strategy Enhances Transformational Potential
(Relevance, Effectiveness, Impact, Coherence)
Value chain engagement proved effective at the community level. However, systemic transformation requires early alignment of finance, policy, and investor incentives to avoid scale reduction when co-financing shifts occur.

L7. Institutional Strengthening Requires Budgetary Anchoring
(Sustainability, Effectiveness)
Capacity development of national and regional institutions must be linked to recurrent budget allocations. Without financial anchoring, institutional gains risk erosion post-project.

L8. Adaptive Management Is Essential in Climate-Vulnerable Contexts
(Efficiency, Effectiveness)
Flexibility in planning and budgeting enabled resilience during COVID-19 and climatic shocks. Climate projects benefit from built-in contingency and scenario planning mechanisms.

L9. Multi-Stakeholder Platforms Improve Policy Coherence
(Coherence, Effectiveness, Sustainability)
National coordination platforms improved alignment across ministries and donors. Institutionalizing such mechanisms strengthens long-term climate governance.

L10. Safeguards and Compliance Require Continuous Oversight
(Relevance, Sustainability, Effectiveness)
Environmental and social safeguards must be continuously monitored rather than treated as compliance exercises. Ongoing oversight builds institutional trust and reduces reputational risk.

L11. Energy Transition Solutions Must Integrate Ecological Safeguards
(Relevance, Impact, Sustainability)
Sustainable charcoal production and eucalyptus expansion require ecological safeguards to prevent groundwater depletion and biodiversity loss. Energy-livelihood interventions must balance economic incentives with ecosystem protection.

Table 21. Lessons learned with cross reference to findings

Lesson No.	Lesson Statement	What Was Observed (Evidence from Findings)	Why It Mattered for Results	Conditions for Transferability	OECD-DAC Criteria	Related Findings
L1	Deep community ownership is central to landscape sustainability	Legalization of 161 VOIs; 46 forest management contracts; 671 community patrollers; strong compliance with forest norms (F1, F2)	Increased legitimacy, compliance, and reduced illegal activities; strengthened local governance and conservation outcomes	Early legal recognition of community institutions; participatory planning; modest but reliable incentives	Relevance, Sustainability, Impact	F1, F2, F15
L2	Integrated landscape approaches deliver synergistic results	Ecosystem-Based Approach combining conservation, CSA, governance, gender (F1, F3, F8)	Enabled simultaneous livelihood improvement and forest protection; improved social acceptance	Cross-sector coordination; landscape-level planning; strong institutional partnerships	Relevance, Effectiveness, Impact	F1, F3, F8

L3	Financial sustainability mechanisms must be built early	Absence of CCTF; return of US$ 3.18M; no revolving microfinance mechanism (F9, F13, F14)	Created long-term financing vulnerability for patrolling, CSA scale-up, and community institutions	Early establishment of trust funds or PES schemes; strong government co-financing commitment	Sustainability, Efficiency, Coherence	F9, F13, F14
L4	Results frameworks must evolve with project restructuring	FAA revised after EIB withdrawal; biodiversity and empowerment indicators not added (F10, F2)	Limited ability to fully measure ecological and higher-level outcomes	Mandatory logframe revision following scope or funding changes	Effectiveness, Efficiency, Impact	F10, F2
L5	Capacity building alone does not guarantee uniform adoption	131,529 trained in CSA; uneven adoption across remote areas (F11)	Outcomes dependent on continued extension services and market access	Post-training support; market linkages; access to finance	Effectiveness, Sustainability	F11
L6	Early structured private sector strategy enhances transformational potential	Value chain engagement successful; EIB withdrawal reduced systemic financial leverage (F4, F14)	Community-level gains achieved, but systemic transformation moderated	Early alignment of finance, policy, and investor incentives	Relevance, Impact, Coherence	F4, F14
L7	Institutional strengthening requires budget anchoring	Patrolling effective but no long-term MEDD budget allocation; low annual cost per patroller (F15)	Institutional gains vulnerable without fiscal commitment	Integration into government recurrent budgets	Sustainability, Effectiveness	F15
L8	Adaptive management enhances resilience during shocks	Adjustments during COVID-19 and cyclones; continuity maintained (F7)	Maintained delivery and community trust despite disruptions	Built-in flexibility in planning and budgeting	Efficiency, Effectiveness	F7

L9	Multi-stakeholder coordination platforms improve policy coherence	COPIL, COS, Climate Finance Platform strengthened inter-ministerial alignment (F6, F8)	Improved coordination, reduced duplication, strengthened governance	Institutionalization beyond project lifecycle	Coherence, Effectiveness, Sustainability	F6, F8
L10	Safeguards require continuous monitoring, not one-off compliance	ESMP enforced; Code of Ethics and GRM training conducted (F7)	Reduced social/environmental risks; strengthened accountability	Ongoing monitoring; third-party audits; community awareness	Relevance, Sustainability, Effectiveness	F7
L11	Energy transition solutions must integrate ecological safeguards	Rapid eucalyptus expansion; charcoal dependency; biodiversity and groundwater risks (F17)	Risk of unintended ecological trade-offs if unmanaged	Integrated energy-livelihood-environment planning; ecological monitoring systems	Relevance, Impact, Sustainability	F17

5.2. Recommendations

Based on the findings of the FIE, the following recommendations (**Tabel 22)** are proposed to enhance the sustainability, scalability, and impact of future interventions. These recommendations are grounded in the evidence collected during the evaluation and are intended to inform decision-making by project stakeholders, implementing agencies, and funding partners. These aim to build on the project's successes while addressing identified gaps and challenges to strengthen climate-resilient landscape management in similar contexts.

Table 22. Recommendations to Enhance the Sustainability, Scalability and Impact of Future Interventions

Finding/Recommendation	Timeframe	Responsible Party
A. **Project Design and Monitoring and Evaluation (M&E)**		
Finding F1, F9, F10, L3. The project design was in order but lacked a savings and micro-finance component to support the long-term financial sustainability of community organizations and further promote social cohesion.		

Recommendation 1. Future multi-sectoral projects that rely heavily on community-led implementation and donor financing should incorporate structured financial sustainability mechanisms at the design stage. This may include micro-credit facilities, revolving funds, and VSLAs to strengthen local resource mobilization, enhance ownership, and reduce post-project financial vulnerability of community institutions.	Long-term (0-36 months)	CI, GCF, MEDD
Finding F10, L4. There was a major revision of FAA, after the loss of EIB co-financing and private sector investment but the Results Framework was not adequately revised, except dropping the energy component and adjusting targets for other indicators. This created a mismatch. The monitoring teams were collecting extensive data on the ground, but the outdated Results Framework could not accurately capture or report all the project's real impacts and achievements.		
Recommendation 2. In future programming, the Results Framework should be formally revised whenever there are substantive changes in project scope, funding structure, or activity design. Indicators should be reviewed and expanded, where necessary, to ensure they comprehensively capture outputs, outcomes, and higher-level impacts, including cross-cutting dimensions such as gender equality and biodiversity.	Long-term (0-36 months)	CI, MEDD
Finding F1, F10. The project achieved significant conservation results which likely produced positive impacts on flora and fauna, but there was no specific indicator in Results Framework to measure the impact of interventions on biodiversity.		
Recommendation 3a. Future conservation projects should incorporate biodiversity - specific indicators in the project level results framework for co-benefits to measure impacts on key species and ecosystems.	Long-term (0-36 months)	CI, GCF
Recommendation 3b. Commission a study, potentially with a local university or research institution to assess the project's impact on at risk species and agrobiodiversity, creating a baseline for future work.	Short-term (0-12 months)	CI
B. **Climate Financing**		
Finding F13, L3. The funds allocated for the Climate Change Trust Fund (CCTF) were returned to GCF as it was not on the immediate priority of GoM which is a strategic mistake, these could have been innovatively repurposed and channeled to the established community institutions as in-kind grants for community monitoring of Protected Areas (PAs), revolving fund as micro-credit, and seed funds to cooperatives for promoting contract farming/green value chains and termed as Payment for Ecosystem Services which still can serve the fundamental purpose of CCTF.		
Recommendation 4. In future programming, the GoM should abide by the agreements signed at project formulation stage and take innovative decisions to enhance resilient climate financing and communities.	Long-term (0-36 months)	MEDD

Finding F16, L3. Madagascar nationalized its forestry carbon markets in January 2022, through decree 2021-1113. This is not a problem when the investments that lead to emission reductions are funded by the government, but the regulation can potentially discourage existing conservation projects led by private companies and nonprofits that issue carbon credits and keep new ones from being set up. This jeopardizes the primary pathway to finance ongoing conservation activities - such as community patrols after GCF funding ends and discourages the private sector investment needed to replicate this successful model.		
Recommendation 5. To secure the long-term sustainability of the project's achievements, the MEDD should establish a clear and transparent regulatory framework or strategy for the nationalized carbon market. This framework must define benefit-sharing mechanisms that ensure community-led projects can leverage carbon finance and provide the certainty needed to attract and retain private sector investment in conservation.	Long-term (0-36 months)	MEDD
C. **Community Governance of Landscapes**		
Finding F15, L1. Community Governance of landscapes has been strengthened, a considerable number of community leaders and local officials have been trained in natural resource management, which enabled the project to sign off 46 community forest management contracts. Monitoring PAs by community patrollers and raising awareness resulted in decline of slash and burn and charcoal making practices, thus empowering the local communities as well as providing low-cost solution of PAs monitoring.		
Recommendation 6. The MEDD and local authorities should adopt and scale the community patrolling model in other areas and provide financial incentives to the existing community patrollers.	Medium-term (12-24 months)	MEDD, DRED
D. **Inadequate Rural Road Access and ICT**		
Finding F11, L5. Access to project villages located near Protected Areas (PAs) remains highly constrained due to poor rural infrastructure, including deteriorated dirt roads, large potholes, and makeshift wooden-log bridges, or in some cases, stream crossings without bridges. Conditions worsen significantly during the rainy season, hindering delivery of inputs and relief goods, limiting market access for community products, and complicating routine monitoring and supervision activities.		
Recommendation 7. The GoM should invest in rural infrastructure, especially on improvement of road and internet connectivity. Community participatory monitoring and use of digital technologies and drones for data collection, as demonstrated by SLEM, should be adopted in government projects. The provision of high-speed internet in rural areas could enhance an enabling environment for market functioning and creation of online jobs.	Long-term (0-36 months)	GoM

E. **Scaling Successful Models**		
Finding F1, F17. SLEM project stands as a model of integrated, climate-resilient landscape management having high reach and direct impact. It directly supported 21,921 small-holder farming households, many of whom were in vulnerable forest-adjacent communities. It also reached 1.2 million indirect beneficiaries through ecosystem services and awareness campaigns and is a potential case for replication/upscaling in Madagascar or other countries.		
Recommendation 8a. Madagascar and other countries should consider replicating/upscaling this model having deep community engagement, use of technology and engagement of private sector for developing green value chains/organic farming. The model was grounded in the nexus of agriculture-forestry. Inclusion of livestock (agriculture – livestock – forestry) in the model could further enhance socio-economic impacts at the household, commune and national level.	Long-term (0-36 months)	CI, GCF, MEDD
Recommendation 8b. To address a key driver of deforestation, CI should develop a follow-on initiative focused on establishing a sustainable charcoal production value chain. The project should promote efficient charcoal kilns, reduce post-production and transport losses, and scale up the adoption of fuel-efficient cookstoves to lower overall biomass demand. Sustainable management of high-calorific eucalyptus particularly in areas such as Andasibe and Moramanga, where it is widely available, could serve as a pilot model to generate livelihood opportunities while reducing pressure on natural forests. The initiative should integrate ecological safeguards to prevent unintended impacts on groundwater and biodiversity and ensure alignment with broader landscape management objectives.	Short-term (0-12 months)	CI

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World Food Programme, 2023. Madagascar Country Brief. Link

World Bank. 2024. Madagascar Economic Update: Bridging the Productivity Divide.

World Bank, 2024. Madagascar Economic Update. Link

ANNEXES

1. Mission Itinerary

Date/Day	Region	District	Meeting Details
18 May 2025			Team Leader arrives in Antananarivo
19 May 2025 Monday			Meetings with Conservation International /SLEM staff
20 May 2025 Tuesday	Fianarantsoa/ Haute Matsiatra		Trip to Fianaranatsoa Stay in Fianaranatsoa
21 May 2025	Fianarantsoa/ Haute Matsiatra	Ranomafana	Meet with Project's subgrantees - Haonasoa/ NyTanintsika Meet with the DRAE + Meet the head of COFAV landscape Meet with the DREDD Haute Matsiatra Trip to Ranomafana (Stay in Ranomafana)
22 May 2025	Vatovavy Fitovinany/ Ifanadiana	Ranomafana Andranomaitso Antaretra Kelilalina Kianjavato,	Travel Ranomafana – Andranomaitso Meet with the head of the women association Meet with the Frank, Tree nursery worker' Meet the beneficiaries cooperative and household Meet with the Head of Cooperative for Coffee post-harvest processing, Stay in Kianjavato / Ranomafana
23 May 2025	Fianarantsoa/ Lalangina	Ampatsy Fianarantsoa	Trip from Kianjavato to Ialamarina Meet women association - visit nursuries Transect of the forest VOI beneficiairies, listening groups

			Travel to Fianarantsoa (Stay in Fianarantsoa)
24 May 2025	Fianarantsoa/ Ambalavao	Miarinarivo	Travel from Fianarantsoa to Ambalamenjana Meet to the Cooperative, women association Trip from Miarinarivo to Ambalavao Stay in Ambalavao
25 May 2025	Fianarantsoa/ Ambalavao Fianarantsoa/ Ambositra	Ambalavao Ambositra	Travel Ambalavao - Ambositra
26 May 2025			Trip from Ambalavao to Ambohimitombo Meet with the women Association in Ambohimitombo Travel from Ambohimitombo to Ambositra Stay in Ambositra
27 May 2025	Antananarivo/ Analamanga		Trip from Antsirabe to Antananarivo
28 May 2025	Toamasina/ Moramanga	Ampasipotsy gara Morarano Gara Ambatondrazaka	Trip from Tana to Ampasipotsy gara Meet with Elianne, beneficiary of SLEM/GCF Project in Women Association MIKOLO. Travel to Morarano gara Focus group with VOI beneficiaries (Alphonse - Seed producer farmer in VOI MIARY, Jean Christ - Tree nursery worker of VOI FITARATRA, Fidelis - patroller in VOI FITARATRA.) Meet with Valery, Lead farmer of Women Association FANAMBINANA.
29 May 2025	Toamasina/ Ambatondrazaka	Ambatondrazaka	Trip to Manakambahiny est Focus group with beneficiaries in Manakambahiny Est - Forest transect inventory Stay in Ambatondrazaka
30 May 2025	Toamasina	Ambatondrazaka	Meet with DREDD and CIREF Alaotra Mangoro.

		Andasibe	Meet DRAE Alaotra Mangoro. Travel to Amparihivola (near Amboasary) Focus group with beneficiaries Travel and stay in Andasibe
31 May 2025 Saturday		Andasibe	Meet the trained VOI in Andasibe Focus group with VOI supported for local management, beneficiaries of agroforestry Trip to Antananarivo
02 June 2025			Wrap up with CI team in Tana
03 June 2025			Meet the General Secretary at MEDD Meet the NDA MEDD
04 June 2025			Meet the General Coordinator of SLEM at BNCCREDD+
05 June			Final restitution of the field work at CI's office
6 June 2025			Team Leader departs Antananarivo

2. List of Documents Reviewed

FP026 Grants Plan 2023 APPROVED.xlsx
FP026 Procurement Plan 2023 APPROVED.xlsx
FP026 APR 2022 Commitments data CI-GCF rev2.xlsx
2022Q4 Madagascar GCF Financial Report CI-GCF APPROVED.xlsx
FP026 Section 3 -APR 2022 CI Financial Report FINAL - INTERNAL.xlsx
Q4 Madagascar GCF Financial Report APPROVED.xlsx
FP026 Section 3 - APR 2023 CI Financial Report Approved INTERNAL.xlsx
Q2 Madagascar Financial report CI-GCF rev2.xlsx
FP026 Madagascar Detailed Budget from October 2024 to July 2025 APPROVED.xlsm
240215-lorta-midline-report-madagascar-top.pdf
241106_PAG_CAZ_V5.pdf
20190430 GCF 2020 Workplan APPROVED.xlsx
20200106 Mada GCF WORKPLAN UPDATED.xlsx
Baseline report clean final for IEU with annexes09042020 zo(4)_GF new FSI (1).pdf
Blog_SLEM _Mada.pdf
CI_115220 AMENDEMENT #02_HAONASOA_signed
CI-115220 AMENDMENT#1 HAONASOA
CI-115220_Subgrant Agreement_HAONASOA_Signed CI-HS
CI-114209 Donation letter WA MIARADIA.pdf
CI_114417_AMENDMENT#02_NY_TANINTSIKA_signed
CI-114417 Amendement#1 NYTANINTSIKA signé
CI-114417_Subgrant Agreement_NT Fully signed
CI-GCF Subgrantee Justification TEMPLATE.docx
Climate change adaptation in Madagascar.pdf
Climate change risks and adaptation in Madagascar.pdf
CLOSE OUT BOOKLET_Zo.pdf
COFAV_presentation_07042025.pptx
COFAV-Interview notes (1).docx
crop varieties.docx
Fiche-technique-module4.docx
Module 1- CC.docx
Module 2-SE.docx
Module 3-impacts.docx
Module 4-luttes-CC-final.docx
Fiche-technique-module1.docx
Fiche-technique-module2.docx
Fiche-technique-module3.docx
FINAL from Courtney FP026 APR Section 3 Financial 2018.xlsx
FP026 Semiannual Financial Reporting 2024 Final.xlsx
FP026 APR 2019 Section 3 Financial Information.xlsx

FP026 APR 2020 Section 3 Financial Information FINAL.xlsx
FP026 APR 2021 Section 3 Financial Report FINAL.xlsx
FP026 APR 2022 Invest and other income.xlsx
FP026 APR 2023 Invest and other income 020524.xlsx
FP026 Completion_Report_280452025 (1).docx
FP026 Implementation strategies (1).doc
FP026 Implementation strategies.doc.docx
FP026 Implementation strategies.pdf
FP026 Implementation strategies-DESKTOP-1O2HGJ8.doc
FP026 Section 3 - APR 2023 CI Financial Report FINAL.xlsx
FP026 Section 3 - APR 2024 CI Madagascar Financial Report INTERNAL.xlsx
FP026 Section 3 - Semi-annual Financial Performance Report 2024 Final INTERNAL.xlsx
FP026 Section 3 -APR 2022 CI Financial Report FINAL.xlsx
FP026-2019-APR-Summary.pdf
funding-proposal-fp026-ci-and-eib-madagascar.pdf
LIST OF MADGASCAR REGIONS AND CAPITALS.docx
LORTA_MG_Endline_Report_CI 19.6.25.docx
LORTA_MG_Endline_Report_draft_Zo_JR_CD_RAM_Clarck-Willy.docx
Madagascar Overview_ Development news, research, data _ World Bank.html
NDC 2 MADAGASCAR.pdf
Annual Progress Reports **(2019 – 2025)**

• Adaptation and Mitigation Strategies
  ○ 8. FP026 Final REDD+ Roadmap.pdf
  ○ Annex - SLEM_CAZ+COFAV_ER&CarboneMonitoring_TrendsEarth_update-Jan2024.xlsx
  ○ Annex CAZ+COFAV_ER_NationalStandard-VS-TrendsEarth, feb 19, 2024.xlsx
  ○ Draft Presentation-Mitigation-MainAchievment-, 2024-100224.pptx
  ○ FP026 - Hectares of critical habitats managed sustainably.docx
  ○ FP026 APR 2023 GHG calculations CI Responses 2024.05.21.docx
  ○ MAP-CAZ.png
  ○ MAP-COFAV.png
  ○ RECAP_NERF_&_ER2019-20-21-22-23Jully2024-valide.xlsx
  ○ SMART & Drone Initiative, GCF-CIMadagascar-nv-VeryLight3.pptx
• Environmental and Social Safeguards
  ○ Environmental and Social Safeguards Report
  ○ SLEM Environmental and Social Management Plan
• Exit and Sustainability Strategy
  ○ CI Led World Bank FCPF Project in Madagascar_JR_Zo_br
  ○ FP026 Sustainability and Exit Strategy Revised_MEA_CI
• FIE ToR and RfP
  ○ SLEM Final Independent Evaluation RFP
  ○ SLEM Final Independent Evaluation ToR
• Funding Proposal: FP026 Funding Proposal
• FP026 Gender Action Plan and Gender Assessment
• FP026 Independent Interim Evaluation Report
• LORTA
  ○ FP026 LORTA Impact Evaluation Design
  ○ FP026 LORTA Midline Report

• SLEM FAA and AMA
  ○ FP026 FAA Amendment 2
  ○ FP026 FAA Amendment fully executed- Gender Action Plan
  ○ GCF Madagascar FAA Amendment 2 CI signed_final

PAG COFAV_version_130425.pdf
Staffing charts.zip • GCF Organigramme 2019 • Organigramme 2023 • Organigramme July 2023 • Organigramme June 2024
Steering Commitee meeting minutes.zip • 2021 Minute meeting COPIL FP026 • 2022 Minute meeting COPIL FP026_CI (2) • 2024 RAPPORT COPIL FP026 (2) • PV FINAL PRECOPIL_ 2018
Supports the beneficiaries during severe evensts(COVID,hurricane, severe weather.zip • DONATION_LETTER_AIDE_URGENCE_DRAE IHRB_mars 2025 • Flyer COVID-19 Project and Sub-award Eligible Expenses Guidance • GCF Madagascar Proposed Post-Disaster Response October 10302019 • SUPPORT PROVIDED TO COMMUNITIES DURING COVID • SUPPORT PROVIDED TO COMMUNITIES DURING COVID_zo
Training on Climate Change Integration to the Municipality Development Plan.pdf
Madagascar Overview_ Development news, research, data _ World Bank_files
The Landscapes for People, Food and Nature Initiative _ Corridor Ankeniheny Zahamena, Madagascar_files
Comparison FAA vs Revised budget 2022 APPROVED.xlsx
FP026 NCE Budget Draft V.3 APPROVED.xlsm
NCE budget vs Revised budget 2023.xlsx
FP026 Budget 2023 APPROVED.xlsm

3. List of Persons Interviewed

No	Name	Role / Title	Institution
01	Rasamoelina Andry Fidiniaina Moïse	Secretary General	Ministry of Environment and Sustainable Development (MEDD)
02	Ravelomanana Lovakanto Njaran'ny Fo	Coordinator	National Office for Climate Change, Carbon and Reduction of Emissions from Deforestation and Forest Degradation (BNCCREDD+)
03	Mamisoa Hervé	Regional Director	Regional Directorate of Environment and Sustainable Development (DREDD), Haute Matsiatra
04	Vola	Regional Director	Regional Directorate of Agriculture and Livestock (DRAE), Haute Matsiatra
05		Regional Director	Regional Directorate of Agriculture and Livestock, Alaotra Mangoro
06	Joelson Ralaivaonirina	Regional Director	DRAE, Alaotra Mangoro
07	Rado Rambakoarison	COFAV Landscape Lead	Conservation International (CI)
08	Zo Lalaina	Chief of Party	Conservation International (CI)
09	Samantha	Coordinator	NGO Ny Tanintsika / Feedback Madagascar
10	Nathalie	Staff (role not specified)	NGO Ny Tanintsika / Feedback Madagascar
11	Gerald Randriambololona	Coordinator	NGO Haonasoa
12	Moïse Rasamoelina	Secretary General	Ministry of Environment and Sustainable Development
13	Ravelomanana Lovakanto	National Designated Authority (NDA)	BNCCREDD+/ MEDD
14	Nirina Jean Gabriel	National Coordinator	BNCCREDD+/MEDD - SLEM Project

Names and Locations of Community Groups Interviewed

No	Group / Representative Roles	Institution / Association	Location
01	30 participants (15 men, 15 women)	Tsinjo Association (VOI and women's coffee cooperative)	Fianarantsoa, Ifanadiana, Fotobohitra (Ranomafana)
02	17 participants (8 men, 9 women)	Cooperative Vononona Miaradia	Fianarantsoa, Vatovavy, Kianjavato
03	28 participants (20 men, 8 women)	Cooperative Mijoro (VOI, Project Affected Persons)	Fianarantsoa, Lalangina, Ialamarina
04	21 participants (all women)	Local women's associations, Ambohimitombo	Haute Matsiatra, Ambositra, Ambohimitombo
05	14 participants (6 men, 8 women, incl. mayor)	Cooperative Miarasoa (VOI + women's group)	Alaotra Mangoro, Moramanga, Ampasimpotsy Gara
06	19 participants (7 men, 12 women)	Fanambinana women association and VOI Fitaratra	Alaotra Mangoro, Moramanga, Morarano Gara
07	18 participants (6 men, 12 women)	VOI Familiana and Local women's group	Alaotra Mangoro, Ambatondrazaka, Manakambahiny Est
08	9 participants (5 men, 4 women)	VOI Vonona	Alaotra Mangoro, Ambatondrazaka, Amboanjo (near Amboasary)
09	10 participants (6 men and 4 women)	VOI Fandrefiala	Alaotra Mangoro, Moramanga, Beforona

4. Evaluation Matrix

	Evaluation Question	Indicator	Source of Data	Methodology
	Criteria 1: Relevance			
1.1	Were the planned inputs and strategies identified realistic, appropriate, and adequate to achieve the results? In terms of design, were they sequenced sufficiently to efficiently deliver the expected results?	Project design	FP, FAA, APRs	Document analysis
1.2	To what extent did the project interventions address the needs of the beneficiaries and geographical areas? Were the project areas and beneficiaries appropriately chosen?	Community satisfaction	FP, APRs, MTR and Mission Reports, communities, EIPM and LORTA results	Document analysis, FGDs, visual observations
1.3	To what extent was the project in line with national sector development priorities and plans, including new policies adopted during implementation?	Coherence	National plans and policies (PANA?), interviews	Document analysis, interviews
1.4	To what extent was the project's logical framework aligned with its overarching objectives (outputs, outcomes, and goal)? Did the indicators meet the SMART criteria?	M&E framework, ToC	MTR Report, M&E/field visit reports	Document analysis, interview with M&E staff
1.5	How effectively did the Theory of Change (ToC) capture the pathways and cause-and-effect relationships at different levels? Did the ToC and intervention logic hold? If not, how and why was it adapted? What key assumptions underpinned the ToC?	Original and revised ToC, gaps in project interventions, assumptions, barriers and mitigation measures	Analysis of APRs, project staff	Document analysis, interviews with CI-M staff
	Criteria 2: Effectiveness			
2.1	To what extent and how were the project objectives achieved? What factors contributed to or hindered their achievement?	Level of achievements of targets over time, barriers and favorable factors	Analysis of APRs, M&E/ field visit reports, project partners, staff	Document analysis, interviews with CI-M staff and stakeholders
2.2	How did the project's actual outcomes compare to the intended outcomes? What explains any differences?	Level of achievements against targets	Analysis of APRs, PSC meeting minutes, project staff, data, stakeholder interviews	Document analysis, interviews with CI-M staff and stakeholders
2.3	Do the outputs link to the achieved outcomes, contributing to the broader objectives of the project?	Linkages between outputs and outcomes	Analysis of APRs, project staff	Document analysis

2.4	To what extent has the project demonstrated changes against the baseline for the GCF investment criteria? What factors contributed to or constrained these changes?	As in question 2.1	Restructuring proposal for the request 2NCE	
2.5	Were partners, including government entities, effective in delivering project results? If not, why?	Level of participation and satisfaction of stakeholders	Analysis of meeting minutes (COPIL and COS minutes) interviews, monitoring visits of stakeholders	Document analysis and Interviews
2.6	What and how much progress was made toward achieving the overall outputs and outcomes (including contributing factors and constraints)?	As in question 2.2		
2.7	Was there effective operationalization of the agreed grievance mechanism for effective, timely resolution and feedback mechanism for grievances/ incidents/ compliments?	# of complaints/ suggestions	CRM database	Document analysis, interviews with stakeholders and FGDs
2.8	Did the project have an Environmental and Social Management plan? How effective was the project in the implementation of the ESMP mitigation strategies?	Progress in implementation of ESMP, barriers	ESMP, APRs, issue log, project staff, communities, data collected, ESMP training records documents	Document analysis, interviews, FGDs and site visits
	Criteria 3: Efficiency			
3.1	Were the planned inputs and strategies realistic, appropriate, and adequate to results? Were they sequenced to efficiently deliver the expected results?	Allocation of funds to various activities, sequence of activities implementation	Work plans, APRs	Analysis of work plans, and quarterly delivery
3.2	Were the outputs achieved in a timely manner? Were the achievements supportive of the ToC and pathways?	Rate of implementation of activities over time	Work plans, quarterly/annual reports, project staff, beneficiaries	Document analysis, interviews with CI, FGDs
3.3	Were project resources utilized economically, effectively, and equitably to achieve the intended results (considering value for money, absorption rate, commitments vs. disbursements, co-financing, etc.)?	Level of achievement of targets in comparison with budget	Financial reports, document revisions, financial revisions, audit reports	Document analysis, interviews with CI

3.4	Did the project have the appropriate financial controls, including reporting and planning, which allow management to make informed decisions regarding the budget and allow for timely flow of funds?	Efficient recruitment, procurement and reporting system; timely submission of reports, staff turn over	Project files, project staff	Analysis of recruitment and procurement system; interviews with CI
3.5	Was co-financing used strategically to help the objectives of the project? How did the use of different financial streams (in-kind, parallel, leveraged, mobilized finance) work? To what extent were co-finance related conditions and covenants, as listed in the FAA fulfilled? If co-finance did not materialize as planned, discuss the impact of that on the project and results on the ground.	Level of co-finance mobilized	APRs, financial reports, PSC meeting minutes, project staff	Document analysis, interviews with GoM, donors and other stakeholders
3.6	Did the project's governance mechanisms function efficiently?	Staff turnover, timely release of funds, delays in implementation, monitoring mechanism, adaptive management	Staff involved in project implementation, APRs, monitoring visits, PSC meeting minutes, interviews with project ream and other stakeholders	Document analysis, interviews with GoM, donors and other stakeholders
3.7	To what extent did the design of the project help or hinder achieving its goals? Were there clear objectives, ToC, and strategy? How were these used in performance management and progress reporting?	Project implementation strategy	FAA, Implementation, Exit and communication strategies, project staff, interviews	Document analysis and interviews with NDA and CI-M
3.8	Were there clear baseline indicators and/or benchmarks for performance measurements? How were these used in project management? To what extent and how did the project apply adaptive management?	Changes in baseline and mid-term indicator surveys	LORTA reports, APRs, revised FP, project staff	Document analysis (LORTA reports, APRs, MTR Report revised FP), interviews with CI-M, MEDD, FGDs
3.9	How realistic were the risks and assumptions of the project? How did the project deal with issues and risks in implementation?	Barriers, risks, assumption and mitigation measures	Risk and issue log, project staff	Document analysis (APRs. M&E Reports, MTR Report), interviews CI-M

3.10	To what extent did the project's M&E data and mechanisms contribute to achieving project results?	Effective and efficient M&E system	M&E reports, project staff	
3.11	What, if any, alternative strategies would have been more effective in achieving the project objectives?	Gaps in strategic interventions and implementation approaches	Interviews with stakeholders, project staff, communities	Review of similar projects in other countries and interviews with CI-M, FGDs
3.12	How is the project's cost-effectiveness compared to similar climate change interventions?	$ Cost/ beneficiary, $ cost/ ha of conservation, $ cost/Mton of Co2	Reports, review of similar projects in Madagascar or other African countries	Internet research, financial analysis
	Criteria 4: Coherence in Climate Finance Delivery with Other Multilateral Entities			
4.1	How effectively did the project coordinate with other relevant initiatives (e.g., government programs, NGO projects, donor-funded activities) in the project area? Describe any mechanisms used for collaboration, information sharing and joint planning.	Joint Programing at district level, sharing of expertise, cross project visits, participation in different info sharing events	Analysis of APRs, interviews with stakeholders, interviews with project staff, Cases of coordination meeting organized with regional platforms, sub-clusters, other projects/programs	Analysis of APRs, proceedings of national and regional information sharing events, interviews with CI-M and stakeholders
4.2	To what extent did the project complement and build upon existing local and national climate change strategies, policies, and initiatives? Did this result in synergies or unintended consequences (positive or negative)? Provide specific examples.	Linkages of the project activities with national plans, policies, strategies, etc.	National Plans, polices, and strategies, project staff	Document analysis, interviews
4.3	How did the project contribute to the GCF's paradigm shift objectives of promoting low-emission, climate-resilient sustainable development pathways? Provide concrete examples.	Project linkages/ contribution to GCF Focal Areas and overall mandate	GCF's overarching goals/ focal areas and FAA, interviews with project team	Document analysis, interviews and NDA and CI-M
4.4	How did the project leverage and align with existing local and national climate change strategies? and policies to enhance coherence and avoid duplication of efforts?	Synergies with local and national strategies	National and district plans, strategies, etc., interviews with project staff and district authorities	Document analysis, interviews with partners, GoM national and district authorities
4.5	Based on the project's experience, what are the key opportunities for further	Scope of successor or similar projects	Document analysis,	Document analysis,

	collaboration and synergy with other climate finance initiatives to enhance impact and contribute to broader climate action goals?	in Madagascar and other countries	interviews with project staff and other stakeholders, LORTA reports, EIPM reports, data Exit Strategies	interviews with stakeholders and FGDs
	Criteria 5: Gender Equity			
5.1	How did the project integrate gender consideration into all aspects of its design and implementation? Provide specific examples of how gender analysis informed project activities and resource allocation.	Strategic interventions to engage with women, girls, youth and elderly (inclusive development)	Gender action plan, Analysis of APRs, interviews and FGDs reports	Analysis of APRs and GAAP, interviews and FGDs
5.2	What specific measures were taken to promote gender equality and empower women in the project's activities and planning, considering local gender dynamics? Were potential barriers to women's participation addressed by the project?	Degree of participation of women in project planning and implementation	LORTA reports, APRs, Proceedings of workshops, etc., interviews with project staff and beneficiaries, project gender studies	Document Analysis (APRS, etc.), interviews and FGDs
5.3	Do women beneficiaries demonstrate an understanding of their rights and/or benefits from project activities/ interventions? How was information about project activities and benefits disseminated to ensure it reached women effectively?	Community mobilization strategy	APRs, FP, ESM Plans, Gender Action Plan, beneficiaries communities	Document analysis, FGDs, interviews with CI-M
5.4	What are the key differences in outcomes for women compared to men? Did the project result in any unintended consequences or exacerbate existing gender inequalities?	Comparative number of male and female beneficiaries	APR, project staff, communities	Document analysis, FGDs and interviews
5.5	How did the project ensure that decision-making processes were transparent and inclusive of both women and men? Were there specific strategies to address power imbalances and ensure women's voices were heard?	Community mobilization strategy, adaptive management	Need assessment reports, Gender section in APRs, work planning processes, FGDs reports	Document analysis, FGDs and interviews
5.6	To what extent are female stakeholders and beneficiaries satisfied with the project's outcomes related to gender equality?	Level of satisfaction among beneficiaries groups	APRs, Rapid AAP (Accountability to Affected Population) survey	Document analysis, FGDs, show of hands

				response to questions
5.7	How effectively did the project address gender as a cross-cutting issue? How was this integrated into the project's activities and planning? Provide specific examples.	Same as question 5.2		
5.8	How did the project contribute to women's empowerment and leadership, specifically in the context of climate action? Is there evidence that suggests the project strengthened women's agency and voice in addressing climate change?	Examples of women groups leading climate action activities	Gender Action Plan, FP, interviews with stakeholders and project staff	Document analysis, FGDs, interviews with CI-M
5.9	What specific measures were taken to promote gender equality and empower women, considering local gender dynamics? How did the project address potential barriers to women's participation (e.g., childcare, time constraints, cultural norms)?	Enhancement of women participation in project planning and implementation	Progress made against the Gender Action and ESM Plans, interviews with project staff and FGDs reports	Document analysis, FGDs
5.10	Did the project generate any key lesson or good practice pertaining to the implementation of gender sensitive measures?	Lessons learnt/ good practices	Interviews, APRs, project staff, IPs, communities	Document analysis, interviews with Implementing Partners, FGDs
	Criteria 6: Country Ownership of Project			
6.1	Does the project directly support specific objectives within national development plans, climate change strategies, or sub-national policies? Please provide examples.	Same as questions 6.1 and 6.2	APRs	
6.2	How was alignment with national partner priorities ensured during project design and implementation? Were there any conflicts or discrepancies, and how were they addressed?	Consultations with the GoM during project planning	Project feasibility report, stakeholders consultation reports, national documents	Document analysis
6.3	Describe the project's governance structure. What roles and responsibilities do national partners hold in decision-making processes? How were in-country stakeholders (government, civil society, private sector, local communities) involved in project coordination and consultations? Were these mechanisms effective?	Project governance structure, PSC meetings Examples of adaptive management	FP, Implementation and Exit Strategies, interviews with project staff and stakeholders	Review of PSC meeting minutes, interviews with the stakeholders at various levels
6.4	How did the project design reflect an understanding of the local context, including social, economic, environmental, and cultural factors? Were local	Community consultation at project design	FP, community consultation reports at design	Document analysis, FGDs and interviews

	communities involved in the project design and implementation phases? Were there specific adaptations made to ensure the inclusion of vulnerable community groups during project design and implementation? Did the project respect local knowledge, customs, and traditions?	stage and implementation	stage, implementation strategies, project staff, data collected	with community notables, NGOs, etc.
6.5	Did the project utilize existing country-level systems for project management, monitoring, and evaluation? If so, which systems were used and how? If the project introduced new systems, how were these integrated or aligned with existing national systems?	Utilization of GoM systems for financial management, implementation of activities and M&E systems	Interviews with project staff and stakeholders	Interviews with CI-M and national IPs
6.6	How did the project support the country's capacity to monitor and evaluate emission reductions?	Monitoring of emission reduction at national level	Govt. records, interviews with project staff and concerned government officials	Analysis of current expertise and equipment to monitor emissions, interviews with CI-M, MEDD
6.7	How did the project address specific local challenges and opportunities? Provide concrete examples.	SWOT analysis	Project planning documents, project staff, communities	Document analysis and interviews with stakeholders, FGDs
6.8	How did the project contribute to achieving relevant Sustainable Development Goals (SDGs), Nationally Determined Contributions (NDCs), Green Climate Fund (GCF) indicators, or other national goals? Were there any adjustments made to the project during implementation to better respond to emerging challenges or priorities?	Linkages of project goal level indicators with SDGs, NDCs and GCF indicators Adaptative management	SDGs, NDCs, & GCF indicators, APRs, project staff	Document analysis
6.9	What capacity building activities were undertaken (e.g., training, knowledge transfer, institutional strengthening)? How effective were these activities?	Enhancement of capacity of national and local stakeholders	APRs, project staff and stakeholders	Document analysis and interviews with stakeholders
6.10	How effective were the project's modes of delivery in building essential/necessary capacities, promoting national ownership, and ensuring the sustainability of the results achieved?	Capacity building and engagement of stakeholders in planning and implementation	APRs, implementation strategies, project staff, data collected from partners	Document analysis and interviews with stakeholders

6.11	How satisfied are stakeholders and beneficiaries with the project's performance and its responsiveness to their views and concerns?	Level of satisfaction of stakeholders and beneficiaries Level of adaptive management	PSC meeting minutes, AAP survey, interviews with stakeholders	Document analysis, FGDs and interviews
6.12	What specific mechanisms were in place to ensure the transfer of project knowledge, skills, and best practices to local stakeholders? How will project responsibilities be transitioned to local partners after project completion?	Exit strategy	Exit strategy, PSC minutes and interviews with project staff	Document analysis and interviews with stakeholders, especially GoM
6.13	What strategies are in place to ensure the continued engagement of local stakeholders in climate action beyond the project's timeframe?	Exit strategy	Exit strategy PSC minutes, exit strategy, project staff, communities	Document analysis and interviews, FGDs
6.14	Does the project directly support specific objectives within national development plans, climate change strategies, or sub-national policies? Please provide examples.	Same as questions 6.1 and 6.2		
6.15	How was alignment with national partner priorities ensured during project design and implementation? Were there any conflicts or discrepancies, and how were they addressed?	Same as questions 6.1 and 6.2		
	Criteria 7: Innovations in Results Area			
7.1	How has the project contributed to advancing knowledge and best practices in sustainable agricultural production and climate action in Madagascar?	Best practices in sustainable agriculture and climate action	APRs, project staff and interviews with stakeholders, communities	Document analysis, interviews and FGDs
7.2	Did the project's activities influence any national or regional policies related to climate change? If so, how?	Change in national and regional policies	APRs, project staff, interviews with stakeholders	Document analysis and interviews
7.3	Has the project disseminated its findings and lessons learned to other organizations or stakeholders working in the field? If so, how?	Project communication strategy	APRs, conferences/ seminars organized, use of digital and social media?	Document analysis, interviews
7.4	Did the project generate any innovative approaches or technologies that could be replicated in other contexts?	Innovative approaches/ technologies	APRs, project staff, data collected	Document analysis, interviews
7.5	How did the project promote and support the adoption of innovative solutions for climate change adaptation/mitigation?	Scaling up strategies	APRs, project staff, data	Document analysis, interviews. FGDs

			collected, communities	
7.6	How did beneficiaries perceive the usability and effectiveness of the introduced technologies?	Effectiveness of innovative approaches	APRs, AAP survey	FGDs, AAP survey
7.7	What were the key challenges and successes in implementing innovative approaches within the project?	Challenges and successes in implementing innovative approaches	APRs, project staff, communities	Document analysis, interviews with CI-M and stakeholders, FGDs
7.8	Did the project leverage GCF funding to attract additional climate finance from other sources? If so, how much and from whom?	Level of mobilization of additional financial resources	Financial reports, project staff, NDA	Document analysis, interview with CI-M
7.9	What were the key factors that enabled or hindered the project's ability to unlock additional climate finance?	Barriers and opportunities for resource mobilization	PSC minutes, project staff	Document analysis, interviews with stakeholders
7.10	What specific strategies or mechanisms did the project employ to mobilize additional funding for climate action?	Innovative funding mechanisms	Interviews, NDA	Interviews with CI-M
	Criteria 8: Replication and Sustainability			
8.1	What were the most successful aspects of the project, and what factors contributed to their success?	Project successes	APRs, project staff, stakeholders, communities	Document analysis, FGDs and interviews
8.2	What are the key lessons learned and missed opportunities during project implementation? What could have been done differently to improve outcomes or efficiency?	Key lessons learned and missed opportunities	APRs, Issue log, barrier analysis, project staff, FGDs reports	Document analysis, interviews with stakeholders, FGDs
8.3	How effective were the exit strategies and approaches to phase out project assistance? What factors contributed to their effectiveness or ineffectiveness?	Exit strategy	Exit strategy, APRs, interviews, project staff, beneficiaries communities	Document analysis, interviews with stakeholders, FGDs
8.4	What were the key enabling factors contributing to the project's achievements? What specific components or approaches could be adapted or replicated in other contexts or at a larger scale?	SWOT analysis, barriers and assumptions	FP, revision to FP, APRs, interviews, communities	Document analysis, interviews with stakeholders, FGDs
8.5	Are the actions and results from project interventions likely to be sustained? How	Assessment of sustainability	FP, APRs, interviews with	Document analysis,

	will this be ensured through ownership by local partners and stakeholders?	(socio-economic, institutional, financial, environmental and technological sustainability)	project staff and communities	interviews with stakeholders, FGDs
8.6	What are the main barriers or challenges to replicating or scaling up the project's interventions, and how can these be addressed?	Barriers to scaling up	FP, APRs, Exit strategy, interviews with project staff and other stakeholders and FGDs	Document analysis, interviews with stakeholders, FGDs
8.7	What are the potential costs and benefits of replicating or scaling up the project's interventions?	Cost: benefit analysis of interventions	APRs and financial reports, project staff	Document analysis, interviews
8.8	What are the key recommendations for future projects or programs seeking to achieve similar outcomes?	Recommendations	FP, APRs, Exit strategy, interviews and communities	Document analysis, interviews with stakeholders, FGDs
	Criteria 9: Monitoring and Evaluation Systems			
9.1	Did the M&E plan adequately consider the project's context, resources, and timeframe?	M&E plan and resources allocated	Project Results Framework, project staff	Document analysis, interviews with project staff
9.2	Did the M&E plan include a clear and logical framework connecting project activities to intended outcomes?	M&E plan and resources allocated	Project Results Framework, project staff	Document analysis, interviews
9.3	Were the data collection methods outlined in the plan feasible and appropriate for the project's needs?	Standardized data collection methodologies	Indicator sheets, project staff	Document analysis, interviews
9.4	Were the indicators defined for environmental, gender, and socio-economic outcomes truly SMART? Provide examples of how the indicators were used to measure progress toward project objectives.	Assessment of indicators on SMART indicators	Project logframe, project staff	Document analysis, interviews with project staff
9.5	Was the M&E budget sufficient to cover all planned activities? Were any financial constraints encountered during M&E implementation, and how were they addressed?	Budget allocation/ utilization for M&E	Financial reports, project staff, beneficiaries communities	Document analysis, interviews, FGDs
9.6	Were there any deviations from the original M&E plan during implementation? If so,	Change in indicators and	Project original and revised	Documents analysis,

	were these deviations justified and documented?	targets	logframe, PSC meetings, project staff	interviews with CI
9.7	Were any adjustments made to the M&E plan during the project? If so, describe the process for revising the plan and provide examples of specific changes made	Same as in question 9.6		
9.8	Was information on specified indicators and relevant GCF focal area tracking tools gathered in a systematic manner?	Review of tracking tool	Tracking tool, project staff	Review of tracking tool over time, assessment of achievements, interviews
9.9	Were appropriate methodological approaches used to analyze data?	Quality of data collection and analysis	APRs, project staff	Document analysis, interviews
9.10	Were resources for M&E sufficient?	As in question 9.5		
9.11	How was the information from the M&E system used during project implementation?	Adaptive management	APRs, interviews with project staff	Document analysis, interviews with CI-M
9.12	Was the implementation of the project's impact evaluation appropriate and beneficial to the project (LORTA)?	Before and after impacts of various interventions	APRs, project staff, communities	Comparison of baseline and midline/endline results. Interviews, FGDs
9.14	How effectively did the M&E system track progress and inform project decision-making?	As in question 9.11		
9.15	How were the findings from the M&E system used to improve project implementation and achieve better results? Provide specific examples of how adaptive management was used to improve project performance.	As in question 9.11		
	Criteria 10: Unexpected Results			
10.1	Beyond the planned objectives, what were the most significant unintended consequences of the project, both positive and negative? How did these affect biodiversity, social equity, and other relevant sustainable development goals?	Positive/negative unintended results in biodiversity, social equity and other relevant SDGs	APRs, interviews	Document analysis, interviews, FGDs and field observations
10.2	Analyze the factors that contributed to these unintended consequences. Were they foreseeable? How could the project design have better anticipated or mitigated	Factors contributing to	APRs, interviews, FGDs	Document analysis, interviews, FGDs

	them?	unintended consequences		and field observations
10.3	The project faced significant unforeseen challenges, including the EIB's withdrawal and the discontinuation of the Climate Change Trust Fund. Evaluate the project's strategies for managing these challenges. To what extent were these strategies successful in mitigating negative impacts and capitalizing on new opportunities?	Revised implementation strategies	FP, PSC minutes, interviews with project staff, communities	Document analysis, interviews
10.4	Beyond these specific examples, what other unexpected challenges or opportunities emerged? How flexible and effective was the project in adapting its approach?	Adaptive management	APRs, interviews with project staff and communities	Document analysis, interviews with CI, FGDs
10.5	What underlying factors contributed to any deviations from the project's planned outcomes, outputs, activities, or results? Consider factors such as external events, stakeholder dynamics, implementation challenges, and assumptions made during the project design phase.	Factors affecting fund mobilization and strategies	FP, revised FP, PSC minutes, interviews	Document analysis, interviews with CI, and government stakeholders
10.6	Assess the specific impacts of the COVID-19 pandemic on the project's implementation, timeline, and achievement of objectives. What strategies were employed to mitigate these impacts, and how effective were they?	Rate of implementation of activities over time	APRs, interviews with project staff, communities	Document analysis, interviews with CI, FGDs
10.7	Evaluate the accessibility and effectiveness of the project's Grievance Mechanism. To what extent were stakeholders aware of the mechanism? Analyze the number, nature, and resolution of grievances received. Did the mechanism function as an effective tool for addressing community concerns and ensuring accountability?	Mechanism of GRM	GRM database, interviews, FGDs	Document analysis, interviews with stakeholders and FGDs
10.8	Identify all safeguard plans triggered during the project. Provide a detailed assessment of their implementation, including monitoring and reporting mechanisms. To what extent were these plans successful in mitigating potential social and environmental risks?	ESM Safeguards implemented	APRs, ESM Plans and Safeguards, interviews, communities	Document analysis, interviews with stakeholders and FGDs
10.9	How effectively did the project adapt to challenges and changes in the context throughout its implementation? Provide specific examples of adaptive management in response to unexpected events or new information. How could this approach be improved in future projects?	Adaptive management	APRs, PSC minutes, project staff, communities	Document analysis, interviews with stakeholders and FGDs

5. List of Evaluation Questions Used

Criteria	Evaluation Question
Relevance	Were the project's strategies and inputs realistic and adequate to achieve results? Did the project address the real needs of target communities and areas? Was the project consistent with national priorities and policies? Was the logical framework aligned with goals and indicators SMART? Did the Theory of Change accurately capture pathways and assumptions?
Effectiveness	To what extent did the project achieve its objectives? What helped or hindered success? How did actual outcomes compare to what was planned? Did outputs contribute effectively to outcomes and goals? What changes occurred against the baseline under GCF criteria? Were partners and government effective in delivering results? What progress was made toward outputs and outcomes? Was there a functional grievance mechanism for resolving complaints? Did the project effectively implement its Environmental and Social Management Plan (ESMP)?
Efficiency	Were activities and inputs well planned and sequenced for efficiency? Were activities and outputs delivered on time? Were resources used economically and fairly (value for money)? Did financial and procurement systems function effectively? Was co-financing secured and used strategically? Did governance mechanisms (PSC, CI, GoM, etc.) function efficiently? Did project design and strategy support performance management? Were baselines and benchmarks established, and was adaptive management applied? How realistic were risks and assumptions, and how were they managed? Did M&E systems and data contribute to better results? Could alternative strategies have achieved results more effectively? Was the project cost-effective compared to similar projects?
Coherence	How well did the project coordinate with other programs and donors? Did it complement existing national or local climate policies? How did it contribute to GCF's low-emission, climate-resilient goals? Did it align with local and national strategies to avoid duplication? What opportunities exist for future collaboration with climate initiatives?
Gender Equality	How was gender integrated into project design and implementation? What actions promoted women's participation and empowerment? Did women understand their rights and benefits? Did men and women benefit equally? Were decision-making processes inclusive for both genders? Were women satisfied with the gender-related results?

	Was gender effectively addressed across all activities? Did the project strengthen women's leadership in climate action? Did it remove barriers to women's participation (e.g., childcare, cultural norms)? What lessons or good practices emerged for gender-sensitive implementation?
Country Ownership	Did the project support national climate and development goals? Was alignment with government priorities ensured? Were roles shared effectively among government, civil society, and communities? Did the project reflect local realities and contexts? Did it use or strengthen existing government systems? Did it build national capacity to monitor emission reductions? How did it respond to local challenges and opportunities? Did it contribute to SDGs, NDCs, and GCF indicators? What capacity-building activities were conducted, and were they effective? Did project delivery promote local ownership and sustainability? Were stakeholders satisfied with project performance and responsiveness? How will knowledge and skills be handed over after closure? What strategies ensure continued engagement after project completion?
Innovation	How did the project advance knowledge and best practices in climate-smart agriculture? Did it influence national or regional climate policies? Were lessons and findings shared with other stakeholders? Did it create innovative tools or approaches for replication? How did it promote the adoption of innovative climate solutions? How did beneficiaries view new technologies introduced by the project? What were the successes and challenges in using innovative methods? Did GCF funding help attract other climate finance sources? What factors enabled or limited resource mobilization? What strategies were used to mobilize additional funding for climate action?
Replication and Sustainability	What were the most successful parts of the project and why? What key lessons and missed opportunities emerged during implementation? Were exit strategies effective in ensuring smooth closure? What components could be replicated or scaled up elsewhere? Are project results likely to continue after funding ends? What barriers could hinder scaling-up, and how can they be addressed? What are the costs and benefits of replication? What recommendations can guide similar future projects?
Monitoring and Evaluation	Was the M&E plan realistic and appropriate for the context? Did it clearly link activities, outputs, and outcomes? Were data collection methods practical and reliable? Were indicators SMART and useful for tracking progress? Was the M&E budget adequate? Were deviations from the M&E plan justified and documented? Was indicator data collected systematically and analyzed properly?

	Did M&E provide timely information for adaptive management? Did LORTA impact evaluation add value to project learning? Were M&E findings used to improve implementation and results?
Unexpected Results	What unintended positive or negative effects did the project have? What caused these unintended effects, and could they have been anticipated? How did the project manage major unforeseen challenges (e.g., EIB withdrawal)? How flexible was the project in responding to unexpected events? What factors led to deviations from the original plan? How did COVID-19 affect implementation, and what worked best to mitigate it? How effective and accessible was the Grievance Redress Mechanism? How well were environmental and social safeguards implemented? How effectively did the project adapt to new challenges or information?

6. Progress Towards Results Matrix

Project Outcome/ Output	Indicator	Baseline Level	MTE Level Target	End-of-project Target	End-of-project Achievement
GCF Level Impacts					
Core indicator	Expected total number of beneficiaries	0	14,280	85,700	131,259
Core indicator	Cost per t CO2eq decreased for all Fund funded mitigation projects	0	$19.30	$1.27/t	$1.71
Core indicator	Volume of finance leveraged by Fund funding	0	1:1	1:1	771,318
Core indicator	Tonnes of tCO2eq reduced as a result of Fund funded project	OM	2.4M	9M	9,343,807
A 1.0 Increased resilience and Enhanced livelihoods of the most vulnerable people, communities and regions	Number of people less affected by climate related disasters (disaggregated by vulnerable groups) due to the Project	34,272	48,552	119,952	104,067
	Number of people adopting a wider variety livelihood strategies that make them more household resilient to climate change	34,272	119,952	119,952	104,067
A2.0 Increased resilience of health and well-being, and food and water security	Number of food-secure households due to the Project	5,7125	8,092	19,992	21,921
A4.0 Improved resilience of ecosystems and ecosystem services	Area of agroforestry projects (ha), silvopastoral- systems, or other Ecosystem-based Adaptation strategies established or enhanced	1,170ha	4,046	9,996	3,659
M4.0 Reduced emissions from land use, reforestation, reduced	tCO2eq reduced from forest/land use	OM	2.4M	9M	9,343,807

deforestation, and through sustainable forest management and conservation and enhancement of forest carbon stocks					
Outcome 1. GCF Ref A7.0 Strengthened adaptive capacity and reduced exposure to climate risks	**# of vulnerable farmers, businesses, and public sector services use improved tools, instruments, strategies and activities for responding to climate variability and climate change**	**34 ,272**	**48,552**	**119,992**	**131,529**
Output 1.1. GCF Ref A7.1 Smallholder farmer communities are supported and trained in Sustainable Agriculture (including Climate-Smart Agriculture)	Number of individuals with vulnerability reduced	34,272	48,552	119,992	104,067
	Number of households adopting sustainable agriculture techniques	5,712	8,092	19,992	21,921
Output 1.2. GCF Ref A7.2 Market and crop production information available at local level to inform crop production type) and to improve market access	Proportion of women from female headed households who are supported by the project and become member of women associations	5%	10%	60%	55.9%
Output 1.3. GCF Ref A7.3. Resilience to climate induced shocks and other risks is improved by supporting farmer-led, gender-sensitive analysis, planning and risk management	% of households losing more than 25% of field crops after climate shocks	70% of households losing more than 25% of crops	60% households losing more than 25% of crops	40% of households losing more than 25% of crops	47%
Output 1.4. GCF Ref A7.4. Critical ecosystems providing essential ecosystem services to smallholder	Hectares of critical habitats managed sustainably by the local communities within the agricultural landscape	4,135 ha	6,707 ha	10,051 ha	22,472 ha

farmers communities in current and future climate conditions are monitored and protected or restored) as Ecosystem-based Adaptation measures	Hectares of agricultural landscape restored for production	6 ha	376 ha	3,570 ha	3,569 ha
Outcome 2. GCF Ref A8.0 Strengthened awareness of climate threats and risk reduction processes	**8.1 Number of people informed on the potential impacts of climate change and range of possible responses**	**15,000**	**50,700**	**150,000**	**1,236,947**
Output 2.1. GCF Ref A.8.1 Strengthened capacity of government employees, local conservation, and development NGOS, farmer groups and local communities to implement mitigation and adaptation measures to achieve Climate Smart Landscapes	# Training tools developed and shared including best practices lessons learned	1 manual and one poster	2	10	More than 9
	# men and women trained	65 people are trained	28,560	115,019	222,686
Output 2.2. GCF Ref A.8.2. Improved knowledge by the CAZ and COFAV population (Including school children) about climate change issues and responses proposed by the project	# of packs of training tools distributed	0	1,100	3,500	22,973
	Number of people (m/f) informed about climate change, Sustainable Agriculture and Ecosystem based Adaptation	10,608	39,168	150,000	150,000
Outcome 3. GCF Ref A5.0 Strengthened institutional and regulatory systems for climate responsive planning and development	**# of communes trained in CC and incorporate it into local planning**	**0**	**10 SACs**	**40 SACs**	**46 SACs**
Output 3.1. GCF Ref A.5.1 Strategies and actions identified in	# of guidelines developed for integration of CC and climate-smart landscape	PANA and one manual guide	0	2	2

national climate change policies are integrated into decentralized planning at regional and local levels	concepts into regional and local development plans	on climate change			
Output 3.2. GCF Ref A.5.2 Intervention capacity on climate change issues of decentralized technical services is strengthened	# of co-executing entities and key decentralized technical services and local authorities with the necessary resources to support Climate-Smart landscape	0	28	56	174
	# of decentralized technical services supported	0	7	7	7
Output 3.3. GCF Ref A.5.3 The Monitoring and evaluation system for CSLs is operational and informs adaptive management	M&E system operational	0	1	1	1
Output 3.4. GCF Ref A.5.4 Financial sustainability of project activities is achieved through a combination of trust fund and performance-based payment	Trust Fund created with $3.2 million seed capital and operational	0	1	1	0
	1 REDD+ pilot project is part of accredited carbon offset programs	0	1	1	1
Outcome 4. GCF Ref M9.0 Improved management of land or forest areas contributing to emissions reductions	9.1 Forest area under improved management and reduced carbon emissions practices	655,832	655,832	655,832	655,832
Output 4.1. GCF Ref M9.1 Key planning documents for CAZ and COFAV are updated	# of planning documents updated every 5 years: Management Plan (PAG)	0 PAG	2 PAG updated	2 PAG updated	2
Output 4.2. M9.2 Improved forest management as outlined in the CAZ and COFAV management plans, and Emission Reductions verified	Management effectiveness index (IEG) following IUCN assessment methodology	58.5%	63.5%	68.5%	69.91%
	% of planned activities in PA workplans that are completed	25%	50%	95%	95%

	# of emission reduction reports produced	0	2	6	5
Output 4.3. GCF Ref M9.3 A system of efficient and transparent governance is strengthened for CAZ and COFAV	# of annual work plans and other reports approved by regional authorities and stakeholders	0	4	26	17
Output 4.4. GCF Ref M.9.4. Forest restoration on degraded lands within the CAZ and COFAV PAs/carbon project areas	# Hectares restored	1,401 ha	1,590 ha	2,500ha	4,160 ha

7. Evaluation Rating

Outcome Rating Classification:

- **Highly satisfactory (HS)** – Level of outcomes achieved clearly exceeds expectations and/or there were not shortcomings.
- **Satisfactory (S)** – Level of outcomes achieved was as expected and/or there were no or minor shortcomings.
- **Moderately satisfactory (MS**) – Level of outcomes achieved more or less as expected and/or there were moderate shortcomings.
- **Moderately unsatisfactory (MU**) – Level of outcomes achieved somewhat lower than expected and/or there were significant shortcomings.
- **Unsatisfactory (U)** – Level of outcomes achieved substantially lower than expected and/or there were major shortcomings.
- **Highly unsatisfactory (HU**) – Only a negligible level of outcomes achieved and/or there were severe shortcomings.
- **Unable to assess (UA) –** The available information does not allow an assessment of the level of outcome achievements.

Sustainability Risk Rating Classification:

- **Likely (L) -** There are little or no risks to sustainability.
- **Moderately likely (ML)** - There are moderate risks to sustainability.
- **Moderately unlikely (MU) -** There are significant risks to sustainability.
- **Unlikely (U)** - There are severe risks to sustainability.
- **Unable to assess (UA)** – Unable to assess the expected incidence and magnitude of risks to sustainability.

M&E Rating classification:

- **Highly satisfactory (HS) -- There were no shortcomings and quality of M&E design / implementation exceeded expectations.**
- **Satisfactory (S) -- There were no, or minor shortcomings and quality of M&E design / implementation meets expectations.**
- **Moderately satisfactory (MS) -- There were some shortcomings and quality of M&E design / implementation more or less meets expectations.**
- **Moderately unsatisfactory (MU) -- There were significant shortcomings and quality of M&E design/ implementation somewhat lower than expected.**
- **Unsatisfactory (U) --There were major shortcomings and quality of M&E design/ implementation substantially lower than expected.**
- **Highly unsatisfactory (HU) -- There were severe shortcomings in M&E design / implementation.**
- **Unable to assess (UA) –** The available information does not allow an assessment of the quality of M&E design /implementation.

Implementation and Execution Rating Classification:

- **Highly satisfactory (HS) -- There were no shortcomings and quality implementation / execution exceeded expectations.**
- **Satisfactory (S) -- There were no, or minor shortcomings and quality implementation /execution meets expectations.**
- **Moderately satisfactory (MS) -- There were some shortcomings and quality of implementation /execution more or less meets expectations.**
- **Moderately unsatisfactory (MU) -- There were significant shortcomings and quality of implementation /execution somewhat lower than expected.**
- **Unsatisfactory (U) --There were major shortcomings and quality of implementation /execution substantially lower than expected.**
- **Highly unsatisfactory (HU) --** There were severe shortcomings in quality of implementation/ execution.
- **Unable to assess (UA) –** The available information does not allow an assessment of the quality of implementation / execution.

Rating Color Coding:	Highly Satisfactory (6)	Satisfactory (5)	Moderately Satisfactory (4)	Moderately Unsatisfactory (3)	Unsatisfactory (2)	Highly Unsatisfactory (1)

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