Forest Carbon Partnership Facility (FCPF) Carbon Fund **ER Monitoring Report (ER-MR)**	
ER Program Name and Country:	Promoting REDD+ through Governance, Forest Landscapes & Livelihoods in Northern Lao PDR
Reporting Period covered in this report:	01-01-2022 to 31-12-2024
Number of FCPF ERs:	1,837,467 tCO2e
Quantity of ERs allocated to the Uncertainty Buffer:	381,480 tCO2e
Quantity of ERs to allocated to the Pooled Reversal Buffer:	324,258 tCO2e
Number of FCPF ERs from enhanced removals through afforestation/ reforestation	n.a
Number of FCPF ER from High Forest Low Deforestation (HFLD)	n.a.
Date of Submission:	10 June 2026
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List of Acronyms

Acronym	Meaning
AD	Activity Data
AGB	Above Ground Biomass
BGB	Below Ground Biomass
CAP	Community Action Plan
CATS	Carbon Assets Tracking System
CCDC-SMA	Continuous Change Detection and Classification – Spectral Mixture Analysis
CliPAD	Climate Protection through Avoided Deforestation, supported by GIZ and KfW
COMTRADE	United Nations International Trade Statistics Database
CSA	Climate-Smart Agriculture
DAFO	District Agriculture and Forestry Office
DBH	Diameter at Breast Height
DCC	Department of Climate Change (under MONRE)
DOF	Department of Forestry (under MAF)
DOFI	Department of Forest Inspection (under MAF)
DW	Dead Wood
EF	Emission factor
EGPF	Ethnic Group Policy Framework
E/R factors	Emission and Removal factors
ER	Emissions Reduction
ER-MR or ERMR	Emissions Reduction Monitoring Report
ERPA	Emissions Reduction Project Agreement
ERPD	Emissions Reduction Project Document
ESMF	Environmental and Social Management Framework
FAO	Food and Agriculture Organization of the United Nations
FCPF	Forest Carbon Partnership Facility
FIPD	Forest Inventory and Planning Division (under DOF)
FLEGT	Forest Law Enforcement, Governance and Trade
FPIC	Free, prior and informed consent
F-REDD	Sustainable Forest Management and REDD+ Support Project (JICA)
F-REDD 2	The Project for Enhancing Sustainable Forest Management in collaboration with REDD+ programs and REDD+ funds (JICA)
FREL	Forest reference emission level
FRL	Forest reference level
FS 2020	Forest Strategy 2005 to 2020
FS 2035	Forest Strategy 2035
GCF	Green Climate Fund
GHG	Greenhouse Gas
GFLL	Governance of Forest Landscapes and Livelihoods Project (as known as La PDR Emissions Reduction Program)
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit [German technical assistance]
GOL	Government of Lao PDR
ICBF	Integrated Conservation of Biodiversity and Forests project (KfW)
I-GFLL	Implementation of Governance of Forest Landscapes and Livelihoods Project, supported by Green Climate Fund and CliPAD/GIZ
IPCC	Intergovernmental Panel and Climate Change
IPCC GL	Intergovernmental Panel and Climate Change Guidelines
JCM	Joint Crediting Mechanism

JICA	Japan International Cooperation Agency
KfW	KfW Entwicklungsbank [German Development Bank]
Lao PDR	Lao People's Democratic Republic
LENS2	Second Lao Environment and Social Project, supported by the World Bank
LLL	Lao Landscapes and Livelihoods, supported by the World Bank
LNSIS	Lao National Safeguards Information System
LULUCF	Land Use, Land-Use Change and Forestry
LWU	Lao Women's Union
MAE	Ministry of Agriculture and Environment
MAF	Ministry of Agriculture and Forestry
MILD	Monitoring of Illegal Logging and Deforestation
MMR	Measurement, Monitoring and Reporting
MoNRE	Ministry of Natural Resources and Environment
MRV	Measurement, reporting and verification
NFI	National Forest Inventory
NFMS	National Forest Monitoring System
NPMU	National Project Management Unit
NRS	National REDD+ Strategy
NRTF	National REDD+ Task Force
NTFPs	Non-timber forest products
OLDM	Operational Logging and Degradation Monitoring
PAFO	Provincial Agriculture and Forestry Office
PDMS	Provincial Deforestation Monitoring System
PF	Process Framework
PICSA	Partnerships for Irrigation and Commercialization of Smallholder Agriculture, IFAD supported
PPMC	Provincial Project Management Committee
PPMU	Provincial Project Management Unit
ProFEB	Protection and Sustainable Use of Forest Ecosystems and Biodiversity, supported by GIZ
PRTF	Provincial REDD+ Task Force
QA/QC	Quality Assurance / Quality Control
REDD+	Reducing emissions from deforestation and forest degradation plus
REL	Reference emission level
RF	Removal factor
RL	Reference level
RPF	Resettlement Policy Framework
SESA	Strategic Environmental and Social Assessment
SOP	Standard Operating [Operation] Procedures
SPOT 4	Satellite pour l'Observation de la Terre, Satellite 4, European Space Agency
SRIWSM	Sustainable Rural Infrastructure and Watershed Management Sector Project, supported by the Asian Development Bank (SDB), European Union (EU), and German Government (BMZ)
SU-I-GFLM	Scaling up the implementation of the Lao PDR Emission Reductions Programme through improved governance and sustainable forest landscape management Project
tCO2e	[Metric] tons of carbon dioxide equivalent
TWG	Technical working group
UNFCCC	United Nations Framework Convention on Climate Change
USFS	United States Forest Service
VCS	Verified Carbon Standard
VFMP	Village Forest Management Project in Lao PDR, supported by KfW

1 IMPLEMENTATION AND OPERATION OF THE ER PROGRAM DURING THE REPORTING PERIOD

1.1 Implementation status of the ER Program and changes compared to the ER-PD

Lao PDR has made significant progress on implementation of its Emissions Reduction Program (ER Program) during the second reporting period, 2022-2024. The ER Program is currently being implemented through four major projects, which are supported with funding from the Governments and international donors:

- **The Governance of Forest Landscapes and Livelihoods (GFLL) Project** has support from the Forest Carbon Partnership (FCPF) Carbon Fund through the World Bank. With the advance payment received in June 2022 and the first ER Payment received in July 2024, totaling USD 16 million.
- **Scaling up the implementation of the Lao PDR Emission Reductions Programme through improved governance and sustainable forest landscape management (SU-IGFLM) Project** has support from the Green Climate Fund (GCF), the German-supported Climate Protection through Avoided Deforestation (CliPAD) project, and German technical assistance, Deutsche Gesellschaft für Internationale Zusammenarbeit (GiZ). The initial GCF grant approved in 2019 and the second grant approved in 2023, totaling USD 51.9 million, has been supporting the ER Program provinces in coordination with the GFLL Project;
- **The Village Forest Management Project (VFMP)**, supported by KfW, working in two ER Program provinces, namely Luang Prabang and Xayabouri.
- **The Lao Landscapes and Livelihoods (LLL) Project**, with support from the World Bank, works in central Lao PDR, including two ER Program provinces. The LLL Project is working on five landscapes, including eight provinces and one prefecture, of which Houaphan and Luang Prabang are common with the ER Program.

The two projects below ended during the 1st ER monitoring period:

- **The Integrated Conservation of Biodiversity and Forests (ICBF) Project**, supported by the German development bank, KfW Entwicklungsbank (KfW), working in two ER Program provinces. It ended in 2022.
- **The Second Lao Environment and Social Project (LENS2)**, supported by the World Bank ended in 2021.

Additional supports are being provided to the ER Program by:

- **The Project for Enhancing Sustainable Forest Management in collaboration with REDD+ programs and REDD+ funds (F-REDD2)**, supported by the Japan International Cooperation Agency (JICA). The project is focused on supporting measurement, monitoring, and reporting (MMR) for the ER Program, near-real time forest monitoring called PDMS, at both the national and provincial levels, including the ER Program area.
- **The 4th National Forestry Inventory (NFI 4) ,** funded jointly by the World Bank, the GiZ, the LLL Project, and F-REDD2. The NFI 4 is a national-level forest survey (ground survey) applying revised methodology to improve data accuracy and coverage, and align with international standards. The tree stump data corrected from the 6 northern provinces are used for estimating logging emissions for the 2nd ER monitoring.
- The World Bank support to the **Near-real time provincial deforestation monitoring system (PDMS)**, which conducted gap assessment and system upgrading, and provide technical training to the provincial and district forestry officers of Luang Namtha, Bokeo, and Oudomxay provinces (Houaphan, Luang Prabang and Xayabouly provinces already had PDMS in operation).

Further information and updates on these projects – as well as a couple of other related major projects operating in the ER Program area -- are provided in Table 1 below as well as in Annexes 1 to 3 to this report.

Table 1: Projects active in the ER Program area during the reporting period.

Project	Donor	Total budget USD (millions)	Total duration	Contribution to the ER Program
FCPF Readiness Grant	FCPF	8.2	2018 - 2022	Supported REDD+ readiness including Lao PDR to access the FCPF Carbon Fund. Targeted the six ER Program provinces and Champasack province.
GFLL	FCPF	16.0	2022 - 2025	The project received the Carbon Fund's advance payment of USD 3 million for initial activities. The first results-based payments for emissions reductions, in 2023, unlocked payment of additional USD 13 million. The project expects receiving payment for the second monitoring period in 2026.
I-GFLL/CliPAD SU-I-GFLM	GiZ, GCF Project 1 Project 2	 15.9 36.0	 2020 - 2024 2023 - 2026	Promoting implementation of ER Program activities (land use planning, sustainable forest management, and climate smart agriculture) in 240 villages in 3 provinces, Luang Prabang, Xayaboury, and Houaphan. With the new project, there are in total 572 villages covered throughout the 6 provinces .[1]
F-REDD, F-REDD 2	JICA	8.6	2015 - 2027	Supporting the NFMS including MMR and near-real time forest monitoring in the ER Program provinces. Small-scale village forest management activities in Luang Prabang and Oudomxay were also supported under F-REDD.
ICBF	KfW	18.3	2015 - 2023	Promoting integrated conservation of biodiversity and forests in two landscapes, one of which extends over parts of Luangnamtha and Bokeo provinces.
LLL	World Bank	57.4	2021 - 2027	Supporting 8 provinces in improved livelihoods and forest landscape management, including Houaphan and Luang Prabang.
LENS2	World Bank	37.0	2014 - 2022	Supporting the Lao Environmental Protection Fund. Part of the Fund is being used for protected area management in the ER Program area.
VFMP	KfW	7.3	2019 - 2026	Supporting village forest management in Xayaboury and Luang Prabang provinces.
PICSA	IFAD	21.0	2019 - 2025	Supporting improvement in irrigation infrastructure, catchment management, (irrigated) agriculture, and nutritional practices. The target areas Includes Houaphan, Luang Prabang and Xayaboury provinces.
SRIWSM	ADB, EU and BMZ	74.2	2020 - 2027	Supporting upgrading of selected productive rural infrastructure schemes to be climate resilient, efficient, and sustainable; improving land use management, institutional arrangements and capacity for sustainable watershed management. Includes Houaphan and Luang Prabang provinces.

* NOTE: for each project the budget may include funding for activities not only inside, but also outside, of the ER Program area.

[1] The I-GFLL project was originally set to support the ER Program in six provinces with a Green Climate Fund (GCF) grant of €65.2 million (total co-financing: €162.7 million) for 2020-2029. Due to GCF budget constraints, the project was split into two. Project 1 (2020-2024) received a reduced grant of €15.2 million (total co-financing: €62.6 million) and covered only three provinces. A funding proposal for Project 2 (2023-2026), seeking €32.8 million to cover all six ER Program provinces, was submitted in early 2022. The GCF Board approved this Project 2 grant for €32.8 million (USD 36.0 million, with USD 45.3 million in co-financing) on March 16, 2023. This phased approach has caused delays in some ER Program activities across the six provinces, particularly in the three not covered by Project 1.

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a) Progress on the actions and interventions under the ER Program (including key dates and milestones)

As of December 2024, the GFLL Project has disbursed 17.6% (US$ 2.82 million) out of the US$ 16 million received from the first ER Payment. These expenditures primarily financed and strengthened institutional arrangements for National, Provincial, and District Project Management Units (NPMU, PPMU, DPMU), capacity building, consulting services (59% of total spent), workshops/meetings (11.8%), goods (11.5%), and incremental operational costs. National-level agencies (NPMU/REDD+ Division) accounted for 14.2% of expenditures, followed by PPMU at 2.5% and DPMU at 0.9% [2].

Remarkable progress was observed in Component 1: Strengthening the enabling conditions for REDD+. The Government of Laos (GoL), in collaboration with and supported by various development partners, including the GFLL, has advanced efforts to update enabling conditions amidst a dynamic national and international policy environment. Significant efforts were also made to build a foundation for implementing Component 2: Climate Smart Agriculture (CSA) and sustainable livelihoods for forest-dependent people, and Component 3: Sustainable forest management. The project is now equipped with updated guidelines and manuals for conducting these two components. Technical training was provided to national, provincial, and district staff in areas such as community engagement, land-use planning, community action planning, safeguards, and gender. The same group also received training in project management.

Component 1: Strengthening the enabling conditions for REDD+

During the 2nd ER monitoring period (2022 - 2024) Lao PDR continued to make significant progress in strengthening the enabling conditions related to REDD+, as outlined below.

- ***Strengthening policies and legal framework***

  Prime Minister Order 11 [3], issued on July 21, 2023, underscores the government's unwavering commitment to ensuring the effective implementation of its laws and regulations. This order explicitly prohibits a range of illegal activities that undermine forest integrity and sustainable land use, including illegal logging, unlawful timber trade, land encroachment, and unauthorized mining operations. The PMO 11 has been disseminated at the local level with regional workshops, and it was organized in Oudomxay in October 2023 for the northern region.

  Issuance or the **Decree on Protected Areas (June 2023)**, **Decree on Protection Forests (January 2024)**, and **Decree on Production Forests (January 2024)** improves the regulatory aspects and indicates the ambition of the GoL in strengthening the management of three forest categories.

  The **Lao Forest Strategy to 2035**, approved in May 2024, outlines an ambitious long-term vision for the sustainable management and development of the country's forest resources. Succeeding the national commitment of FS 2020, the key target is to allocate 70% of the country's land area as forestland and increase the forest cover to 70% by 2035. This aligns with the Lao Nationally Determined Contribution (NDC).

  The MAF **Instruction on Forest Carbon Management** (July 2024) stipulates the process for screening REDD+ projects by private sector. The Prime Minister **Decree on Carbon Credit** was newly approved in May 2025, paving the way also for the Lao forestry sector and the stakeholders to utilize carbon credits as innovative climate financing opportunities

  A recent Forest Governance Index study by the European Forest Institute (EFI) in 2024 compared the state of governance of 2022 against 2015. The assessment showed improvement in four areas, and no-change in one area,

[2] Updated figure including 2025 is provided in Annex 2.

[3] The Prime Minister Order No. 11 on Strengthening Strictness on Managing, Protecting, Developing and Utilizing Forest and Forestland; Preventing and Controlling Forest Fires and Encroachment into Forest and Forestland, July 21, 2023.

with prominent progress in *Legislative and institutional clarity*, and good progress in *Compliance, promotion and enforcement in the forest sector*.

- ***Improved provincial-level, district-level, and village-level land use planning***

The targeted villages for receiving benefits under the first ER Payment are 247 villages. As part of the development of the Community Action plan (CAP), the GFLL Project, initiated Participatory Land-Use Planning (PLUP) or a review of existing PLUP. Up to March 2025, CAP have been completed in 18 villages. Furthermore, the project has completed 40 more CAPs from March 2025 to the time of reporting and for the year 2025, the total number of targeted CAPs will be 79 CAPs. All 247 CAPs are targeted to be completed before the end of Q1 2027 (end of the ERPA is set on 31 December 2025)

In the background, efforts were made to streamline the CAP. The CAP template and content were recently revised and endorsed by the World Bank in April 2025. A decision letter by DoF on January 13, 2025, endorsed a streamlined process, allowing CAP development to proceed concurrently with PLUP development if existing PLUP data is valid, to accelerate the process.

Capacity building has also seen progress, including trainings on Community Engagement Process (CEP), Participatory Land Use Planning (PLUP), CAP writing, and CAP implementation. The World Bank also provided an online training on streamlined and simplified CEP process and CAP preparation on May 2025, engaging 168 participants from sub-national levels.

- ***Improved forest law enforcement and monitoring***

The **Provincial Deforestation Monitoring System (PDMS)** has been endorsed by the MAF (Decision 2761, 24 May 2024) as a national tool for monitoring forest cover and strengthening law enforcement. The PDMS is already rolled out in 16 out of 18 provinces across the country, including all 6 provinces of the ER Program. Since 2022, regular training sessions are provided to Provincial Agriculture and Forestry Offices (PAFOs) and District Agriculture and Forestry Offices (DAFOs), with support from the GFLL, I-GFLL, SU-I_GFLM, or F-REDD2 projects. In 2024, the GFLL supported the training of 18 staff members from Oudomxay province. In 2025, the SU-I_GFLM project organized three trainings: one for Houaphan province (27 staff), one for Bokeo, Luang Namtha, and Oudomxay provinces (49 staff), and one for Xayabouly and Luang Prabang provinces (39 staff). According to the PDMS Dashboard, 1,090 field visits have been conducted across the six provinces since January 2022.

- ***1.4 Enhanced land and resource tenure security through land registration and other processes***

The 2019 Land Law marks a significantly positive shift, particularly for local communities, by laying the groundwork for greater land tenure security. This law, alongside subsequent **National Assembly Resolution No. 57 (September 2024)**, now enables residents, especially those in forest areas, to obtain formal land titles for their permanent agricultural and residential plots. This political commitment was further institutionalized through the **Prime Minister's Order No. 20** (November 2024), and has been operationalized in the **MAF Instructions 1821** (May 2025) which guides the implementation of the Prime Minister's Order No. 20.

Component 2: Climate Smart Agriculture (CSA) and sustainable livelihoods for forest dependent people

Progress have been made in laying the groundwork for CSA and REDD+ promotion. A "white list" of eligible CSA practices that contribute to rural livelihoods has been prepared, alongside a "black list" identifying activities not eligible under the GFLL project, to mitigate potential social and environmental risks.

Actual implementation of CSA activities is in its early stages to promote climates-smart agriculture and REDD+ (activity 2.1) as Emission Reduction funds were only recently released to the first batch of 18 approved Community Action Plans (CAPs). The Project is currently focusing on training VDCs on how to access and manage these funds and activities.

The first two and half years of the GFLL project (2022-2024), the transfer of the funds to village level was slow due to delay and slow progress of the preparation and facilitation of project implementation at field level

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especially for safeguards, FPIC, and community engagement processes, including capacity building for local government agencies (sub-national level). As of the end of 2024, the disbursement of monetary benefits to villages has not yet been conducted, and a small amount of non-monetary benefit has been shared to a limited number of villages. The main causes were delays in decision-making, such as fund management mechanism, village selection, agreeing on the guidelines and templates (e.g for FPIC, CAP), and turnover in advisors and technical staff.

Component 3: Sustainable forest management

Similar to Component 2 above, implementation of sustainable forest management activities are also in its early stages, with limited activities implemented for sustainable management of Production Forest Areas (Activity 3.3), and National Protected Area management (3.4).

Component 4: Program management and monitoring

Ensuring effective fund flow arrangements was one of the key program management action for the GFLL since the acceptance of advance payment and the initial results-based payment. The project developed two Financial Management Manuals: one for the National Project Management Unit (NPMU), Provincial Agriculture and Forestry Offices (PAFOs), and District Agriculture and Forestry Offices (DAFOs), and another for Village Development Committees (VDCs). In January 2025, capacity-building sessions on the VDC Financial Management Manual were conducted in Oudomxay and Luang Prabang, targeting PAFOs, DAFOs, and VDCs. This recent training was attended by 12 individuals from 6 PAFOs, 44 individuals from 18 districts, and 53 individuals from 18 villages, bringing the total number of participants to 109. Table 2 below summarizes the trainings organized by the GFLL Project, with full details provided in Annex: Information on the implementation of the benefit sharing plan.

Table 2. Summary of training implemented by the GFLL Project

Key action	In charge	Date	Target Participants	Remarks
Safeguards, PLUP, Monitoring and Evaluation (M&E), and CAP				
TOT on FPIC	NPMU/TA	October 2022	All six provinces LNFC, LWU and DAFO of targeted districts	
Training on Safeguards for SESUs, P-SESUs and District SESU staff	NPMU/TA	Sept 2023	National SESU, Provincial SESUs, District SESU staff, and members of the Community Engagement Teams of both provincial and district levels including staff from PONRE	
CEP 1, CEP2, CEP 3 trainings for PAFOs/DAFOs	NPMU/TA	December 2023 – Oct 2024	6 PAFOs and 18 DAFOs including LWU and NDLF	
PLUP training	NPMU/TA	June – Aug 2024	6 PAFOs and 18 DAFOs including LWU and NDLF, including implementation supporting consultants (junior consultants)	
Finance Management				
Training workshop on Procurement, Financial Management, Accounting (including the accounting software), Financial management for VDCs,	FM/TA	September 2022 – January 2025	Depending on the type of training: Finance Unit/REDD+ Division and FPF Division 6 provinces facilitators under DoF. 6 provinces PAFOs and 18 DAFOs Administration/Finance Unit under 6 provinces PAFOs and 18 DAFOs	
Monitoring Reporting and Verification (MRV)				
Training on MRV	FIPD/TA	October 2022	24 staff (including 4 women) from FIPD, REDD Division, Forestry	

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(Monitoring, Reporting and Verification)			Training Center, F-REDD2 Project, and the World Bank Team
Training on PDMS (Near-real time Provincial Deforestation Monitoring System)	NPMU/TA	Nov-Dec 2022	FIPD, REDD+ Division and DOFI; 6 provincial technical staff from Forestry Section and Forest Inspection Section (one from each section) and 48 district technical staff from Forestry Unit and Forest Inspection Unit in16 districts

Safeguards and Feedback and Grievance Redress Mechanism (FGRM); the project has operational instruments and institutions for managing safeguards in compliance with the requirements. The FGRM has been developed and operational prior to the August 2024 deadline, with hard copy forms available in all provinces, districts, and visited villages. However, to date, no grievances have been lodged. During the mission to Luang Prabang province in October 2025, three villagers who are using land in forest area for their livelihood raised concern over their forestland use. The team of safeguard focal persons and consultants of PMU revisited them and clarified that they can continue using the land without expansion until the legal and institutional frameworks for recognition and registration of forestland use rights are operational. These cases have been resolved and recorded in the FGRM. Challenges identified include literacy barriers for some ethnic groups and limited facilities in certain villages preventing access to online systems. Project information, including the FGRM system, is being converted into four languages (Hmong, Akha, Khmu, and Lao) to address these issues. See Annex 1: Information on the implementation of the safeguards plans for further details.

Two program assessments (the first TPM by Landell Mills and a broader review by Ecosecurities) conducted in 2025 and 2026, found the FGRM to be functional and generally accessible to local communities. These TPM assessments together with an internal GRM review in 2023 and an Overall Assessment/ Borrower Framework Assessment (OA/BFA) in 2024 covering the Lao portfolio's E&S risk management provide systematic recommendations to further strengthen GRM operation and accessibility, particularly in villages with ethnic and vulnerable groups. These include: (i) raising awareness of the needs and requirement for GRM among project management and decision-makers; (ii) providing targeted training on ESS10 and GRM; and (iii) developing and using ethnic specific IEC materials on GRM. Where feasible, they also recommend establishing helplines and online submission mechanisms, with designated focal points at PMU and subnational levels, complementing existing national structures and procedures (including village mediation committees and relevant fiduciary and legislative institutions) to ensure timely escalation and resolution of grievance received.

Financial management: Financial Management Manuals have been developed for VDCs, and capacity building on their use was conducted in January 2025 for 109 participants from PAFOs, DAFOs, and VDCs. The Computerized Accounting System (K-PACC) has been installed and used by the project since October 2023 at NPMU, 6 PAFOs, and 18 DAFOs. See Annex 2: Information on the implementation of the benefit sharing plan.

b) Update on the strategy to mitigate and/or minimize potential displacement

The ERPD assessed the overall risk of displacement of deforestation and forest degradation to be low (three drivers are assessed as low risk, and one driver assessed as medium risk). Similar to the 1st ER monitoring period, the ERPD risk mitigation strategy continues to be valid: it has been strengthened through the implementation of ER Program as well as gradual roll out of REDD+ at the national scale.

Through the participatory land-use planning approach, which involves target villages and also neighboring villages, village boundaries are clarified, thereby decreasing the risk of displacement to adjoining areas. This common approach is extensively applied across several initiatives. This includes GCF Project 1 (Funding Proposal 117), which covers 212 villages (170 original plus 42 from an extension), GCF Project 2 (Funding Proposal 200), with 290 villages, and the KfW-funded Village Forest Management Project, with 70 villages. Advancements of these activities have significant importance in mitigating and minimizing the potential of displacement from the ER Program area. The GFLL is targeting villages within the same provinces, focusing on different villages (see Annex 2 for the latest list).

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Stepwise improvement of the NFMS facilitates the monitoring of drivers and interventions and helps to address displacement risks. The national rollout of the PDMS has been providing far advanced opportunities to monitor the land and forest near real-time. As noted under Component 1, the PDMS has been successfully rolled out across all six ER Program provinces, significantly increasing its effectiveness and supporting monitoring of the agreed land-use plans. The next step is to incorporate a forest fire monitoring function, with prototype testing planned to begin in the 2025 - 2026 dry season.

The set of World Bank safeguards instruments i.e., Environmental and Social Assessment (SESA), Environmental and Social Management Framework (ESMF), Ethnic Group Policy Framework (EGPF), Process Framework (EF) and Resettlement Policy Framework (RPF)) have been completed and operationalized. The effectiveness of such measures and lessons are briefly summarized in Section 1.2, and more in details in Annex 1.

c) Effectiveness of the organizational arrangements and involvement of partner agencies

Apart from the project steering and management set-up already described, the National and Provincial REDD+ Task Forces provide strategic and policy guidance over REDD+ activities including the ER Program. The REDD+ Division within Department of Forestry and REDD+ Offices within PAFOs coordinate the management of the REDD+ Program. Six multi-sector REDD+ Technical Working Groups (TWGs) are still operating, to cover issues of (1) Land Tenure and Land Use Planning, (2) Legal and Law Enforcement, (3) Safeguards and Stakeholder Engagement, (4) Benefit Sharing, (5) National Forest Monitoring System (NFMS), and (6) REDD+ Strategy.

The technical working groups (TWGs) have adopted different operational approaches. The **NFMS** TWG is the most structured, holding biannual meetings to focus on MRV, Forest Monitoring, and Data Management. This group has been reviewing the technical approaches, timelines, and overall progress of the 2nd MMR to ensure a clear and coordinated effort. While other TWGs have not held dedicated meetings, significant work has progressed in their thematic areas. The **Safeguards and Stakeholder Engagement** and **Benefit Sharing** topics, in particular, have been intensively worked out under the ER Program. Additionally, progress in **Land Tenure** and **Legal and Law Enforcement** has been driven by high-level dialogues and cross-sectoral implementation (as detailed in Component 1). The MAF directed the DOF in April to renew the National **REDD+ Strategy**. The DOF is now preparing a workplan and will establish a committee to draft the new strategy with support from key technical partners, including the World Bank LLL Project, UN-REDD, and JICA F-REDD 2.

As above, the TWGs vary in their activeness, depending on the progress of each topic. Staff turnover and rotation have been seen as a common challenge, and continuous capacity building are needed to make the involved agencies aware of the latest REDD+ debates and requirements.

d) Updates on the assumptions in the financial plan and any changes in circumstances that positively or negatively affect the financial plan and the implementation of the ER Program

The ER Program initially envisaged a budget of USD 136 million for its roll out for the six years of 2019-2024. This estimate covered the major projects comprising the ER Program. Since the ERPD formulation, the ER Program area has been attracting increasing level of co-financing that contributes to the achievement of the ER Program objectives. The new addition in the 2nd ER monitoring period is the launching of the SU-I-GFLM in 2023 as explained at the beginning of the Section 1.1.

The limited distribution of the 1st ER Payment of USD 16 million is due to institutional and procedural bottlenecks, with only 25.7% (USD 4.1million) spent by June 2025. Below are the summary of the two key implementation challenges with the detailes explained in Annex 2,

- Management Instability: Changes in senior management and project consultants slowed decision-making and project activity acceleration.
- Slow Progress on CAPs: The mechanism for benefit transfer requires the completion of Community Action Plans (CAPs). Only 40 CAP documents were completed and cleared by June 2025, significantly lagging the overall target.

The delay restricts the implementation of core ER activities such as participatory land-use planning, forest management and alternative livelihoods support activities outlined in the CAPs, which have only recently started in GFLL funded villages. However, as noted previously in item b) above, other collaborating projects have been implementing their activities ahead of the GFLL, contributing to the shared objectives to sustainably manage the forests and furthering emission reductions. Displacement risk mitigation relies on the thorough implementation of the CAPs and the safeguards framework by GFLL and othe projects in the area.

1.2 Update on major drivers and lessons learned

In 2018, the ERPD identified four drivers of deforestation and forest degradation (Table 3 below). As it was the case for the 1st ER motoring period, these four largely remain as the major drivers for deforestation and forest degradation in the ER Program are for the 2nd monitoring period. As explained above, and also in the ERPD (Section 10), the ER Program is fully aware of the importance of managing displacement risks and incorporating measures to reduce such risks. So far, there is no indication that the ER Program activities being implemented have resulted in any form of displacement.

The measures and lessons considered effective for mitigation of potential displacement are the participatory land use plans, which ensure that communities dependent on forest resources for fuel, fodder, NTFPs, herbs etc. are not deprived of access. In addition, appropriate alternative mitigation measures have been put into place through action plans approved by the community. For example, where communities are accessing and utilizing raw material and resources from forest areas for livelihoods, alternative measures to ensure supply of such raw material through enhanced production in non-forest areas, enhanced supply through external inputs, would be put into place. This would ensure displacement is avoided.

Another important measures and lessons considered effective is the forest monitoring. Along with the PM Order No.11 [4]and the endorsement of the PDMS by the MAF, the government authorities are conducting more regular field visit for law enforcement through early identification of potential displacement events and patterns. The PDMS is currently deployed in 16 out of 18 provinces in the country, including the six ER Program provinces, and four other provinces sharing their borders, i.e. Phongsali, Xaysomboune, Xiengkwang and Vientiane..

Table 3: Update on major drivers.

[4] No. 11/PM (21st July 2023): Order On Strengthening Strictness on Managing, Protecting, Developing and Utilizing Forest and Forestland; Preventing and Controlling Forest Fires and Encroachment into Forest and Forestland.

	Description	Update
Key driver #1: Loss of forests to permanent agriculture (including agriculture and tree plantations)	Encroachment of upland ecosystems by smallholders through slash and burn practice for cash crops (e.g., including maize, rubber, banana, sugar cane, jobs tears), and conversion of forests into agricultural plantations, including tree crops (mainly rubber).	MAF annual agricultural statistics (2022) show that total harvest areas of major crops declined from 2016 - 2018, and have since stabilized in the ER Program area [5]. Areas under maize, upland rice and job's tear cultivation have decreased, while those under cultivation of cassava have increased. Major expansion of cassava into forests has been continuously observed nationwide, including the ER Program area [6]. 29% of the deforestation during the 2nd ER monitoring period occurred in current forest with higher carbon stock (strata 1, 2 and 3), compared to 10% in the 1st ER monitoring period. The rest of deforestation occurred in degraded forestland (potential forest strata with lower carbon stock, stratum 4), which was 71% for the 2nd ER monitoring period compared to 90% for the 1st ER monitoring period, which has led to increased emissions. According to the PDMS dashboard, the field check confirmed more lands being converted into permanent agriculture and cattle grazing than before, totaling 15% of the entire drivers [7], presenting challenges in enforcing land use planning and compliance.
Key driver #2: Loss of forests/trees to shifting cultivation landscapes	Shifting cultivation is associated with subsistence, and most often with upland rice, but can also occur with other crops. The two forms of shifting cultivation, the "pioneering" form and "rotational" form, have different impacts. The use of slash-and-burn practices may lead to deforestation and degradation due to uncontrolled forest fires.	Rotational shifting cultivation is causing some loss of fallow forests (i.e., Regenerating Vegetation class), but in smaller scale compared to the Reference Level and the 1st ER monitoring period. While the detailed reasons require further analysis, this trend could represent a trade-off with Key Driver #1: farmers increasingly favoring permanent agriculture over shifting cultivation. The satellite-based interpretation using Collect Earth Online conducted as a part of the NFI 4 suggests shifting cultivation (classified as Upland Crop) as a major driver of deforestation driver and forest degradation, followed by permanent type of agriculture for cash crop and cattle grazing (classified as Other Agriculture). The PDMS analysis agrees with this result, showing upland cropping as the largest driver throughout the entire ER monitoring period [8]. .

[5] According to the Agricultural Statistics Data available up to 2022. For 2023 and 2024, the change in the statistical method made the tracking difficult for some crops.

[6] Both harvested area and production of cassava have shown obvious growth, starting gradually in 2018 and accelerating notably from 2021. This trend aligns with the observations of government and forestry experts, who note that the "cassava boom" began in southern Laos before moving northward to the central and northern regions

Key driver #3: Loss of forests/trees to infrastructure and other developments	Major infrastructure investments, such as roads, hydropower and mining, improve access to previously remote locations. As a result, this improved access often induces illegal timber harvesting and forest encroachment.	Given the socioeconomic development needs, infrastructure investments continue to be a driver of planned deforestation. Foreign investments from neighboring China, such as the high-speed railway, highways and hydropower dams, are on-going as nationally important projects. Some donors (e.g., the World Bank) also support road network maintenance. Increasing pressure comes from illegal mining activities in Houaphan province[9].
Key driver #4: Unsustainable and illegal wood harvesting	Illegal logging of high-value timber species continues along the national borders with Vietnam. This border area has a thriving timber market. Lao PDR's increasingly stringent forest regulations have driven up prices for natural timber species.	Due to its illegal nature, it is difficult to get a clear idea of the volume of unauthorized timber trade. However, it is commonly acknowledged that the Lao PDR Government's commitment and measures for controlling commercial-based wood harvests are being effective. The stump survey conducted for the 1st reporting, however, showed an approximate 11% increase in logging emissions compared to the reference period, while the data from the 4th NFI, which is used for the 2nd reporting period, shows that logging has significantly decreased, 80% compared to the reference level. The observations from the survey teams suggest that most of the logging seem to be for subsistence, thus small in their scale. Several reasons can be considered for this positive trend: strengthened law enforcement through policy measures, such as Prime Minister Order 11[10], has been effective; more regular forest monitoring activities using the PDMS have been implemented; and the full implementation of large-scale projects—such as GFLL, SU-IGFLM, LLL, and VFMP—has been crucial in raising awareness among those involved in illegal logging. Furthermore, global efforts to address the illegal timber supply chain (e.g., the EU Deforestation Regulation), along with a continued ban on unprocessed timber and the closure of unlicensed timber processing mills, could also be contributing to this positive trend."

1.3 Methodological deviations

There are no methodological deviations to be reported.

[7] Still the majority is shifting cultivation. However, note that this field check only represent a small part of the land and forest areas of the ER program. Also, the system records the state of land-use at the time of check, which could be different from the direct cause of deforestation.

[8] Note that distuingishing upland cropping and perament type of agriculture is still challenging, as it requires time-series analysis of multiple years.

[9] For example, there is a media coverage concerning the mining in Houaphan province <https://www.mekongeye.com/2024/10/07/laos-rare-earth-leak>.

[10] PMO 11, July 2023, Order On Strengthening Strictness on Managing, Protecting, Developing and Utilizing Forest and Forestland; Preventing and Controlling Forest Fires and Encroachment into Forest and Forestland.

2 SYSTEM FOR MEASUREMENT, MONITORING AND REPORTING EMISSIONS AND REMOVALS OCCURRING WITHIN THE MONITORING PERIOD

2.1 Forest Monitoring System

■ ***Organizational structure, responsibilities and competencies***

Table 4 (below), from the ERPD (Section 2.2), shows the entities involved in forest monitoring and their main responsibilities. The institutional arrangement of the measurement, monitoring, and reporting (MMR) system for the ER Program is consistent with that for the national level as elaborated in the NFMS Roadmap [11]. Most institutional arrangements build on existing arrangements and responsibilities of the respective entities and have been strengthened in a stepwise manner.

The Department of Forestry (DOF) approved the NFMS Roadmap in October 2020. Accordingly, the REL/MRV Technical Working Group (TWG) has been transformed into the NFMS TWG. It now has three sub-groups, Measurement, Reporting, and Verification (MRV), Forest Monitoring, and Data Management, which enables focused actions on each thematic area.

Within the DOF, the Forestry Inventory and Planning Division (FIPD) is responsible for generating the necessary data including the Activity Data (AD) and Emission/Removal Factors (E/R factors), conducting uncertainty assessment, and calculating the final ERs. The FIPD leads the implementation of the National Forest Inventory and stumps survey from which the stump measurements are used to estimate emissions from logging. They collaborate with the REDD+ Division who is responsible for coordinating the activities related to the ER Program.

Table 4.Framework of institutions involved in the forest monitoring.

Institutions	MMR	Monitoring of drivers and interventions
DOF	Conduct the MMR. Within the DOF, the FIPD conducts collection and generation of data for AD, E/R factors, uncertainty assessment and ER calculation (including emissions from logging).	Provide supporting data for enforcement actions. Compile the monitoring results.
Department of Forest Inspection (DOFI)	Technically review the MMR results as a member of the NFMS TWG.	Lead enforcement actions at the central-level and collaborate with provinces.
Provincial Government	Participate in National Forest Inventory (NFI)	Lead enforcement actions at the provincial level and collaborate with district authorities.
Private Sector, local community	Participate, serving as local guides, in National Forest Inventory (NFI)	Participate in forestry-related activities, e.g. protection, restoration, timber and NTFP supply-chain.

[11] The NFMS Roadmap was developed as a shared vision for developing the NFMS for Lao PDR and to enhance coordinated actions among the stakeholders. It is made through a consultative process and provides orientation for developing and operationalizing the NFMS. It describes the current NFMS structure and areas for improvements. It presents the conceptual design of the NFMS, methodology for each component, institutional arrangement and expected actions. DOF is planning to update the NFMS Roadmap in 2026.

NFMS TWG	Technically review the MMR results. Collaborate with other TWGs.	Technically review the monitoring results. Collaborate with other TWGs.
NRTF	Endorse the MMR results. Facilitate collaboration with other concerned sectors	Facilitate collaboration with other concerned sectors following the monitoring results
MAF or new MAE	As the executing agency, responsible for the MMR	As the executing agency, responsible for the monitoring

- ***The selection and management of GHG related data and information***

The ER Program will account for Greenhouse Gas (GHG) related elements as summarized in the table below:

Table 5: Summary of GHG related elements accounted for the ER Program.

Forest Definition	"Current Forest": Diameter Breast Hight (DBH) >10cm, Crown cover >20%, Minimum area >0.5 ha; and "Potential Forest": forest land which are in temporarily un-stocked state (for details see next section.)
Sources and Sinks	Carbon emissions from deforestation; and Carbon emissions from forest degradation. Enhancement of carbon stocks through forest restoration; and Enhancement of forest carbon stock through reforestation.
Carbon pools	Above Ground Biomass (AGB). Below Ground Biomass (BGB).
Gases	CO2 emissions and removals.

To ensure robust management and enhance transparency of the data, Lao PDR developed the database system and web-based portal <https://nfms.dof.maf.gov.la/>. The system unifies all the existing official data used for the estimation of emissions and removals at the national level and the ER Program into one single database. It also reduces costs by means of automating, and facilitating transparency, of the estimation methods and results. Moreover, overlaying such information with the administrative boundary data, forest category data, and other forestry-related data allows the data users to analyze forests according to their interests.

Table 6: Data presented in the NFMS web-portal.

Data related to Activity Data (AD)	Data type
Forest Type Map 2000, 2005, 2010, 2015, 2019, 2022 [1 2]	Raster data
Forest cover change map 2000-2005, 2005-2010, 2010-2015, 2015-2019, 2019-2021	Raster data (partly vector data) including ground-truthing points and photos
Satellite imagery used for the development of Forest Type Maps Landsat (2000), SPOT4, 5 MS(2005), RapidEye (2010, 2015) (both false color and true color), Sentinel 2(2019), Sentinel 2 (2022)	Raster data
Data related to Emission and Removal factors (E/R factors)	Data type

[1 2] The Forest Type Map 2022 is regarded as a map that represents the land and forest cover of 2022/01/01, and the Forest Type Map 2019 is regarded as the map that represents the land and forest cover of 2019/01/01. The ERs for the exact three years from January 1, 2019 - December 31, 2021 is reported in this 1st ER-MR by using these two maps.

1st NFI data (1990s)	Tabular data.
2nd NFI data (2015-2017)	Tabular data including GIS points and ground-truthing photos.
3rd NFI data (2019)	Tabular data including GIS points and ground-truthing photos.
4th NFI data (2025)	GIS points and ground truthing photos.
1st Regenerating Vegetation Survey (2017)	Tabular data including GIS points and ground-truthing photos.
2nd Regenerating Vegetation Survey (2019)	Tabular data including GIS points and ground-truthing photos.
Other data	Data type
Administrative area: national, province, district	Vector data
Forest category: Production Forest, Protection Forest, Conservation Forest	Vector data
Information on REDD+ projects	Project summary, project boundary and link to full information

Apart from the data and information disclosed in the NFMS web-portal, national documents and reports related to GHG are also transparently disclosed.

Table 7: National documents and reports related to GHG.

Document	Data storage
National FREL/FRL Report to the UNFCCC including annexes (2018)	Report https://redd.unfccc.int/submissions.html?country=lao
1st National REDD+ Results to the UNFCCC including annexes (2020)	Report and technical annex https://redd.unfccc.int/submissions.html?country=lao
1st National Communication to the UNFCCC (2000)	https://unfccc.int/documents/116663
2nd National Communication to the UNFCCC (2013)	https://unfccc.int/documents/116664
1st Biennial Update Report to the UNFCCC (contains a Technical Annex on REDD+) (2020)	https://unfccc.int/documents/274307 https://redd.unfccc.int/submissions.html?country=lao

■ ***Processes for collecting, processing, consolidating and reporting GHG data and information***

Lao PDR has an established centralized process for collecting, processing, consolidating and reporting GHG data and information. The Standard Operating Procedures (SOPs) listed below have been prepared and can be found in the Lao REDD+ website.

Table 8: Manuals and Standard Operating Procedures (SOPs)

Document title	Summary
Standard Operation Procedures (SOP) for Forest Type Map development	The SOP provides guidance on the tasks and steps for developing the national forest type maps. It provides guidance on the preparation of the data required as well as the provision of the satellite imagery. The SOP describes how to conduct the visual interpretation and the steps for the QA/QC validation. Guidance for conducting ground truthing survey is also provided.
Standard Operating Procedures (SOP) for the Terrestrial Carbon Measurement	The SOP provides standard field measurement approaches to assist in quantifying the amount of carbon stored within the various organic pools found

	within a landscape. It also provides guidance on the plot distribution, plot establishment on the ground and navigation from/to the sub-plots. This SOP supported the implementation of the 3rd NFI. For the 4th NFI, the SOP is under revision. It will be completed and shared by the end of 2025.
Standard Operation Procedures (SOP) for the Lao PDR's REDD+ MRV - based on the methodologies applied for the 1st FREL/FRL and the 1st National REDD+ Results, and its Annex for calculation	The SOP provides guidance linked to calculation spreadsheet to conduct an estimation of the REDD+ results (or often interchangeably referred to as "MRV").
Standard Operation Procedures (SOP) for the National Forest Monitoring System Servers and Network	The SOP articulate the NFMS IT infrastructure hosted inside the FIPD's network, and provides guidance on the protocols for its administration.
National Forest Monitoring System User Manual	The manual provides guidance for the users of Laos National Forest Management System (NFMS) web-portal.
National Forest Monitoring System Data Installation Manual	The manual provides guidance for the NFMS IT administrators on the protocols for installing data into the National Forest Management System (NFMS) database.

Further details of the selection, generation, reporting, Quality Assurance/Quality Control (QA/QC) and management of Greenhouse gas (GHG) related data and information will be described in Section 2.2.

- ***Systems and processes that ensure the accuracy of the data and information***

In principle, the systems and processes have not changed since the ERPD to maintain full consistency with the Reference Level (RL)[13]. The full details of the estimation approach, data and information used for the MMR are explained in Section 2.2 and Section 3 respectively. The approach was considered as the best available approach for Lao PDR, through consultations with the international and national experts. Each of the data and information are produced following the respective standard operating procedures listed above. For the 1st MMR, Lao PDR made a technical correction [14] to the RL (see Section 4.1) that is also valid for the 2nd MMR.

SOPs have been developed for each of the components for ER calculation. These SOPs enable efficiency in the generation of quality output in a standardized manner. They make the NFMS more robust and transparent.

A framework for joint support of the MMR for the ER Program has been established with technical partners including the F-REDD 2 Project/JICA (technical support to the overall MMR process), the World Bank (advisory related to the MMR requirements), the SilvaCarbon Program (technical support related to the improvement of AD) and Boston University (provision of Continuous Change Detection and Classification - Spectral Mixture Analysis (CCDC-SMA) map. See section 2.2.1 for detail). This collaboration has been providing an important Quality Assurance function to consider and implement best-available carbon accounting approach for Lao PDR including the technical correction of RL presented in Section 4.1.

Another technical collaboration, facilitated by the SilvaCarbon Program, brought forest inventory experts from the University of Göttingen in Germany and the US Forest Service who provided advices for the improvements in the NFI methodological approach. The revised approach improves the accuracy and range of the NFI data to be collected

[13] The term RL and FREL/FRL are used interchangeably. RL is the term used in the FCPF, while FREL/FRL is the term used in the Lao's national REDD+ mechanism (following the UNFCCC terminology) but the two are literally the same. Same applies for the MMR (FCPF) and MRV (Lao's national REDD+ mechanism).

[14] A note that describes the methodological approach for the Technical Correction was discussed with the Facility Management Team (FMT) of the World Bank in 2022.

while maintaining the consistency in the estimation of emissions and removals. In 2021, FAO collaborated in the improvement of the R Script (an automatic calculation program) used for the NFI database. Follow-up training were provided by the same FAO expert in 2024 and March 2025 but focusing on the NFI revised design.

- ***Design and maintenance of the Forest Monitoring System***

Recognizing the importance of a robust and transparent forest monitoring system, Lao PDR has developed its national Lao NFMS Roadmap. By consulting the FAO's Voluntary Guidelines on National Forest Monitoring and other good practices, the structure and content of the NFMS Roadmap were adapted for Lao PDR. This adaptation incorporated feedback from the capacity needs assessment of the Global Forest Observation Initiative REDD+ Compass, supported by the FCPF through 2018-2019, and feedback from the capacity needs assessment of the FAO Capacity-building Initiative for Transparency, conducted in 2020. The draft was finalized after two iterations of consultations with and comments from the NFMS TWG. It was approved by the DOF in October 2020. The draft was then finalized in the Lao and English languages and published on the UNFCCC REDD+ Web Platform.

The NFMS Roadmap provides a comprehensive overview and work plan for improvements, identified actions, institutional arrangements, and capacity building needs. The principle is to develop the NFMS in a step-wise fashion to support MRV, and monitoring of the drivers and interventions (Policies and Measures (PaMs). Safeguards Information System (SIS) and REDD+ Registry System are separate systems, however with some relation to the NFMS (a conceptual picture show in the Figure below). Several related initiatives are progressing in parallel: they are coordinated by the National REDD+ Task Force (NRTF) and the NFMS TWG to ensure that the NFMS will contribute to the overall performance monitoring of the forestry sector.

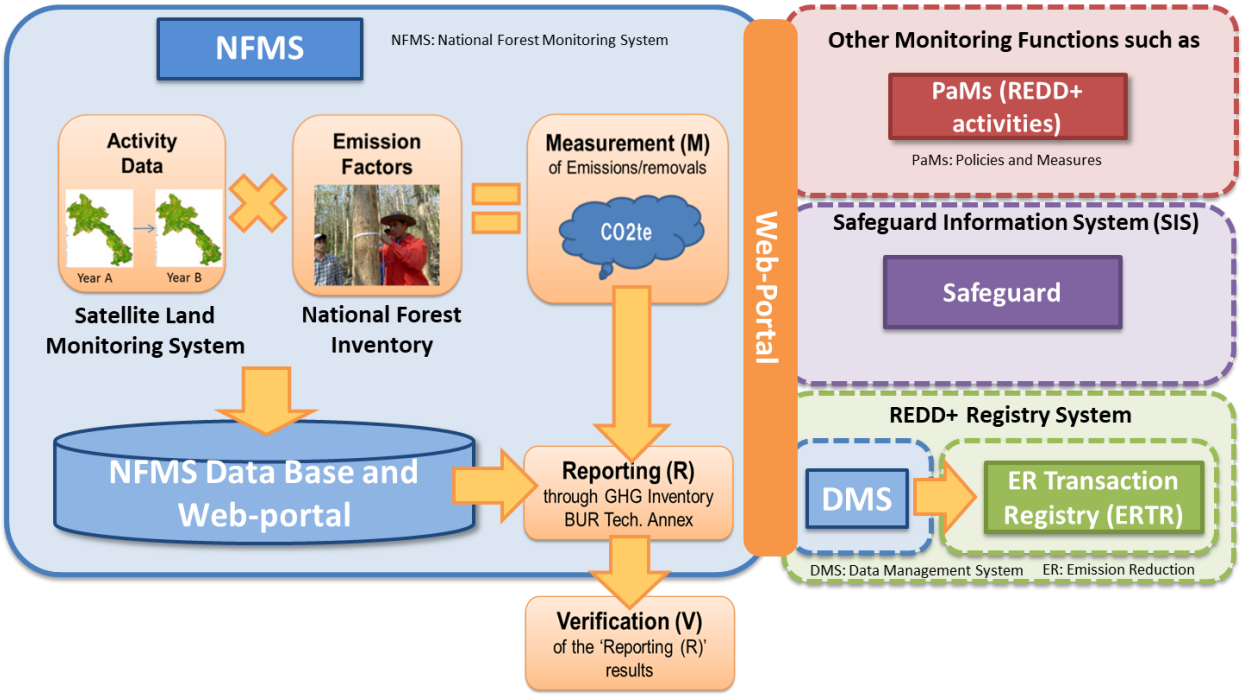

Figure 1: Conceptual diagram of Lao PDR's NFMS and its interactions with other REDD+ systems

- ***Systems and processes that support the Forest Monitoring System, including Standard Operating Procedures and QA/QC procedures***

As already explained, a robust institutional arrangement and a series of SOPs including quality assurance/quality control (QA/QC) procedures are integral elements of the estimation of emissions and removals process. The NFMS TWG and the technical partners provides technical review and advice to the process.

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- ***Role of communities in the forest monitoring system***

Key stakeholders, including the private sector and local community, will be informed on an ongoing basis of the ER Program activities and results, to ensure transparency and accountability in its implementation. Some stakeholders, particularly the local communities, will continue to support the technical work, such as serving as local guides for the fieldwork for the National Forest Inventory. Moreover, information from their own activities will be used to support and improve the MRV, particularly for forest mapping. Such additional data includes, for example, plantation management information of the government (e.g., the Forest Plantation Registry System) and/or of the forest companies to improve classification of plantations. It will also include feedback from village-level forest monitoring activities, based on the land-use plans, to further understand stages of shifting-cultivation and forest regeneration.

Near-real time forest monitoring, which involves local communities, has made significant progress since the acceptance of the ERPD:

- The Provincial Deforestation Monitoring System (PDMS) is a system to support PAFO and DAFO to monitor deforestation caused by agricultural practices and to strengthen law enforcement.
  The system has been endorsed by the MAF in 2024 and has been deployed in nearly all the country (16 among 18 provinces).
- The PDMS was actually launched initially in 2018 in three of the six ER-Program provinces (Xayaboury, Luang Prabang and Houaphan) with the CliPAD project from the GIZ. Since then the PDMS has been extended to Luang Namtha, Bokeo, and Oudomxay, through collaboration among the ER Program, I-GFLL, SU-I-GFLM, F-REDD 2 and the World Bank.
- The Operational Logging and Degradation Monitoring (OLDM) System provides a comprehensive and integrated set of tools that leads users from identification of potential disturbance and take corrective actions. With the support of the Protection and Sustainable Use of Forest Ecosystems and Biodiversity (ProFEB) Project and ICBF Project the OLDM System has been implemented in Luang Namtha, Bokeo, Khammouane, Sekong, Attapeu and Champasack Provinces in 2018/2019 but was discontinued at the end of the projects. The KfW is currently supporting a follow-up system called MILD (Monitoring of Illegal Logging and Deforestation) leveraging Sentinel-1 radar satellite.

- ***Use of and consistency with standard technical procedures in the country and the National Forest Monitoring System***.

Harmonization between the RL for the ER Program and the national FREL/FRL was seriously considered at the time of preparation of the ERPD. The national FREL/FRL applies methodologies that are largely consistent with those defined in the Carbon Fund Methodological Framework. The national FREL/FRL and the RL for the ER Program is based on the same dataset, prepared by the same DOF team using mostly the same methodologies, applying the same reference period, and assessed by the same group of stakeholders, thus, the ER Program RL was considered as a sub-set of the national FREL/FRL.

Following feedback from the Carbon Fund, Lao PDR proposed and applied a technical correction to the RL for the 1st MMR (see Section 4.1 of the 1st ERMR for details).

The applied approach for the technical correction provided a higher level of accuracy for the forest degradation emissions, however with a quite large difference in the estimated volume compared to the previous RL. By applying this technical correction, the national-level and the ER Program estimates for forest degradation emissions are no longer be the same in their respective methodologies.

Consistency between the national-level and the ER Program accounting will be considered when Lao PDR updates the national-level FREL/FRL in the future, currently planned for 2025.

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2.2 Updates to the monitoring approach

With the expertise from the University of Göttingen in Germany and the US Forest Service, facilitated by the Silva Carbon Program, the methodological approach of the National Forest Inventory was revised to improve its robustness and statistical soundness. The 4th NFI was launched in October 2024. It is funded by the WB, the GIZ and the JICA, technically supported by the Kokusai Kogyo Company and implemented by the DOF in collaboration with PAFO, DAFO and local communities.

The Lao ER Program proposed to leverage the implementation of the 4th NFI[15] for improving the monitoring approach. The second MMR uses the same Emission Factors as the RL and the 1st MMR derived from the 3rd NFI and the 2nd Regenerating Vegetation Survey. The 4th NFI contributes to the two points indicated below and not to the Emission Factors themselves.

- The 4th NFI combines a visual interpretation of plots throughout the country and field visit of a sub-sample. This allowed conducting the **sample-based estimation** for the Activity Data with increased sampling density.
- The 4th NFI also included collection of stump data necessary for the estimation of **emissions from logging**.

Further details are as described below.

Sample-Based Estimation
One of the main improvements is the use of a new sampling design.

The sampling design of the 3rd NFI uses a double-stage random approach: the first stage is a random selection of cells among a three kilometers grid, and the second stage distributes randomly a plot located in forested area within the cell. This design brings complication to the statistical estimators. The 4th NFI now uses a systematic sampling, including the key features as below:

- The sampling design follows a two-phase design called Double Sampling for Post-Stratification (DSPS) (Westfall et al. 2019)[16];

- Phase I uses a systematic grid of 6 by 6 kilometers. This is a visual interpretation of all the plots throughout the country covering all land and forest cover classes. For the 4th NFI, the total number of plots is 6,409 plots. The visual interpretation uses the CEO and identifies the current land and forest cover class, historical changes, drivers of land use and forest cover changes; (the results of the interpretation for the 2nd MMR)

- Phase II is a field visit of the sub-sample of plots selected from a coarser grid of 18 by 12 kilometers, establishing PSPs in current forest and potential forest areas. For th 4th NFI, 540 plots were selected for a field visit.

Lao PDR uses the interpretation of the 4th NFI plots for the sample-based estimation of the AD map for the 2nd MMR. As shown in the Figure 2 below, the 1st MMR used a stratified random sampling approach with a total of 1,105 plots, while for the 2nd MMR, there are 2,259 plots on the Phase 1 (6 X 6 kilometers) grid within the ER Program area. The increased number of plots should reduce the uncertainty of the area estimates. As mentioned in the section 3.2, 41 additional plots were randomly distributed to ensure a minimum of 30 for each type of forest cover change.

[15] The 4th NFI was conducted through the dry season 2024-2025. The implementation and technical support were co-financed by the World Bank, GiZ and JICA. SilvaCarbon Program and FAO also provided technical advices to the NFI design and data analysis.
[16] https://www.fs.usda.gov/nrs/pubs/jrnl/2019/nrs_2019_westfall_001.pdf

The approach for the CEO interpretation, such as the interpretation keys and satellite information used, is technically consistent with the 1st MMR.

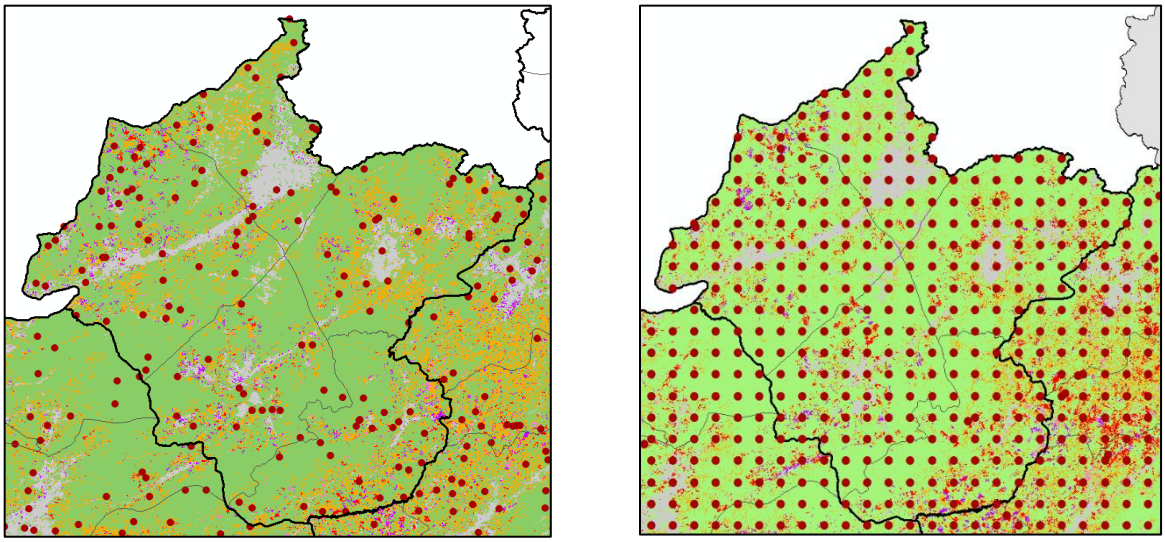

Figure 2: Left: Stratified Random Sample for the 1st MMR, right: Systematic Sample (4th NFI) and random distribution (including 41 additional plots) for the 2nd MMR

Emissions from logging

As part of the Measurements made for the ERP in Lao PDR, emissions from logging are estimated with a proxy-based approach triggering a 15% conservativeness factor, that uses stump diameter measured in the field.

For the Reference Level, stumps measurements came from the 2nd NFI [17] that was conducted in 2016/2017. The 3rd NFI [18]conducted in 2019 applied the same design with some minor modifications in survey protocols where the full details are documented in the Standard Operating Procedures [19]. For the 1st MMR, as no NFI was planned for this period, a specific "Stump Survey" was conducted in February 2022, using the exact same design as the 3rd NFI.

For the 2nd MMR, the emissions from logging are estimated using the stumps measurement made during the 4th NFI. As indicated above in Section 2.2, the field sample plots for the 4th are distributed systematically, and the plot design has also been improved. For the purpose of ensuring the robustness of the statistical estimator, the improved design does not allow randomness in subplot locations, instead adhering to a systematic design. The pilot study conducted in March 2024 to test the plot design, agreed on using L-shape plot design with four subplots and revised circular nest sizes.

[17] https://drive.google.com/file/d/1IgpOgKxNZju8yh5sW_mbKHcaclub73Qo/view?usp=drive_link
[18] https://drive.google.com/file/d/19cneF6ChY_4szR1cC96mrJzji3UJskZB/view?usp=drive_link
[19] https://drive.google.com/file/d/1RA3JUlilc2Wx5D8f3BeRSbZ-pCv38Z8_/view?usp=drive_link

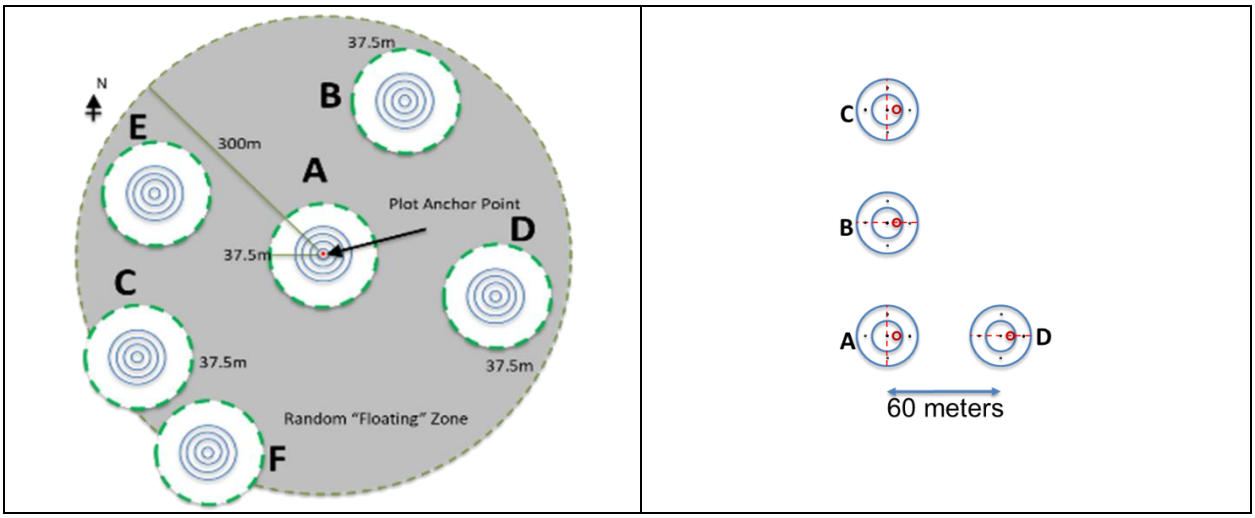

Figure 3: Left: 3rd NFI plot design, Right: 4th NFI new plot design

However, the procedure to measure stumps has not changed.

For the 1st MMR stump survey, a total of 120 plots were distributed within Natural Forest classes areas according to the Forest Type Map 2019 and 114 plots were suitable for the emissions estimation. For the 4th NFI, 218 plots were distributed within the ER Program area, with 131 plots being into Natural Forest classes according to the Forest Type Map 2022. 90 plots were used in the logging emissions estimates for the 2nd MMR.

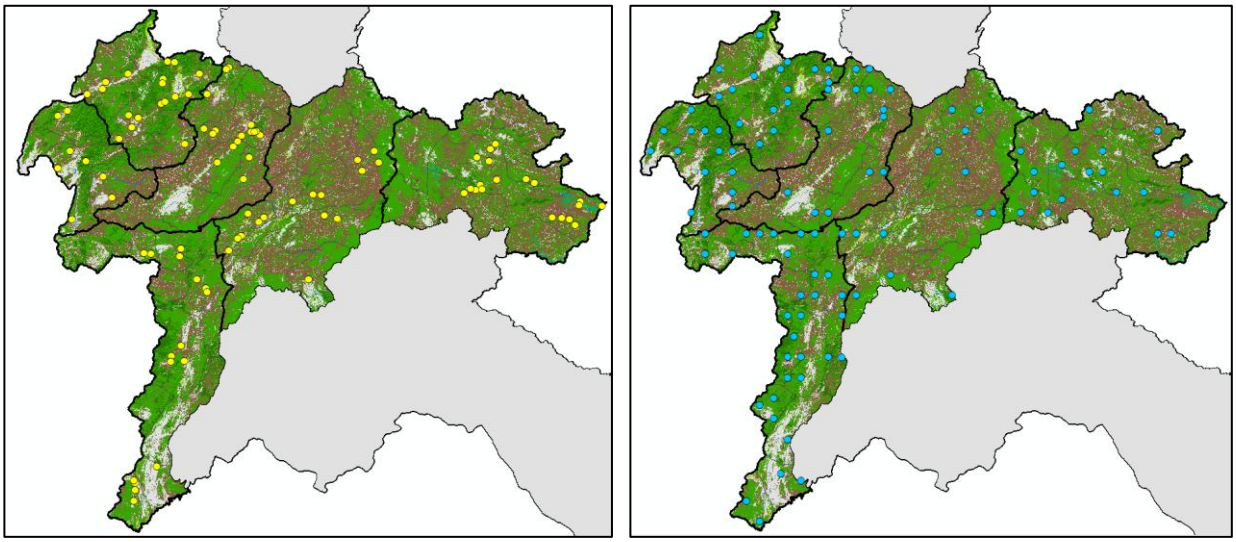

Figure 4: Distribution of the field survey plots - Left: Stump survey 2023, Right: 4th NFI 2025

2.3 Measurement, monitoring and reporting approach

2.3.1 Line Diagram

The diagram shown as Figure 5, outlines the steps followed to establish the Reference Level and estimate the Emission Reduction during the monitoring period. It consists of five main steps that are described below.

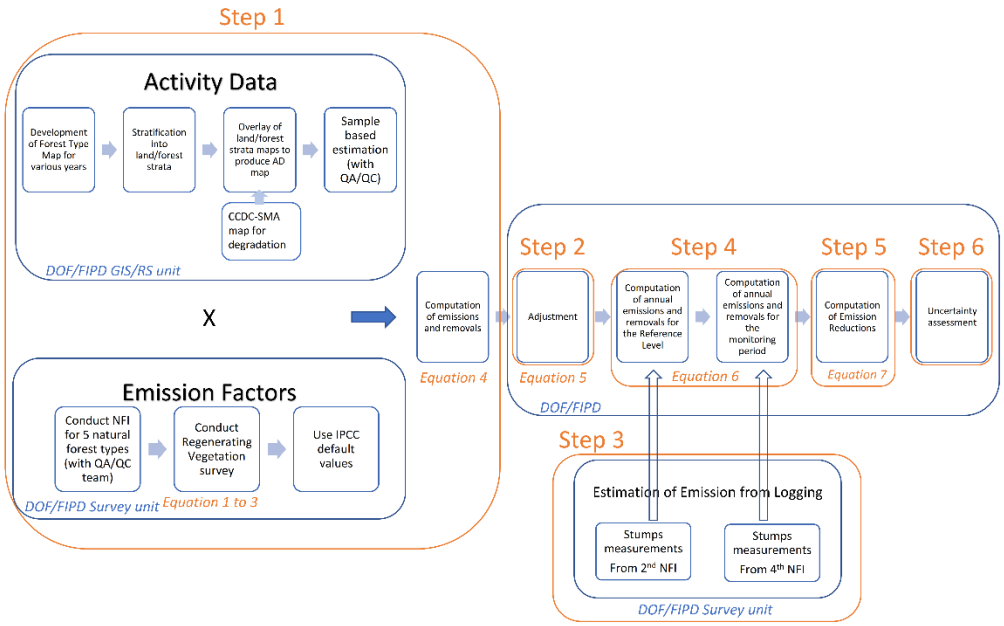

Figure 5: Line Diagram that outlines the overall approach for the MMR

【Step 1】

The first step is the estimation of the average annual historical emissions and removals based on the changes among REDD+ strata over the reference period (2005-2015) to establish the Reference Level, and the monitoring period (2022-2024) for assessing Emissions Reduction. This calculation uses the AD that are estimated through a sample-based approach on the REDD+ strata change maps. The emissions and removals are estimated separately for each source (emissions from deforestation and degradation) and sink (removals from restoration and reforestation).

Forest Type Maps are produced for years 2005, 2010, 2015, 2019, 2022 and 2025 following the level 2 of the Lao classification system as shown in the table below. Maps are then stratified according to the REDD+ strata, and overlaid.

Table 9: Land and forest stratification

IPCC Definition	Level 1	Level 2	REDD+ Strata
Forest Land	Current Forest	Evergreen Forest (EG)	**1**
		Mixed Deciduous Forest (MD)	**2**
		Coniferous Forest (CF)	
		Mixed Coniferous/Broadleaved Forest (MCB)	
		Dry Dipterocarp (DD)	**3**
		Forest Plantation (P)	**4**
	Potential Forest	Bamboo (B)	
		Regenerating Vegetation (RV)	
Grassland	Other Vegetated Areas	Savannah (SA)	**5**
		Scrub (SR)	
		Grassland (G)	

Cropland	Cropland	Upland Agriculture (UC)	
		Rice Paddy (RP)	
		Other Agriculture (OA)	
		Agriculture Plantation (AP)	
Settlement	Settlements	Urban (U)	
Other Land	Other Land	Barren Land (BR)	
		Other (O)	
Wetland	Wetlands	Water (W)	
		Swamp/Wetland (SW)	

To enhance the estimation of emissions from degradation, a Continuous Change Detection and Classification - Spectral Mixture Analysis (CCDC-SMA)[20] map has been developed by the Boston University to specifically detect forest degradation and used to supplement the AD map obtained from the Forest Type Maps. This procedure was applied as a Technical Correction to the Reference Level and integrated in the MMR.

Emissions and Removal (E/R) factors are developed based on national surveys and IPCC default values for each type of land/forest cover change, stratified into five REDD+ strata, and by taking the difference in carbon stock of each REDD+ stratum. For both the Reference Level and the Monitoring Period, the same E/R factors are used by using the outputs of the 3rd NFI which have lower uncertainty. This change constitutes one of the Technical Corrections proposed.

The implementation of the NFI follows a SOP [21]to ensure the quality and accuracy of the measurements conducted at the plot location. Another SOP [22]guides the production of the Forest Type Maps. For instance, the visual interpretation of the change is conducted with a three-step approach, wherein a first technician makes the initial interpretation that is reviewed by another technician and finally validated by a senior interpreter. The Sample-based assessment for computing the AD area estimates follows guidelines specified in a manual: it has a QA/QC approach that also uses three rounds of interpretation.

【Step 2】

As step 2, the value calculated by the adjustment below from average annual historical emissions and removals is subtracted from the value estimated in step 1. Two adjustments were made with an aim to make the Step 2 estimation as accurate as possible:

i) Adjustment of removals (regrowth rate and reversals)

Table 10. Adjustments for removals

Sinks	From	To	Adjustment of removals
Restoration	Stratum 4 (RV)	Stratum 1, 2 and 3	In forest ecosystems, forest biomass increases slowly over time to reach their full biomass (IPCC 2006)[23]

[20] Continuous Change Detection and Classification - Spectral Mixture Analysis (CCDC-SMA) algorithm. Chen, S., Woodcock, CE., Bullock E., Arevalo, P., Torchinava, P., Peng, S. and Olofsson P. (2021).

[21] Standard Operating Procedures (SOP) for the Terrestrial Carbon Measurement as listed in Table 8.

[22] Standard Operation Procedures (SOP) for Forest Type Map development as listed in Table 8.

[23] IPCC (2006, Volume 4, Chapter 4.3: Land Converted to Forest Land) suggests default period of 20 years time interval for forest ecosystem to be established.

			In principle, 40-years[24] is assumed as the transition period from non-forest to Current Forest (i.e. Stratum 1, 2 and 3). From there, deduct 5 years as period for RV to reach its average biomass stock (See RV Survey Report), to arrive at 35 years for the transition period for biomass of Stratum 4 to reach Stratum 1, 2 and 3.
	Stratum 2 (MD, CF and MCB) Stratum 3 (DD)	Stratum with higher biomass	In principle, 20 years[25] is assumed as a transition period for forest with lower biomass to reach forest with higher biomass.
Reforestation	Stratum 5 (non-forest)	Stratum 4 (predominantly, RV)	In principle, the full removal factor is applied at the time change is observed, as RV reaches its average biomass stock after 5 years (See RV Survey Report)[26]. Adjustment based on 40-years default applied to the years following.
	Stratum 5 (non-forest)	Stratum 1, 2 or 3	No such change observed.

a. By considering the types of changes and rate of tree growth. This adjustment recognizes that in forest ecosystems, forest biomass increases slowly over time to reach their full biomass (IPCC 2006).

b. Reversals during the reference period (2005-2015) were identified through a time-series analysis of polygons, to avoid double-counting. Due to the estimation method of generating AD for two independent periods (i.e. 2005-2010 and 2010-2015), there is a chance that the emissions from reversal events that have occurred during the reference period are unreported (in other words, removals are over-estimated). Therefore, tracking is done of all the change patterns that are regarded as reversals (e.g., stratum 4 in 2005, changed to stratum 2 in 2010 and reverted to stratum 4 in 2015). The results were deducted as over-estimated removals.

ii) Adjustment of emissions (from deforestation and degradation)

The resulting estimation (above) presents the risk of overestimation of emissions from deforestation and degradation. The E/R factors are stratum-specific and do not reflect the actual accumulated biomass, which may be lower than the calculations. For example, a MD forest that is in its early regrowth stage (e.g., 10th year) should have lower biomass than the average biomass of entire MD class including all its age ranges. If, for example, a land parcel shifted from stratum 4, to stratum 3, and then back to stratum 4, the indication would be that the stratum 3 forests before the disturbance event would have reached at their maximum growth at about 10-11 years. Such change patterns are tracked through the time-series-analysis of forest maps. The resulting over-estimation of emissions from deforestation and forest degradation are estimated and deducted, respectively. The same rationale was applied for the monitoring period, but considering the period 2019-2021 and 2022-2024

【Step 3】

[24]The assumption is based on reference to the ERPD of neighboring Vietnam, which assumes 40 years for a non-forest to reach "Evergreen broadleaf forest – Medium". The Lao experts agreed on this assumption, as rather conservative. The actual mapping cycle of 6 years and 4 years are also reflected in the actual calculation of the Reference Level in the ERPD as well as the 3 years for the monitoring period.

[25]Again, following the case of Vietnam where 20 years is assumed as a period for forest with lower biomass shift to forest with higher biomass. However, such changes are actually rare: 71 ha for 2005-2010 and nil for 2010-2015. The actual mapping cycle of 6 years and 4 years are also reflected in the actual calculation for the Reference Level.

[26]The actual mapping cycle of 6 years and 4 years are also reflected in the actual calculation.

In Lao PDR, selective logging is considered as a major driver of forest degradation.
To improve the overall estimates of forest degradation, in addition to the approach described in Step 1, this Step 3 estimates the emissions from selective logging, both legal and illegal. These emissions from selective logging are estimated with a proxy-based approach that utilizes the stumps measurements collected in the field.
The Reference Level calculations use the stump measurements from the 2nd NFI and the second Monitoring Period uses data from the 4th NFI conducted in 2025. The biomass of the felled trees is estimated from the measured size of each tree stump and corresponding allometric equations, aggregated for each of the five forest classes (i.e., EG, MD, DD, CF, MCB) to estimate the average loss of carbon stock, and converted to tCO2e. Then, the results are multiplied with the area of each forest class calculated from the Forest Type Map 2015 and 2025 respectively for the Reference Level and the second Monitoring Period, to estimate the assumed emissions from such logging events.

【Step 4】
In this step, the estimation of emissions and removals are finalized with the addition of the emissions from logging (Step 3), and the annual average is calculated for the Reference Level and the monitoring period, using their duration in years.

【Step 5】
The ERs are calculated by subtracting the annual emissions and removals of the monitoring period from the Reference Level.

【Step 6】
As final step, the uncertainty assessment using a Monte Carlo approach is conducted.

2.3.2 Calculation

In this section, the various steps for the carbon accounting as outlined in Figure 5 are described with more focus on the equations used for the calculation. Note that all data, formula, and calculations are explicitly documented in a reproducible manner in several spreadsheets submitted as part of the Laos 2nd ER Monitoring Report. The examples below are only a subset of the calculations for illustrative purposes, refer to the respective spreadsheets for documentation of the complete set of calculations.

【Step 1】
Step 1 starts with the computation of the E/R factors. This steps was conducted for the 1st MMR and thus was not necessary to be done again for the 2nd MMR as the same E/R factors were used.
Equation 1 (from 1a to 1e) outlines how the carbon stock of a forest type is calculated using the field measurements conducted during the NFI. These calculations can be followed in the spreadsheet "NFI3 Cstock Calculation.xlsx" where Equation 1a is used in the tab "Trees". Equations 1b and 1c are used in the tab "Tree-plots". Equation 1d is used in the tab "Plots", and finally Equation 1e is used for carbon stock computation for the national level in the tab "National"

As indicated in the previous section, the E/R factors are based on the carbon stock of the various forest and land classes outlined in the Table 9. Carbon stocks for the five current natural forest classes are calculated using the field measurement data collected through the NFI. The carbon stock of the Regenerating Vegetation class comes from the field measurements collected during the Regenerating Vegetation survey. For the other classes, IPCC default values are used. For a specific forest type, the AGB is estimated from the specific forest type allometric equation using the tree measurements at the sub-plot level. Then the BGB is calculated using root-to-shoot ratio. The carbon stock at the sub-plot level being the estimated biomass AGB + BGB multiplied by the carbon fraction. The carbon-stock for a plot is the average of the carbon stock estimated in each sub-plot. Carbon stock for a forest type is the average of the carbon stock estimated in all plots of this forest type.

Equation 1a: AGB for a sub-plot

$$AGB_i = \sum_{j=1}^{n_i} \frac{AGB_{ij}}{A_{nest}}$$

Where:
AGB_i= Above Ground Biomass for the sub-plot i. (expressed in kg/ha) which is the sum of the biomass of all measured trees in the sub-plot, divided by the area of the sub-plot.
n_i = The number of measured trees (live and standing dead trees) in the sub-plot.
AGB_{ij}= The biomass of a tree, estimated with an allometric equation (in kg).
A_{nest}= The area of the nested sub-plot where the tree was measured (in ha)

Equation 1b: BGB for a sub-plot

$$BGB_i = AGB_i x\ RS$$

Where:
BGB_i= Below Ground Biomass for the sub-plot i. (expressed in kg/ha)
AGB_i= Above Ground Biomass for the sub-plot i. (expressed in kg/ha)
RS= Root to shoot ratio (2003 2006 IPCC default values) from Table 11 below.

The BGB is calculated at the sub-plot level using the root-shoot ratio that corresponds to the AGB threshold of the calculated sub-plot AGB and the forest type defined for the plot.

Table 11. RS ratio by forest types and AGB threshold [27]

Forest type (Level 2)	AGB threshold	Root-to-Shoot ratio (R/S ratios)	Source	Description
EG, DD, MD, and MCB	AGB < 125t/ha	0.20	IPCC GL 2006 for National Greenhouse Gas Inventories (Chapter 4: Forest land, Table 4.4)	These forest types are considered being in the Tropical domain and part of the Tropical moist deciduous forest ecological zone
	AGB > 125t/ha	0.24		
CF	AGB < 50t/ha	0.46	2003 IPCC Good Practice Guidance for LULUCF (Chapter 3: LULUCF Sector Good Practice Guidance, Table 3 A.1.8)	The values are for the Vegetation Type Coniferous forest and plantation in the table
	AGB = 50 - 150t/ha	0.32		
	AGB > 150t/ha	R/S = 0.23		
Plantation	AGB<50t/ha	0.46	2003 GPG(Anx_3A_1_Data_Tables3A.1.8)	The values are for the Vegetation Type Coniferous forest and plantation in the table
	AGB=50-150t/ha	0.32		
	AGB>150t/ha	0.23		
Bamboo		0.82	Junpei Toriyama http://www.ipcc-nggip.iges.or.jp/EFDB/main.php	Search by ID: 520906
RV	AGB<20t/ha	0.56	IPCC GL 2006 (V4_04_Ch4_Table4.4)	This forest type is considered being in the Tropical domain and part of the Tropical dry forest ecological zone
	AGB>20t/ha	0.28	IPCC GL 2006 (V4_04_Ch4_Table4.4)	

[27] LaoPDR_Modified REL (UNFCCC) Annex2 EF report, <https://redd.unfccc.int/files/2018_frel_submission_laopdr.pdf>

The RS ratio outlined in the table above were used in combination with the measurements made during the 3rd NFI for the five natural forest types, the measurements made during the 2nd RV survey for the RV, and IPCC default values for Bamboo and plantations.

Equation 1c: Total carbon stock for a sub-plot

$$C_i = (AGB_i + BGB_i)\ x\ CF$$

Where:
C_i= Carbon stock for the sub-plot i. (expressed in tC/ha) which is the sum of the biomass of all measured trees in the sub-plot.
AGB_i= Above Ground Biomass for the sub-plot i. (expressed in kg/ha)
BGB_i= Below Ground Biomass for the sub-plot i. (expressed in kg/ha) calculated with Equation 1b.
CF = Carbon Fraction, IPCC default value 0.47 (2006 IPCC GL Volume4, Chapter 4- Table 4.3 for the forest types in Laos).

Equation 1d: Total carbon stock for a plot

$$C_p = \frac{1}{n_{sp}} \sum_{i=1}^{n_{sp}} C_{isp}$$

Where:
C_p= Carbon stock for the plot p. (expressed in tC/ha)
n_{sp} = The number of surveyed sub-plots for the plot p.
C_{isp} = Carbon stock for the sub-plot i.

Equation 1e: Total carbon stock for a forest type

$$C_f = \frac{1}{n_p} \sum_{i=1}^{n_p} C_{ip}$$

Where:
C_f= Carbon stock for the forest type f. (expressed in tC/ha)
n_p = The number of surveyed plots for the forest type f.
C_{ip} = Carbon stock for the plot i.

Following the computation of the carbon stock with Equation 1, Equation 2 computes the carbon stocks for the five REDD+ stratum. This calculation is presented in the spreadsheet "MMR2_AD_ERs_20250624.xlsx" and the tab "EF". For the carbon accounting, the Forest Type Maps are stratified into five REDD+ strata according to the amount of carbon stock for the various classes (see Table 9 above). The data comes from the NFI, the Regenerating Vegetation survey, or various IPCC default values. The carbon stock of each REDD+ stratum is calculated as follows:

Equation 2: Develop stratified carbon stocks for each of the five REDD+ stratum

Cstratum (tC/ha) = ($C1*A1$+$C2*A2$+....+Cn*An)/($A1$+$A2$+....+An)
Where:
Cstratum = average carbon stock (tC/ha) of the REDD+ stratum calculated from biomass and area of land/forest class;
Cn = carbon stock of land/forest class n (tC/ha);
An = area (ha) of land/forest class n.

For instance, for calculating the Cstratum of the strata 2 that combines three forest types, namely MD, CF and MCB, the carbon stock of each of these land/forest classes from the 3rd NFI as well as their respective areas in the Forest Type Map 2019 are used. These areas which are found in the tab "EF", column N, are copied from the NFMS web-

portal (https://nfms.dof.maf.gov.la). The web-portal enables any user to get information and download for instance a table with the areas of the land/forest covers type for any year covered by the Forest Type Maps, as shown in the Figure 6 below.

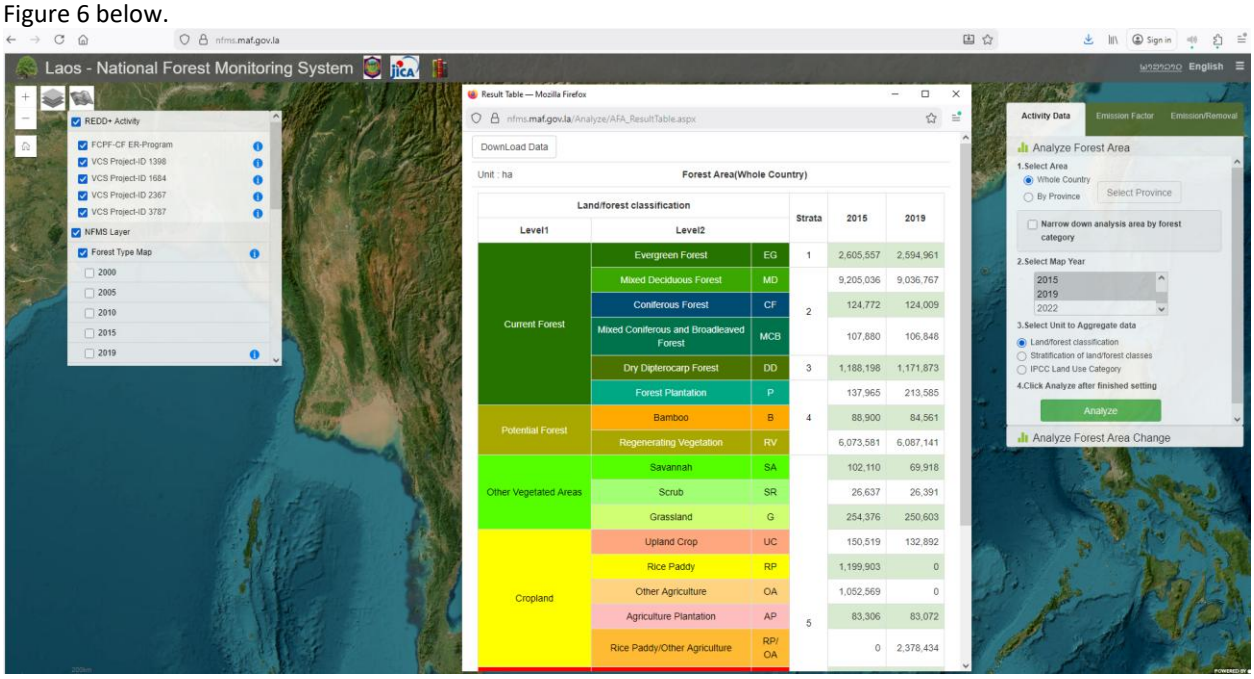

Figure 6. Getting information from the NFMS web-portal

Then the Emissions/Removals factors for different combinations of land cover change are calculated using the equation 3 as shown below. This calculation is presented in the spreadsheet "MMR2_AD_ERs_20250624.xlsx" and the tab "EF". The results of this calculation are also presented in Section 3.1.

Equation 3. Calculation of E/R factors for changes among REDD+ strata

EFij $or\ RFij$ (tCO2e/ha) = $\left(Cstrata_i - Cstrata_j\right) \times \frac{44}{12}$

Where:

EFij or RFij: Emission Factor EF or Removal Factor when the change incurred from REDD+ stratum i to REDD+ stratum j;

$Cstrata_i$ and $Cstrata_j$ are carbon stocks per ha of REDD+ stratum i and j corresponding to the changes;

If $Cstrata_i > Cstrata_j$, such change is considered emissions (change from a higher C/ha stratum to a lower C/ha stratum);

If $Cstrata_i < Cstrata_j$, such change is considered removal (change from a lower C/ha stratum to a higher C/ha stratum);

44/12 is the constant of CO2 mass to C mass for converting tC to tCO2e.

By using Equations 1, 2 and3, the E/R factors are calculated.

For the Activity Data, the area estimates and their related uncertainties are calculated from the error matrices following the sample-based estimation with the visual interpretation of plots. The calculation of the adjusted areas is presented in the spreadsheet "MMR2_AD_ERs_20250624.xlsx" and the tab "AD_Uncertainty".

As displayed in the Figure 5, the result of Step 1 is the calculation of emissions and removals from the AD multiplied by the E/R factors.

Lao PDR applies an approach principally following the gain-loss method in calculating the average annual historical emissions and removals over the reference period, using AD generated from stratified sample-based assessment of satellite data and E/R factors derived from periodic national forest inventories.

Equation 4a is for the emissions and Equation 4b is for the removals respectively, are used in the spreadsheet "MMR2_AD_ERs_20250624.xlsx" and the tab "Total", where:.
In the tab "Total", Activity Data are displayed from row 1 to 54;
In the Tab "Total", E/R Factors are displayed from row 56 to 82; and
The calculation of AD x EF (equations 4a and 4b) are in cells E85:J115 displayed as matrices and aggregated by activities in the table M85:N98 for the Reference Period.

Equation 4a: Calculation of the emissions (over a time period)

$$Emissions = \sum_{j,i} EF_{ij} x\ A(j,i)_{RP}$$

Where:
Emissions = Emissions (tCO2e) from area changing from stratum I to stratum j over a time period.
$A(j,i)_{RP}$ = Area converted/transited from REDD+ stratum j to another REDD+ stratum i during the time period (ha).
EF_{ij} = Emission Factor when the change incurred from REDD+ stratum i to REDD+ stratum j (tCO2e/ha).

Equation 4b: Calculation of the removals (over a time period)

$$Removals = \sum_{j,i} RF_{ij} x\ A(j,i)_{RP}$$

Where:
Removals = Removals (tCO2e) from area changing from stratum I to stratum j over a time period.
$A(j,i)_{RP}$ = Area converted/transited from REDD+ stratum j to another REDD+ stratum i during the period (ha).
RF_{ij} : Removal Factor when the change incurred from REDD+ stratum i to REDD+ stratum j (tCO2e/ha).

For the Monitoring Period, the same equations 4a and 4b are used, considering the area converted during the Monitoring Period $A(j,i)_{MMR}$

【Step 2】
Once emissions and removals are calculated, adjustments are made as described in section 2.2.1, as step 2

- Removals are adjusted to account for the fact that forest recovery (change from lower biomass class to higher biomass class) does not happen instantly; per IPCC guidelines, this happens over a period of time, often set at 20 years. A similar adjustment is made to account for reversals (change from higher biomass class to lower biomass class) observed to occur on previously disturbed lands that had not yet achieved full recovery.
- Emissions are adjusted to account for the disturbances of land that had previously been disturbed and had recovered but had not yet achieved full recovery. A similar adjustment is made for potential double-counting of emissions for disturbed areas that are captured in the stump survey.

Adjustments are made for both Reference Level and the Monitoring Period.

Equation 5a: Adjustment on removals

$$Removals_{adj} = Removals\ x\ RegrowthRate - Reversal$$

Where:
$Removals_{adj}$= Adjusted removals in tCO2e.
$RegrowthRate$ = This adjustment takes into account the low regrowth of forest (40 years from non-forest to forest, more specifically 35 years from strata 4 to strata 1,2 or 3, and 20 years from a lower biomass to a higher biomass forest, namely from strata 2 or 3 to higher biomass strata) and the duration in year of the time period.

$Reversal$ = Amount of overestimated removals calculated from the historical Forest Type Maps where restoration had occurred during the previous time period but saw a reversal event in the latest time period.

Equation 5b: Adjustment on emissions

$$Emissions_{adj} = Emissions - Overestimataed\ emission - Doublecounting(stumps)$$

Where:

$Emissions_{adj}$= Adjusted emissions in tCO2e.

$Overestimated\ emission$ = Amount of overestimated emissions calculated from the historical Forest Type Maps where strata-specific averages (Emission/Removal factors) do not account for the lower biomass of younger, regenerating forests when restoration event had occurred during the previous time period before a disturbance in the latest time period.

$Doublecounting(stumps)$ = Degradation due to a downward shift within the three REDD+ strata (Stratum 1, 2 and 3), which may include the logging emissions. This amount is deducted to avoid potential double-counting with the logging emissions, as accounted using Equation 6a below.

The calculation of the adjusted emissions and removals is presented in the spreadsheet "MMR2_AD_ERs_20250624.xlsx" and the tab "Total".

The $Reversal$ component is calculated in tab "TSA_Remove" and tab "TSA_Emission" for the adjustment of removals and emissions respectively for the RL. In the same spreadsheet, tab "TSA_Remove MMR" and tab "TSA_Emission MMR" calculate them for the monitoring period. As explained above, the historical Forest Type Maps are used for this calculation to conduct time-series analysis which is outlined in Section 3.1 and 3.2.

【Step 3】

Once the emissions from land and forest cover change are adjusted, the emissions from logging calculated from the stump measurements are added.

The calculation of the emissions from logging is presented in the specific spreadsheet "Emissions from logging NFI4 ERPA_20250624.xlsx".

The calculation using Equation 6 below is presented in spreadsheet "MMR2_AD_ERs_20250624.xlsx" and the tab "Summary".

Equation 6a: Calculation of the overall emissions with the addition of the emissions from logging, for the Reference Level and for the Monitoring Period.

$$Emissions_{all} = Emissions_{adj} + Emissions_{logging}$$

Where:

$Emissions_{all}$= Overall emissions in tCO2e.

$Emissions_{adj}$= Adjusted emissions in tCO2e.

$Emissions_{logging}$= Emissions from logging in tCO2e.

【Step 4】

To calculate the Reference Level as well as the annual average of emissions and removals during the Monitoring Period, the sum of respective emissions and removals are divided by the number of years of the considered period.

Equation 6b: Calculation of the Reference Level

$$RL_t = \frac{1}{t}(Emissions_{all} + Removals_{adj})$$

Where:

RL_t = Net emissions/year of the RL over the Reference Period; tCO2e/year.

$Emissions_{all}$= All adjusted emissions in tCO2e, including the logging emissions.

$Removals_{adj}$= Adjusted removals in tCO2e.

t = number of years of the Reference Period.

Equation 6c: Calculation of the net emission over the Monitoring Period

$$GHG_t = \frac{1}{t}(Emissions_{all} + Removals_{adj})$$

Where:
GHG_t = Monitored net emissions at year t; tCO2e/year
$Emissions_{all}$= All adjusted emissions in tCO2e, including the logging emissions.
$Removals_{adj}$= Adjusted removals in tCO2e.
t = Number of years of the Monitoring Period

For the Monitoring Period, emissions and removals would be calculated with the equations 4a and 4b, but using
$A(j,i)_{MP}$ = Area converted/transited from REDD+ stratum j to another REDD+ stratum i during the monitoring period (ha).

【Step 5】
Finally, the ERs will be calculated as Equation 7 below:

Equation 7: Calculation of the Emission Reductions (ERs)

$$ER_{RP} = RL_{RP} - GHG_{RP}$$

Where:

ER_{RP}	=	*Emission Reductions under the ER Program during the Reporting Period; tCO_2e;*
RL_{RP}	=	*Expected net emissions of the RL over the Reporting Period; tCO_2e;*
GHG_{RP}	=	*Monitored net emissions over the Reporting Period; tCO_2e;*

Steps 4 and 5 are presented in the spreadsheet "MMR2_AD_ERs_20250624.xlsx" and the tab "Summary".

3 DATA AND PARAMETERS

3.1 Fixed Data and Parameters

Parameter:	EF_{ij} and RF_{ij} – Emission and Removal factor
Description:	Emission (and removal) factor are calculated using field measurements from the 3rd NFI for the five forest classes and from the 2nd RV survey for the Regenerating Vegetation class. For the other forest/land classes, IPCC default values are used. E/R factors are based on the aggregated carbon stock for the REDD+ Strata. Emission/Removal factor are calculated with equation 3 with the result (Carbon stock) from equation 1 and 2 and in the spreadsheet '"MMR2_AD_ERs_20250624.xlsx", the calculation is implemented in tab "EF".
Data unit:	tCO2e/ha
Source of data or description of the method for developing the data including the	Carbon stocks for each forest/land classes of the level 2 of the Lao classification are collected through various sources, as described below: **Natural forest** • Measurements of carbon stock of the five natural forest classes (Evergreen Forest (EG), Mixed Deciduous Forest (MD), Coniferous Forest (CF), Mixed Coniferous and Broadleaved Forest (MCB), and Dry Dipterocarp Forest (DD). • Measurements from the 3rd NFI conducted in 2019 are used to estimate the AGB. A total of 415 survey plots were distributed for these five forest classes through random-sampling.

spatial level of the data (local, regional, national, international):	• Country-specific allometric equations [28]were developed and applied for the three major Level 2 forest classes (i.e. EG, MD and DD). For the other two forest classes (CF and MCB) the allometric equations developed in Vietnam [29]were used without applying correction factors.

Evergreen Forest (EG)	$0.3112*DBH^{2.2331}$
Dry Deciduous Forest (DD)	$0.2137*DBH^{2.2575}$
Mixed Deciduous Forest (MDF)	$0.523081*DBH^{2}$
Coniferous Forest (CF)	$0.1277*DBH^{2.3944}$
Mixed Coniferous and Broadleaf Forest (MCB)	$0.1277*DBH^{2.3944}$

Regenerating Vegetation (RV)

The carbon stock is calculated from the 2nd RV survey conducted in 2019. As the RV occurs most prominently in Northern Lao PDR (including the ER Program area), survey sites were distributed in three provinces in the Northern region (Luang Namtha, Oudomxay and Houaphan). Other survey sites were located in one province in the Central region and three provinces in the Southern region. A total of 189 survey plots (63 survey clusters with three survey plots each) were distributed and the measurement of DBH for trees and biomass weight measurement for the understories were conducted.

Bamboo (B)

The value is derived from the average carbon stock values of the Northern Central Coast region of Vietnam for the cycles II to IV (2000, 2005, and 2010). (Vietnam modified REL report, submitted to UNFCCC 2016, P66 Table3.6)

In Table 3.6 copied below from the Vietnam modified REL report, Bamboo is the Forest type code 6.

[28] Morikawa Y., Daisuke Y., Therese T., and Walker S., *Development of country-specific allometric equations in Lao PDR*, 2017 .

[29] Hung, N.D., Bay, N.V., Binh, N.D. and Tung, N.C. (2012). Tree allometric equations in Evergreen broadleaf, Deciduous, and Bamboo forests in the South East region, Vietnam. In (Eds) Inoguchi, A., Henry, M., Birigazzi, L., Sola, G. Tree allometric equation development for estimation of forest above-ground biomass in Viet Nam, UN-REDD Programme, Hanoi, Viet Nam.

Table 3.6: NCC average carbon stock (tC/ha) per forest type

Forest type code	Cycle I		Cycle II		Cycle III		Cycle IV		Remark
	PSP (SSP)	Carbon stock	PSP (SSP)	Carbon stock	PSP (SSP)	Carbon stock	PSP (SSP)	Carbon stock	
1	116 (1813)	169 ± 10%	220 (3654)	175 ± 7%	163 (2820)	162 ± 13%	78 (1225)	141 ± 9%	
2	139 (1463)	70 ± 2%	268 (3305)	70 ± 2%	260 (3447)	73 ± 2%	172 (2398)	70 ± 3%	
3	144 (1335)	32 ± 5%	265 (3018)	31 ± 4%	248 (2925)	33 ± 4%	185 (2481)	31 ± 4%	
4	62 (491)	29 ± 17%	120 (1233)	24 ± 16%	176 (1810)	21 ± 10%	155 (1663)	19 ± 18%	
5	174 (4887)	40 ± 14%	321 (8822)	43 ± 5%	264 (7600)	32 ± 5%	165 (4401)	31 ± 8%	National
6	110 (1320)	16 ± 23%	75 (1085)	13 ± 17%	215 (3418)	13 ± 11%	96 (1463)	15 ± 18%	
7	46 (523)	68 ± 22%	40 (482)	70 ± 23%	124 (1480)	42 ± 10%	91 (1131)	40 ± 11%	
8	31 (607)	87 ± 18%	73 (1707)	67 ± 13%	57 (1341)	83 ± 13%	36 (645)	95 ± 11%	National
9	29 (340)	85 ± 24%	49 (473)	73 ± 17%	25 (293)	84 ± 25%	19 (227)	67 ± 45%	National
10	NA	35	NA	35	NA	35	NA	35	VAFS
11	2 (27)	36 ± 76%	4 (6)	66 ± 22%	1 (4)	43	2 (11)	38 ± 287%	
12	6 (76)	22 ± 56%	6 (69)	28 ± 25%	24 (234)	20 ± 39%	42 (444)	22 ± 30%	

The calculation steps to obtain the value used for Lao PDR are as follow:

- Average the values for the cycle II, III and IV,
- Convert to AGB (using 0.47 for Carbon Fraction)
- Calculate the total biomass by using a Root to Shoot Ratio of 0.82 (as indicated in Table 11 in section 2.3.2
- Convert to carbon stock (using 0.46 for Carbon Fraction from table 4.3 IPCC Guidelines 2006 – value for wood, tree d<10cm in tropical and subtropical)

Plantations (P)

Carbon stocks were derived from default factors of the IPCC database.

(Good Practice Guidance for Land Use, Land-Use Change and Forestry, 2003 - Table 3A.1.3 Aboveground Biomass Stock in plantation forests by broad category – Asia (other species) moist with long dry season).

Other land classes

The value of carbon stocks of remaining land classes (non-forest classes) are mostly taken from IPCC GL 2006 and combined into a single area-weighted estimate for the non-forest class.

The detailed sources are listed below:

- Savannah, IPCC Emission Factor Database, ID=513130.
- Scrub, Table 4.7 from the IPCC 2006 Guideline V4. Tropical shrubland in Asia continental.
- Grassland, Table 3.4.2 from the GPG for LULUCF 2003. Peak AGB for Tropical, moist and wet climate zone.
- Upland Crop, Rice Paddy, Table 3.3.8 from the GPG for LULUCF 2003. Annual cropland.
- Other Agriculture, Table 3.3.8 from the GPG for LULUCF 2003. Perennial cropland in Tropical moist.
- Agriculture Plantation, IPCC Emission Factor Database, ID=511318

These E/R factors are calculated for the national level, though the use for the specific ER program area is valid as an analysis made after the 2nd NFI demonstrated that there was no tangible difference in carbon stock between the national results and t*hose of* the six provinces.

	The 3rd NFI was conducted only for the national level.
Value applied:	Carbon stock tC/ha

		tC/ha	REDD+ strata
Forest Land	Evergreen Forest (EG)	205.8	1
	Mixed Deciduous Forest (MD)	87.9	2
	Coniferous Forest (CF)	77.1	
	Mixed Coniferous/Broadleaved Forest (MCB)	87.6	
	Dry Dipterocarp (DD)	50.8	3
	Forest Plantation (P)	37.2	4
	Bamboo (B)	24.4	
	Regenerating Vegetation (RV)	10.4	
Grassland	Savannah (SA)	16.4	5
	Scrub (SR)	38.6	
	Grassland (G)	7.4	
Cropland	Upland Crop (UC)	5.0	
	Rice Paddy and Other Agriculture (RP/OA)	3.8	
	Agriculture Plantation (AP)	38.8	
Settlements/Otherland/Wetlands	Urban (U)	0.0	
	Bare Land (BR)	0.0	
	Other (O)	0.0	
	Water (W)	0.0	
	Swamp (SW)	0.0	

Using the REDD+ strata and the equation 2 and 3 (Section 2.3.2), the following E/R factors were computed.

EF(tCO2/ha)

	EG	MD/CF/MCB	DD	P/B/RV	NF
EG	0.0	-432.8	-568.3	-712.4	-737.4
MD/CF/MCB	432.8	0.0	-135.5	-279.6	-304.7
DD	568.3	135.5	0.0	-144.1	-169.2
P/B/RV	712.4	279.6	144.1	0.0	-25.0
NF	737.4	304.7	169.2	25.0	0.0

QA/QC procedures applied	A SOP for the NFI has been developed and was used in the 3rd NFI campaign. Improvements were made for the distribution of plots where four to nine sub-plots were distributed into a cluster plot to enable more possibilities for the field teams. Additional training was emphasized, especially for the QA/QC team. 15% of all plots were checked by the QA/QC team. The Standard Operation Procedures (SOP) for the Terrestrial Carbon Measurement is available with this link ;
Uncertainty associated with this parameter:	For the ERPD, the uncertainty analysis used the propagation error approach. The following sources of uncertainty were assessed: • Uncertainty of AGB originating from sampling error • Uncertainty of AGB originating from biomass equation • Uncertainty of Root-to-Shoot ratios due to the use of IPCC default values • Uncertainty of Carbon Fraction factor due to the use of IPCC default values • Uncertainty of AGB originating from measurement error By using the propagation error approach, the uncertainty for the E/R factors are as in the table below.

E/R factors (Uncertainty %)

	EG	MD/CF/MCB	DD	P/B/RV	NF
EG	0.0%	12.0%	13.3%	15.3%	15.7%
MD/CF/MCB	12.0%	0.0%	10.5%	12.5%	13.3%
DD	13.3%	10.5%	0.0%	13.2%	14.4%
P/B/RV	15.3%	12.5%	13.2%	0.0%	15.1%
NF	15.7%	13.3%	14.4%	15.1%	0.0%

For the purpose of the ER Monitoring Report, the uncertainty analysis uses a Monte Carlo approach with 10,000 iterations of random estimates of the same uncertainty sources.

For the Monte Carlo simulation, the calculation of the below ground biomass (BGB) component of the EF differs from section 2.2.2 as it uses the R:S ratio associated with the REDD+ strata. This is necessary in order to simulate the uncertainty of the R:S parameter. The spreadsheet used for the Monte Carlo simulation is derived from a template prepared by the World Bank that proposed a similar approach.

	Value	**Uncertainty (95%)**	**SE**
Carbon Fraction	0.470	2.7	0.00647
R:S for stratum 3 and 4	0.200	11.5	0.01173
R:S for stratum 1 and 2	0.240	20.3	0.02486
AGB (Strata 1) kg/ha	353.1	10.9	19.636
AGB (Strata 2) kg/ha	150.6	6	4.610
AGB (Strata 3) kg/ha	90.1	9	4.136
AGB (Strata 4) kg/ha	20.4	19.6	2.038

AGB (Strata 5) kg/ha	8.3	20	0.844

The uncertainty for the AGB is computed using the uncertainty from the sampling error and the biomass equation, as shown below:

Class	Uncertainty from 3rd NFI Sampling	Uncertainty from allometric equation
EG	10.2	3.9
MDF	4.8	3.8
CF	11.1	18.0
MCB	14.1	18.0
DD	8.2	3.6
P	-	18.0
B	15.7	0.3
RV	22.2	-

Any comment: n.a.

Parameter:	$A(j,i)_{RP}$ - Activity Data for the Reference Level (AD) 2005-2015 (10 years)
Description:	The area of REDD+ strata change over the two periods of the Reference Level (2005-2010 and 2010-2015) was provided by the overlay of the stratified Forest Type Maps and adjusted by a sample-based estimation. Twenty-five possible changes describe four activities: Deforestation, Forest Degradation, Forest Restoration and Reforestation. • Deforestation: loss of forest carbon stock due to conversion of a forest land stratum to non-forest land stratum. • Forest Degradation: downward shift of a forest stratum from a higher carbon stock stratum to another forest stratum with lower carbon stock. This shift will effectively include cases of transitional land use change events such as deforestation events not captured in the 5-year mapping interval (e.g. stages of rotational agriculture, from a recovered forest to a forest fallow, and/or a non-forest stage, or land conversion for forest plantations). Through the application of this method, fallow land from shifting cultivation sites are largely captured within the RV category and occur most prominently in MD and EG forests, accounting for the vast majority of the degradation events. • Forest Restoration: upward shift of a forest land stratum with lower carbon stock to another forest/land stratum with higher carbon stock. • Reforestation: gain of forest carbon stock due to conversion of non-forest land stratum to a forest land stratum

YearX	YearX+5 stratum 1	stratum 2	stratum 3	stratum 4	stratum 5
stratum 1	SF1	DG1	DG2	DG4	DF1
stratum 2	RS1	SF2	DG3	DG5	DF2
stratum 3	RS2	RS4	SF3	DG6	DF3
stratum 4	RS3	RS5	RS6	SF4	DF4
stratum 5	RF1	RF2	RF3	RF4	SNF

Deforestation (DF)
Degradation (DG)
Restoration (RS)
Reforestation (RF)
Stable Forest (SF)
Stable Non-Forest (SNF)

In spreadsheet "MMR2_AD_ERs_20250624.xlsx", Activity Data and their related uncertainty are calculated in tab "AD_Uncertainty".

As part of the technical correction to the RL, the Forest Degradation is supplemented by a map produced with the CCDC-SMA script that directly captures forest degradation over a period of time (see Annex 4). The calculation of the AD and their uncertainty is in the spreadsheet "SBE_matrix_final_for_TC.xlsx" in the tabs "CCDC2005_2010" and "CCDC2010_2015" for the periods 2005-2010 and 2010-2015 respectively.

Data unit: Ha

Source of data or description of the method for developing the data including the spatial level of the data (local, regional, national, international):

Wall-to-wall national land/forest maps with the Level 2 classification for the years 2005, 2010 and 2015 developed by the Forestry Inventory and Planning Division (FIPD) of Department of Forestry (DoF), Ministry of Agriculture and Forestry (MAF).

IPCC Definition	Level 1	Level 2	REDD+ Strata
Forest Land	Current Forest	Evergreen Forest (EG)	1
		Mixed Deciduous Forest (MD)	2
		Coniferous Forest (CF)	
		Mixed Coniferous/Broadleaved Forest (MCB)	
		Dry Dipterocarp (DD)	3
		Forest Plantation	4
	Potential Forest	Bamboo (B)	
		Regenerating Vegetation (RV)	
Grassland	Other Vegetated Areas	Savannah (SA)	5
		Scrub (SR)	
		Grassland (G)	
Cropland	Cropland	Upland Agriculture (UC)	
		Rice Paddy (RP)	
		Other Agriculture (OA)	
		Agriculture Plantation (AP)	

Settlement	Settlements	Urban (U)	
Other Land	Other Land	Barren Land (BR)	
		Other (O)	
Wetland	Wetlands	Water (W)	
		Swamp/Wetland (SW)	

The 2010 map serves as the benchmark map, and the maps for the other years developed through applying a change detection method, to maintain consistency of classification and interpretation.

For the 2010 and 2015 maps, 5m resolution RapidEye imagery was used. For the 2005 map, SPOT 4&5 multi-spectral imagery was used.

The maps are stratified according to the five REDD+ strata and overlaid to produce the AD maps for the period 2005-2010 and 2010-2015. The AD map is used to distribute reference sample plots following a stratified random sampling approach specifically for the ER Program area. The visual interpretation of the plots is done with Collect Earth and the resulting reference sample is used to calculate the AD estimates and their related uncertainty following the approach outlined by Olofsson [30] (2014).

The sample size was determined by using the formula by Cochran (1977), assuming that the sampling cost of each stratum is the same.

$$n = \frac{(\sum W_i\, S_i)^2}{[S(\widehat{O})]^2 + (1/N)\sum W_i\, S_i^{\,2}} \approx \left(\frac{\sum W_i\, S_i}{S(\widehat{O})}\right)^2$$

Where:

N = number of sample points for the stratum of interest

- = standard error of the estimated overall accuracy that we would like to achieve

Wi = mapped proportion of area of stratum i

Si = standard deviation of stratum i.

The calculation was done using FAO SEPAL, which allows automated calculation of sampling size and distribution. The following values were set as the target for allocating statistically sound sampling size:

Standard error of 0.01 for the overall user accuracy;

Standard error of 0.7 for Forest Degradation, Deforestation, Restoration and Reforestation; Standard error of 0.9 for Stable forest and Stable Non-Forest; and

Minimum sample size for each stratum is 30 sample plots.

Value applied:

2010

	Stratum 1	Stratum 2	Stratum 3	Stratum 4	Stratum 5
Stratum 1	473,906	355	0	482	154

[30] Olofsson et al. (2014) Good practices for estimating area and assessing accuracy of land change. Remote Sensing of Environment 148, 42-57.

Stratum 2	71	3,802,793	0	128,892	28,727
Stratum 3	0	0	17,056	66	65
Stratum 4	0	57,361	60	2,516,047	223,674
Stratum 5	0	0	0	182,805	690,635

2010 \ 2015	Stratum 1	Stratum 2	Stratum 3	Stratum 4	Stratum 5
Stratum 1	483,524	120	7	257	767
Stratum 2	0	3,770,430	161	101,607	42,539
Stratum 3	0	0	17,171	121	184
Stratum 4	0	45,796	49	2,712,747	99,489
Stratum 5	0	0	0	142,703	705,477

As indicated in the description, the calculation of the AD is conducted in the spreadsheet "MMR2_AD_ERs_20250624.xlsx". The AD displayed in the two matrices above, are in the tab "Total" cells M32:R46. These values are then used for the next calculation step for estimating the emissions and removals.

However, with the technical correction, the area for forest degradation comes from the CCDC-SMA map and not from the change matrix above. The table below summarizes the AD as shown in the spreadsheet "MMR2_AD_ERs_20250624.xlsx" and tab "AD_Area" for deforestation (DF), restoration (RS) and reforestation (RF). For degradation (DF), the figure below comes from its AD estimated applying the technical correction and calculated in the spreadsheet "MMR2_AD_ERs_20250624.xlsx", tab "Total", cells F135 and G135.

Area (ha)	2005-2010	2010-2015
DF	252,620	142,979
RS	57,492	45,845
RF	182,805	142,703
DG	219,069	133,888

QA/QC procedures applied

As mentioned in Section 2.1.2, QA/QC procedures were first applied for the production of the Forest Type Maps and more particularly in the interpretation of the areas that have changed during a time period. The procedures are described in the SOP for the production of the Forest Type Map as indicated in section 2.1. It consists of a three stages approach: a first team of technicians conducts the initial interpretation. A second team of experienced technicians reviews the interpretation and then a third-party reviewer with the support of the FIPD GIS/RS team leader validates the interpretation. Secondly QA/QC procedures were used for the sample-based estimation.

Uncertainty associated with this parameter:

Uncertainty is calculated through the sample-based estimation procedure.

Uncertainty (%)	2005-2010	2010-2015
DF	15.4	29.5
RS	50.4	70.5

	RF	26.7	28.1
	DG	26.0	28.0
Any comment:	n.a.		

Parameter: :	$Regrowth\ Rate$, $Reversal$ and $Doublecounting(stumps)$ Adjustments to emissions and removals (Reference Level) to account for previous change in cover class.
Description:	Adjustments are subtracted to the emissions and removals calculated in step 1 to correct over-estimation by considering reversal events that occurred during the Reference Period, the biomass regrowth rate and the potential double-counting of the logging emissions.
Data unit:	tCO2eq
Source of data or description of the method for developing the data including the spatial level of the data (local, regional, national, international):	As described in section 2.2.1, adjustments were made by considering the types of changes and rate of tree growth. This modification recognizes that in forest ecosystems, forest biomass increases slowly over time to reach full biomass (IPCC 2006 [31]). As such, the slow regrowth of the forest is taken into account to not over-estimate removals. The same approach applies to the emissions, to not over-estimate the emissions from a land that would not have regrown completely to forest. For the reference period, the number of years of each time period is used in the calculation. Adjustment use a time-series analysis to identify the land cover change patterns that leads to over-estimation. Forest Type Maps 2005, 2010 and 2015 were used for the time-series analysis. As indicated in section 2.2.2, adjustments are implemented in equation5a and equation5b. The time-series analysis as well as the calculation of the adjusted emissions and removals are in the spreadsheet '"MMR2_AD_ERs_20250624.xlsx", in tab "TSA_Remove", "TSA_Emission" and "Total".
Value applied:	Adjustment – Over estimation of removals

	Stratum in 2005	Stratum in 2010	Stratum in 2015	Estimated area (ha)*	Emissions to be deducted from Removals (tCO_2e)
Change patterns from time series	4	2	4	2,299	73,475
	4	2	5	1,684	53,833
	4	3	5	1	17

In total, 127,325 tCO2e would be deducted from removals from restoration for the period 2010-2015.

Adjustment – Over estimation of emissions

	Stratum in 2005	Stratum in 2010	Stratum in 2015	Estimated area (ha)*	Emissions to be deducted from Emissions (tCO_2e)

[31] IPCC (2006, Volume 4, Chapter 4.3: Land Converted to Forest Land) suggests default period of 20 years time interval for forest ecosystems to be established.

	Change patterns from time series	4	2	4	1,492	-345,787
		4	2	5	1,467	-370,226
		4	3	5	1	-153

Over estimation of emissions from deforestation equals 370,379 tCO2e and 345,787 tCO2e from degradation.

QA/QC procedures applied	The calculation steps are reviewed by a second technician.
Uncertainty associated with this parameter:	The specific uncertainty of the adjustments is not included in the Monte Carlo simulation with the consideration that it is already covered by the uncertainty on the AD.
Any comment:	n.a.

Parameter:	$Emissions_{logging}$ Emissions from logging for the Reference Level
Description:	Emissions from logging estimated from the field measurements (stumps) from the 2nd NFI in the six northern provinces of the ER Program.
Data unit:	tCO2eq
Source of data or description of the method for developing the data including the spatial level of the data (local, regional, national, international):	The Lao NFI uses random nested plots. For the 2nd NFI, a total of 114 plots were surveyed in the ER Program area. Stumps located in the plots are measured and recorded as below: • Height (H) - below 1.3m • Smallest Diameter (D1) – the smallest diameter across the top of the stump • D2 – the diameter at a 90° angle to D1. • Instrument used for tree felling (e.g. machine, saw axe) With these measurements, the biomass loss is estimated as follows: 1. Calculate the average diameter D from D1 and D2 for each stump 2. Exclude stumps that were not felled by "machine" or "saw axe" (to exclude incidents of natural disturbances) 3. Estimate the DBH from the diameter at the base and height by using the following equation developed in Cambodia[32]: DBH=D – (-C1 ln (H+1.0)-C1 ln (2.3)) *Where:* *D=Average Diameter of stump, H=Height of stump,* *Ln (|C1|)=d0+d1*D+d2*H+d3*D*H* *d0=1.68, d1=0.0146, d2=-0.82, d3=0.0068* 5. Estimate the AGB by using the allometric equation used in the 2nd NFI 6. Convert the AGB loss by using an area ratio (t/ha) 7. Sum up the AGB loss by sub-plot (one survey plot consists of four sub-plots)

[32] Ito et al., 2010. Estimate Diameter at Breast Height from Measurements of Illegally Logged Stumps in Cambodian Lowland Dry Evergreen Forest. JARQ 44(4),440

8. Estimate the plot average AGB loss (t/ha) by dividing the sum of AGB loss above by four (including non- stump plot)
9. Estimate the average AGB loss(t/ha) for each forest class by dividing the total number of plots of each forest class
10. Estimate the BGB loss by using default conversion factor found in the IPCC 2006 Guidelines
11. Convert biomass to CO2 with the same conversion factor for estimating the carbon stock
12. Estimate the total loss tCO2e by multiplying above value by the area of Forest Type Map 2015 for each forest class.

The method above estimates the biomass loss but does not provide average emissions per year, as it is quite challenging to estimate when the trees were actually felled.

An equation, which was developed in an experimental study in Pasoh in the Malaysian Peninsula, [33] is used to estimate the years required for wood materials to decompose. According to the temperature and precipitation averages recorded for northern Lao PDR, it is reasonable to assume that the stumps observed and measured were felled within a 12-year period before the survey.
The total biomass loss calculated above is then divided by 12 to obtain a yearly average for the Reference Level.

Value applied:

	Average loss tCO2e/ha	Area(ha) Forest type map 2015	tCO2e (12 years)
EG: Evergreen Forest	3.7	481,380	1,802,956
MD: Mixed Deciduous Forest	2.1	3,771,453	7,873,894
DD: Dry Dipterocarp	6.1	17,351	105,519
CF: Conifer Forest	-	25,782	-
MCB: Mixed Conifer and Broadleaved forest	-	2,180	-
	Total		9,782,369
	Annual average (tCO2e) (Total divided by 12 years)		815,197
	Emissions for the Reference Level (10 years)		8,151,970

The detail of the calculation is available in the "Emissions from logging NFI4 ERPA_20250624.xlsx" spreadsheet, tab "StumpWork_2ndNFI FCPF CF". The figures for the table above are presented in the cells AS11:AV17 and the Annual Average value is in the cell AY17

[33] Yoneda et al., 2016. Inter-annual variations of net ecosystem productivity of a primeval tropical forest basing on a biometric method with a long-term data in Pasoh, Peninsular Malaysia. TROPICS Vol. 25 (1) 1-12

QA/QC procedures applied	In the Lao NFI, a dedicated team conducts quality assurance/ quality control (QA/QC) by revisiting 10% of the measured plots. The measurements between the QA/QC team and the survey teams are compared to assess if they are statistically robust. For the 2nd NFI, no significant statistical difference was found in the measurements from QA/QC and the survey teams. The Standard Operation Procedures (SOP) for the Terrestrial Carbon Measurement is available with this link.
Uncertainty associated with this parameter:	This proxy-based approach has been identified through wide expert consultations as the best currently-available method to quantify the impacts of illegal logging in Lao PDR. The limitations around its design, however, are well-acknowledged. To compensate for this issue, the prescribed 15 % conservativeness factor is applied. For the uncertainty analysis which uses a Monte Carlo approach, the standard error used as the input parameter for the uncertainty for emissions from logging, comes from a previous analysis that was conducted for the national FREL in 2018. The calculation is in the spreadsheet "MMR2_AD_ERs_20250624.xlsx" and tab "logging uncertainty". It uses a propagation of error approach. The uncertainty calculated for emissions from logging for the reference level is 21.68%
Any comment:	n.a.

3.2 Monitored Data and Parameters

Parameter:	$A(j,i)_{MMR}$ - Activity Data (AD) for the Reporting Period 2022-2024 (3 years)
Description:	Area of REDD+ strata change over the Reporting Period (2022-2024) is provided by the overlay of the stratified Forest Type Maps and adjusted by a sample-based estimation. Twenty-five possible changes describe four activities: Deforestation, Forest Degradation, Forest Restoration and Reforestation. • Deforestation: loss of forest carbon stock due to conversion of a forest land stratum to non-forest land stratum. • Forest Degradation: downward shift of a forest stratum from a higher carbon stock stratum to another forest stratum with lower carbon stock. This change effectively includes cases of transitional land use change events such as deforestation events not captured in the 5-year mapping interval (e.g., stages of rotational agriculture from a recovered forest to a forest fallow, between which it would have gone through a non-forest stage, or, land conversion for forest plantations). Through the application of this method, fallow land from shifting cultivation sites are largely captured within the RV category and occur most prominently in MD and EG forests, accounting for the vast majority of the degradation events. • Forest Restoration: upward shift of a forest/land stratum with lower carbon stock to another forest/land stratum with higher carbon stock. • Reforestation: gain of forest carbon stock due to conversion of non-forest land stratum to a forest land stratum

	YearX+5 / YearX stratum 1: SF1, DG1, DG2, DG4, DF1 stratum 2: RS1, SF2, DG3, DG5, DF2 stratum 3: RS2, RS4, SF3, DG6, DF3 stratum 4: RS3, RS5, RS6, SF4, DF4 stratum 5: RF1, RF2, RF3, RF4, SNF Deforestation (DF) Degradation (DG) Restoration (RS) Reforestation (RF) Stable Forest (SF) Stable Non-Forest (SNF) In the spreadsheet "MMR2_AD_ERs_20250624.xlsx", AD and their related uncertainties are calculated in tab "AD_Uncertainty". The Forest Degradation is supplemented by a map produced with the CCDC-SMA script that directly captures forest degradation over a period of time (see Annex 4).
Data unit:	Ha
Value monitored during this Monitoring / Reporting Period:	The values displayed in the table below come from the spreadsheet "MMR2_AD_ERs_20250624.xlsx", tab "AD_Area" at the exception for degradation (DG), for which the value is calculated in tab "Total", cell I135. Area (ha) / 2022-2024 DF: 291,727 RS: 11,555 RF: 97,933 DG: 28,390
Source of data and description of measurement/calculation methods and procedures applied:	Wall-to-wall land/forest maps for the ER Program area with the Level 2 classification for the years 2022, and 2025 developed by the FIPD of DOF, MAF. **IPCC Definition** / **Level 1** / **Level 2** / **REDD+ Strata** **Forest** Land / Current Forest / Evergreen Forest (EG) / **1** Mixed Deciduous Forest (MD) / **2** Coniferous Forest (CF) / **2** Mixed Coniferous/Broadleaved Forest (MCB) / **2** Dry Dipterocarp (DD) / **3** Forest Plantation / **4** Potential Forest / Bamboo (B) / **4** Regenerating Vegetation (RV) / **4** Grassland / Other Vegetated Areas / Savannah (SA) / **5** Scrub (SR) / **5** Grassland (G) / **5** Cropland / Cropland / Upland Agriculture (UC) / **5**

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		Rice Paddy (RP)	
		Other Agriculture (OA)	
		Agriculture Plantation (AP)	
Settlement	Settlements	Urban (U)	
Other Land	Other Land	Barren Land (BR)	
		Other (O)	
Wetland	Wetlands	Water (W)	
		Swamp/Wetland (SW)	

The maps are generated using 2010 as the benchmark map, and the maps for the other years developed through applying a change detection method in order to maintain consistency of classification and interpretation.

For both Forest Type Map 2022 [3 4] and Forest Type Map 2025 maps, Sentinel-2 imagery was used in combination with Planetscope imagery.

The maps are stratified according to the five REDD+ strata and overlaid to produce the AD maps for the period 2022-2024. The AD map is used to distribute reference sample plots following a stratified random sampling approach. The visual interpretation of the plots is done with Collect Earth Online and the resulting reference sample is used to calculate the AD are estimates and their related uncertainty following the approach outlined by Olofsson (2014).

The sample used for the Sample-Based Estimation is the subset of the plots, from the systematic sample used for the 4th NFI which is a systematic grid of 6 X 6 kilometers, that are located within the six provinces of the Program. This subset has 2,259 plots to which 41 plots (25 for restoration and 16 for reforestation) were added for a total of 2,300 to ensure that each Activity Data have a minimum of 30 plots.

QA/QC procedures applied:

A SOP for the update of the Forest Type Map was followed.

In a manner similar to that was conducted for the RL, a three-step approach was used to ensure the quality of the visual interpretation.

The Quality Assurance/Quality Control (QA/QC) involved a second round of independent interpretation of the plots. This round focused on 689 plots (30% of the plots) that were identified as having a forest cover change or a low level of confidence from the initial interpreter (self-assessment). This approach was discussed and acknowledged by the World Bank Task team during an online call on March 21st. As more than 60% of the checked plots did not match the initial interpretation, to finalize the QA/QC, a third round of interpretation was conducted on 440 plots. For this final check and validation of the interpretation work, a specific workshop was organized where the technical staff of FIPD were

[3 4] The Forest Type Map 2025 is regarded as a map that represents the land and forest cover of 2025/01/01, and the Forest Type Map 2022 is regarded as the map that represents the land and forest cover of 2022/01/01. The ERs for the exact three years from January 1, 2022 - December 31, 2024 is reported in this 2nd ER-MR by using these two maps.

	invited to share their interpretation experience and conduct interpretation in small groups to reach consensus on the plots.
Uncertainty for this parameter:	The uncertainty is calculated through the sample-based estimation. The values are in the spreadsheet "MMR2_AD_ERs_20250624.xlsx", tab "AD_Uncertainty", cells T166 to W166), except for DG which is specifically the uncertainty for Degradation from shifting cultivation that is in the spreadsheet "ERPA_SBE_ActivityData_CEO_FTM2025.xlsx", tab "AD by DG driver", cell E38.

Uncertainty (%)	2022-2024
DF	17.0
RS	73.7
RF	24.6
DG	30.7

Any comment:	n.a.

Parameter:	$RegrowthRate$, $Reversal$ and $Doublecounting(stumps)$ Adjustments to emissions and removals for the Reporting Period to account for previous change in cover class
Description:	Adjustments are subtracted to the emissions and removals calculated in step 1 to correct over-estimation by considering reversal events that occurred during the Reference Period, the biomass regrowth rate and the double-counting. Adjustments use a time-series analysis to identify the land cover change patterns that leads to over-estimation and adjusts the removals and emissions to reflect the actual time needed for forest recovery following a change in forest cover class. (IPCC 2006). As indicated in section 2.2.2, adjustments are implemented in equation5a and equation5b. The time-series analysis as well as the calculation of the adjusted emissions and removals are in the spreadsheet '"MMR2_AD_ERs_20250624.xlsx", in tab "TSA_Remove_MMR", "TSA_Emission_MMR" and "Total".
Data unit:	tCO2eq
Value monitored during this Monitoring / Reporting Period:	Adjustment – Over estimation of removals

	Stratum in 2019	Stratum in 2022	Stratum in 2025	Estimated area (ha)*	Emissions to be deducted from Removals? (tCO_2e)
Change patterns from time series	4	2	4	2,462	59,012
	4	2	5	1,656	39,700

	In total, 98,711 tCO2e would be deducted from removals from restoration for the period 2022-2024. Adjustment – Over estimation of emissions

	Stratum in 2019	Stratum in 2022	Stratum in 2025	Estimated area (ha)*	Emissions to be deducted from Emissions (tCO_2e)
Change patterns from time series	4	2	4	1,274	-325,632
	4	2	5	4,278	-1,191,602
	4	5	4	11,327	-170,170

Over estimation of emissions from deforestation equals 1,361,772 tCo2e and 325,632 tCo2e from degradation respectively.

Source of data and description of measurement /calculation methods and procedures applied:	Forest Type Maps 2019, 2022 and 2025 are used for the time-series analysis.
QA/QC procedures applied:	The initial information used for the calculation of the adjustments is the time-series analysis conducted by a technician who runs GIS analysis with the Forest Type Maps and populates the spreadsheet.Then, the resulting adjustments are reviewed and validated by a senior expert.
Uncertainty for this parameter:	No specific uncertainty is considered for the adjustments.
Any comment:	n.a.

Parameter:	$Emissions_{logging}$ Emissions from logging for the Monitoring Period
Description:	Emissions from logging estimated from the plots surveyed in the six northern provinces of the ER Program during the 4th NFI conducted from December 2024 to April 2025.
Data unit:	tCO2eq
Value monitored during this Monitoring /	

	Average loss tCO2e/ha	**Area (ha) Forest type map 2025**	**tCO2e (12 years)**
EG: Evergreen Forest	-	-	-

Reporting Period:	**MD: Mixed Deciduous Forest**	0.5	3,493,325	1,906,168
	DD: Dry Dipterocarp	2.5	16,519	41,298
	CF: Conifer Forest	-	-	-
	MCB: Mixed Conifer and Broadleaved forest	-	-	-
		Total		1,947,466
		Annual average (tCO2e) (Total divided by 12 years)		162,289
		Emissions for the Monitoring Period (3 years)		486,867

The detail of the calculation is available in the "Emissions from logging NFI4 ERPA_20250624.xlsx" spreadsheet, tab "4thNFI".

Source of data and description of measurement /calculation methods and procedures applied:

The 4th NFI sampling design and plot design differ from the 2nd NFI. However, the procedure for measuring a stump in the plot is the same.
For the 4th NFI, 218 plots were distributed in the six northern provinces and 216 were surveyed. For the estimation of emissions from logging, the calculation used plots for which at least 3 among 4 subplots are located in natural forest class, for the purpose of maintaining a consistency with the plots used from the 2nd NFI. As such, 90 plots were used.

Stumps located in the plots were measured and recorded as below:

- Height (H) - below 1.3m
- Smallest Diameter (D1) – the smallest diameter across the top of the stump
- D2 – the diameter at a 90o angle to D1.
- Instrument used for tree felling (e.g. machine, saw axe)

With these measurements, the biomass loss estimation is conducted as follow:

1. Calculate the average diameter D from D1 and D2 for each stump
2. Exclude stumps that were not felled by "machine" or "saw axe" (to exclude incidents of natural disturbances)
3. Estimate the DBH from the diameter at the base and height by using the following equation developed in Cambodia [35]:

   DBH=D – (-C1 ln (H+1.0)-C1 ln (2.3))

   Where:

   D=Average Diameter of stump, H=Height of stump,

   *Ln (|C1|)=d0+d1*D+d2*H+d3*D*H*

[35] Ito et al., 2010. Estimate Diameter at Breast Height from Measurements of Illegally Logged Stumps in Cambodian Lowland Dry Evergreen Forest. JARQ 44(4), 440.

	d0=1.68, d1=0.0146, d2=-0.82, d3=0.0068 5. Estimate the AGB by using the allometric equation used in the 2nd NFI 6. Convert the AGB loss by using an area ratio (t/ha) 7. Sum up the AGB loss by sub-plot (one survey plot consists of four sub-plots) 8. Estimate the plot average AGB loss (t/ha) by dividing the sum of AGB loss above by four (including non- stump plot) 9. Estimate the average AGB loss(t/ha) for each forest class by dividing the total number of plots of each forest class 10. Estimate the BGB loss by using default conversion factor found in the IPCC 2006 Guidelines 11. Convert biomass to CO2 with the same conversion factor for estimating the carbon stock 12. Estimate the total loss tCO2e by multiplying above value by the area of Forest Type Map 2025 for each forest class. The method above estimates the biomass loss but does not provide an average per year, as it is quite challenging to estimate when the trees were actually felled. An equation, developed in an experimental study in Pasoh in the Malaysian Peninsula [36], estimates the number of years required for wood materials to decompose. Using this equation, the temperature and precipitation averages recorded for northern Lao PDR, it is reasonable to assume that the stumps observed and measured were felled within a 12 years period before the survey. The total biomass loss calculated above is then divided by 12 to obtain a yearly average for the Reference Level.
QA/QC procedures applied:	In Lao NFI, a dedicated team conducts QA/QC by revisiting 10% of the measured plots. The same approach was used for this specific stump survey. The measurements between the QA/QC team and the survey teams are compared to assess if they are statistically robust. For the 2nd NFI, no significant statistical difference was found in the measurements from QA/QC and the survey teams. The Standard Operation Procedures (SOP) for the Terrestrial Carbon Measurement_is available with this link.
Uncertainty for this parameter:	This proxy-based approach has been identified through wide expert consultations as the best currently-available method to quantify the impacts of illegal logging in Lao PDR. The limitations around its design, however, are well-acknowledged., To compensate for this issue, the prescribed 15 % conservativeness factor is applied. For the uncertainty analysis which uses a Monte Carlo approach, the standard error used as the input parameter for the uncertainty for emissions from logging, comes from a previous analysis that was conducted for the national MRV in 2019. The calculation is in the spreadsheet "MMR2_AD_ERs_20250624.xlsx" and tab "logging uncertainty". It uses a propagation of error approach. The uncertainty calculated for emissions from logging for the monitoring period is 22.11%

[36] Yoneda et al., 2016. Inter-annual variations of net ecosystem productivity of a primeval tropical forest basing on a biometric method with a long-term data in Pasoh, Peninsular Malaysia. TROPICS Vol. 25 (1) 1-12.

	The most recent Forest Type Map 2025 is not yet completed for the whole country. Therefore, the accuracy assessment is not conducted yet which did not enable the team to estimate the logging uncertainty based on this map. The figure that was calculated for the 2nd MMR uses the Accuracy assessed for the Forest Type Map 2022.
Any comment:	n.a.

4 QUANTIFICATION OF EMISSION REDUCTIONS

4.1 ER Program Reference level for the Monitoring / Reporting Period covered in this report

The 2nd ERMR carries forward the three technical corrections that were applied to the Reference Level for the 1st ERMR:

- The Emission and Removal Factors are based on the 3rd NFI and the 2nd Regenerating Vegetation Survey,
- The CCDC-SMA script is used to supplement the Activity Data map and support the calculation of the area estimates,
- The correction of a calculation error in the estimation of emissions from logging for the Reference Level.

The technical corrections are further described in Annex 4 of the 1st ERMR and additionally explained in the technical note[37].

As a result of the technical corrections, the ER Program Reference Level was corrected as below.

A full calculation can be seen in the spreadsheet '"MMR2_AD_ERs_20250624.xlsx". In the tab Summary, the average annual emissions and removals over the three year reporting period 2022-2024 are displayed in the column B. The values displayed in the Table 12 below, can be found from left to right, in the cells B4, B7, B9, B10, and B11. To trace back the detailed calculation, the column B refers to the tab "Total" where the annual average is calculated for deforestation in cell R103, reforestation in cell R105 and cell R106 for removals from other activities (restoration). The figure for the emissions from forest degradation comes from the sum of the emissions obtained from the Activity Data map after the technical correction, tab "Total", cell P138 and the emissions from logging calculated in a specific spreadsheet "Emissions from logging NFI4 ERPA_20250624.xlsx" spreadsheet, tab "StumpWork_2ndNFI FCPF CF", cell AY17.
For rounding and truncation of the raw figures, the FCPF ER-MR Template tool was used and the result is shown in the following Table 12, 13 and 14.

Table 12: ER Program Reference Level

Year of Monitoring period 2	Average annual historical emissions from deforestation over the Reference Period (tCO_{2-e}/yr)	If applicable, average annual historical emissions from forest degradation over the Reference Period (tCO_{2-e}/yr)	If applicable, enhanced removals from afforestation/reforestation (AR) (tCO2-e/yr)	If applicable, enhanced removals from other activities besides A/R (tCO_{2-e}/yr)	Adjustment, if applicable (tCO_{2-e}/yr)	Reference level (tCO_{2-e}/yr)
2022	3,015,638	10,627,760	-743,589	-593,805	na	12,306,004
2023	3,015,638	10,627,760	-743,589	-593,805	na	12,306,004
2024	3,015,638	10,627,760	-743,589	-593,805	na	12,306,004
Total	**9,046,914**	**31,883,280**	**-2,230,767**	**-1,781,415**	**na**	**36,918,012**

[37] A note that describes the methodological approach for the Technical Correction was discussed with the Facility Management Team (FMT) of the World Bank in 2022.

4.2 Estimation of emissions by sources and removals by sinks included in the ER Program's scope

The emissions and removals during the Reporting Period were calculated following the estimation approach fully described in Section 2.2, and using the data parameters described in Section 3. The paragraphs summarize the steps for calculation presented in Section 2.2.

Step 1 calculates the emissions and removals using the AD and the E/R Factors. For the AD, as shown below, the Forest Type Maps from various years are combined to produce map that reflects the changes in land and forest cover within the five REDD+ strata (as described in **Table 9**). This map is then supplemented by a CCDC-SMA map to identify forest degradation more accurately. The results of the sample-based estimation with the visual interpretation, are the error matrix that are in the spreadsheet "MMR2_AD_ERs_20250624.xlsx" and the tab "AD_Uncertainty".

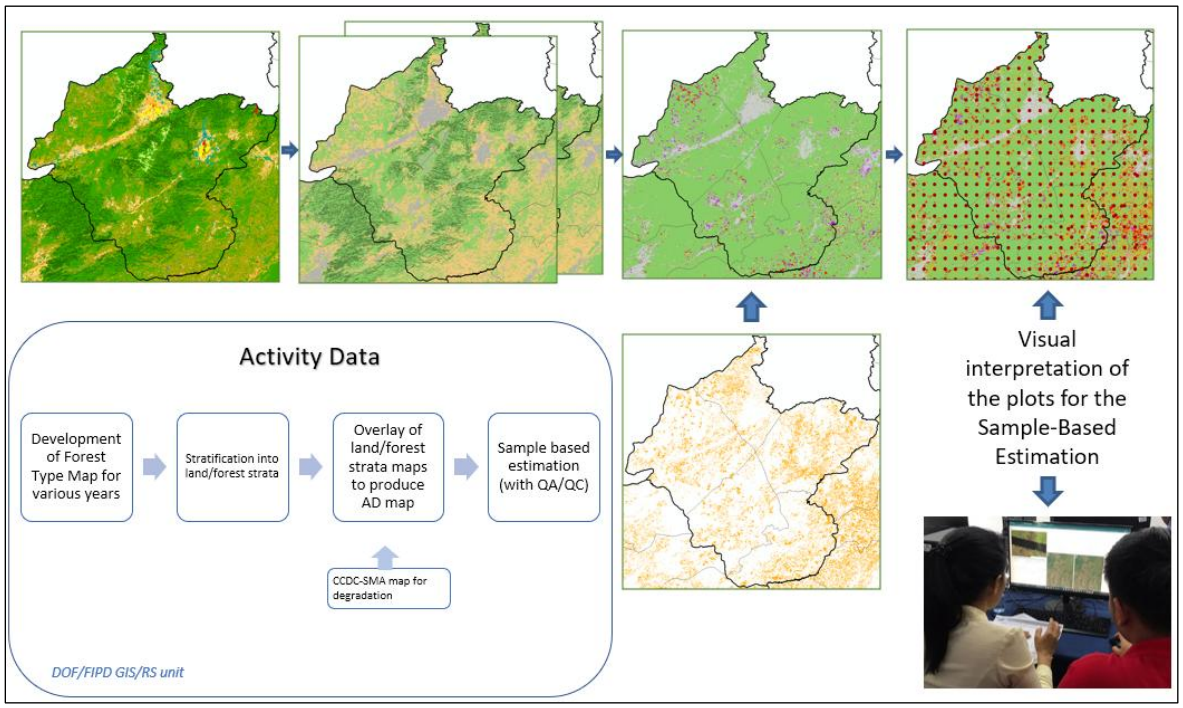

Figure 7: Overview of the computation of the Activity Data

For the E/R Factors, Section 3.1 provides the details of the source for each land and forest type, Section 2.2.2 outlines the calculation (equations 1 to 3) for the carbon stocks that use the results from the 3rd NFI.

- Equation 4 calculates the emissions/removals: MMR2_AD_ERs_20250624.xlsx, Tab "Total"

Estimated area from reference sampling

ha

		2015				
		EG	MD/CF/MCB	DD	P/B/RV	NF
2010	EG	483,524	120	7	257	767
	MD/CF/MCB	0	3,770,430	161	101,607	42,539
	DD	0	0	17,171	121	184
	P/B/RV	0	45,796	49	2,712,747	99,489
	NF	0	0	0	142,703	705,477

X

EF(tCO2/ha)

	EG	MD/CF/MCB	DD	P/B/RV	NF
EG	0.0	-432.8	-568.3	-712.4	-737.4
MD/CF/MCB	432.8	0.0	-135.5	-279.6	-304.7
DD	568.3	135.5	0.0	-144.1	-169.2
P/B/RV	712.4	279.6	144.1	0.0	-25.0
NF	737.4	304.7	169.2	25.0	0.0

=

2010-2015 MtCO2

	EG	MD/CF/MCB	DD	P/B/RV	NF
EG	0.0	-0.1	-0.0	-0.2	-0.6
MD/CF/MCB	0.0	0.0	-0.0	-28.4	-13.0
DD	0.0	0.0	0.0	-0.0	-0.0
P/B/RV	0.0	12.8	0.0	0.0	-2.5
NF	0.0	0.0	0.0	3.6	0.0

=J60*R33/1000000

Figure 8: Example of the calculation of emissions and removals for the Reference Period as conducted in the spreadsheet used for the 2nd MMR

Emissions and Removals are calculated with the equation 4 as described in section 2.2.2 and shown in the figure above.

As shown in the Figure 8 above, the Activity Data for the period 2005-2010 (in blue color), with the E/R factors (in orange color), and the resulting emissions and removals (in red color) are presented in the spreadsheet "MMR2_AD_ERs_20250624.xlsx".

Step 2 adjusts emissions and removal as described in section 2.2.1 and section 2.2.2. The values used for the adjustments are presented in section 3.1 and 3.2. These adjustments take into account the number of years for a forest to regrow and their changes over the RL and the monitoring period.

Step 3 calculates the emissions from logging as shown in the figure below. The detail of the calculation is available in the "Emissions from logging NFI4 ERPA_20250624.xlsx" spreadsheet.

Emissions from logging NFI4 ERPA 20250624, Tab 4th NFI

Average loss of biomass from logging AGB + BGB tCO2e/ha × Area (ha) per forest type 2025

FCPF CF 6 Provinces

	Number of Plot	Sum Ave (tB/ha)
EG	0	0.0
MDF	7	23.0
DD	1	3.6
CF	0	0.0
MCB	0	0.0
	8	

Plots with stumps

		Biomass loss			
	Number	AGB	AGB+BGB	AGB+BGB	AGB+BGB
EG	0	0.0	0.0	0.0	0.0
MDF	87	0.3	0.3	0.1	0.5
DD	3	1.2	1.5	0.7	2.5
CF	0	0.0	0.0	0.0	0.0
MCB	0	0.0	0.0	0.0	0.0
	90				

6 provinces

	Area(2025)	Loss	Loss
EG		0	0.00
MDF	3,493,325	1,906,168	1.91
DD	16,519	41,298	0.04
CF		0	0.00
MCB		0	0.00
	3,509,844	1,947,466	1.95

Figure 9: Example of the calculation of emissions from logging for the second monitoring period

Figure 9 refers to the emissions from logging for the second monitoring period which the details of the parameter is described in Section 3.2. 〖Emissions〗_logging Emissions from logging for the Monitoring Period. The emission of 1,947,466 tCO2e is divided by 12 years using the assumed time for the wood materials to decompose, to obtain a yearly average of 162,289 tCO2e/year which is then used in Step 4 and in the spreadsheet "MMR2_AD_ERs_20250624.xlsx" in tab "summary".

Step 4 calculates the annual emissions and removals for both the RL and the monitoring period. It considers the converted areas during the whole monitoring period (Equation 6a) combined with the emissions from logging that are calculated separately as shown on figure 6. Then the emissions and removals are divided by the number of years of the period (Equation 6b and 6c) to obtain a yearly average as displayed in displayed in Table 12 (for the RL, and Table 13 for this monitoring period.

The values displayed in the Table 13 below, can be found in the spreadsheet '"MMR2_AD_ERs_20250624.xlsx", tab "Summary" from left to right, in the cells E4, E7, E9, E10, and E11. To trace back the detailed calculation, the column B refers to the tab "Total" where the annual average is calculated for deforestation in cell R119, reforestation in cell R121 and cell R122 for removals from other activities (restoration). The figure for the emissions from forest degradation comes from the sum of the emissions obtained from the Activity Data map after the technical correction, tab "Total", cell R138 and the emissions from logging calculated in a specific spreadsheet "Emissions from logging NFI4 ERPA_20250624.xlsx" spreadsheet, tab "4thNFI", cell AX21.

Table 13: Emissions by sources and removals by sinks

Year of Monitoring Period	Emissions from deforestation (tCO2-e/yr)	If applicable, emissions from forest degradation (tCO2-e/yr)*	If applicable, enhanced removals from afforestation/reforestation (AR) (tCO2-e/yr)	If applicable, enhanced removals from other activities besides A/R (tCO2-e/yr)	Net emissions and removals (tCO2-e/yr)
2022	10,146,623	2,687,838	-490,435	-885,757	11,458,269
2023	10,146,623	2,687,838	-490,435	-885,757	11,458,269
2024	10,146,623	2,687,838	-490,435	-885,757	11,458,269
Total	**30,439,869**	**8,063,514**	**-1,471,305**	**-2,657,271**	**34,374,807**

4.3 Calculation of Emission Reductions

The last step of the calculation uses Equation 7 as shown in the figure below. The results are presented in Table 14 below and also in the tab "summary" of the spreadsheet "MMR2_AD_ERs_20250624.xlsx".

In the table below, enhanced removals from afforestation/ reforestation (A/R) are from Reforestation, and enhanced removals from other activities besides A/R are from Forest Restoration[38].

Table 14: Total of emissions, removals and emission reductions

	Deforestation	If applicable, forest degradation	If applicable, enhanced removals from afforestation/ reforestation (A/R)	If applicable, enhanced removals from other activities besides A/R*	Total (tCO_{2-e})
Emission or removals in the Reference Level (tCO_{2-e})	9,046,914	31,883,280	-2,230,767	-1,781,415	36,918,012
Emission or removals under the ER Program during the Reporting Period (tCO_{2-e})	30,439,869	8,063,514	-1,471,305	-2,657,271	34,374,807
Emission Reductions during the Reporting Period (tCO_2-e)	-21,392,955	23,819,766	-759,462	875,856	2,543,205

[38] The Lao ER Program considers removals in Forest Restoration (either enhanced or through natural regeneration) as mostly coming from Regenerating Vegetation restoring to Mixed Deciduous Forest.

Table 15 Annual emissions, removals and emission reductions

	Deforestation			If applicable, forest degradation			If applicable, enhanced removals from afforestation/ reforestation (A/R)			If applicable, enhanced removals from other activities besides A/R		
Year	**2022**	**2023**	**2024**	**2022**	**2023**	**2024**	**2022**	**2023**	**2024**	**2022**	**2023**	**2024**
Emission or removals in the Reference Level (tCO_{2-e})	3,015,638	3,015,638	3,015,638	10,627,760	10,627,760	10,627,760	-743,589	-743,589	-743,589	-593,805	-593,805	-593,805
Emissions or removals under the ER Program during the Monitoring Period (tCO_{2-e})	10,146,623	10,146,623	10,146,623	2,687,838	2,687,838	2,687,838	-490,435	-490,435	-490,435	-885,757	-885,757	-885,757
Emission Reductions during the Reporting Period (tCO_2-e)	-7,130,985	-7,130,985	-7,130,985	7,939,922	7,939,922	7,939,922	-253,154	-253,154	-253,154	291,952	291,952	291,952

Table 16 Proportion of Emission Reductions per REDD+ activity

Emission Reductions during the Reporting Period (tCO2-e)			
Year	**2022**	**2023**	**2024**
Total	847,735	847,735	847,735
Emission reductions from enhanced removals from afforestation/reforestation as a percentage of the total FCPF ERs (%)	-29.86239804%	-29.86239804%	-29.86239804%
If applicable, enhanced removals from other activities besides A/R (%)	34.43906409%	34.43906409%	34.43906409%
If applicable, forest degradation (%)	936.60424543%	936.60424543%	936.60424543%
Deforestation (%)	-841.18091149%	-841.18091149%	-841.18091149%
Adjustment, if applicable (%)	0.00000000%	0.00000000%	0.00000000%

5 UNCERTAINTY OF THE ESTIMATE OF EMISSION REDUCTIONS

5.1 Identification, assessment and addressing sources of uncertainty

Table 17: Sources of uncertainty

Sources of uncertainty	Systematic	Random	Analysis of contribution to overall uncertainty	Contribution to overall uncertainty (High/Low)	Adressed through QA/QC	Residual uncertainty estimated ?
Activity Data						
Measurement	**þ**	**þ**	This source of uncertainty is linked with the visual interpretation of satellte imagery. Error in the interpretation may come from the quality of the imagery or misinterpretation from the technician. Lao PDR addresses this issue by procuring satellite imagery through the Google Earth Engine that ensures the quality of the imagery, and by use of comprehensive training, SOPs, and QA/QC procedures throughout the interpretation process. The SOP for Forest Type Map development presented in Table 8 particularly guides the production of the Forest Type Maps. Guidance on the interpretation of the satellite imagery is also provided in this SOP. Besides the SOP, the technicians always refer to the Lao National Classification System document which describes extensively each forest/land type, as well as an interpretation key. Technicians are trained to follow the interpretation procedures and a preliminary ground truthing survey is organized to make	High (bias/random)	YES	NO

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			sure all technicians have a common undertanding of the various forest/land types and their interpretation. The QA/QC is conducted in the form of several iterations of interpretation as described in Section 3.1 and 3.2			
Representativeness	**þ**	**ý**	This source of uncertainty is related to the representativeness of the estimate which is related to the sampling design. Forest Type Maps were produced for the area of interest, i.e., the entire ER Program areaThe CCDC-SMA (see Section 2.2.1) script was used to map forest degradation over the ER program area. The results served as the basis of stratification for the sample-based assesment. Sampling to generate AD estimates followed a stratified random sample approach as outlined in Olofsson et al. 2014, and was also limited to the ER program area. All sample data were collected from times within the target period. Since all data used to generate AD were randomly collected within the ER program area, the sample is assumed representative and risk of bias is low. .	Low (bias)	YES	NO
Sampling	**ý**	**þ**	The uncertainty related to the interpretation of the sample plots, is the statistical variance of the estimate of area for the activity data. The sample design follows a stratified random sampling approach and the whole sample-based estimation approach follows the methods suggested by Olofsson et al (2014). The sample size was determined by using the formula by Cochran (1977) with more detailled provided in section 3.1..Sample points were	High (random)	YES	YES

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			allocated randomly across the entire ER program area of interest. The response design uses the Collect Earth Online interface and enables the technicians to conduct the interpretation of all REDD+ activitities related to the forest/land cover change. The Collect Earth Oline interface is specifically designed by the Forest Inventory and Planning Division and enables the use of high resolution imagery such as Planet or Sentinel-2.			
Extrapolation	**þ**	**ý**	The area estimates are calculated for each activity (deforestation, forest degradation, forest restoration, and reforestation) through the Sample-Based Estimation. Howerver, the "sub-activities" from the twenty various combinations given by the five REDD+ strata change matrix are inferred using the mapped areas. This is an extrapolation but it does not lead to an overestimation of the Emission Reductions for the reasons below: First the technical correction item 2 on the Reference Level enhanced the estimation for forest degradation and does not use the extrapolation outline above but uses only the reference data from the Sample-Based Estimation. Secondly, testing were conducted to assess the feasibility of a technical correction to calculate the AD for the sub-activities based on the reference data. Results of the testing were not considered positive as it would have increased the uncertainty as well as the Reference Level. Thus sticking to the approach based on mapped areas is judged consistent and conservative. Therefore this	Low (bias)	YES	NO

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			source of uncertainty is considered to be low.			
Approach 3	**þ**	**ý**	The AD are generated through Sample-Based Estimation for each time period. The Reference Period has two time periods 2005-2010 and 2010-2015, and the Monitoring period is 2019-2021. The sample plots are different for each period. However, the polygons of the Forest Type Maps have the whole historical trajectory described in the various attributes for the years 2005,2010,2015, 2019 and 2022 which enables to tracks the historical trajectory of land cover class and Activity Data status, identifying lands which are classified as transitioning more than one time between land cover classes. To avoid any over-estimation of emissions and reversals, or double-counting of change, a Time-Series Analysis was conducted under Step 2 of the measurement, monitoring and reporting approach as described in Section 2.2.. Due to the tracking and accounting, the degree of uncertainty is low	Low (bias)	YES	NO

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Sources of uncertainty	Systematic	Random	Analysis of contribution to overall uncertainty	Contribution to overall uncertainty (High/Low)	Adressed through QA/QC	Residual uncertainty estimated ?
Emission/Removal factors						
DBH measurement	þ	þ	The field measurements for the NFI are described in the SOP for the Terrestrial Carbon Measurement (presented in Table 8). Before each NFI campaign, field crew training is conducted. The data collection uses Open Data Kit (ODK)[39] forms that ensure limited entry errors. A specific QA/QC team revisit 15% of the surveyed plots to assess the quality of the measurements and also quantify any errors. The allometric equations of live trees use only diameter at breast height (DBH). Height measurement is done for the case of standing dead trees. The plot delineation is not prone to error as the NFI uses circular plots and distance are measured with an ultrasound measurer (DME).	High (bias) & Low (random)	YES	NO
H Measurement	þ	þ				
Plot delineation	þ	þ				
Wood density estimation	þ	þ	The allometric equations developed and used for Lao PDR do not use wood density classes.	NA	NA	NA
Biomass allometric model	þ	þ	Country-specific allometric equations were developped for the three main forest types in Lao PDR, namely EG, MD and DD forests, using random samples of trees measured with international support[40]. Compared to some data of Chave et al. (2005, 2015), which were obtained in Southeast Asia, Lao national allometric equations estimate lower biomass. The two other	High (bias) & High (random)	NO	YES

[39] ODK is an open-source suite of tools that allows data collection using Android mobile devices and data submission to an online server, even without an Internet connection or mobile carrier service at the time of data collection.
[40] Morikawa Y., Daisuke Y., Therese T., and Walker S., *Development of country-specific allometric equations in Lao PDR*, 2017,

			forest types, namely CF and MCB forests use an equation used in Vietnam２９. The most relevant predictor variable for AGB in the three forest types (EG, MD and DD) was DBH. According to comparative analysis with other data or equations, allometric equations developed were reasonable to be applied to the tree measurement data which are out of the surveyed DBH range, in terms of conservative estimation. The allometric model error was quantified for each model (see Section 3.1) and incorporated into the overall estimate of uncertainty for each EF.			
Sampling	**ý**	**þ**	The sampling error is the statistical variance of the estimate of aboveground biomass. The Lao NFI uses a two-stages random sampling. The uncertainty target for the Lao NFI is 20% with 90% of Confidence Interval. For the 3rd NFI, uncertainties for EG, MD and DD were below 10%, while CF and MCB were below 20%. Sample errors are estimated using Cochran's (1977) two stage random sampling formula, and are included in the Monte Carlo simulation assessment of uncertainty. The number of sample plots was generated using a spreadsheet developed by Winrock International (Winrock Sample Plot Calculator). The sampling error was quantified for each stratum (see Section 3.1) and incorporated into the overall estimate of uncertainty for each EF.	High (random)	YES	YES
Other parameters	**þ**	**þ**	Lao PDR uses a Root-to-Shoot ratio to derive Below Ground Biomass from the AGB. Carbon fraction is also used in the	High (bias/random)	YES	YES

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			calculations. These parameters are not country-specific but sourced from the 2006 IPCC Guidelines. International and national experts were consulted when developing the RL including selection of the IPCC default values, and as the calculation uses the IPCC default values, the possibility of systematic errors is considered to be low. The Monte Carlo simulation and more specifically the Sensitivity Analysis showed very small effect of these parameters.			
Representativeness	**þ**	**ý**	Following the SOP for the Terrestrial Carbon Measurement (presented in Table 8), the random sampling design of the Lao NFI considers all of the five natural forest types across the ER Program area and reports the AGB of each forest type. The SOP is revisited and updated each time before each NFI campaign in order to ensure it is up-to-date and to incorporate improvements. As described earlier in this table, the QA/QC process is integrated in the NFI process and is applied to all lands in the ER Program Area. The results are used for generating the E/R factors which is expected to be representative because the sample data are randomly selected from the population of interest. Therefore this source of uncertainty is considered to be low.	Low (bias)	YES	NO

Sources of uncertainty	Systematic	Random	Analysis of contribution to overall uncertainty	Contribution to overall uncertainty (High/Low)	Adressed through QA/QC	Residual uncertainty estimated ?
Integration						
Model	þ	ý	The entire estimation approach were developed in collaboration with international technical support (e.g. JICA, SilvaCarbon, World Bank). The approach is considered as a best-available approach under the Lao context. In addition to the series of SOPs for data collection, an SOP for the Lao PDR's REDD+ MRV (which shows the steps for the ERs calculation) was also developed (presented in Table 8). Therefore this source of uncertainty is considered to be low.	Low (bias)	YES	NO
Integration	þ	ý	Each AD has a corresponding E/R factors. AD are estimated through remote-sensing observations combined with sample-based estimation (Olofsson 2014) using the REDD+ strata that combine the land/forest classes from the Lao National Classification System. Corresponding E/R factors are estimated based on ground-based observations of the forest type which may be causing a low level of bias. The sample-based estimation process provides an independent QA check on the accuravy of forest classification and forest cover change. The final estimations were peer-reviewed to ensure correctness. Therefore this source of uncertainty is considered to be low.	Low (bias)	YES	NO

5.2 Uncertainty of the estimate of Emission Reductions

Parameters and assumptions used in the Monte Carlo method

The Monte Carlo Method was applied to assess uncertainties of emissions and removals estimates in reference level and the reporting period. In this analysis, all parameters associated with emissions and removals estimates are simulated with assumption of normal probability distribution. Four parameters analyzed are as follows:

- AGB of the five REDD+ strata
  - AD for deforestation, forest degradation, forest restoration and reforestation for the two periods of the RL (2005-2010, 2005-2010), the first monitoring period (2019-2021), and the second monitoring period (2022-2024).
  - Root to shoot ratio (RS)
  - Carbon fraction (all types of forest biomass)

The emissions from logging are included in the Monte Carlo simulation, however, a 15% conservativeness factor is applied both for the RL and MMR due to its proxy nature.

The details of description on parameters, parameters values, standard errors and probability distribution function can be provided in separate spreadsheet "LaoPDR_Uncertainty MC MMR2 20250624.xlsx".

Table 18: Parameters used in the Monte Carlo simulation

Parameter included in the model	Parameter values	Error sources quantified in the model (e.g. measurement error, model error, etc.)	Probability distribution function	Assumptions
Activity Data Deforestation (REDD+ strata 1 to 5) 2005-2010	154 ha (Standard Error (SE)=12 ha)	Sampling error	Normal	Above zero.
Activity Data Deforestation (REDD+ strata 2 to 5) 2005-2010	28,727 ha (SE= 2,263 ha)	Sampling error	Normal	Above zero
Activity Data Deforestation (REDD+ strata 3 to 5) 2005-2010	65 ha (SE=5 ha)	Sampling error	Normal	Above zero
Activity Data Deforestation (REDD+ strata 4 to 5) 2005-2010	223,674 ha (SE=17,621 ha)	Sampling error	Normal	Above zero
Activity Data Degradation (REDD+ strata 2 to 4) 2005-2010	641,565 ha (SE= 85,305 ha)	Sampling error	Normal	Above zero
Activity Data Restoration (REDD+ strata 2 to 1) 2005-2010	71 ha (SE=18 ha)	Sampling error	Normal	Above zero

Activity Data Restoration (REDD+ strata 4 to 2) 2005-2010	57,361 ha (SE=14,750 ha)	Sampling error	Normal	Above zero
Activity Data Restoration (REDD+ strata 4 to 3) 2005-2010	60 ha (SE= 15 ha)	Sampling error	Normal	Above zero
Activity Data Reforestation (REDD+ strata 5 to 4) 2005-2010	182,805 ha (SE= 24,938 ha)	Sampling error	Normal	Above zero
Activity Data Deforestation (REDD+ strata 1 to 5) 2010-2015	767 ha (SE=115 ha)	Sampling error	Normal	Above zero
Activity Data Deforestation (REDD+ strata 2 to 5) 2010-2015	42,539 ha (SE= 6,404 ha)	Sampling error	Normal	Above zero
Activity Data Deforestation (REDD+ strata 3 to 5) 2010-2015	184 ha (SE=28 ha)	Sampling error	Normal	Above zero
Activity Data Deforestation (REDD+ strata 4 to 5) 2010-2015	99,489 ha (SE=14,979 ha)	Sampling error	Normal	Above zero
Activity Data Degradation (REDD+ strata 2 to 4) 2010-2015	636,048 ha (SE= 90,162 ha)	Sampling error	Normal	Above zero
Activity Data Restoration (REDD+ strata 4 to 2) 2010-2015	45,796 ha (SE=16,472 ha)	Sampling error	Normal	Above zero
Activity Data Restoration (REDD+ strata 4 to 3) 2010-2015	49 ha (SE= 18 ha)	Sampling error	Normal	Above zero
Activity Data Reforestation (REDD+ strata 5 to 4) 2010-2015	142,703 ha (SE= 20,470 ha)	Sampling error	Normal	Above zero
Activity Data Deforestation (REDD+ strata 1 to 5) 2019-2021	941 ha (SE=132 ha)	Sampling error	Normal	Above zero

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Activity Data Deforestation (REDD+ strata 2 to 5) 2019-2021	20,067 ha (SE= 2,823 ha)	Sampling error	Normal	Above zero
Activity Data Deforestation (REDD+ strata 3 to 5) 2019-2021	343 ha (SE=48 ha)	Sampling error	Normal	Above zero
Activity Data Deforestation (REDD+ strata 4 to 5) 2019-2021	193,647 ha (SE=27,246 ha)	Sampling error	Normal	Above zero
Activity Data Degradation (REDD+ strata 2 to 4) 2019-2021	346,733 ha (SE= 45,490 ha)	Sampling error	Normal	Above zero
Activity Data Restoration (REDD+ strata 2 to 1) 2019-2021	83 ha (SE=36 ha)	Sampling error	Normal	Above zero
Activity Data Restoration (REDD+ strata 4 to 1) 2019-2021	251 ha (SE=108 ha)	Sampling error	Normal	Above zero
Activity Data Restoration (REDD+ strata 4 to 2) 2019-2021	31,656 ha (SE=19,699 ha)	Sampling error	Normal	Above zero
Activity Data Restoration (REDD+ strata 4 to 3) 2019-2021	5 ha (SE= 2 ha)	Sampling error	Normal	Above zero
Activity Data Reforestation (REDD+ strata 5 to 4) 2019-2021	155,577 ha (SE= 32,493 ha)	Sampling error	Normal	Above zero
Activity Data Deforestation (REDD+ strata 1 to 5) 2022-2024	2,676 ha (SE=233 ha)	Sampling error	Normal	Above zero
Activity Data Deforestation (REDD+ strata 2 to 5) 2022-2024	80,544 ha (SE= 7,001ha)	Sampling error	Normal	Above zero
Activity Data Deforestation (REDD+ strata 3 to 5) 2022-2024	462 ha (SE=40 ha)	Sampling error	Normal	Above zero
Activity Data	208,045 ha (SE=18,082 ha)	Sampling error	Normal	Above zero

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Deforestation (REDD+ strata 4 to 5) 2022-2024				
Activity Data Degradation (REDD+ strata 2 to 4) 2022-2024	119,240 ha (SE= 18,683 ha)	Sampling error	Normal	Above zero
Activity Data Restoration (REDD+ strata 2 to 1) 2022-2024	18 ha (SE=7 ha)	Sampling error	Normal	Above zero
Activity Data Restoration (REDD+ strata 4 to 2) 2022-2024	11,511 ha (SE=4,289 ha)	Sampling error	Normal	Above zero
Activity Data Restoration (REDD+ strata 4 to 3) 2022-2024	27 ha (SE= 10 ha)	Sampling error	Normal	Above zero
Activity Data Reforestation (REDD+ strata 5 to 4) 2022-2024	97,933 ha (SE= 12,266 ha)	Sampling error	Normal	Above zero
Carbon Fraction	0.47 (SE=0.00647)	Model error	Normal	No assumption
Root to Shoot ratio (AGB<125 tC/ha)	0.2 (SE=0.012)	Model error	Normal	No assumption
Root to Shoot ratio (AGB>125 tC/ha)	0.24 (SE=0.025)	Model error	Normal	No assumption
Above Ground Biomass REDD+ strata 1	353.1 tC/ha (SE=19.636 tC/ha)	Sampling error	Normal	Above zero
Above Ground Biomass REDD+ strata 2	150.6 tC/ha (SE=4.61 tC/ha)	Sampling error	Normal	Above zero
Above Ground Biomass REDD+ strata 3	90.1 tC/ha (SE=4.136 tC/ha)	Sampling error	Normal	Above zero
Above Ground Biomass REDD+ strata 4	20.4 tC/ha (SE=2.038 tC/ha)	Sampling error	Normal	Above zero
Above Ground Biomass REDD+ strata 5	8.3 tC/ha (SE=0.844 tC/ha)	Sampling error	Normal	Above zero
Emissions from logging for the	815,197 tCO2e (SE= 90,171 tCO2e)	Sampling error	Normal	Above zero

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RL (annual average)				
Emissions from logging for the 1st MMR (Annual average)	904,308 tCO2e (SE=100,581 tCO2e)	Sampling error	Normal	Above zero
Emissions from logging for the 2nd MMR (Annual average)	162,289 tCO2e (SE=18,299 tCO2e)	Sampling error	Normal	Above zero

Quantification of the uncertainty of the estimate of Emission Reductions

Table 19: Quantification of uncertainty

		Reporting Period		Crediting Period	
		Total Emission Reductions*	**Forest degradation****	**Total Emission Reductions***	**Forest degradation*** *
A	**Median**	550,264	1,955,576	5,255,242	1,686,217
B	**Upper bound 90% CI** (Percentile 0.95)	-6,270,209	1,498,402	-7,350,701	900,036
C	**Lower bound 90% CI** (Percentile 0.05)	7,368,242	2,397,044	17,769,678	2487,108
D	**Half Width Confidence Interval at 90% (B – C)/ 2**	6,819,225	449,321	12,560,190	793,536
E	**Relative margin (D / A)**	1239%	23%	193%	47%
F	**Uncertainty discount**	15%	15%	15%	15%

*Remove forest degradation from the estimate if forest degradation has been estimated with proxy data.
**Remove the column if forest degradation has not been estimated using proxy data.

5.3 Sensitivity analysis and identification of areas of improvement of MRV system

The sensitivity analysis helps to identify how each parameter contribute to the overall uncertainty. Lao PDR used the Monte Carlo analysis spreadsheet provided under the Guidance note on estimating uncertainty of ERs using Monte Carlo simulation. To assess the impact of a specific parameter, the Monte Carlo analysis was conducted by turning "off" all other parameters, by defining their standard error as nearly 0 (0.00000001).

The table below shows the results of the sensitivity analysis with the uncertainty for all emission reductions including those from forest degradation estimated with proxy data. The results shown below can be found in the tab "Sensitivity Analysis MMR2", in the spreadsheet "LaoPDR_Uncertainty MC MMR2 20250624.xlsx". The sensitivity analysis is based on five additional spreadsheets, one for each individual parameter.

Table 20: Sensitivity analysis

Parameter	Uncertainty with one turned on (%)
All ON	272
R:S Uncertainty ON	11
CF Uncertainty ON	2
AGB Uncertainty ON	69
E/Removal factors Uncertainty ON (with RS, CF and AGB ON)	70
Activity Data ON	263

These results indicate that the uncertainty of the Emission Reductions comes mainly from the Activity Data as the uncertainty percentage is still very high, 263%, when only the uncertainty of AD is considered. It appears that another more prominent reason for the high overall uncertainty is the fact that the ERs are relatively low compared to the original RL emission total.

Additional analyses were conducted to further identify which specific AD causes the uncertainty. In the following table, individual AD for each time period were turned "ON". The uncertainty from the sample-based estimation for the forest degradation seems to be the main source of the overall uncertainty, especially for the monitoring period. In the future, increasing the sampling intensity may help to reduce the resulting uncertainty.

Table 21: Analysis uncertainty per specific AD

Parameter	Uncertainty (%)
Activity Data ON	263
Deforestation RL 2005-2010 ON	16
Deforestation RL 2010-2015 ON	39
Deforestation MMR2	144
Degradation RL 2005-2010 ON	159
Degradation RL 2010-2015 ON	102
Degradation MMR2	81
Restoration RL 2005-2010 ON	32
Restoration RL 2010-2015 ON	27
Restoration MMR2	7
Reforestation RL 2005-2010 ON	27
Reforestation RL 2010-2015 ON	12
Reforestation MMR2	12

6 TRANSFER OF TITLE TO ERS

6.1 Ability to transfer title

The legislative framework of Lao PDR and specific regulations related to Lao REDD+ management, development, and implementation are unequivocal in granting full authority to the Ministry of Agriculture and Forestry (MAF) as the Program Entity, with full rights to transfer the ER title ownership. The legislative framework includes the Constitution of Lao PDR, its Land Law, and Forest Law. Specific articles vest responsibility with MAF: Annex 8.3 of the Final Benefit Sharing Plan for the Emission Reductions Program of Lao PDR (September 2021) provides an overview of these laws and articles.

For reaching this conclusion, a detailed assessment of national legal systems was completed with regards to the right of the Program Entity's ability to transfer the ER title to the Carbon Fund. Consultations on this issue with land holders and provincial agencies (PAFOs and DAFOs) in the six ER Program provinces were also done. In addition, the Lao Bar Association (Attorney Association) reviewed the assessment note and concluded that the note is in line with current laws and regulations of Lao PDR (available upon request). It formalizes the conclusion of the assessment note that the MAF has full and complete rights to the transfer of ER titles that meets the legal requirements of the ERPA. The passage of the revised Forestry Law in 2019 further strengthens authorization of MAF in this aspect.

For private sector tree planters, sub-agreements with the private planters will be developed to specify carbon rights for planted trees. Implementation of GFLL in province areas started only after the 1st results-based payment was received in 2024. No sub-agreements have been used for ERs reported under this first reporting period. There is only one company where ERs generated may come from activities on privately owned tree-plantations. However, this company has formally agreed not to claim these ERs up to the timeline of the ERPA, 31 December 2024, and has provided this agreement in writing to GoL. Thus, there are no ERs that involve any transfer of title. Please see Section 6.4 for additional information.

The sub-agreement contracts will ensure that only the Program Entity has the full power to transfer ownership of carbon rights for planted trees. The Benefit Sharing Plan has a provision for the involvement of private sector in ER Program under a pilot initiative scheme: its call for proposals will be announced six months prior to the delivery of first ER Payment. Sub-agreement contracts will be awarded to successful proponents, of private sector proposals that are successfully assessed and selected by Provincial Project Management Committees (PPMCs).

No titles to the ERs from the ER Program were contested during the 1st reporting period. Currently. The MAF does not foresee such risks for the 2nd reporting period.

- **Institutional and legal arrangement to avoid having multiple claims to an ER Title**

The risk of competing claims to the results proposed to the ER Program is controlled for the following reasons:

1. Most of the REDD+ results have been generated from reduction of emissions from deforestation and forest degradation of natural forests that belong to the national community and are managed by the state; and

2. Individuals or private companies may claim generation of REDD+ results from their privately-owned tree plantations. Several articles relate to forest carbon trade in the revised Forestry Law in this respect, such as in Article 5 State Policy on Forestry and Forestland, Article 65 Utilization of Forest, Timber and NTFPs for Business Purposes, Article 92 Types of Forestry Business, Article 103 Trade in Forest Carbon, Article 104 Operation of Forestry Businesses and Article 126 Usufruct Rights for Forest and Forestland)

The Lao Government encourages individuals, legal entities and organizations to conduct carbon trade under international mechanisms as a forest business: however, such businesses need to be registered in accordance with the Law on Investment Promotion or Law on Enterprises (Article 104). Taking all the articles presented above into

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account, “Individuals, households, legal entities or organizations…” in Article 126 are interpreted as including forest carbon businesses that need to be registered under the relevant laws.

Despite the provisions and interpretation of the Articles of the Forestry Law (2019) presented above, if competing claims were to be presented by a third party, the Government would take full responsibility and take all necessary legal measures to resolve this issue.

One REDD+ project has emerged since the ERPD was prepared in 2018. The project has geographical overlap with the ER Program (See Section 6.4). To avoid the issue of double counting or claiming of the ERs, the Executing Entity and the project have already agreed that the project will not seek ER credits to be issued for the ERPA period (2019-2024).

In May 2025, the Government Decree on Carbon Credits (No. 292/was endorsed by the GoL. The Decree provides high-level institutional roles and responsibilities on carbon policy and project management; lists the requirements and expectations of project developers; and clarifies overarching processes on approval, registration, and implementation. The Decree specifies the role of the new Ministry of Agriculture and Environment (MAE) that merges with former MAF and MoNRE. The MAE plays a pivotal role in coordinating policy development and overseeing registration and reporting for the nation's international climate obligations. **The MAE has also succeeded the ability to transfer title from the MAF**.

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6.2 Implementation and operation of Program and Projects Data Management System

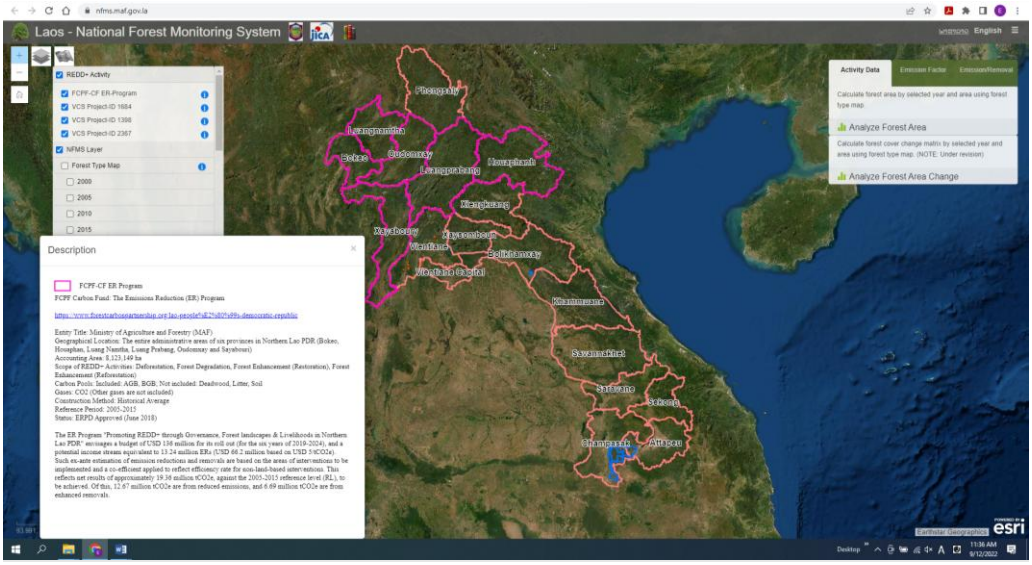
■ **Information on REDD+ projects published through the NFMS web-portal**

Lao PDR has developed its NFMS web-portal <https://nfms.dof.maf.gov.la/> to publish information on REDD+ projects, and to ensure transparent, accountable and coordinated implementation of REDD+ on different scales. The web-portal allows users to identify all forest carbon-related projects formally recognized by the Government of Lao PDR. By aligning the NFMS web-portal with the mandates of the respective entities, the DOF ensures a robust and legally recognized environment for the management of program and project data. The information includes:

- **Project Geography:** Locations and geo-spatial boundaries.
- **Project Entities:** Identification of the organizations responsible for the projects.
- **Detailed Project Descriptions:** Information on the scope of REDD+ activities, carbon pools, and gases.
- **Links to Full Documentation:** Access to comprehensive project information.

The information published through the Program and Prjects Data Management Sysytem, as well as other projects still in its formulation stage, therefore yet to be disclosed, are periodicaly reported to the NRTF. The DOF is responsible for keeping the information on REDD+ projects updated and transparent. The technical divisions under DOF, namely the REDD+ Division and the FIPD, are responsible for ensuring the information as well as the system are robustly maintained[41]. The NFMS Technical Working Group serves as the venue to discuss the IT architecture and behind the system.

[41] The REDD+ Division is tasked to supervise and coordinate REDD+ projects. The FIPD is trained to maintain and update the NFMS Web-portal including for the REDD+ projects following the technical procedures defined in the Standard Operation Procedures (SOP) for the National Forest Monitoring System Servers and Network; National Forest Monitoring System Data Installation Manual; and National Forest Monitoring System User Manual



Lao PDR does not yet have a formalized administrative procedures that defines the operations of the REDD+ Programs and Projects Data Management System other than the legal arrangements explained in Section 6.1. The DOF is aware of the importance and currently in a process of preparing such formal procedures.

With respect to the national legislation on management of carbon credits as well as a sectoral legislation on forest carbon credits in consultation, Lao PDR is actively formalizing the administrative procedures governing the Data Management System through new national and sectoral legislation. Key recent developments include: .

- The Prime Minister Decree on Carbon Credit (May 2025): This newly approved decree provides high-level institutional roles and responsibilities for carbon policy and project management. It clarifies the overarching processes for the approval, registration, and implementation of carbon projects, paving the way for the Lao forestry sector and stakeholders to utilize carbon credits as innovative climate financing opportunities.
- Lao PDR Carbon Project Approval and Management Guidelines (under drafting): this guidelines is designed to be a subsidiary to the Carbon Credit Decree and serve as an operations manual that provides key steps, specific requirements, and relevant processes applicable to carbon projects in Lao PDR, including those applicable to Article 6 engagement. These guidelines provide binding guidance applicable to Project Proponents with the view to support the operationalization of broader carbon market engagement in Lao PDR, including the process for participating in Article 6 of the Paris Agreement.

6.3 Implementation and operation of ER transaction registry

The institutional and legal arrangements explained in 6.1 and 6.2 will ensure that any ERs from REDD+ activities under the ER Program are not double-counted. They also guarantee that any ERs from REDD+ activities under the ER Program sold and transferred to the Carbon Fund are not used again by any entity for sale, public relations, compliance or any other purpose.

Lao PDR will use the World Bank Emission Reduction Transaction Registry (CATS – Carbon Assets Tracking System) to issue and transfer the ER units generated under the Lao PDR ER Program. There is no national registry in place yet.

6.4 ERs transferred to other entities or other schemes

To date, no ERs from the ER Program have been sold, assigned or used by any other entity. Lao PDR has no plan to sell ERs from the ER Program that would result in a percentage of units generated in the crediting period not being

issued as FCPF ERs. Thus, 100% of the monitored ERs during the 1st reporting period, which are subject to verification, were offered to the Carbon Fund.

A Verified Carbon Standard (VCS) project [42] "Afforestation in Eucalyptus and Acacia Plantations for Burapha Agroforestry Co., Ltd.), is under "Registration and verification approval requested" status. Its proposed 1st crediting period term (31 May 2016 – 30 May 2036) and its project area in Xayaboury province overlaps with the ER Program. DOF and project proponent have agreed that the VCS project will not seek ER credits generated from its site in Xayaboury province to be issued for the ERPA period (2019-2024). This agreement (available upon request) has been made through receipt of a signed undertaking to this effect by Burapha Agroforestry Co Ltd dated 18 May 2023 wherein Burapha agrees to surrender all titles to ERs from the ER Program area and overlapping reporting period. Further DOF has transmitted this signed undertaking from Burapha Agroforestry Co Ltd to the FMT and the World Bank Task Team, Lao on 14 June 2023. In addition, drafts of these letters were pre-approved by the World Bank legal team and are considered adequate assurance.

[42] Project ID 2367 <https://registry.verra.org/app/projectDetail/VCS/2367>. The project proponent have developed its tree plantation about 3,475 ha by 2020, and plans to scale up to 15,000 ha by 2021. The future goal is to manage 68,750ha of forests (plantation and protected areas) in total. Over a crediting period of 20 years the project expects to generate 408,682 tCO2e, 20,434 tCO2e/year (after discount of buffers). Note that the project site(s) in Xayaboury province is only a part of the entire project sites of the five provinces.

7 REVERSALS

7.1 Occurrence of major events or changes in ER Program circumstances that might have led to the Reversals during the Reporting Period compared to the previous Reporting Period(s)

No Reversal was observed in the 2nd ER monitoring period (see Section 7.2. below).

However, the 2nd ER monitoring period experienced an increase in emissions compared to the 1st ER monitoring period. As already analyzed in Section 1.2, more deforestation occurred than both the Reference Period, and the 1st ER monitoring period. Deforestation during the 2nd ER monitoring period occurred in relatively good forest (current forest strata with higher carbon stock) (29%), compared to 10% in the 1st ER monitoring period. The rest of deforestation occurred in degraded forestland (potential forest strata with lower carbon stock), which was 71% for the 2nd ER monitoring period compared to 90% for the 1st ER monitoring period.

The satellite-based interpretation using Collect Earth Online conducted as a part of the NFI 4 suggests that deforestation is still largely driven by upland cropping (classified as Upland Crop), in other words shifting cultivation. This is followed by permanent type of agriculture for cash crop and cattle grazing (classified as Other Agriculture). The field spot check of deforestation area using the PDMS agrees with this result, showing upland cropping as the largest driver throughout the entire ER monitoring period[43].

The Lao Agricultural Statistics Book indicates a significant increase in cassava cultivation within the ER Program provinces. Both harvested area and production have shown obvious growth, starting gradually in 2018 and accelerating notably from 2021. This trend aligns with the observations of government and forestry experts, who note that the "cassava boom" began in southern Laos before moving northward to the central and northern regions.

7.2 Quantification of Reversals during the Reporting Period

Not applicable as no reversal was observed in the 2nd ER monitoring period.

7.3 Quantification of pooled reversal buffer replenishments

Not applicable as no reversal was observed in the 2nd ER monitoring period.

7.4 Reversal risk assessment

Reversal risk assessment for this Reporting Period was conducted based on the FCPF Buffer Guidelines (Version 4.2.1 March 2025). The assessment specifically followed the Reversal Risk assessment tool provided in the Buffer Guidelines, to determine the Reversal Risk level for specific Risk Factors. Risk Indicators assess the Reversal Risk for each factor. Then, the Risk Score is assessed for each Risk Factor separately as high, medium, or low.

The results indicate that all Risk Factors are Low.

[43] Note that distuingishing upland cropping and perament type of agriculture is still challenging, as it requires time-series analysis of multiple years.

Table 22: Summary of Reversal Risk Assessment

Risk Factor	Description	Final score
Risk Factor A: Lack of broad and sustained stakeholder support	ER Program stakeholders are aware of, and/or provided feedback to and have positive experience with its FGRM and benefit sharing arrangements. To date, no grievances have been lodged with either the initial system or the modified system. A robust assessment of the effectiveness of stakeholder engagement, FGRM and benefit sharing will require more time, as the ER Program is still in the early stage of its community-level activities.	Medium
Risk Factor B: Lack of Institutional capacities and/or ineffective vertical/cross sectoral coordination	ER Program has been effective in institutional capacities and vertical/cross sectoral coordination	Low
Risk Factor C: Lack of long-term effectiveness in addressing underlying drivers	ER Program has been implemented under effective environment to address underlying drivers, and to systematically decouple deforestation and forest degradation from all economic activities.	Low
Risk Factor D: Exposure and vulnerability to natural disturbances	Although natural disasters remain a serious threat in Laos, their impacts on forests are limited. The government policies, legal system development, and collaboration with international organizations and local communities, which have been further strengthened since 2019, have made remarkable progress in enhancing forest resilience and actively mitigating their impacts.	Low

Supplementary to the above assessment, there are several assumptions that support the 'Low risk' of reversals for the post-2nd ERMR period, despite that fact that deforestation and forest degradation has increased in the 2nd ERMR period (2022-2024) compared to the 1st ERMR period (2019-2021).

In the context of Lao PDR where market-driven agriculture commodity is the dominant driver of deforestation and forest degradation. The success in reducing emissions relies on decoupling deforestation and degradation from economic activities:

- The data produced for the 2nd ERMR shows that deforestation was observed more in Regenerating Vegetation areas (low carbon stock) and significantly less in intact natural forests (high carbon stock). This indicates that economic output from agriculture is occurring with reduced impact on high-value forests, reflecting the effectiveness of land use planning and law enforcement.
- This also suggests improved conservation of intact natural forests with high carbon stock, despite ongoing agricultural practices. Furthermore, time-series analysis indicates that degraded forests, once restored, are largely maintained as forests and have not reverted back to regenerating vegetation due to slash-and-burn activities: less than 0.5% (or 20,000 ha) for the 1st ERMR period (2019-2021) and less than 0.25% (or 10,000ha) for the 2nd ERMR period (2022-2024), showing a reduction in reversal risk related to these practices.
- The Lao government and the stakeholders are collaborating to expand the proven approach, including PLUP, alternative and sustainable livelihoods, forest management, and near-real time forest monitoring (PDMS). Land tenure and registration is a strong priority, as demonstrated in the NA Resolution 57 (Sep. 2024) followed by Prime Minister's Order No. 20 (November 2024), and the National Action Plan for the Recognition of Land Use Rights in Forestland. Furthermore, all safeguards will be fully respected to ensure positive, long-term impacts

This also implies the importance of looking at the quality of land-use changes. Discussing the results based only on area (ha) can be misleading, as the carbon stock of the respective changed areas is the crucial factor for deriving the

final results in tCO2e. The increase or decrease in forest areas does not automatically translate to the same degree or trend in emissions and removals.

As presented in Section 1, there are increasing supports planned beyond the ER Program crediting period (2019-2024), providing large-scale investment and capacity building for the protection of forest landscapes and livelihoods in the ER Program area. The GFLL was limited in its field activities during the 2nd ERMR period (2022-2024), and most of the field interventions are starting from 2025, expected to generate its impacts.

The GFLL project had limited field activities during the 2nd ERMR period. Most field interventions are scheduled to begin in 2025, when they are expected to generate their intended impacts.

Risk Factor	Risk indicators	Default Reversal Risk Set-Aside Percentage	Discount	Resulting reversal risk set-aside percentage
Default risk	*N/A*	**10%**	*N/A*	*10%*
Lack of broad and sustained stakeholder support	• Are stakeholders aware of, and/or have positive experience with Emission Reduction Programs, FGRM, benefit sharing arrangements etc. or similar instruments in other contexts? • Have complaints, claims or occurrences of conflicts over rights and tenure been addressed?	**10%**	Reversal Risk is considered medium: 5%	5%
Lack of institutional capacities and/or ineffective vertical/cross sectorial coordination	• Is there a track record of key institutions in implementing programs and policies? • Is there experience of cross-sectoral cooperation? • Is there experience of collaboration between different levels of government?	**10%**	Reversal Risk is considered low: 10%	0%
Lack of long term effectiveness in addressing underlying drivers	• Is there experience in decoupling deforestation and degradation from economic activities? • Is relevant legal and regulatory environment conducive to REDD+ objectives?	**5%**	Reversal Risk is considered low: 5%	0%
Exposure and vulnerability to natural disturbances	• Is the Accounting Area vulnerable to fire, storms, droughts, etc.? • Are there capacities and experiences in effectively preventing natural disturbances or mitigating2 their impacts?	**5%**	Reversal Risk is considered low: 5%	0%

Total reversal risk set-aside percentage	15%
Total reversal risk set-aside percentage from ER-PD or previous monitoring report (whichever is more recent)	15%

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8 EMISSION REDUCTIONS AVAILABLE FOR TRANSFER TO THE CARBON FUND

	Year		2022	2023	2024	Total
A.	**Emission Reductions during the Reporting period (tCO_2-e)**	*from section 4.3*	847,735	847,735	847,735	2,543,205
B.	**If applicable, number of Emission Reductions from reducing forest degradation that have been estimated using proxy-based estimation approaches (use zero if not applicable)**		652,908	652,908	652,908	1,958,725
C.	**Number of Emission Reductions estimated using Measurement approaches (A-B)**		194,827	194,827	194,827	584,480
D.	**Percentage of ERs (A) for which the ability to transfer Title to ERs is clear or uncontested**	*from section 6.1*	100%	100%	100%	
E.	**ERs sold, assigned or otherwise used by any other entity for sale, public relations, compliance or any other purpose including ERs accounted separately under other GHG accounting schemes or ERs that have been set-aside to meet Reversal management requirements under other GHG accounting schemes**	*from section 6.4*	0	0	0	0
	If applicable, any buffer replenishments	*section 7.3 P*	0	0	0	0
F.	**Total ERs [(B+C)*D-E] minus, if applicable, any replenishments as per section 7.3, P**		847,735	847,735	847,735	2,543,205
G.	**Conservativeness Factor to reflect the level of uncertainty from non-proxy based approaches associated with the estimation of ERs during the Crediting Period**	*from section 5.2*	15%	15%	15%	
H.	**Quantity of ERs to be allocated to the Uncertainty Reversal Buffer (0.15*B/A*F)+(G*C/A*F)**		127,160	127,160	127,160	381,480

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I.	**Total Reversal Risk set-aside percentage applied to the ER program**	*from section 7.4*	15%	15%	15%	
J.	**Quantity of ERs to be allocated to the Pooled Reversal Buffer (F-H)*I**		108,086	108,086	108,086	324,258
K.	**Number of FCPF ERs (F- H – J)**		612,489	612,489	612,489	1,837,467
L.	**Percentage of Emission reductions from enhanced Removals from afforestation/reforestation as a percentage of the total FCPF ERs [Optional if the country wishes to generate enhanced Removals]**	*From section 4.3*				0
M	**Number of FCPF ERs from enhanced Removals from afforestation/reforestation (L * K) [Optional if the country wishes to generate enhanced Removals]**		0	0	0	0

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ANNEX 1: INFORMATION ON THE IMPLEMENTATION OF THE SAFEGUARDS PLANS

(UPDATED AS OF JUNE 2026)

Context- It is important to reiterate that the ERP constitutes the results-based payment component of a broader package of investments (including I-GFLL), which together support forest governance, community engagement, and sustainable land-use practices across the program area and generate significant non-carbon benefits.

Within this broader architecture, there are multiple investments that finance the upfront activities and enabling conditions, such as participatory land-use planning, village forest management, institutional strengthening, and climate-smart agriculture, while the ERPA provides ex-post payments for verified emission reductions, channeled through the BSP to incentivize continued implementation of these activities at the local level. In this sense, the ERP does not operate as a standalone intervention but rather as a performance-based layer that reinforces and sustains the outcomes of the underlying investments. Therefore, it should be understood that, in this monitoring report, the first GFLL ERPA payment targeted 247 villages, and, depending on the 2nd payment, it may increase to about 386. However, across the ERP, the total number of villages that will benefit from the broader underlying investments through GFLL, IGFLL, and other development partners is much higher (over 800). It is also necessary to note that GFLL and I-GFLL villages do not overlap.

Within this architecture, safeguards reporting should also be understood in both jurisdictional and instrument-specific terms. At the jurisdictional level, the ERP safeguards framework and associated reporting assess how the overall ERP area manages environmental and social risks and impacts, including GFLL, I-GFLL, and other partner-supported activities. This aligns with the ERP design, which recognizes that implementation is supported by multiple sources of finance and actors, and that safeguards due diligence must therefore consider national requirements, World Bank safeguards, donor requirements, and UNFCCC REDD+ safeguards. For example, because I-GFLL is largely GCF-funded, separate safeguards reports are submitted to the GCF. The World Bank has reviewed and accepted the ERP's overall safeguards approach, including the use of a jurisdictional safeguards framework and due diligence covering relevant partner-supported activities.

As such, ERPA/BSP reporting focuses on the specific villages and activities directly linked to ERPA benefit distribution, including the CEP, CAPs, grievance redress, and measures to avoid exclusion, access restrictions, elite capture, and unmanaged environmental risks.

- **Requirements of FCPF on Managing the Environmental and Social Aspects of ER Programs**

The GFLL Program is required to comply with World Bank (WB) operational policies and performance standards that identify, avoid, minimize, and, where required, mitigate adverse impacts on people and the environment. The safeguard instruments prepared by the GFLL Program provide a framework of principles, processes, and clear instructions that aim to ensure that people and the environment are safeguarded against potential adverse impacts from the GFLL Program. Implementing these policies requires the government and project implementing agencies under the GFLL Program to address certain environmental and social risks to achieve the Program's goals and objectives.

This Annex summarizes the overall implementation of safeguard activities by the GFLL/FCPF, focusing on the application of the main safeguard instruments, namely the Strategic Environmental and Social Assessment (SESA), the Environment and Social Management Framework (ESMF), the Ethnic Group Policy Framework (EGPF), the Process Framework (PF), and the Resettlement Policy Framework (RPF), which have been approved by the WB as part of the ERPA conditions of effectiveness. To simplify and streamline the project safeguard documents, all these instruments have been combined into a single implementation guideline, namely the "Safeguard Package" (SP), after the project became effective.

The SP adopts a Community Engagement Process (CEP) that incorporates the requirements of PF and EGDF (the latter applies to villages with ethnic groups [Indigenous Peoples or IPs]). The final output of the CEP is a Community Action Plan (CAP), which is prepared as one of the prerequisites for ERP grant disbursement, as specified in the BSP. Thus, in villages where ethnic groups (IPs) are present, a standalone Site-Specific EGDP, as mentioned in the original EGDF, is no longer required, since the CAP for ethnic villages, prepared through the participatory process (CEP), sufficiently addresses key OP 4.10 (EGDF) requirements. The originally agreed CEP and CAP have been introduced and applied during project implementation. Based on lessons learned from the first 2 batches of CAPs and similar and associated projects financed by the World Bank in Laos, both the CEP and the CAP have been further streamlined and simplified. This streamlining and simplification process was agreed with the Regional Safeguard Advisor of the WB, as confirmed in their email dated March 7, 2025.

All these safeguard frameworks documents (EGDF, ESMF, PF and RPF prepared before project appraisal) and the Safeguard package (prepared after project effectiveness) are available on the WB website: https://projects.worldbank.org/en/projects-operations/document-detail/P165751?type=projects

Local communities living inside or in proximity of any of the 3 forest categories (Protection Areas/PA, Production Forest Areas/PFA, or Protected Forest Areas/PtF) and villages in the watershed are likely to have the most significant role in the success of the GFLL Program. Therefore the project is specifically targeting these villages for the preparation of village-specific Community Action Plans (CAPs) which aim to address deforestation and forest degradation.

The **purpose of the Community Action Plan (CAP)** is to outline village priorities for the development of forest-based and forest-related livelihoods, as well as grey/green infrastructure initiatives. At the same time, the CAP is one of the main instruments to address and manage risks and impacts of restriction of access to land, natural resource and other forest resources resulted from the project implementation in accordance to the Process Framework (PF) applied under the Project. The CAP also serves as an Ethnic Group Development Plan (EGDP) for villages where ethnic groups meeting the WB's definition of Indigenous Peoples (IPs) are present with collective attachment to the project area as per the Ethnic Groups Development Framework (EGDF).

This Annex also provides information on the implementation of the safeguards plans for the GFLL project and other projects operating in six northern provinces of Lao PDR, namely Bokeo, Huaphan, Luang Namtha, Luang Prabang, Oudomxay, and Sayaburi. The Provincial Department of Agriculture and Forestry and the District Agriculture and Forestry Offices (PAEOs/DAEOs) are responsible for implementing the safeguards plans for the projects at the subnational level, whereas the DOF/REDD Division has overall responsibility for technical support and management of safeguard issues at the national level.

- **Monitoring and Reporting Requirements**

1. Entities that are responsible for implementing the Safeguards Plans are adequately resourced to carry out their assigned duties and responsibilities as defined in the Safeguards Plans.

1.1 Summarize the key institutional arrangements, such as decision procedures, institutional responsibilities, budgets, and monitoring arrangements that are required under the Safeguards Plans.

The GFLL is implemented at the subnational level across the six Northern Provinces of Bokeo, Houaphan, Luang Namtha, Luang Prabang, Oudomxay, and Sayaboury. Overall implementation will be carried out by DoF and its relevant divisions, coordinated by the REDD+ Division and REDD+ Offices, with day-to-day operations managed by local line agencies. The brief institutional framework for safeguards implementation and monitoring, as well as the roles and responsibilities, is presented below in Diagrams 1 and 2, respectively.

Diagram 1: Institutional Arrangements GFLL

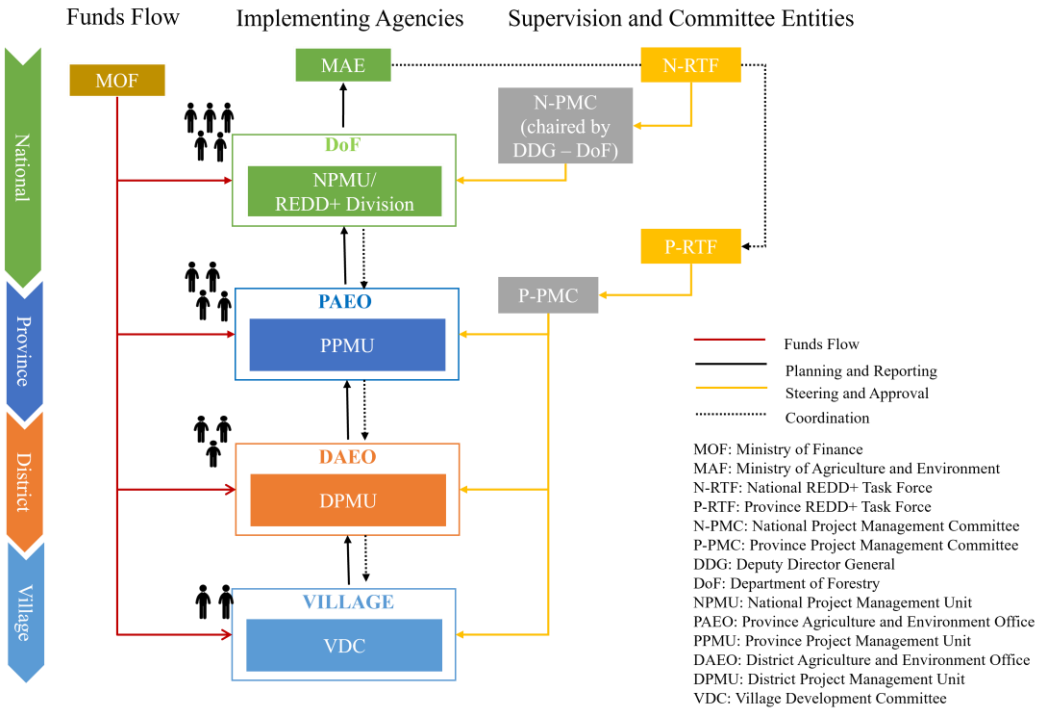
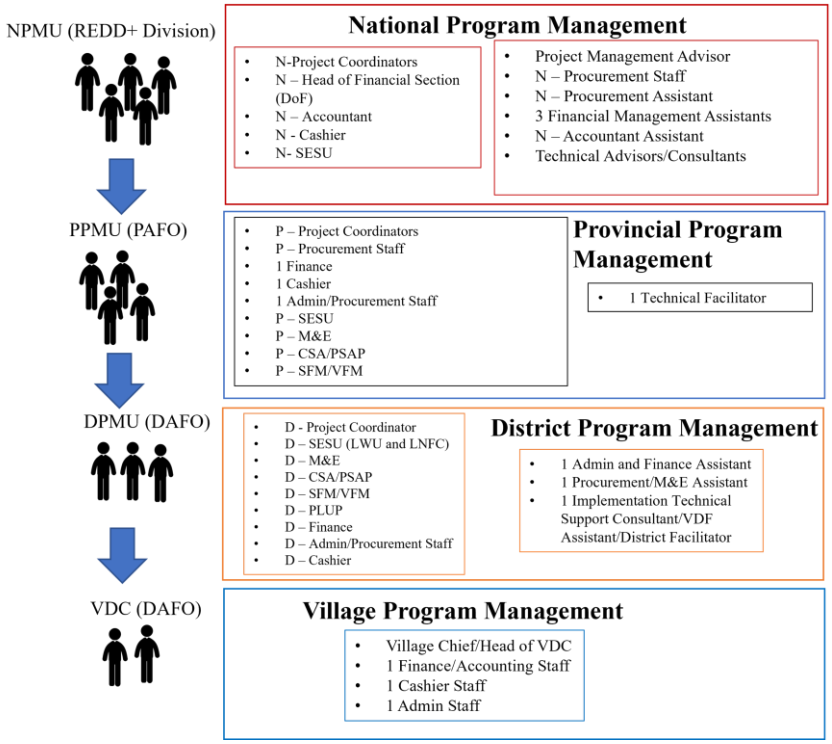


Diagram 2: Overall Responsibilities for Safeguards Management



The brief institutional arrangements for safeguards planning, implementation, and monitoring under the GFLL project, as well as their roles and responsibilities and budget expenditures, are given below in Table 1 and 2 respectively

Table 23. Responsibilities, Arrangements for Safeguards Planning, Implementation and Monitoring

Nn.	Agencies	Responsibilities	Planning, implementation and monitoring arrangements
1	Department of Forest (DoF)	Program Implementing entity is responsible for overseeing the Program implementation, including ESMF implementation and environmental & social compliance of the Program.	Monitoring at least 2 times a year (bi-annually)
2	National Project Management Unit (NPMU) at DoF	NPMU will be responsible for the overall Program planning, implementation and monitoring. NPMU will have the final responsibility for ESMF compliance, including sub-framework instruments, which ensures environmental and social compliance of the Program during the planning, implementation, and operational phases.	Quarterly monitoring (ideally each province or as needed), before and during project activity implementation Quarterly Monitoring Report, including the status of current safeguard compliance and details on the methods used for stakeholder consultation and Disclosure meetings.

Nn.	Agencies	Responsibilities	Planning, implementation and monitoring arrangements
			Based on monitoring results, update (as needed) SIS Manual with safeguard technical team working group.
3	Social and Environmental Safeguards Unit (SESU). Provincial and district level.	Social and Environment Safeguard Unit (SESU) will be responsible for managing and monitoring the implementation of the World Bank's environmental safeguard policies in all stages and processes of the Program. SESU is staffed by focal staff (focal points) appointed from PAEOs/DAEOs, and partnered agencies.	Implementing safeguard policies described in safeguard instruments (ESMF, EGDF, PF, and SP), including preparing the CAP through the three steps of CEPs and other safeguard documents in the first stage, under the implementation and operation phase, SESU will implement, monitor, and report safeguard implementation and regularly coordinate with NSESU at the central level. and data collection of Safeguard is completed (Code 3.1.3: Activity Consultation on SIS Technical Document with safeguard, technical and other stakeholders)
4	PPMUs	PPMU is responsible for implementation of all the ESMP activities to be carried out under the Program in coordination and cooperation with contractor, local authorities, and local communities	Activity Data collection through primary research and field visits; and consultations for EGDP (No 4.1.1.1) and Activity Data collection through primary research and field visits; and consultations for Gender Action Plan (GAP) (Code 4.1.2.1) and social impact assessment/screening for infrastructure or civil works sub-projects in six provinces based on annual work plan (4.1.4.1)
5	PAEO/DAEO, PoNRE/DoNRE	PAEO/DAEO and PoNRE/DoNRE are responsible to oversee the implementation of sub-projects under recommendations of DoNRE and PPMU/PMU to ensure compliance of policy and regulations as well as monitoring the compliance for environmental requirements.	Not yet implemented. Budget needs to be allocated
6	Independent Third-Party Monitoring (TPM)	The TPM will perform independent verification of self-reporting data provided by the DoF and annual audits of a sample	The TPM has been conducted, but a second phase is planned before the closure of the ERPA in early 2027.

Nn.	Agencies	Responsibilities	Planning, implementation and monitoring arrangements
		of ER Program activities including safeguards documentation, consultation processes, effectiveness of management measures specified in the Safeguards Plans, and disclosure of information, among other important aspects in a timely manner.	The objective of the TPM is to identify any noncompliance deviations from ERPA obligations during project implementation and communicate them to DOF in order for DOF/project to take corrective measures. The TPM also provides information to the WB on systemic safeguard performance issues, which may require changes in management approach and/or additional financial or human resources. The TPM report will help potential future WB support aspects.
7	Communities	The community has the right and responsibility to routinely monitor environmental and social safeguard performance during construction to ensure that their rights and safety are adequately protected and that the mitigation measures are effectively implemented by the PMU/ PPMUs.	Not yet implemented. Budget need to be allocated
8	Social organizations, NGOs, and civil society organizations	Provide in community mobilization, participation in the subprojects, providing training to communities and solving environmental and social problems.	RECOFTC has been mobilized through the EnABLE project to support GFLL implementation with emphasis in CEP and CAP preparation and implementation, gender and social inclusion, and participating in addressing E&S safeguard related issues and grievances The project has become effective from September 4, 2025.

Table 24. Budget expenditures for Safeguards Planning, Implementation and Monitoring

No.	Cost Related to Safeguard	Toal (Jul 22-Dec 24)			Total (USD)
		NPMU	PPMUs	DPMUs	
1	**Indirect cost to safeguard (support safeguard team)**	**73,185**	**55,872**	**-**	**129,057**
1.1	Review PLUP 2.0 and Training related to participatory land use planning methods (first training = tool and Equipment used)	13,796	10,463	-	24,259
1.2	National Sustainable Forest Management Consultant	35,100	-	-	35,100
1.3	National Consultant Climate Smart Agriculture	17,789	-	-	17,789
1.4	Junior Technical Support	6,500	-	-	6,500
1.5	Provincial Technical Facilitator	-	38,790	-	38,790
1.6	Conduct training on GFLL technical guidelines, SOP and so on for local staff and participating villages with FPIC/CEP	-	6,618	-	6,618
2	**Direct cost to Safeguard (specific safeguard)**	**318,169**	**43,283**	**32,307**	**393,759**
2.1	IEC material for FGRM/Safeguard/Publication, social media, booths in traditional event, audio and visual equipment e.g posters, leaflets, loudspeakers, LCDs, per diems or fees for translators (Lao – ethnic language) for village consultation, meeting and trainings.	2,185	12,561	8,731	23,477
2.2	International Social Safeguard Consultant	166,295	-	-	166,295
2.3	International Environment Safeguard Consultant	43,348	-	-	43,348
2.4	National Social Safeguard Consultant	40,125	-	-	40,125
2.5	National Environment Safeguard Consultant	29,000	-	-	29,000
2.6	Safeguard monitoring and Supervision (Coaching, field support every quarter throughout the GFLL/ERPA project period)	8,320	4,610	1,244	14,175
2.7	Social, Environmental safeguard & FGRM trainings (Including SESU)	-	16,450	18,816	35,266
2.8	Translate safeguard documents (SESA, ESMF, EGPF, PF, RPF), Manuals and Guidelines into Lao language	4,083	-	-	4,083

2.9	TOT for Capacity building for Community Engagement, Safeguards, (CEP) / Community engagement visits 2 including data collection	24,812	9,662	3,517	37,990
	Grand Total				**522,816**

1.2 Confirm whether the institutional arrangements summarized above have been put in place.

All institutional have been set in place in the Project is currently fully operational. There are still some positions which need to be filled such as several Junior Consultant positions working with the DAEOs in each district, the National Environmental Safeguard Consultant to be based in NPMU, and the Climate Smart Agriculture Consultant to be based in NPMU. Several trainings have been provided by NPMU to the relevant stakeholders such as CAP writing training and more recently a new series of trainings have started on CAP implementation (also participated by VDCs of target villages). Staff has been selected based upon qualifications and skills and their performance will regularly reviewed by human resource department at NPMU.

The institutional arrangements for GFLL safeguards have been approved for set up through national and provincial policies (Table 25). The policies outline the roles and responsibilities for Social and Environmental Safeguards Units (SESU) that are appointed for National and Provincial Level covering six provinces, namely Bokeo, Houaphan, Luang Namtha, Luang Prabang, Oudomxay, and Sayaboury.

The LNSIS (Lao National Safeguards Information System) that has been established and approved in September 2020 will have staff appointed in all provinces. Two government officials were nominated at district, provincial and National levels. So, in total, SESU members comprise of 50 staff, of which 36 district staff and 12 provincial staff are directly assigned for safeguards (SESU) and 2 staff assigned for national SESU. All 12 SESU staff from provinces have been appointed, among whom 2 women are included. The LNSIS will initially be made operational in GFLL provinces and will incrementally be expanded at the national level.

Staff levels are considered adequate and will be reviewed and expanded as required. In addition, the Project had recruited 3 junior consultants at each target district to support the FGRM and CEP[44].

Table 25. Established institutional arrangements for LNSIS

No.	Institutional Implemented	Established/ Authorized by	Main Responsibilities
1	National Social and Environmental Safeguards Units (SESU)	The agreement No 1882/DOF, Date 21 Sep 2020, Deputy Ministry of MAF.	**Central level** 1. Responsibility to manage information, coordinate with the technician or the person in charge at the district level in the implementation of the plan and tools for social and environmental protection. 2. Responsibility to monitor the activities of the technical or social and environmental protection teams at the provincial and district levels.

[44] Note at the time of report preparation a few of these junior consultants positions still needed to be filled..

			3. Provide technical support and capacity building for provincial and district liaison officers. 4. Coordinate with social organizations to strengthen and collaborate on local communities. 5. Monitor and evaluate the implementation of the social and environmental Safeguard plan 6. To have the duty to compile, report and provide information on social and environmental protection to the relevant parties at the central and international levels.
2	Provincial and District Social and Environmental Safeguards Units (SESU), District Social and Environmental Safeguards Units (SESU)	1. Agreement No 1010/, Date 16 Jan 2020 (LPB) 2. Agreement No 2309/PAFO, Date 10 Nov 2020 (OUD) 3. Agreement No 4344/PAFO, Date 12 Nov 2020 (XYB) 4. No 0446/PFS, date 09 Nov 2020(BOK) 5. No 2518/PFS, date 06 Nov 2020 (HPN) 6. No 536/PAFO, date 17 Nov 2020 (LNT) 7. No 4344/PAFO, date 12 Nov 2020 Authorized by PAFO	**District and provincial levels** 1. Responsible for information management, coordinating with the relevant departments at the provincial level and the relevant offices at the district level in the implementation of social and environmental protection plans and tools. 2. Responsible for the implementation of the social and environmental protection plans at the provincial and district levels. 3. Provide technical support and capacity building for technical staff or responsible teams at the district level. 4. Compile and provide social and environmental protection information to the relevant departments or parties at the provincial and district levels as required. 5. Coordinate with social organizations in building the capacity and cooperation of local communities. 6. Monitor and evaluate the implementation of social and environmental protection plans at the provincial and district levels and to report to the provincial, district and central levels for implementation.

1.3 Confirm that the implementing entities and stakeholders understand their respective roles; have the technical capacity to execute their responsibilities; and have adequate human and financial resources.

Capacity building for SESU staff has started in 2021 through a 3-day workshop with 15 participants from six provinces and representatives from DoE, DEQP, NUOL/FOE, LNFC, LWU, UDOFI, and REDD+ Division. The workshop aimed to introduce social and environmental safeguards of ER programs in six northern provinces of Laos. Since then, there has been ongoing capacity building and additional training on CAP data collection, CAP wiring, and recently, the Project launched a new series of trainings in each province on CAP implementation, each one focusing on the roles and responsibilities of each stakeholder in the project. See **Table 26** below for an overview of workshops and capacity-building events from 01 January 2022 to 31 December 2024.

- **Roles and Responsibilities of SESU Staff**
  - Since receiving training, **Social and Environmental Safeguards Unit (SESU)** staff have actively taken on key roles and responsibilities in project implementation. Their main functions include:
    - **Managing safeguard information** and coordinating with district and provincial technical teams to implement the Social and Environmental Safeguards Plan and related tools;
    - **Providing technical support** and monitoring the implementation of safeguard activities carried out by SESU staff at district and provincial levels;
    - **Collaborating with mass organizations** to strengthen the capacity and participation of local communities in safeguards-related activities;
    - **Monitoring and evaluating** the implementation of the Social and Environmental Safeguards Plan to ensure compliance and effectiveness;
    - **Consolidating and reporting safeguard data**, and delivering relevant information to national and international stakeholders, as required.

Table 26. Capacity Building for Safeguard Topics report period 01 Jan 2022 till 31 Dec 2024

No	Capacity building priorities	Date carried out	Number of Participants	Duration (Days)
1	TOT for Capacity building for Community Engagement, Safeguards, (CEP) / Community engagement visits 2 including data collection • To introduce the GFLL Program to FPIC facilitators and DAEO staff dealing with FPIC Process • To provide explanation of the guidelines of FPIC process to the facilitators and DAEO staff	11 -18 October, 2022	51 Participants from all-subnational-levels¤ include PAEO, DAEO, LNFD, LWU, Facilitator)	2-day workshop per province, theory
2	Safeguard training PAEO and SESU staffs at Hoy Pamom training center	30 January -1 February 2023	28-participants, 9 women	1-day workshop
3	Pilot Safeguard Training CEP1,2,3 (Safeguard, PLUP, SFM, CSA, FGRM) in LPB province	10-14 October 2023	47-participants, 13 women	3-day workshop
4	Training CEP1 (Safeguard, FGRM) for DAEO and PAEO of 6 provinces	5-24 December 2023	146-participants, 57 women	2-day workshop per province
5	Training CEP2 (Safeguard, PLUP, SFM, CSA, FGRM) in LPB province	10-14 June 2024	30-participants	2-day workshop: theory and practice
6	Training CEP2 (Safeguard, PLUP, SFM, CSA, FGRM) in ODX province	17-21 June 2024	30-participants	5-day workshop: theory and practice
7	Training CEP2 (Safeguard, PLUP, SFM, CSA, FGRM) in HP province	24-28 June 2024	30-participants	5-day workshop theory and practice
8	Training CEP2 (Safeguard, PLUP, SFM, CSA, FGRM) in XY province	15-19 June 2024	30-participants	5-day workshop: theory and practice

No	Capacity building priorities	Date carried out	Number of Participants	Duration (Days)
9	Training CEP2 (Safeguard, PLUP, SFM, CSA, FGRM) in BK province	22-26 June 2024	30-participants	5-day workshop: theory and practice
10	Training CEP2 (Safeguard, PLUP, SFM, CSA, FGRM) in LNT province	29 Jul-2 August 2024	30-participants	5-day workshop: theory and practice
11	Workshop for Junior consultant	9 August 2024	43-participants-	1-day workshop: theory and practice
12	Training CEP3 at Houy Pamom training center, included FGRM	25-28 September 2024	53-participants-from-all-subnational-levels¤ LPB, ODX	2-day workshop: theory and practice
13	Training CEP3 at Houy Pamom training center, included FGRM	22-24 October 2024	52-participants-from-all-subnational-levels¤ XYB, LNT	2-day workshop: theory and practice
14	Training CEP3 at Houy Pamom training center, included FGRM	30-31 October 2024	52-participants-from-all-subnational-levels¤ BOK, HPN	2-day workshop: theory and practice
15	Training writing CAP in LNT	1-3 April 2025	89-participants-from-all-subnational-levels¤ LNT, BOK, LPB	3-day workshop: theory and practice
16	Training writing CAP in ODX	22-24 April 2025	89-participants-from-all-17subnational-levels¤ ODX, HP, XY	3-day workshop: theory and practice
17	Training on streamlined and simplified CEP process and CAP preparation by WB	21 May 2025	168 participants-from-all-subnational-levels¤	Online training, half a day
18	Training on CAP implementing in XYB	19-20 June 2025	62 -participants-from-all-subnational-levels¤ include VDC 3 villages batch 1	2 days per workshop, theory and practice
17	Training on CAP implementing HPN	8-9 July 2025	TBC number of participants-from-all-subnational-levels¤ include VDC of 6 villages (batch 1 and 2)	2 days per workshop, theory and practice
18	Training on CAP implementing in BK, - Team 1	14-15 July 2025	91 -participants, women 29 from all-subnational-levels¤ include VDC of 6 villages batch 1 and 2	2 days per workshop, theory and practice

No	Capacity building priorities	Date carried out	Number of Participants	Duration (Days)
19	Training on CAP implementing in LNT - Team 1	17-18 July 2025	-89participants, women 30 from all-subnational-levels¤ include VDC of 6 villages batch 1 and 2	2 days per workshop, theory and practice
20	Training on CAP implementing in ODX, - Team 2	14-15 July 2025	86-participants, women 19 from all-subnational-levels¤ include VDC of 6 villages batch 1 and 2	2 days per workshop, theory and practice
21	Training on CAP implementing in LPB - Team 2	17-18 July 2025	72 -participants, women 16 from all-subnational-levels¤ include VDC of 6 villages batch 1 and 2	2 days per workshop, theory and practice

2. ER Program activities are implemented in accordance with management and mitigation measures specified in the Safeguards Plans.

2.1 Confirm that environmental and social documents prepared during Program implementation are based on the Safeguards Plans. Provide information on their scope, main mitigation measures specified in the plans, whether the plans are prepared in a timely manner, and whether disclosure and consultation on the plans are carried out in accordance with agreed measures.

All documents have been reviewed and endorsed by WB and are published on their project website. https://projects.worldbank.org/en/projects-operations/document-detail/P165751?type=projects

These safeguard instruments (ESMF, SESA, RPF, PF, and EGDF) have been reviewed and endorsed by WB in September 2021. After these were endorsed, the Project started with implementation. Due to several rounds of revisions of the CAP template and contents, this document has only recently been reviewed and was endorsed by WB Washington in April 2025. These CAP documents are "living documents," therefore, they are subject to updates.

Consultations on the community plans were conducted during the community engagement process known as CEP. The PAEO and DAEO were trained on the safeguards package, including facilitation of community engagement with communities. The purpose of the training is to strengthen the capacity of facilitators to engage with beneficiaries. Thus, the facilitators understood any potential environmental and social risks to the community plans. See the **Table 27** Below are the outcomes for each CEP training.

Table 27. Outcomes for each capacity building during the community engagement process

No.	Meeting Title	Objectives	Date Conducted	Participants	Outcomes
1	TOT: Capacity Building for Community	• Introduce the GFLL Program	11–18 Oct 2022	51 participants	Participants gained a clear understanding of FPIC

	Engagement & Safeguards (CEP) / Community Engagement Visits 2 including data collection	to FPIC facilitators and DAEO staff • Explain FPIC process guidelines		from PAEO, DAEO, LNFD, LWU, and facilitators	guidelines, procedures, and roles.
2	Safeguard Training for PAEO & SESU (Houy Pamom Training Center)	Strengthen safeguard knowledge	30 Jan – 1 Feb 2023	28 participants (9 women)	Participants improved their understanding of key environmental and social safeguard requirements.
3	Pilot Safeguard Training (CEP 1–3: Safeguards, PLUP, SFM, CSA, FGRM) – LPB	Build capacity on the full CEP cycle	10–14 Oct 2023	47 participants (13 women)	Participants gained strengthened technical skills across CEP1–3.
4	CEP1 Training (Safeguards, FGRM) for DAEO & PAEO of 6 Provinces	Strengthening safeguard and FGRM capacity	5–24 Dec 2023	146 participants (57 women)	Participants enhanced their capacity to implement safeguards and manage the FGRM effectively.
5	CEP2 Training – LPB	Support the application of CEP2	10–14 Jun 2024	30 participants	Participants improved their understanding of PLUP and CSA under CEP2.
6	CEP2 Training – ODX	Strengthening technical capacity on PLUP, SFM, CSA	17–21 Jun 2024	30 participants	Participants strengthened both practical and theoretical skills related to PLUP, SFM, and CSA.
7	CEP2 Training – HP	Strengthening technical capacity for CEP2	24–28 Jun 2024	30 participants	Participants demonstrated improved ability to apply CEP2 steps during field implementation.
8	CEP2 Training – XY	Strengthening safeguard & PLUP skills	15–19 Jun 2024	30 participants	Participants improved skills in data collection, safeguard application, and village planning.
9	CEP2 Training – BK	Strengthening CEP2 implementation	22–26 Jun 2024	30 participants	Participants improved overall readiness for PLUP, SFM, and CSA implementation.
10	CEP2 Training – LNT	Strengthening CEP2 process skills	29 Jul – 2 Aug 2024	30 participants	Participants gained hands-on experience applying CEP2 processes in practice.
11	Workshop for Junior Consultants	Build consultant technical capacity	9 Aug 2024	43 participants	Junior consultants enhanced their skills to effectively support CEP and safeguard activities.
12	CEP3 Training (incl. FGRM) – LPB & ODX Teams	Strengthening CEP3 and FGRM capacity	25–28 Sep 2024	53 participants (all	Participants strengthened their capacity to implement CEP3 and facilitate FGRM processes.

				subnational levels)	
13	CEP3 Training – XYB & LNT Teams	Strengthening CAP development and safeguards	22–24 Oct 2024	52 participants	Participants improved their skills in village CAP preparation and safeguard integration.
14	CEP3 Training – BOK & HPN Teams	Strengthening the final CEP step implementation	30–31 Oct 2024	52 participants	Participants enhanced their capacity to finalize CEP3 steps, including CAP preparation and FGRM support.
15	CAP Writing Training – LNT	Train teams on CAP drafting	1–3 Apr 2025	89 participants (LNT, BOK, LPB)	Participants successfully drafted initial versions of CAPs based on village priorities.
16	CAP Writing Training – ODX	Strengthening CAP writing across provinces	22–24 Apr 2025	89 participants (ODX, HP, XY)	Teams improved the structure, clarity, and consistency of CAP formulation.
17	Training on Streamlined & Simplified CEP & CAP (World Bank)	Introducing new simplified CEP steps	21 May 2025	168 participants (all subnational levels)	Participants understood and adopted the updated streamlined CEP and CAP processes.
18	CAP Implementation Training – XYB (Batch 1)	Build capacity for village-level CAP implementation	19–20 Jun 2025	62 participants incl. VDCs (3 villages)	Participants strengthened their practical skills to support CAP implementation at the village level.
19	CAP Implementation Training – HPN (Batch 1 & 2)	Build VDC and district implementation skills	8–9 Jul 2025	*TBC* participants (6 villages)	Participants enhanced their capacity for coordinated CAP execution at the village and district levels.
20	CAP Implementation Training – BK (Team 1)	Strengthening implementation capacity	14–15 Jul 2025	91 participants (29 women)	Participants improved CAP monitoring and strengthened implementation readiness.
21	CAP Implementation Training – LNT (Team 1)	Strengthening implementation capacity	17–18 Jul 2025	89 participants (30 women)	Participants improved village action planning and coordination for CAP implementation.
22	CAP Implementation Training – ODX (Team 2)	Strengthening practical CAP execution	14–15 Jul 2025	86 participants (19 women)	Participants strengthened coordination between VDCs and district teams for CAP implementation.
23	CAP Implementation Training – LPB (Team 2)	Strengthening CAP implementation skills	17–18 Jul 2025	72 participants (16 women)	Local teams enhanced their capacity to implement CAP activities effectively.

There are currently six major donor projects on REDD+ in six provinces (Bokeo, Houaphan, Luang Namtha, Luang Prabang, Oudomxay and Xayaboury), namely: (i) GFLL/FCPF Carbon Fund; (ii) LLL; (iii) CliPAD IV/I-GFLL supported by Green Climate Fund (GCF); (iv) ICBF (v) LENS2, and (vi) VFMP support by KfW. All of these projects have developed and implemented their own safeguard policies and instruments, including monitoring systems and gender action plans. The GFLL environmental and social documents prepared during project implementation is based on the Safeguards Plans listed in **Table 28** below.

Table 28. Safeguards Policies and Instruments were developed and implemented in six provinces of the northern Lao PDR

No.	Project Name	Compliance key Safeguard document	Key Safeguard implemented Progress
1	**GFLL/FCPF** **Governance** **Forest** **Landscapes** **Livelihood** **Forest Carbon Partnership Facility**	The key safeguard document of GFLL/FCPF Project comprised SESA, ESMF, RPF, PF, EGPF	**Safeguard implementation progress to date** : The progressing of implementation Safeguards: ● The package of safeguards documents was completed and received clearance and disclosed on the DoF website. These include SESA, ESMF, EGPF, RPF and PF during project appraisal. ● Safeguards Information System: A first draft of the SIS has been prepared including a work plan ● Safeguards Due Diligence for potential retroactive ER was completed and approved by the WB as part of the ERPA conditions of effectiveness. ● National and provincial public awareness events on REDD+ with outreach to approximately 4,000 persons and 7,500 communication products distributed **Environmental and Social Management Framework (ESMF)** ● Completed Sub-project checklist, 'Pesticide management plan 'Chance find procedure 'Feedback and GRM forms, Technical specification and contracts, IEE format, Safeguard report format, UXO site and safety brief, UXO visitor's indemnity form **Resettlement Policy Framework (RPF)** ● Gender action/ monitoring plan; social screening form; (Abbreviated) Resettlement Action Plan (ARAP/RAP); process land donation; voluntary land donation form. **Ethnic Group Development Framework (EGDF)** ● Screening for potential impacts on ethnic groups (IPs); legal and policy framework; consultation and disclosure; FGRM; principles and procedures for EGDF; monitoring and evaluation principles. **Process Framework** ● Legal framework; project impact and process framework; measures to mitigate and adverse project impacts; eligibility criteria for project benefits; social assessment; free prior informed

No.	Project Name	Compliance key Safeguard document	Key Safeguard implemented Progress
			consent; participatory framework; implementation plan and roles and responsibilities of different stakeholders; FGRM; alignment and partnership with existing projects in the region; monitoring and evaluation. **Safeguard Package prepared after project effectiveness** ● This document combines all above safeguard instruments in a streamlined and simplified version to be used for project implementation. This document was prepared after project became effective. **Capacity Building activities.** ● Training for 12 SESU staffs from 6 provinces in August 2021, and focusing topic such as: A brief introduction to REDD+, the GFLL program included results and Beneficiaries, Implementation approached and institution arrangement, Policies, laws, regulations, World Bank Policies and International Conventions on safeguard, GFLL project safeguard documents and mitigation measures, Duties and responsibilities of safeguard work, Grievance Redress Mechanism, Benefit-sharing plan and management structure, Social and environmental impact assessment process for sub-projects, Information Protection System (SIS), and forms, tools for safeguard work.
2	**VFMP** **Village Forest Management Project**	The key safeguard document of VFMP Project comprises ESMS, ESMF, FPIC guidelines, which constitute the main elements of a Community Engagement and Planning Framework (CEPF).	● Elaboration of ESMF, FPIC Guidelines and Inception Report; training of PIA staff and mass organization members; ● FPIC 1 (Orientation, Review and Revision of Forest and Forest Land Categories Within the Village Jurisdictional Area, decision about participation in VFMP activities) done in all 70 villages; ● FPIC 2 (Original PLUP reviewed, Village administration and villagers participate in data collection on the status of forest and forest land use in the village. The village administration and the people agree with the sketch map and maps showing a boundary for each forest category) carried out in all 70 villages ● FPIC 3 (PLUP updated, the village administration and the people agree on where to set the signboards and Boundary posts for each forest category) done in all 70 villages; ● FPIC 4 (Key issues discussed, Potential negative impacts by the project that may affect people have been identified, i.e., lose their use rights of

No.	Project Name	Compliance key Safeguard document	Key Safeguard implemented Progress
			tenures) done in 34 villages (Phonxay 20; Phieng 14); ● FPIC 5: A Master plan for Forestry Development with required key activities prepared and Villages consented to the plan in 34 villages (Phonxay 20; Phieng 14); Plan endorsed by GoL and first agreements signed with villagers in 24 villages (Phonxay 10, Phieng 14) - Collection of environmental and social baseline data in all 70 villages;
3	**CLiPAD/ I-GFLL** **Climate Protection through Avoid Deforestation** **Implementation Governance Forest Landscape Livelihoods**	In the CliPAD program, GIZ's approach to FPIC was taken into account showing compliance with the donor's safeguards. And GCF's safeguards policy, and takes into account the IFC's Performance Standards, World Bank's Safeguards Policy and Lao PDR's policies, laws and regulations. The I-GFLL has safeguards protocols in place and is in the process of setting up the NPMU and PPMU, including mechanisms for compliance with safeguards. It should be noted that I-GFLL developed an Environmental and Social Impact Assessment, an Environmental and Social Management Plan, a Gender Action Plan, and a Gender Assessment. In addition the GFLL and I-GFLL have an agreement to use a common ESMF.	Achievements/implemented activities (January–December 2021) GIZ team has been jointly collaborating with GoL counterparts and other concerned agencies implementing national and sub-national level activities under close guidance of DOF (MAF) and the main outputs and results of the Technical Cooperation Module include: **Output 1: Enabling environment for REDD+** ● The project completed the training on FPIC 1 and FPIC 2&3 to three Provincial Lao Front for National Developments, and Provincial Lao Women Unions. ● FPIC1 completed 170 **villages** in three provinces, but one village in Phonthong district rejected the project but the DPMU reselected a new village to replace it two villages in Hongsa have been merged into one village and so added a new village. FPIC2&3 completed in **3 villages** (HP: **2** and LPB: **1**) ● Houaphan provincial Lao Front for National Development and Lao Women Union organized FPIC2&3 training for 5 districts Lao Front for Development (LFND) and Lao Women Union (LWU) as FPIC Teams. ● Completed FPIC2&3 or village forest management contracts signed in four villages (3 in Houaphan and 1 in Luang Prabang). ● Village Forest and Agriculture Grant (VFAG) guidelines, VFAG Bylaw, VFAG establishment and VFAG financial management formats were developed. ● Organized Village Forest and Agriculture Grant (VFAG) Training of Trainer to 13 new districts VFAG Teams in three provinces. ● Established **155** villages' VFAG Committees and Bylaws in three provinces (HP: **66**, LPB: 43, SAY: **46**). ● Trained VFAG financial management (fund request, fund management and fund reporting) in

No.	Project Name	Compliance key Safeguard document	Key Safeguard implemented Progress
			96 VFAG committees and opened VFAG bank accounts of 94 villages. ● Completed VFAG training to two existing districts (Houameung and Samneua) and currently 70 villages in these two districts completed revision of VFAG committees, Bylaws, bank accounts and VFAGCs were trained on financial management.
4	**ICBF:**	The ICBF project design and activities are aligned with the KfW's Sustainability Guideline and environmental and social principles, and underlying environmental and social safeguard policies.	This project comprised 3 main components: Component 1/ Protected Area Planning and Management, Component 2/ Law Enforcement, Component 3/Forest/ Land Management and Livelihood. The ICBF also implemented safeguard activities such as: Community consultation, and conducted FPIC before PLUP, but no information is mentioned in an annual report in 2019,2020 and 2021.
5	**LENS2** **Lao Social and Environment project (Phase2)**	The key safeguard document of LENS2 Project comprised WB social safeguard standard ESMF, CEF and GoI Policy, Project POM	Beneficiaries. Available data suggested that the 10 PA related subprojects cover for 7 provinces 31 districts, and 191 target villages with total budget about 25,128 million kip or US$ 2.5 million and benefit about 22,572 households (HHs), comprising 130,348 beneficiaries of which 62,305 are women (48% of total beneficiaries), and 11,108 ethnic groups that meet the definition of indigenous peoples per the WB safeguard policy (mainly Mone-Khmer, and Hmong-Mien). Detail below: ● Completed the preparation of the Community Engagement Framework (CEF) operation manual. ● Completed 3 general training on the application of ESMF and CEF, and a total of 162 participants from center and provincial and district staff of which 42 are women or 29% of total participants. ● Completed Social Management Plan (ESMP) in the form of subproject ESMF Including training workshops on sharing the CEF implementation experience following the CEF manual with the TA teams of NNT-NPA and NEPL-NPA as well as with NUOL-FEB team and 3 north province HP, LPB and XK ● Completed extensive training and capacity building on the CEF and ESMF implementation processes of the 7 PAEO sub-projects, including the preparation of CEF supporting documents (FPIC, SER, PAR, CAP, AP, PLUP, CCA) for 191 villages, all of which were completed by mid-December 2021.

No.	Project Name	Compliance key Safeguard document	Key Safeguard implemented Progress
			● The total budget of about US$11 million was allocated to support the planning and implementation of the 10 sub projects including about 479 sub-activities for livelihood development and conservation activities, which were identified under the preference list of the CEF Manual. ● The CEF Monitoring Matrix which includes 3 mains of information such as checklist of CEF Completed stages, capacity building information (Number of governments, and villager involved capacity activities), and number beneficiary this matrix has been developed and updated and shared with WB, EPFO, DOF, and the 10 PAEO subprojects every quarterly.
6	**LLL** **Lao Landscapes and Livelihoods Project**	The project investments are expected to result in positive environmental and social impacts, and livelihood development outcomes from better managed forest landscapes. However, potential risks and negative impacts associated with project activities in relation to the World Bank ESF exist, ESMF is prepared to manage and mitigate the potential environmental and social risks and impacts, CEF based on the successful model adopted in SUFORD SU and LENS2 projects is prepared for LLL.	**The following activities were implemented or initiated so far:** ● 2 initial ESF trainings for central/ provincial level ES FPs & staff conducted (Feb./ Mar) ● 1 initial training course for district ES FPs & staff in Bolikhamxay province conducted (7 districts) ● ESF implementation plan developed, inputs into AWP 22/23 and reporting provided ● Formulation of 'model documents' for 3 villages (Bolikan district) including CAP, CCA, SS-ESMP initiated ● Guideline/ training materials & agendas developed for 'FPIC, Community Resource Profiling/ Baseline Setting' (CEE2), set of related posters in work ● Exchange/ coordination with technical teams (e.g., livelihood, infrastructure) initiated **Planning & ESF Integration** Component 1 (sub-component 1.1 and 1.2) ● All steps of community engagement, ES assessment & SS-ESMP integrated as activities/ sub-activities into sub-components 1.1 and 1.2; integration of technical & ES teams **Component 3 (sub-component 3.3)** ● Support to policy framework for SESA/ ESIA (3.3.1) & assessment of impacts by private sector activities (3.3.2); DoE in charge in cooperation with relevant stakeholders **Component 4 (sub-component 4.1)** ● Implementation of Environmental and Social Framework (4.1.2); under responsibility of DoF, PAEO, DAEO (ES focal points) ● Initial FPIC consent, subsequent CAP & SS-ESMP are required prior to activities/ investments in target villages; examples of CAP & SS-ESMP need to be approved by WB

No.	Project Name	Compliance key Safeguard document	Key Safeguard implemented Progress
			● Refine/ re-submit CEE 2 guidebook to WB VTE; complete posters ● Conduct CEE 2 trainings in all provinces, subsequent implementation & scaling up ● Establish pre-conditions for CAP/ SS-ESMP: agree on PLUP approach, develop 'positive list' (livelihood, village infrastructure), establish technical teams/ recruit village facilitators ● Complete/ submit 'model documents' in selected villages (CAP, SS-ESMP) to WB, after approval conduct training and subsequent implementation/ scaling up

2.2 Confirm whether entities responsible for implementing the Safeguards Plans maintain consistent and comprehensive records of ER Program activities, such as records of administrative approvals, licenses, permits, documentation of public consultation, documentation of agreements reached with communities, records of screening process, due diligence assessments, and records of handling complaints and feedback under the Feedback and Grievance Redress Mechanism (FGRM).

The Feedback Grievance Redress Mechanism (FGRM) for GFLL/FCPF for the project is based on existing national structure, policies, strategies, and regulations on grievances as defined by GoL. However, specific components have and will be adapted to the needs of the GFLL program. Continuous attention is raised for this topic during official training with government counterparts, for project staff, and during each and every village meeting. The immediate components where further development is currently underway include a relatively simple system in place, and tools for recording and processing grievances or feedback have been developed by the Project. However, three official grievances have been recorded to date. These are mainly related to concerns about forest land-use planning and the inability to participate in project activities. There are current discussions on how to further optimize this system, for example, with a centralized online and live registration and processing system. The grievant person or party could make anonymous inquiries or state their grievance if they want, and access this database to track the progress of their grievance or concern. Either system would have to be centrally managed and monitored.

Due to the wealth of information being collected by the whole of the Project, but in particular by NPMU Safeguard team there might be a need to have a more robust database system. Currently, the team is using the cloud; however, they are already noticing that the assigned memory capacity is hitting the threshold. Each CAP produced consists of many pages of primary data, and each CAP report contains, on average, 50-80 pages, including many scans and photos. This sometimes adds up to 20-30 MB or more in files. On top of this are all other documents that the Project has from the other departments. Similar projects of same size and scale often make use of server to store and manage data centrally. A database manager can allocate different types of rights to the staff and manage and monitor such a system.

2.3 Summarize the extent to which environmental and social management measures set out in the Safeguards Plans and any subsequent plans prepared during Program implementation are implemented in practice, the quality of stakeholder engagement, as well as whether field monitoring and supervision arrangements are in place.

During CAP development, the field teams conduct the Community Engagement Process, which is part of the Safeguard Package. The first visit to a community the team basically conduct Free Prior Informed Consultation (FPIC), they explain about the project objective what villagers can expect in terms of benefits but they also explain about potential adverse impacts or risks. Then the community is consulted and asked

whether they would like to work with the project and their staff/consultants. If they have expressed their broad support, then basically a series of primary village data collection starts. Central objective during the second visit is conducting Participatory Land Use Planning. Then based on that the first plans are made for Sustainable Forest Management (SFM) activities and Climate Smart Agriculture (CSA) activities. After all this the CAP document can be prepared and will team go back to the village to get their official approval on the CAP and agreement will be prepared and signed between Project and the community. Once funds are released the Project staff will conduct regular monitoring visits to ensure social and environmental compliance.

2.4 Confirm that the FGRM is functional, supported with evidence that the FGRM tracks and documents grievances, and is responsive to concerns, complaints or grievances.

Refer to comments above on Feedback and Grievance Redress Mechanism.

3. The objectives and expected outcomes in the Safeguards Plans have been achieved.

3.1 Assess the overall effectiveness of the management and mitigation measures set out in the Safeguards Plans.

The self-assessments were conducted to understand the effectiveness of the management and mitigation measures in the Safeguards Plans and are summarized in **Table 29** below.

Table 29. Summary of self-assessment

No.	Main Activities under Safeguard Plan	Progress Update	Sell-Assessments
1	Safeguard due diligence.	There are 5 Sub-activities under Safeguard due diligence, and the overall implementation is fully completed, the DDR report has been approved by the WB, and information has been disclosed by the DOF website.	Fully completed and ready to share 100%
2	Safeguard Information system (SIS) 2.1 SIS Technical Document 2.2. SIS Operational Manual	There are 7 Sub-activities under SIS and the overall implementation is fully completed, approved by the DOF and WB. The technical document has applied to the safeguard training	Fully completed and ready to share 100%
	Safeguard and SESU Capacity Building	3.1 Safeguards capacity building. This activity includes developing capacity building approach, Safeguard Technical Guidebook and Plan, design capacity building workshop and training material/presentations and conduct capacity building workshops. That document has been completed and endorse by DOF and WB (GFLL Safeguard progress update 18 Jan 2022, WB Mission) The revised CAP template was cleared by RSA in March 2025. Following that in 2nd quarter 2025 the terminology in the safeguard instruments (SESA, ESMF, EGDF, RPF and PF) have been aligned with the cleared CAP. Furthermore in 2nd quarter 2025 both the CAP and the CEP have been further streamlined and simplified to meet the needs in the field while still adhering to the WB standards.	Fully Completed and ready to share 100% Capacity building fully completed, clearance of instruments expected in Q3 2025
		3.2 SESU capacity building. Since the last ERMR several technical trainings have been provided specifically on safeguard in particular targeting SESU, DAEO and Junior Consultants	Completed 100%, regular refresher trainings are provided

4	Safeguard Operation. Social safeguard Environment	Since late 2024, early 2025 both international safeguard consultants resigned, and have been replaced by one full time safeguard consultant who is expected to commence duties in February 2025.	Hiring of new consultant in progress estimated 50% completed
5	FGRM Recording system	- The FGRM implementation process, training has been completed in the project's six target provinces. - As reports from the villages and DAEOs have not yet been received, the FGRM case remains under monitoring and may be reported in the next update.	As until of June 2025, CAP funds had been disbursed to 40 villages, and the implementation of some activities had only recently commenced. Three grievances have been reported through the FGRM to date. The project team will continue to monitor village-level implementation and provide updates in the next reporting period.

Since the CAP implementation just started in May 2025, the assessments on the implementation of safeguards on the community action plan have not been started. However, the assessment of the ER program for Laos (including GFLL) was done in September 2025[45]. The Mid-term Review for the GFLL project was also conducted in October 2025[46]. By December 2025, 135 CAPs had been completed (54%) with an action plan to complete the 247 CAPs by June 2026.

3.2 Are the arrangements for quality assurance, monitoring, and supervision effective at identifying and correcting shortcomings in cases when ER Program activities are not implemented in accordance with the Safeguards Plans?

Many activities have been implemented since the last ERMR. The quality of the work varies from activity to activity and over time. The main reasons for this are: (i) high pressure to complete all 247 CAPs, which has led to requests for an ERPA extension. The ERPA has since been extended to 30 June, 2027, from 31

[45] Done by Ecosecurities – no report yet for the ER program assessment
[46] Done by Landell Mills – no report yet for the MTR

December 2025; (ii) a higher-than-normal turnover of human resources at the national level; and (iii) limitations in the operational budget. The NPMU worked diligently with the Bank Task Team to revise budgets and prepare a practical work plan, including budget adjustments that prioritize focus at the district level. The overseeing and supervising bodies are summarized in Table 6 below.

Table 6. Established institutional arrangements for GFLL

Institution	No of Agreement and the date of endorsement	Number of staffs	Authorized by
Established project coordinator and financial responsibility for FCPF	No 0997/MAF, Date 09 May 2018	04	Minister, Ministry of Agriculture and forestry
Established project steering committee, project coordinator and financial responsibility for GFLL	No 1365/MAF, Date 29 Oct 2021	18	Minister, Ministry of Agriculture and forestry
Established project Coordinator, Houaphan province	No 159/PAFO, Date 24 Jan 2022	03	PAEO
Established project steering committee, project coordinator for GFLL, Oudomxay province	No 604/PAFO, Date 20 April 2022	06	PAEO
Established project steering committee, project coordinator for GFLL, REDD Oudomxay province	No 783/PG, Date 14 March 2017	17	Provincial Governor (PG)
Established project steering committee, project coordinator for GFLL, Luang Prabang province	No 298/PAFO, Date 15 Feb 2022	05	PAEO
Established project steering committee, project coordinator for GFLL, REDD Luang Prabang	No 308/PG, Date 02 Sep 2021	34	Provincial Governor
Established project coordinator for GFLL Luang Prabang province	No 381/PAFO, Date 01 March 2021	01	PAEO

Institution	No of Agreement and the date of endorsement	Number of staffs	Authorized by
Established project steering committee, project coordinator for GFLL, Bokeo province	No 475/PAFO, Date 11 April 2022	09	PAEO
Established project steering committee, project coordinator for GFLL, Bokeo province	No 192/PG, Date 03 April 2017	15	Provincial Governor (PG)
Established project steering committee, project coordinator for GFLL, Sayaboury province	No 693/PG, Date 14 Feb 2017	07	Provincial Governor (PG)
Established steering committee and project coordination committee for GFL for 18 districts	Various		18 District Governors

3.3 Describe the supervision and oversight arrangements to ensure that the Safeguards Plans and, if any, subsequent environmental and social documents prepared during Program implementation are implemented. Are these supervision and oversight arrangements effective (e.g., provide meaningful feedback mechanism to implementing entities to allow for corrective actions)?

Refer to the comment on FGRM above, moreover there is also a monitoring and reporting system in place. Both function and facilitate meaningful dialogue between different stakeholders and should ensure effective implementation of the Safeguard instruments.

Program activities present emerging environmental and social risks and impacts not identified or anticipated in the Safeguard Plans prepared prior to ERPA signature.

4.1 Is the scope of potential risks and impacts identified during the SESA process continue to be relevant to ER Program activities?

During the preparation of the Community Action Plan, the Project pre-screens the proposed SFM and CSA activities on potential adverse social and/or environmental risks. These risks were explained to communities during the Community Engagement Process (CEP). The communities were also informed that their proposed actions should be based on activities[47] that should not cause or produce emissions.

General minor risks on both social and environmental aspects have been identified in the early stages of project implementation; the specific risks for each village will be identified during the CEP for each unique village and incorporated in the village CAP. It is expected that the Safeguards Package (including ESMF, EGDF, PF, RPF) has sufficient mitigation measures in place to adequately address any risks if/when they arise. See sub-section 5.2 below.

[47] The whitelist activities can be found in the Annex 16 in Safeguards Package.

The current identified potential social risks can be summarized as follows:

- Exclusion of vulnerable stakeholders
- Allocation of GFLL program benefits is unjustified
- Access restrictions or economic displacement
- Funds are not used according to the CAP

The current identified potential environmental risks can be summarized as follows:

- Soil fertility
- Water quality
- Air quality
- Surface run off
- Wild fires
- Construction waste
- Community health and safety

4.2 During implementation, has any ER Program activities led to risks or impacts that were not previously identified in those Safeguard Plans prepared prior to ERPA signature? If so, what are the proposed actions to manage such risks and impacts that were not anticipated previously?

During this reporting period the actual implementation has not started yet since no CAPs were prepared in this period. It is expected that the actual implementation of SFM and SCA activities will start in q1 2025. Ideally, prior to transfer of ER funds to VDC accounts, the VDC will be trained on how to access, use and manage and utilize these funds for the activities as agreed in the CAP..

5. Corrective actions and improvements needed to enhance the effectiveness of the Safeguards Plans.

5.1 Provide a self-assessment of the overall implementation of the Safeguards Plans

As with all new processes which are implemented there are always certain aspects which either not work or not fully work effectively and can be optimized. The Project has been prepared over a period of almost 4 years and only currently actually start producing and implementing CAPs. The Safeguard instruments are very robust and overtime might need to be reviewed and simplified or streamlined.

So far, in consultation with WB the template of the CAP has been revised and simplified and the CEP process has been streamlined. By December 2025, the Project completed CAPs for 135 out of 247 villages with an agreed action plan to ensure completion by end June 2026 with continued efforts to optimize systems, processes and templates for both safeguards, financial management and procurement aspect. Additionally, the ERP has received additional support through the Enhancing Access to Benefits while Lowering Emissions (EnABLE) project, which promotes social inclusion and participatory approaches in the ERP, with a focus on non-Lao-Tai ethnic groups, women, and remote communities.

5.2 List any corrective actions and areas for improvements. Take care to distinguish between: (i) corrective actions to ensure compliance with the Safeguards Plans; and (ii) improvements needed in response to unanticipated risks and impacts

To further reduce any adverse risks the Project has prepared a “black and white list” in the black list activities are listed which are not eligible under the GFLL project, and the white list shows activities which are eligible under the GFLL project (Annex 16 in the Safeguards Package).

Potential adverse environmental risks and impacts due to the GFLL project funded activities and investments are addressed via proper project design (avoided, minimized and mitigated approach e.g.

"GFLL positive/negative list" has been discussed and agreed with villagers) and the multiple phases of identification of possible GFLL project supported activities (identified during CEP 2), review by the responsible safeguards focal points (District-SESU, Province-SESU, National-SESU), and monitoring of their implementation. The positive and negative lists (Annex 16 in the Safeguards Package) provide clear options for activities to be funded in the CAPs in a manner that avoids these negative impacts.

As of now, there have been no corrective actions in response to non-compliance of a sub-project or component. The Project has, however, had several rounds of optimization of safeguard instruments in order to streamline and simplify processes, tools, and templates.

The Implementation of Safeguard Action Plan table 7 below shows the progress of Implementation safeguard work plan:

Table 7. Implementation Action Plan on Safeguards Plans

SN	Activities	Deliverable	Action for improvement
1	**SAFEGUARDS DUE DILIGENCE**		
1.1	Preparation of draft report and submission to WB	Draft report	Completed
1.2	Share final report with DPs for endorsement	Final report	Completed
1.3	Submission of final report to the World Bank	Final report	Completed
1.4	Due Diligence Clearance by the World Bank	Final report	Completed
1.5	Disclosure of report by DoF/MAF and WB	Disclosed report	Completed
2	**SAFEGUARDS INFORMATION SYSTEM**		
2.1	MAF Agreement on Establishment of SIS (Lao version)	MAF Agreement	Completed September 21, 2020
2.2	LNSIS Technical Document	Technical Document	Completed, No. 1882, Dated September 2021, DoF/MAF
2.3	Translate English SIS document into Lao [48]	Draft Lao	Translation completed, need to be finalize and endorsed

[48] FAO/UN-REDD+ Program

SN	Activities	Deliverable	Action for improvement
2.4	Consultation on SIS document with Safeguards TWG	Consultation report	Completed
2.5	Instead of SIS Operational Manual, Operationalization plan of LNSIS[49]	Completed	Further consultation
2.6	Development of SIS Manual[50]	Ongoing	LNSIS platform needs to be developed first
2.7	LNSIS development[51]	Ongoing	IT expert will be recruited by FAO/UN-REDD+ Program
2.8	LNSIS platform establishment[52]	Ongoing	Planned for 2025
2.9	Initiate work on SOI2[53]	Ongoing	Planned for 2025
2.10	National REDD+ Strategy revision, especially Safeguard aspect[54]	Ongoing	Planned for 2025
3	**SAFEGUARDS AND SESU CAPACITY BUILDING**		
3.1	Safeguard's capacity building	Draft training report for 2023 or 2024	To be finalized
3.2	Develop capacity building approach / Safeguard Technical Guidebook and plan	Safeguards Training Guidebook	Fully completed and approved by WB, but need to be provide more specific training, provided on the job training
3.3	Design capacity building workshop and training material/presentations	Workshop design and material	Fully completed, and IEC Material need to be produced (e.g communication tools, Poster, Video, Pamphlet)
3.4	Conduct capacity building workshops	Workshop report	Capacity building workshops are provided by NPMU and consultants on rolling basis, at the end of each workshop reports are prepared

[49] FAO/UN-REDD+ Program
[50] FAO/UN-REDD+ Program
[51] 2025 work plan of FAO/UN-REDD+ Program
[52] Ditto
[53] Ditto
[54] Ditto

SN	Activities	Deliverable	Action for improvement
3.5	SESU capacity building	Workshop report	Capacity building workshops are provided by NPMU and consultants on rolling basis, at the end of each workshop reports are prepared
3.6	Consultation to receive feedback on workshop design and material	Plan for database	Conduct consultation after draft of training material has been prepare
3.7	Conduct capacity building workshop	Workshop report	Finalize tools and training materials based on outcome workshop
3.8	Post training follow up and report	Workshop report	Coaching sub-national SESU teams and follow up on reporting
4	**SAFEGUARDS OPERATIONS**		
4.1	**SOCIAL SAFEGUARDS**		
4.1.1	Data collection through primary research and field visits; and consultations related to ethnic groups, resettlement and gender	Consultation report	Prepared concept notes for the whole assessment, tools, questionnaire form, Methodology, analysis, and outline for SMP including EGPF
4.1.2	EGPF - Ethnic Group Policy Framework	EGPF completed and disclosed in website, later integrated in Safeguard Package	Provided specific training, on the job training Standalone EGDP for each community where ethnic groups (Ips) are present do not need to be developed as it is one part of Safeguards Package and as such already integrated in those CAPs prepared for villages where ethnic groups (Ips) are identified. . Moreover after WB/RSA reviewed the revised CAP (as submitted in q1 2025) they advised that the term “consent” as per FPIC applies to the CAPs. Therefore, all safeguard instruments could replace the terms “consultation” with “consent” while referring to FPIC.

SN	Activities	Deliverable	Action for improvement
4.1.3	GAP - Gender Action Plan	Outlined in detail in ESMF and integrated into the Safeguards Package)	During screening of potential/proposed activities, identify risks and opportunities related to gender and address these in the CAP
4.1.4	RPF - Resettlement Policy Framework	Document Completed	Published (http://documents.worldbank.org/curated/en/377481588071123406)
4.1.5	Assessment and Screening for Civil Works	Screening checklist for Civil Works	DDR (SMR/EMR) monitoring report need to be provided
4.1.6	Identification and category of civil work sub-projects (new irrigation or maintenance of existing irrigation systems and establishment of additional paddy fields) for RPF disclosure (extraction of vital clauses)	Draft ESMP	Sub-Project screening and checklist, prepared sub plans as needed EIA, IEE, ECOP, and prepare ESMP, PSC plan
4.1.7	Local authority prepares cut off-dates for infrastructure or civil works sub-project areas	Minute consultation,	Prepare supporting document
4.1.8	Conduct the first consultation and disclose the RPF, announcement of Cut off-Dates in the infrastructure sub-project areas, produce Minutes of consultation, list of participants and keep filing	List completed of checklist safeguard supporting document	Prepare tools, set of document packages and database system
4.1.9	Social impact assessment/screening for infrastructure or civil works sub-projects in six provinces based annual work plan	Draft DDR Report and Completed screening form	Prepared concept notes for the whole assessment, Tools, questionnaire form, Methodology, analysis, and outline mitigate measure
4.2	**ENVIRONMENTAL SAFEGUARDS**		
4.2.1	Environmental Impact Assessment and Screening	Draft DDR Report and Completed screening form	Prepared concept notes for the whole assessment, Tools, questionnaire form, Methodology, analysis, and outline mitigate measure

SN	Activities	Deliverable	Action for improvement
4.2.2	Environmental impact assessment and screening for infrastructure and civil works sub-projects in six provinces	RRD Report	EIA, IEE, COPE assessment and prepare management plan.
4.2.3	Training on environmental impact assessment and monitoring	Training report	Provide training, coaching, on the job training, and supervision,
4.2.4	EMP - Environmental Management Plans	Draft EMP or more likely Site Specific EMP	
4.2.5	Prepare EMPs for six provinces	EMP Report	
4.2.6	EMP monitoring and management framework	Draft EMP	Conduct TWG consultation for Draft Guidelines
4.2.7	Pest management guidelines	Guideline	Completed
4.3	**FGRM**		
4.3.1	Establish GRM Committees, role and responsibility	Agreement and report	GFLL Project management Unit requested to line agency/or update existing responsibility
4.3.2	Provide TOT Training for FGRM/Conflict Management solution	FGRM Monitoring report	Preparing GRM Recording system and provide training for P-SESU, D-SESU Team, Implementation FGRM and re
4.3.3	Conduct training/on the job training GRM/Conflict Management solution for VMU.	FGRM training has been completed for both DAEO and PAEO.	The training session or field supervision should be included this topic: DAEO and PAEO have supported villagers in understanding the FGRM process, and have introduced a grievance tracking form at the village level to ensure proper documentation and follow-up of any complaints or concerns.
4.3.4	Monitoring and supervised FGRM system	The project team is currently monitoring the implementatio n of grievance resolution	A Feedback Grievance Redress Mechanism has been prepared by FCPF to manage complaints and address issues related to the development of the GFLL project, which includes the principles and process of how to file a complaint.

SN	Activities	Deliverable	Action for improvement
		activities to ensure effectiveness and compliance with established procedures.	The government of Lao also has a system to resolve complaints, issues and conflicts from the village level up the national, involving courts and the National Assembly. Additionally, a detailed Feedback Grievance Redress Mechanism has been included in Safeguards Training Guidebook and therefore the project will consult during stakeholder consultation at community level, when and if there is a complaint or concern raised by the stakeholders and villagers.
4.3.5	Monitoring the implementation of FGRM	The FGRM monitoring identified three main risks of complaints raised by villagers.	**Case 1:** Some Families Not Participating in Project Activities **Case 2:** Land Use Planning & Benefits **Case 3:** Request to Use Protected Forest "The details of each grievance case and the corresponding resolution measures are presented below:"

5.3 Describe the timeline to carry out the corrective actions and improve identified above.

Monitoring of the Feedback and Grievance Redress Mechanism (FGRM) identified three cases complaints raised by villagers

During the monitoring of FGRM implementation, the project found complaints raised by the villages. The complaints were as follows:

a. Some Families Not Participating in Project Activities
b. Land Use Planning & Benefits
c. Request to Use Protected Forest

The three cases summarized below represent issues that have been addressed by the Village Authorities and the District Agriculture and Environment Office (DAEO). The approaches (or steps) used by the authorities to address the issues were as follows:

- Conducted investigation and discussions with the affected parties.
- Achieved resolution and agreement in accordance with FGRM procedures; and
- Fully documented, including details of the issue, actions taken, and outcomes achieved.

All documentation has been completed and filed at the DAEO office.

To further strengthen FGRM operation and accessibility, particularly in villages with ethnic and vulnerable groups. These include: (i) raising awareness of the needs and requirements for GRM among project

management and decision-makers; (ii) providing targeted training on ESS10 and GRM, which was conducted in February 2026; and (iii) developing and using ethnic specific IEC materials, which have been completed for all ethnic villages. Where technically feasible, a helpline call and online submission mechanisms have been set up, with designated focal points at PMU and subnational levels, complementing existing national structures and procedures (including village mediation committees and relevant fiduciary and legislative institutions) to ensure timely escalation and resolution of grievances received.

Details of Monitoring Results and Resolution Actions

Case 1: Families Not Participating in Activities

Issue: Some families were unable to participate in project activities because they missed the **CEP1–2–3** meetings held during the agricultural season and therefore lacked full information about the project.

Resolution: The district project team organized follow-up meetings to clearly explain the project's objectives, activities, and implementation process. This enabled the affected families to participate in ongoing project activities.

Supporting Documentation (Certified by Village and DAEO):

1. Certificate of Grievance Submission Form

ແບບຟອມການເຊີນເຂົ້າກິດສໍາລະວະຄໍາຄິດເຫັນ ແລະ ຍື່ນສະເໜີ

ບ້ານ ...ລານວາງ..... ເມືອງ .....ນວ້ານ.....ແຂວງ ...ນະຄອນຫຼວງວຽງຈັນ

ການເຊີນເຂົ້າເຫັນດີ ແມ່ນໄດ້ເຊີນຕົວແທນ ການໂດຍຫ່ວຍງານ ໄກ່ເກ່ຍ ໃນລະດັບ: ☑ ບ້ານ ☐ ບ້ານ,ເມືອງ ☐ ບ້ານ ແຂວງ ☐ ບ້ານ,ສູນກາງ ☐ ອື່ນໆ ກະລຸນາໃຫ້ລາຍລະອຽດ.....

ຫ່ວຍງານ ໄກ່ເກ່ຍ ໄດ້ດໍາເນີນການສອບສວນກ່ຽວກັບຄໍາຮ້ອງທຸກ ທີ່ເປັນສະເໜີໂດຍ:

ຕົວຈິງ/ທາງ.....ເລກທີ່ຄໍາສະເໜີ: ...01.....

ສິ່ງລວມຫຍໍ້ ຂອງຄໍາຮ້ອງທຸກ ແລະ ການສ່ວນກ່ຽວຂ້ອງ ສຸລິວຂວັນ ມີຈິດວິນັດ ການ ຈັດສັນທີ່ດິນ ທີ່ໄດ້ຮັບການ ປະ ໂດ ຍ ບໍ່ ທໍ ່ ໄ ດ້ ຮ ັ ບ ຄ ວ າ ມ ເ ປ ັ ນ ທ ັ ມ ຈ າ ກ ນ ະ ວ ຽ ກ ງ ານ ຜູ ້ ກ ່ ຽ ວ ຂ ້ ອ ງ ທ ີ ່ ໄ ດ ້ ຮ ັ ບ ການ ປ ະ ເ ມ ີ ນ CEP. 1. 2. 3.

ໃນທີ່ປະຊຸມ, ມີການສະເໜີແນວທາງປະຕິບັດຕໍ່ໄປນີ້: ຄະນະກ່ຽວຂ້ອງ ຈະນັດພົບ ລານວາງ ໄດ້ເກັບ ການ ປະ ເ ມ ີ ນ ເ ອ ົ າ ກ ັ ບ ສ ຸ ລ ິ ວ ຂ ວ ັ ນ ເ ພ ື ່ ອ ສ ຶ ກ ສ າ ຫ າ ວ ິ ທ ີ ແ ກ ້ ໄ ຂ ບ ັ ນ ຫ າ ດ ັ ່ ງ ກ ล่าวข้างต้น ได้เห็นควรให้ ... ...

2. Certificate of Complaint Resolution Agreement

ເອກະສານຊຸດທີ່ 9: ແບບຟອມຢືນຢັນການແກ້ໄຂ ແລະ ຍົກເລີກ

ວັນທີ່ຮ້ອງຄຳຄິດເຫັນ/ຄຳຮ້ອງທຸກ: 22 / 10 / 2025

1) ຜູ້ຮ້ອງທຸກ:

ຊື່ນາມສະກຸນ [1]:		ເມດ	ຊົນເຜົ່າ	ບ້ານ:		ເມືອງ:		ແຂວງ:	
ສົງວຽງ			ລາວ	ສີຄຸ		ນ.ບ		ຫຼວງ	

2) ໝາຍ (√) ປະເພດຂອງຄຳຄິດເຫັນ/ຄຳຮ້ອງທຸກ:

01	ບັນຫາທີ່ກ່ຽວຂ້ອງກັບການມີສ່ວນຮ່ວມຂອງບ້ານ	☑
02	ບັນຫາທີ່ກ່ຽວຂ້ອງກັບການເຂົ້າເຖິງຂໍ້ມູນກ່ຽວກັບການດຳເນີນງານຂອງໂຄງການ	☐
03	ບັນຫາທີ່ກ່ຽວຂ້ອງກັບການບໍ່ປະຕິບັດຕາມມາດຕະຖານ ແລະ ການປົກປ້ອງທຳມະຊາດ	☐
04	ບັນຫາທີ່ກ່ຽວຂ້ອງກັບການບໍ່ປະຕິບັດຕາມມາດຕະຖານ ແລະ ການປົກປ້ອງທຳມະຊາດ	☐
05	ບັນຫາທີ່ກ່ຽວຂ້ອງກັບການບໍ່ປະຕິບັດຕາມນິຕິກຳ	☐
06	ການຄິດໄລ່ທາງການເງິນ, ຄວາມເຊື່ອຖື ແລະ ການແບ່ງປັນຜົນປະໂຫຍດ	☐
07	ການຄອບຄອງທີ່ດິນ ແລະ ສິດທານປະເພນີທີ່ເກີດຂຶ້ນຈາກການແຊກແຊງຂອງໂຄງການ	☐
08	ບັນຫາທີ່ກ່ຽວຂ້ອງກັບ ການລາຍງານທີ່ບໍ່ມີປະສິດທິພາບ ແລະ ບໍ່ຕອບສະໜອງຈາກຜູ້ຈັດຕັ້ງປະຕິບັດໂຄງການ	☐
09	ບັນຫາທີ່ເກີດຈາກການປະເມີນການປະຕິບັດວຽກຂອງໂຄງການ	☐
10	ບັນຫາກ່ຽວກັບວຽກສ້າງລະບາບ (ເຊັ່ນ: ຄວາມສະອາດ ແລະ ສຽງລົບກວນ)	☐
11	ບັນຫາກ່ຽວຂ້ອງກັບຜູ້ຮັບເໝົາ	☐
12	ບັນຫາກ່ຽວຂ້ອງກັບການປົກຫຸ້ມ ແລະ ການຂະຫຍາຍ ການ ໂຄງການ ຄບຊ	☐
13	ອື່ນໆ (ກະລຸນາລະບຸ):	☐
14	ບໍ່ກ່ຽວຂ້ອງກັບໂຄງການ	☐

3) ກະລຸນາລະບຸລາຍລະອຽດຂອງຄຳຄິດເຫັນ/ຄຳຮ້ອງທຸກຂອງທ່ານ:

ຢາກໃຫ້ມີການ ຈັດສັນ ເຮືອນ ໃຫ້ ຄອບຄົວ ທີ່ ຈະ ໄດ້ ຮັບ ຄົນ ໃຫ້ ເນື້ອ ລ້ວນ ແລ້ວ ແຕ່ ທ່ານ ເຫັນ ວ່າ ຄວນ ແນວ ໃດ ຮ່ວມ ການ ຈ່າຍ ເງິນ ຄ. CEP.1.2.3.

4) ຜູ້ໄດ້ຮັບຜົນກະທົບ:

i. ຄົນເອງ ແລະ ຄອບຄົວ ☐ ii. ຊາວບ້ານຫັນເປັນ ☐
ຂອງທ່ານ

[1] ບໍ່ຈຳເປັນຕ້ອງໃສ່ຊື່ຂອງຜູ້ຮ້ອງທຸກ ຖ້າບໍ່ມີຄວາມປະສົງ ຫຼື ບໍ່ມີຄວາມສາມາດ.

iii. ຊາວບ້ານບາງຄົນ ☑ iv. ອື່ນໆ (ກະລຸນາລະບຸ):..... ☐

5) ການແກ້ໄຂທີ່ຕ້ອງການ ຫຼື ການປະຕິບັດໃນການຄົ້ນຄວ້າຍັນຍອ ທີ່ທ່ານຕ້ອງການ:

i. ຄະນະກ່ຽວຂ້ອງການແຈ້ງຂ່າວກ່ຽວກັບການຄົ້ນຄວ້າ

ii. ການແຈກຈ່າຍຂ່າວສານກ່ຽວກັບການຄົ້ນຄວ້ານ້ຳ

6) ທ່ານເຫັນດີບົດສະເໜີ ໃຫ້ເປີດເຜີຍຊື່ ຂອງທ່ານ ບໍ?:

i. ເຫັນດີ, ໂດຍການສະແດງ ເປີດເຜີຍຊື່ຂອງຂ້ອຍ/ ຂອງພວກເຮົາ ໄດ້ ☐

ii. ບໍ່ເຫັນດີ, ຂ້ອຍ/ພວກເຮົາບໍ່ຕ້ອງການເປີດເຜີຍຊື່ ☐

7) ໃນກໍລະນີທີ່ຈຳເປັນ, ຂ້າພະເຈົ້າແມ່ນຍິນດີທີ່ຈະໃຫ້ຂໍ້ມູນເພີ່ມເຕີມກ່ຽວກັບຄຳຖາມ / ຄຳຮ້ອງຂໍນີ້. ຂອບໃຈ.

8) ເບີໂທລະສັບຂອງ ຜູ້ຮ້ອງຂໍ (ຖ້າມີ):.....

.....

ໂຈດລາຍເຊັນຂອງຜູ້ຮ້ອງຂໍ[2]

ມື.....ວັນທີ.....ເ/...../.....

.....

(ລາຍເຊັນ ແລະ ຈ້ານກ່ານາຍບ້ານ)

ນາຍບ້ານ ບ້ານ ລານກາງ

ຂອນ ມະນີວັນ

[2] ຖ້າການກ່ຽວຂ້ອງ / ຄຳຮ້ອງຂໍຖືກສົ່ງມາທາງໂທລະສັບ, WhatsApp, ລາຍເຊັນຂອງຜູ້ຮ້ອງຂໍການບໍ່ຈຳເປັນ

Case 2: Land Use Planning and Benefit Sharing

Issue: Some families expressed concerns that land use planning was not equitable and that they did not receive a fair share of project benefits.

Resolution: The Village Development Committee (VDC) prioritized these households for consultation in line with the project's Safeguard Policy. Their concerns were addressed through dialogue to ensure fairness and equitable distribution of project benefits.

Supporting Documentation (CAP Nong Village ID: 607127 Pakseng district LPB province):

1. Minutes of Meeting for the Land Use Planning

ສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວ
ສັນຕິພາບ ເອກະລາດ ປະຊາທິປະໄຕ ເອກະພາບ ວັດທະນະຖາວອນ

ແຂວງ ຫຼວງພະບາງ
ເມືອງ ປາກແຊງ
ໂຄງການ GFLL
ບ້ານ ໜອງ

ບົດບັນທຶກ

ການປຶກສາຫາລືກັບຊາວບ້ານຂອງ ບ້ານ ໜອງ,
ກ່ຽວກັບຂະບວນການມີສ່ວນຮ່ວມກັບບ້ານ ຄັ້ງທີ່ 2
ໂຄງການປະຕິບັດການຄຸ້ມຄອງປ່າໄມ້ແບບຊຸມນຸມີຫັດ ແລະ ສິ່ງເສີມຊີວິດການເປັນ�อยู่.

ອີງຕາມ : ຂໍ້ຕົກລົງ ວ່າດ້ວຍການແຕ່ງຕັ້ງຄະນະຮັບຜິດຊອບໂຄງການຄຸ້ມຄອງປ່າໄມ້ແບບຊຸມນຸມີຫັດ ແລະ ສິ່ງເສີມຊີວິດການເປັນຊູ່ (GFLL) ສະບັບເລກທີ 231 /ຈມປຊ,ລົງວັນທີ: 17 / 05 / 2024.
ອີງຕາມ : ແຜນດຳເນີນງານປະຈຳປີ 2024 ຂອງໂຄງການຈັດຕັ້ງປະຕິບັດການຄຸ້ມຄອງປ່າໄມ້ແບບຊຸມນຸມີຫັດ ແລະ ສິ່ງເສີມຊີວິດການເປັນຊູ່ ສະບັບ ເລກທີ 102 /ຄປຊ-ປຊ,ລົງວັນທີ: 14 / 10 / 2024.
ອີງຕາມ : ຂໍ້ຕົກລົງ ວ່າດ້ວຍການແຕ່ງຕັ້ງພະນັກງານລົງຈັດຕັ້ງປະຕິບັດກິດຈະກຳຂອງໂຄງການ(GFLL) ກ່ຽວກັບ ການ ວາງແຜນນຳໃຊ້ທີ່ດິນກະສິກຳ ແລະ ປ່າໄມ້ . ການຄັດເລືອກກິດຈະກຳ(ກະສິກຳຫັນສະໄໝ) ແລະ ວຽກງານ ປົກປ້ອງສິ່ງຄົນ-ສິ່ງແວດລ້ອມ ສະບັບ ເລກທີ 1564/ຫກປມ. ລົງ ວັນທີ 14 ສິງຫາ 2024

ການປະຊຸມປຶກສາຫາລືຮ່ວມກັບບ້ານຄັ້ງທີສອງ ໄດ້ຈັດຂຶ້ນ ຕາມແຜນ ທີ່ບ້ານ ໜອງ ຄື ໃນລະຫວ່າງ ວັນທີ 20 ຫາ 28/08/2024 ມີຜູ້ເຂົ້າຮ່ວມທັງຫມົດ 96 ຄົນ, ຍິງ 38 ຄົນ ໂດຍການເປັນປະທານຮ່ວມຂອງ ທ່ານ ບຸນ ມີ ດຸນນະຍັນຕີ ຮອງເຈົ້າເມືອງ ປາກແຊງ, ທ່ານ ອຸໄທ ທ່ານະລິງສີນ ຮອງຫົວໜ້າຂະແໜງປ່າໄມ້ແຂວງ ຫົວໜ້າ ປະສານງານໂຄງການ GFLL ຂັ້ນແຂວງ ແລະ ພາກສ່ວນກ່ຽວຂ້ອງເຊັ່ນ: ຫ້ອງການກະສິກຳແລະປ່າໄມ້ເມືອງ, ຫ້ອງການຊັບພະຍາກອນທຳມະຊາດ ແລະ ສິ່ງແວດລ້ອມ, ອົງການແນວລາວເມືອງ, ສະຫະພັນແມ່ຍິງເມືອງ, ຫ້ອງການພາຍໃນເມືອງ.

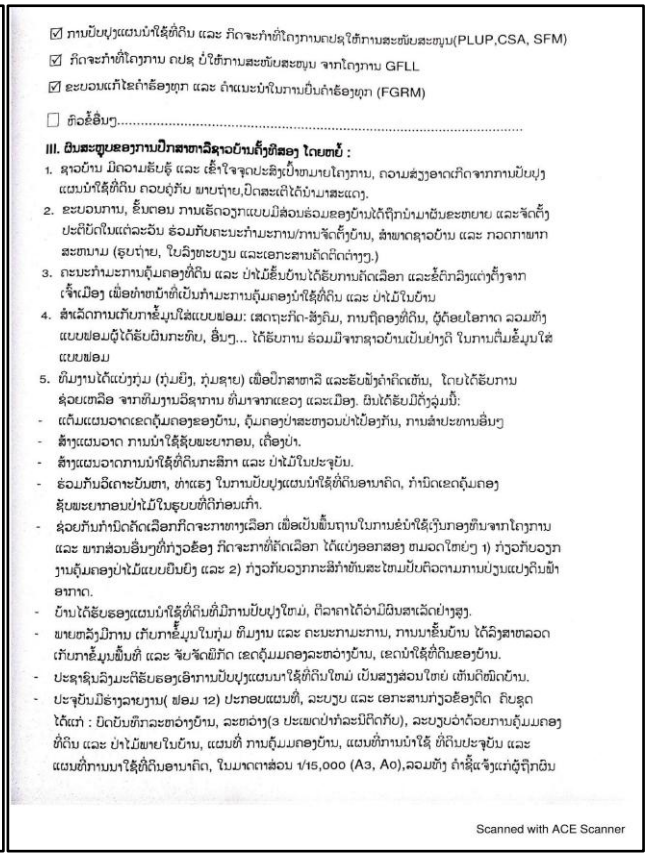
I. ຈຸດປະສົງ.
- ເພື່ອປຶກສາຫາລື ແລະຮັບຟັງຄຳຄິດເຫັນຈາກຊາວບ້ານກ່ຽວກັບໂຄງການ(ຄປຊ/ GFLL)
- ເພື່ອວາງແຜນນຳໃຊ້ທີ່ດິນ ແລະ ປ່າໄມ້ແບບມີສ່ວນຮ່ວມ, ຄັດເລືອກກິດຈະກຳ ກະສິກຳຫັນສະໄໝ (CSA) ແລະ ກິດຈະກຳຄຸ້ມຄອງປ່າໄມ້ຍືນຍົງ.
- ເພື່ອນຳສະເໜີວຽກງານປົກປ້ອງສັງຄົມ-ສິ່ງແວດລ້ອມ ແລະຂະບວນການຮ້ອງທຸກ.

II. ບັນດາຫົວເລື່ອງທີ່ໄດ້ນຳມາໃຫ້ເຫັນແລ້ວມີ ຫົວຂໍ້ຄັ້ງນີ້:

☑ ພາບລວມຂະບວນການມີສ່ວນຮ່ວມຂອງບ້ານ

☑ ຄວາມສ່ຽງຕໍ່ກັບສິ່ງແວດລ້ອມ ແລະ ສັງຄົມ ຈາກໂຄງການ GFLL

Scanned with ACE Scanner



☑ ການປັບປຸງແຜນນຳໃຊ້ທີ່ດິນ ແລະ ກິດຈະກຳທີ່ໂຄງການຄປຊ ໃຫ້ການສະໜັບສະໜຸນ(PLUP,CSA, SFM)

☑ ກິດຈະກຳທີ່ໂຄງການ ຄປຊ ບໍ່ໃຫ້ການສະໜັບສະໜຸນ ຈາກໂຄງການ GFLL

☑ ຂະບວນແກ້ໄຂຄຳຮ້ອງທຸກ ແລະ ຄຳແນະນຳໃນການຍື່ນຄຳຮ້ອງທຸກ (FGRM)

☐ ຫົວຂໍ້ອື່ນໆ.....

III. ຍິນສະຫຼຸບຂອງການປຶກສາຫາລືຊາວບ້ານຄັ້ງທີສອງ ໂດຍຫຍໍ້ :

1. ຊາວບ້ານ ມີຄວາມຮັບຮູ້ ແລະ ເຂົ້າໃຈຈຸດປະສົງເປົ້າຫມາຍໂຄງການ, ຄວາມສ່ຽງອາດເກີດຈາກການປັບປຸງແຜນນຳໃຊ້ທີ່ດິນ ຄວບຄູ່ກັບ ພາບຖ່າຍ,ປົດສະເຫີ ໄດ້ນຳມາສະແດງ.
2. ຂະບວນການ, ຂັ້ນຕອນ ການເຮັດວຽກແບບມີສ່ວນຮ່ວມຂອງບ້ານ ໄດ້ຖືກນຳມາຜັນຂະຫຍາຍ ແລະ ຈັດຕັ້ງ ປະຕິບັດ ໃນແຕ່ລະວັນ ຮ່ວມກັບຄະນະກຳມະການ/ການ ຈັດຕັ້ງບ້ານ, ສຳພາດຊາວບ້ານ ແລະ ກວດກາພາກ ສະໜາມ (ຮູບຖ່າຍ, ໃບລົງທະບຽນ ແລະເອກະສານຄັດຕິດຕ່າງໆ.)
3. ຄະນະກຳມະການຄຸ້ມຄອງທີ່ດິນ ແລະ ປ່າໄມ້ຂັ້ນບ້ານ ໄດ້ຮັບການຄັດເລືອກ ແລະຂໍ້ຕົກລົງແຕ່ງຕັ້ງຈາກ ເຈົ້າເມືອງ ເພື່ອທຳຫນ້າທີ່ເປັນກຳມະການຄຸ້ມຄອງນຳໃຊ້ທີ່ດິນ ແລະ ປ່າໄມ້ ໃນບ້ານ
4. ສຳເລັດການເກັບກຳຂໍ້ມູນໃສ່ແບບຟອມ: ເສດຖະກິດ-ສັງຄົມ, ການຖືຄອງທີ່ດິນ, ຜູ້ດ້ອຍໂອກາດ ລວມທັງ ແບບຟອມຜູ້ໄດ້ຮັບຜົນກະທົບ, ອື່ນໆ... ໄດ້ຮັບການ ຮ່ວມມືຈາກຊາວບ້ານເປັນຢ່າງດີ ໃນການຕື່ມຂໍ້ມູນໃສ່ ແບບຟອມ
5. ທີມງານໄດ້ແບ່ງກຸ່ມ (ກຸ່ມຍິງ, ກຸ່ມຊາຍ) ເພື່ອປຶກສາຫາລື ແລະຮັບຟັງຄຳຄິດເຫັນ, ໂດຍໄດ້ຮັບການ ຊ່ວຍເຫລືອ ຈາກທີມງານວິຊາການ ທີ່ມາຈາກແຂວງ ແລະເມືອງ. ຍິນໄດ້ຮັບມີດັ່ງລຸ່ມນີ້:

- ແຕ້ມແຜນອາດເຂດຄຸ້ມຄອງຂອງບ້ານ, ຄຸ້ມຄອງປ່າສະຫງວນປ່າປ້ອງກັນ, ການສຳປະທານອື່ນໆ
- ສ້າງແຜນວາດ ການນຳໃຊ້ຊັບພະຍາກອນ, ເຄື່ອງປ່າ.
- ສ້າງແຜນວາດການນຳໃຊ້ທີ່ດິນກະສິກາ ແລະ ປ່າໄມ້ໃນປະຈຸບັນ.
- ຮ່ວມກັນວິເຄາະບັນຫາ, ທ່າແຮງ ໃນການປັບປຸງແຜນນຳໃຊ້ທີ່ດິນອນາຄົດ, ກຳນົດເຂດຄຸ້ມຄອງ ຊັບພະຍາກອນປ່າໄມ້ໃນຮູບບທີ່ດີກ່ອນເກົ່າ.
- ຊ່ວຍກັນກຳນົດຄັດເລືອກກິດຈະກາຫາງເລືອກ ເພື່ອເປັນພື້ນຖານໃນການຂໍນຳໃຊ້ເງິນກອງທຶນ/ຈາກໂຄງການ ແລະ ພາກສ່ວນອື່ນໆທີ່ກ່ຽວຂ້ອງ ກິດຈະກາທີ່ຄັດເລືອກ ໄດ້ແບ່ງອອກສອງ ຫມວດໃຫຍ່ໆ 1) ກ່ຽວກັບວຽກ ງານຄຸ້ມຄອງປ່າໄມ້ແບບຍືນຍົງ ແລະ 2) ກ່ຽວກັບວຽກກະສິກຳຫັນສະໄຫມປັບຄົດຕາມການປ່ຽນແປງດິນຟ້າ ອາກາດ.
- ບ້ານໄດ້ຮັບຮອງແຜນນຳໃຊ້ທີ່ດິນທີ່ມີການປັບປຸງໃຫມ່, ຕົວລາຄາໄດ້ວ່າມີຜົນສາເລັດຢ່າງສູງ.
- ພາຍຫລັງມີການ ເກັບກຳຂໍ້ມູນໃນກຸ່ມ ທີມງານ ແລະ ຄະນະກຳມະການ, ການນຳຂຶ້ນບ້ານ ໄດ້ລົງສາຫລວດ ເກັບກຳຂໍ້ມູນພື້ນທີ່ ແລະ ຈັບຈັດພິກັດ ເຂດຄຸ້ມມຄອງລະຫວ່າງບ້ານ, ເຂດນຳໃຊ້ທີ່ດິນຂອງບ້ານ.
- ປະຊາຊົນລົງມະຕິຮັບຮອງເອົາການປັບປຸງແຜນນຳໃຊ້ທີ່ດິນໃຫມ່ ເປັນສຽງສ່ວນໃຫຍ່ ເຫັນດີພັດບ້ານ.
- ປະຈຸບັນມີຮ່າງລາຍງານ(ຟອມ 12) ປະກອບແຜນທີ່, ລະບຽບ ແລະ ເອກະສານກ່ຽວຂ້ອງຕົດ ຄົບຊຸດ ໄດ້ແກ່ : ບົດບັນທຶກລະຫວ່າງບ້ານ, ລະຫວ່າງ(3 ປະເພດປ່າທຳລະນີຕົດກັບ), ລະບຽບວ່າດ້ວຍການຄຸ້ມມຄອງ ທີ່ດິນ ແລະ ປ່າໄມ້ພາຍໃນບ້ານ, ແຜນທີ່ ການຄຸ້ມມຄອງບ້ານ, ແຜນທີ່ການນຳໃຊ້ ທີ່ດິນປະຈຸບັນ ແລະ ແຜນທີ່ການນຳໃຊ້ທີ່ດິນອນາຄົດ, ໃນມາດຕາສ່ວນ 1/15,000 (A3, A0),ລວມທັງ ຄຳຊີ້ແຈ້ງແກ່ຜູ້ຖືກຜົນ

Scanned with ACE Scanner

ກະທົບຈາກການປັບປຸງແຜນນາໃຊ້ທີ່ດິນ,ໃບສະເໜີ,ຂໍ້ຕົກລົງ ຈາກ ບ້ານ ແລະ ຈາກເມືອງ ຮັບຮອງແຜນນຳໃຊ້ທີ່ດິນອານາຄົດ. (3 ຫົວ ກາແດງ ໃຫ້ບ້ານ, ກປ, ຊສ, 3 ຫົວປັນສະບັບກ້ອບປີ ສະແກນ ໃຫ້ຫ້ອງການ ປົກຄອງ, ແຂວງ, ໂຄງການສູນກາງ).

- ເຊິ່ງທັງຫມົດຂອງເອກະສານກ່ຽວຂ້ອງໄດ້ລວບລວມເຂົ້າໃນບົດລາຍງານການປັບປຸງແຜນນາໃຊ້ ທີ່ດິນ.
- ເນື້ອທີ່ດິນທັງໝົດຂອງບ້ານ ມີເນື້ອທີ່ 2.417.08 ເຮັກຕ່າ ປະເພດການນາໃຊ້ທີ່ດິນປັດຈຸບັນມີທີດິນປ່າໄມ້ ມີເນື້ອທີ 408.59 ເຮັກຕາ, ດິນກະສິກຳ ມີເນື້ອທີ 1.966.37, ທີ່ດິນປຸກສ້າງມີເນື້ອທີ 5.66 ເຮັກຕາ ທີ່ດິນວັດທະນາທາມີເນື້ອທີ 4.28 ເຮັກຕາ ດິນຄົມມະນາຄົມ ແລະ ຂົນສົ່ງ ເນື້ອທີ່ 1.96 ເຮັກຕ່າ ແລະ ທີ່ດິນບໍລິເວນນ້ຳ ມີເນື້ອທີ່ 30.22 ເຮັກຕ່າ.

ດັ່ງນັ້ນ ຈົ່ງໄດ້ເຮັດບົດບັນທຶກສະບັບນີ້ໄວ້ ເພື່ອເປັນຂໍ້ມູນພື້ນຖານ ແລະ ເປັນບ່ອນອີງສຳລັບການຈັດຕັ້ງ ປະຕິບັດໃນຕໍ່ໜ້າ.

ບ່ອນສົ່ງ:

- ອົງການປົກຄອງບ້ານ 1 ສະບັບ
- ຫ້ອງການປະສານງານ ໂຄງການຈັດຕັ້ງປະຕິບັດການຄຸ້ມຄອງປ່າໄມ້ແບບຫຼາກຫຼາຍ ແລະ ສົ່ງເສີມຊີວິດການເປັນ�อยู่ຂັ້ນເມືອງ ແລະ ແຂວງ 2 ສະບັບ
- ແນວລາວສ້າງຊາດຂັ້ນເມືອງ 1 ສະບັບ
- ສະຫະພັນແມ່ຍິງ 1 ສະບັບ

ທີ່ບ້ານ ໜອງ, ວັນທີ..21../..8../2024.

ລາຍເຊັນນາຍບ້ານ **ລາຍເຊັນຜູ້ບັນທຶກ**

ແຂວງຫລວງພະບາງ ນາຍບ້ານ ບ້ານ ໜອງ ເມືອງນາມແຊງ

ເນີຍ ສີບຸນເຮືອງ

2. List of people affected and solutions from land use planning

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ເອກະສານຄັດຕິດທີ່ 9: ກິດຈະກຳມາດຕະການຫຼຸດຜ່ອນ ສຳລັບຜູ້ໄດ້ຮັບຜົນກະທົບ

ຈຳນວນຜູ້ໄດ້ຮັບຜົນກະທົບຈາກການທົບທວນການວາງແຜນນຳໃຊ້ທີ່ດິນ

ຊື່ຄອບຄົວ	ຊົນເຜົ່າ	ຖານະ	ປະເພດຜົນກະທົບ	ສະຖານທີ	ມາດຕະການຫຼຸດຜ່ອນທີ່ເລືອກ
1. ທ້າວ ຊຽງເມາະ	ລາວລຸ່ມ	ດີ	ຜະລິດກະສິກຳ	ປ່າປ້ອງກັນ (ຫ້ວຍເໝືອຍ,ຫ້ວຍໄຮ່ເປັດ)	ປັບປຸງສວນຫຍ້າ
2. ທ້າວ ໄຊສົມບຸນ	ລາວລຸ່ມ	ປານກາງ	ຜະລິດກະສິກຳ	ປ່າປ້ອງກັນ (ຫ້ວຍເໝືອຍ,ຫ້ວຍໄຮ່ເປັດ)	ຝາຍກ້ວຍຫິນ
3. ທ້າວ ບຸນເພັງ	ກົມມຸ	ດີ	ຜະລິດກະສິກຳ	ປ່າປ້ອງກັນ (ຫ້ວຍເໝືອຍ,ຫ້ວຍໄຮ່ເປັດ)	ລ້ຽງແບ້
4. ທ້າວ ສີທອນ	ກົມມຸ	ດີ	ຜະລິດກະສິກຳ	ປ່າປ້ອງກັນ (ຫ້ວຍເໝືອຍ,ຫ້ວຍໄຮ່ເປັດ)	ບໍ່ມີແຜນ
5. ທ້າວບຸນທອນ	ກົມມຸ	ດີ	ຜະລິດກະສິກຳ	ປ່າປ້ອງກັນ (ຫ້ວຍເໝືອຍ,ຫ້ວຍໄຮ່ເປັດ)	ລ້ຽງແບ້

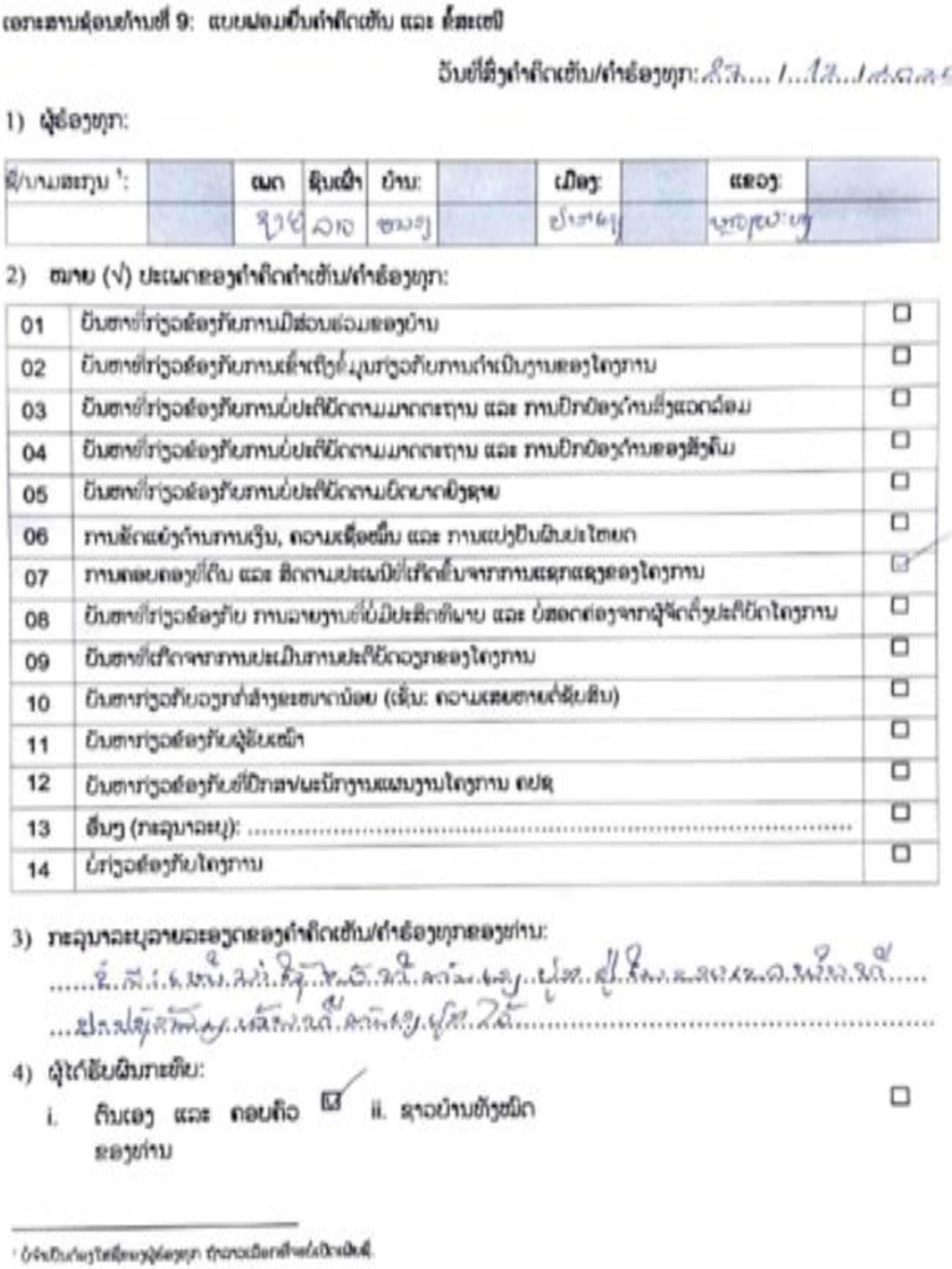
Case 3: Request to Use Protected Forest

Issue: Some families requested permission to access portions of the communal forest that they had helped protect, for livelihood purposes.

Resolution: The project clarified that the use of forest resources is permitted only in compliance with national forest laws and regulations. Villagers were reminded of the relevant provisions to ensure sustainable use and continued forest protection.

Supporting Documentation (Certified by Village and DAEO):

1. Certificate of Grievance Submission Form



iii. ຊາວບ້ານບາງຄົນ ☐ iv. ອື່ນໆ (ກະລຸນາລະບຸ):..... ☐

5) ການແກ້ໄຂທີ່ຕ້ອງການ ຫຼື ການປະຕິບັດໃນການຄິດຕາມບັນຫາ ທີ່ທ່ານຕ້ອງການ:

i. [illegible]

ii. [illegible]

6) ທ່ານຕົກລົງເຫັນດີໃຫ້ເປີດເຜີຍຊື່ ຂອງທ່ານ ບໍ?:

i. ເຫັນດີ, ໂຄງການສາມາດ ເປີດເຜີຍຊື່ຂອງຂ້ອຍ/ ຂອງ ພວກເຮົາ ໄດ້ ☑ ii. ບໍ່ເຫັນດີ, ຂ້ອຍ/ພວກເຮົາບໍ່ຕ້ອງການເປີດເຜີຍຊື່ ☐

7) ໃນກໍລະນີທີ່ຈຳເປັນ, ຂ້າພະເຈົ້າແມ່ນຍິນດີທີ່ຈະໃຫ້ຂໍ້ມູນເພີ່ມເຕີມກ່ຽວກັບຄຳຄິດເຫັນ / ຄຳຮ້ອງທຸກນີ້. ຂອບໃຈ.

8) ເບີໂທລະສັບຂອງ ຜູ້ຮ້ອງທຸກ (ຖ້າມີ):.....

.....

ໃຈດວາຍເຊັນຂອງຜູ້ຮ້ອງທຸກ[2]

ຢູ່...ບ້ານ ຫນອງ..... ວັນທີ 31/12/2024.....

ນາຍບ້ານ ບ້ານ ຫນອງ

(ລາຍເຊັນ ແລະ ຈົ່ມການຈາກນາຍບ້ານ)

ເລີ ສີບຸນເຮືອງ

2. Certificate of Complaint Resolution Agreement

แบบฟอรมการกักกันกักแกไขดำหนิกเดิม และ ชี้สะเดป

บ้าน.....เมือง.....แขวง.....

การกักกันชั้นที่ แบบไกที่ดำเนินการไกยตอบรูปไราย ในแต่ละ: ☑ ชั้นบ้าน ☐ ชั้นเมือง ☐ ชั้นแขวง ☐ ชั้นสูนกาง ☐ ชั้นรา กะลุนาใช้ดาพและลูก.....

ตอบรูปไราย ไกดำเนินการสอบสวนรูปรางเกี่ยวดำหอยุก ชี้ชั้นสะเดปไกย:

ดำหอบรุ.....เลกที่ดำสะเดป: .....

ชิ้วลวนตป ของดำหอยุก และ บากส่วนรางวดอง

ในที่ประชุม, มีการสะเดปะนวยหวุนะกักดำไปนี้:

ผู้ดอยุกาแบนมีความมั่นใจ ☐ ต่กับชั้กกันดำหาง, ชั้กกันนี้ แบนกักกันวามชั้นเนื่องชั้นไกยบากส่วนชิ้วนิดที่รางวดอง เนื่องชั้นชั้นว่าดำสะเดปให้ดอยุก ชี้ไกชั้นการแก้ไข ☐ และ บ่มีชั้นสกชั้นไกดำหาง.

ผู้ชี้ส่วน และ มะยาม

บุกพันที่รางวดองกับชั้สะเดป *(ชื่อดอยุกที่บดีมีส่วนส่วนในแต่ละดำสะเดป ชี้ชั้นวามว่า การสอบรูปนี้ให้ชั้นลัก กับผู้ดอยุก - ชื่อดอยุผู้ดอยุก จะกักชักยาไม่มีชั้นความเนื่อง เนื่องสะแก่ผู้ดอยุก ดะบุยาง).*

ไจ่ (ผู้ดอยุก)	ดำแหน่ง	ลายเซ็น
1		
2		
3		

ความะแก้ไข ชี้ดักหนา และ ชี้สะเดปไดน

ชื่	ดำแหน่ง	ลายเซ็น
1		
2		
3		

ที่: .....วันที่: 27 / 12 / 2024

(ลายเซ็น และ จัดการประทับ จากบ้าน)

เมือง ชื่อบุนเมือง

ANNEX 2: INFORMATION ON THE IMPLEMENTATION OF THE BENEFIT-SHARING PLAN

(Updated in June 2026)

Requirements of FCPF on Benefit Sharing Plans

Programmatic Element 5: Benefit sharing The ER Program uses clear, effective, and transparent benefit-sharing mechanisms with broad community support and support from other relevant stakeholders. See Criterion 29; 30; 31; 32; 33 of FCPF Methodological Framework

The General Conditions Applicable to Emission Reductions Payment Agreements (EPRAs), Section 5.01(b)(i), requires the Program Entity to "*provide evidence satisfactory to the Trustee . . . that the Benefit Sharing Plan has been implemented in accordance with its terms*" as an annex to the ER Monitoring Report.

The General Conditions Applicable to ERPAs, Section 16.01(vii), also provides that "failure to observe, implement and meet all requirements contained in . . . the Benefit Sharing Plan . . . provided for under the ERPA (including any feedback and grievance redress mechanism provided for under the ER program, the Benefit Sharing Plan and/or a Safeguards Plan)" is considered an Event of Default on the part of the Program Entity.

The information provided on the readiness of the implementation of the Benefit Sharing Plan should be up to date (not only related to the specific Reporting Period).

The Methodological Framework, Criterion 32, requires that information on the implementation of the BSP be disclosed publicly.

The ERPA includes an additional covenant requiring the Program Entity to "monitor and report to the Trustee on the implementation of (…) the Benefit Sharing Plan during Reporting Periods (…). The Program Entity shall first monitor and report to the Trustee on the implementation of the Benefit Sharing Plan six (6) months after receipt of the first Periodic Payment and annually thereafter. The Program Entity may coordinate the annual monitoring and reporting of the Safeguards Plans and the Benefit Sharing Plan, provided that the Program Entity notifies the Trustee, and the Trustee accepts such coordinated timelines. The Trustee reserves the right to initiate a separate monitoring of the implementation of (…) the Benefit Sharing Plan annually after the date of this [ERPA] by an independent Third-Party monitor."

Annex 2 is the primary tool for the Program Entity to provide evidence on whether the BSP has been implemented in accordance with the terms of the BSP.

The specific content of Annex 2 should be determined based on the terms of the BSP. In general, Annex 2 should address: (i) what the agreed commitments in the BSP are; (ii) To what extent these commitments have been met; (iii) whether the agreed benefit sharing arrangements in the BSP are effective; and (iv) whether any aspects of the BSP should be changed to ensure that the agreed commitments will be achieved.

Annex 2 provides a synthesis of existing monitoring data collected as part of the implementation of the BSP. It is based on regular self-reporting of the Program Entity as supplemented from time to time by findings of World Bank supervision missions and independent third-party monitoring initiatives, including field visits, key informant interviews, or periodic performance audits.

The Benefit Sharing Plan (BSP) Implementation Status Report is the primary tool for the Program Entity to provide evidence on whether the BSP has been implemented following the terms of the agreed BSP, in line with the relevant applicable laws[55], including national laws and legislations and any legally binding national obligations under relevant international law, and that such information is provided transparently. This requirement is specified in the FCPF Methodological Framework (Criterion 29-33) and in the General Conditions applicable to Emission Reductions Payment Agreement (ERPA), and in the ERPA itself.

The BSP Implementation Status Report includes core information and data that Program Entities are required to report, as specified in this template. Any additional information can be provided in an annex to the report, depending on the specific content of the BSP. The Program Entity should submit the report six months after receiving the first payment and every year thereafter 56 . The report will be considered valid and accepted only after all the core sections of the report using this template are filled with relevant details.

Monitoring and Reporting Requirements

1. Overall fund disbursement: [information below is extracted from the detailed Excel[57] Table 1 from Tab 2 prepared and submitted with this report]

The detailed information on fund disbursement is here.

Table 30: Summary of the funds distributed by the Program Entity (PE) as per the BSP (includes advance payments)

Source of funds	Total commitment (contract value) (1)	Total received by PE - Payment 1 (2)	Total received by PE - Payment 2 (3)	Total disbursed by PE (4)	% Disbursed (5) = (4)/((2)+(3))	Comments
FCPF ERPA	42.000.000	16.023.070	-	**4.122.947,24**	**26%**	The total disbursement is calculated from the GFLL's advance payment and the first ER payment.

[55] MoF Decree No. 0200/MoF on Public Budget Expenditures, MoF Decree No. 012/MoF dated 3 January 2025 on the Amendment for the MoF Decree No.0200/MoF.

[56] The first **BSP Implementation Status Report** should be submitted six months after the Program Entity receives the first payment and every year thereafter (as of June 30). The Emission Reduction Monitoring Report (ERMR) can refer to the latest annual BSP Implementation Status Report before a payment is made (where this template will replace Annex 2 of the ERMR). Countries that are still undergoing their first reporting period validation and verification (and, therefore, haven't received a first payment yet) will continue to maintain Annex 2 to report on the **readiness** of the BSP.

[57] You can find the Excel Template here.

						The total disbursed funds are recorded from July 2022 up to June 2025.

2. BSP revision[58]**:** were there any changes made to the BSP during the Reporting Period (as specified above in section II): ☐ Yes ☒ No

*If **yes**, please explain what changes have been made, why, and how they were consulted with the stakeholders.*

No revision has been made to the Benefit Sharing Plan (BSP). However, public consultations for proposed adjustments to the BSP have been conducted mainly to allocate benefits per province and to cover the operational costs of the GFLL Project. The BSP on benefit allocation was consulted with stakeholders at the National level (National REDD+ Task Force) and continued at the Sub-national level in Oudumxay Province in November 2024, attended by 140 participants from six provinces (PAEOs, DAEOs, LWU, NFDL, and representatives of 18 targeted villages). Further details of the assessment and minutes of the consultation workshop in Oudomxay can be found in this link. The list of participants who attended the Oudomxay consultation meeting can be found here (the summary of the participants is here, and the type of stakeholders is here).

Consultations on a proposal to increase operational costs were conducted with PAEOs, DAEOs, LWU, and LFND (provinces and districts) in January 2025. The consultations were also conducted in six provinces (Oudomxay, Bokeo, Luang Namtha, Luang Prabang, Xayabouli, and Houaphan). The minutes of meetings for such consultations are recorded[59]. The consultations aimed to inform beneficiaries of the updated expenditure on the operational costs. Participants in the consultations, agreed that operational costs need to be adjusted to continue facilitation, monitoring, and supervision from sub-national agencies to villages, especially for the development of the community engagement process/action plan.

The consultations discussed three options (A, B, and C) as follows:

A. Adjusted Operational Cost by adding allocated funds of Buffer to the Operational Cost, or
B. Adjusted Operational Cost by adding allocated funds of Buffer and Pilot Initiative to the Operational Cost, or
C. Adjusted Operational Cost by adding allocated funds of Buffer and Pilot Initiative, and incentives for sub-national government agencies. However, the incentives[60] are specifically allocated for the expenditures of PAEOs and DAEOs to supervise and provide facilitation and extension for villages.

Participants from six provinces agreed that the funds for operational costs will be taken from the allocation funds of buffer, pilot initiative, and incentives for sub-national government agencies

[58] Any revisions to the BSP whether major and/or minor changes should be documented in this report, and the revised BSP should be submitted to the World Bank including the FCPF Facility Management Team (FMT).
[59] The Minutes of Meeting (in Lao) for Oudomxay is available here; The Minutes of Meeting (in Lao) for Luang Namtha is available here; The Minutes of Meeting (in Lao) for Bokeo is available here; The Meeting of Meeting (in Lao) for Luang Prabang and Xayabouli is available here; The Minutes of Meeting for Houphan is also available here.
[60] In BSP, the incentives (5%) or US$ 616.888 under the 1st ER Payment are categorized into Performance-based Payment (77%).

(Option C above). The participants also agreed and confirmed that the funds for incentives for sub-national agencies will be specifically only used for acceleration of PAEOs and DAEOs to supervise villages[61] so that project implementation and funds disbursements to villages can be boosted. However, this proposed adjustment requires endorsement from the World Bank. This matter was discussed between the high government level of Lao PDR (Ministry of Agriculture and Environment[62]) and the World Bank during the WB mission in May 2025.

Based on the WB Mission in May 2025, it was agreed that the operational costs of the project could be adjusted if the project is met with the conditions as mentioned in Table 2 below.

Table 31. Conditions for Operational Budget Increase

Operational Budget Increase		Conditions	Timeframe	Status
Buffer (US$ 801,154)	30% of funds released	1. CEP revised streamlined template agreed with WB 2. Budget June 2025- March 2027 to be revised to remove unnecessary and low-priority expenditures 3. Workplan June 2025- March 2027 revised to reflect monthly delivery targets. 4. ERPA payment made to 20 additional villages	Jun 15, 2025	By June 2025, ER Payments for 40 CAPs delivered
	30% of funds released	5. Consultant contracts modified with KPIs relating to delivery of payments to villages (NC to spend more time in the field with PAEOs/DAEOs than in VTE) 6. ERPA payment made to 36 additional villages 7. Evidence of consultations with universities or other groups that maybe be expecting payment from pilot 8. Benefit Sharing Plan revised 9. Quarterly Technical Progress Update and Expenditure Report	Oct 15, 2025	On-going
	40% of funds released	10. ERPA payment made to 37 additional villages 11. Quarterly Technical Progress Update and Expenditure Report	Dec 15, 2025	On-going
Pilot Initiatives (US$ 616,888)	30% of funds released	12. ERPA payment made to 37 villages 13. Quarterly Technical Progress Update and Expenditure Report	Mar 31, 2026	On-going
	30% of funds released	14. ERPA payment made to 37 villages 15. Quarterly Technical Progress Update and Expenditure Report	Jun 30, 2026	On-going

[61] Supervision includes detailed budgets for SFM and CSA activities, timelines, procurement plan, and reporting format for VDCs

[62] The Ministry of Natural Resources and Environment was merged with the Ministry of Agriculture and Forestry, which is now known as the Ministry of Agriculture and Environment (https://www.vientianetimes.org.la/freefreenews/freecontent_052_Four_y25.php)

	40% of funds released	16. ERPA payment made to 37 villages 17. Quarterly Technical Progress Update and Expenditure Report	Oct 30. 2026	
Interest (TBC)**		To cover operational costs for 2027		The Government decided not to use the interest rate

3. Overall summary of the BSP implementation during the reporting period.

Please include a brief overview of the status of BSP implementation. Detailed information can be included in an annex to this report. Please avoid repeating the same information from the BSP and provide links to external documents when possible.

By June 2025, 25,7% or US$4.1million out of US$16 million from the first ER Payment has been spent by the GFLL Project – see Figure 10. The expenses have been spent on operational costs, incentives (for the DoF/REDD+ Division, 6 PAEOs, and 18 DAEOs), and grants for villages.
Based on the first ER monitoring report for the carbon crediting period of 2019–2021, the GFLL generated only 3.2 million verified CO2e, equivalent to approximately US$16 million. Based on the BSP document[63], the allocated operational cost under the 1st ER Payment is only up to US$2.9 million (18% of US$16 million) to cover operational activities[64]. However, since the operational cost financed by advance payment was started in July 2022 and operated up to June 2025 (35 months), the project has spent US$3.5 million (or 22.1% of the total 1st ER Payment) – see Figure 11. The allocated operational cost has been increased from US$2.9m to US$3.7m after the project met the conditions determined by the World Bank – see Table 31 above.

Figure 10. The GFLL Expenditures up to June 2025

GFLL Project Expenses from ERPA Carbon Fund (Up to June 2025)					
	Source (US$)	Expenses (US$)			US$ Balance (Total)
		July 2022 - Dec 2023	Jan - Dec 2024	Jan-Jun 2025	
Advance Paymer	3.000.000	1.520.505			1.479.495
1st ER Payment	13.023.070		1.295.455	1.306.987	10.420.627
Total	**16.023.070**	**1.520.505**	**1.295.455**	**1.306.987**	**11.900.123**
Percentage	**100%**	**25,7%**			**74,3%**

[63] See https://documents.worldbank.org/en/publication/documents-reports/documentdetail/657571634612542776/lao-peoples-democratic-republic-northern-laos-emission-reductions-payments-project-benefit-sharing-plan

[64] The project received the Advance Payment of US$ 3m in June 2022. The full total 1st ER Payment was received in July 2024. The Advance Payment was then used to finance operational costs from 2022 to July 2024. The total benefits received by Lao PDR under the 1st ER Payment are US$ 16m consisting of US$ 3million (Advance Payment) and US$ 13 million (the remaining 1st ER payment).

Figure 11. Operational Cost spent by the GFLL up to June 2025

	Operational Cost for GFLL spent up to 2025	US$	% (from 1st ER Payment)
A	Allocated Operational Cost (18% of 1st ER Payment)	**2.884.153**	**18,0%**
B	Actual Operational Cost July 22 - Dec 2024	2.815.960	17,6%
C	Actual Operational Cost Jan - June 2025	724.623	
D	Actual Operational Cost July 22 - June 2025 (B+C)	3.540.583	**22,1%**
E	Allocated Buffer Funds (5% of 1st ER Payment)	**801.154**	
F	**Balance Operational Cost by June 2025 (A+E-D)**	**144.724**	

In detail, the expenditures (during the period of the first BSP Implementation Report) were spent to finance and strengthen institutional arrangements for NPMU, PPMU, and DPMU. It was also to finance the capacity building of safeguards implementation in the fields. The fund was used to finance incremental operational costs, including the introduction of the program to wider stakeholders within six provinces, training for sub-national agencies (PAEOs and DAEOs) related to FPIC, Safeguards, BSP consultation, Community Engagement Processes, including CAP, and financial management mechanisms, consulting services, civil works, and goods. The fund was also used to support data collection in the fields for the first ER Monitoring report. Up to June 2025, the funds have been delivered to 40 villages within Six Provinces in northern Laos. The list of 40 Villages can be found here.

The expenditures of the Project, on the other hand, are categorized as follows:

a. **Civil Works: office renovation**
b. **Goods: Motorbikes, Cars, Furniture, Printers, Accounting Software**
c. **Consulting Services: financial auditors, consultants' services (salaries)**
d. **Workshops/Meetings/Seminars: The costs for government officers to participate in national/international meetings/seminars/workshops**
e. **Trainings & Study Tours: Trainings**
f. **Incremental Operating Costs (Operational Costs): Daily Office Expenses**
g. **Grants to villages (cash for the program implementation): community action plans from villages**

In terms of monetary benefits, the funds were spent on consulting services and incremental operating costs. The category of the grant to villages is put as monetary benefits.

Table 32. Cost Categories of GFLL Expenditures

	Benefits	
Cost Categories	**Monetary**	**Non-Monetary**
Civil Works		X
Goods		X
Consulting Services	X	
Workshops & meetings		X
Training & study tours		X
Incremental Operating Cost	X	
Grants to villages/Cash for Works	X	X

Based on Project expenditures from July 2022 to June 2025, the consultation services were the highest expenditure (47.8%), whereas the grants to villages[65] and workshops/meetings were 14.1% and 11.9% of the total spent, respectively. The expenditures by Category as of June 2025 can be seen in Figure 12. The link file for Figure 3 is here.

[65] The grants for 18 Villages recorded by GFLL finance by June 2025

Figure 12. GFLL Expenditures by Category as of June 2025

	Total 2022			Total 2023			Total 2024			Total 2025 (Jan-Jun)			TOTAL	%
	NPMU	PPMU (6 Provinces)	DPMU (18 Districts)	NPMU	PPMU (6 Provinces)	DPMU (18 Districts)	NPMU	PPMU (6 Provinces)	DPMU (18 Districts)	NPMU	PPMU (6 Provinces)	DPMU (18 Districts)		
Civil Work	-	-	-	18.237,48	-	-	13.858,09	-	-	62.627,25	-	-	94.722,82	2,3%
Goods	4.083,05	-	-	302.084,57	-	-	18.893,16	-	-	-	-	-	325.060,78	7,9%
Consultant Services	167.625,37	-	-	618.770,27	35.070,00	-	768.919,20	39.790,00	19.326,00	236.066,48	17.750,00	67.210,00	1.970.527,32	47,8%
Workshops & Meeting	42.135,68	15.837,91	-	35.316,60	71.326,25	-	51.541,44	69.175,17	45.685,61	20.052,58	28.580,27	109.491,29	489.142,80	11,9%
Training & Study tours	10.404,82	-	-	51.886,56	35.743,00	-	47.550,53	53.051,78	36.941,11	17.342,27	49.267,21	41.343,69	343.530,97	8,3%
Incremental operating cost	19.108,27	5.755,59	-	50.533,46	36.585,67	-	54.847,91	37.297,38	38.578,08	24.132,38	19.166,40	31.592,77	317.597,91	7,7%
Grants to Villages/Cash-for-Work	-	-	-	-	-	-	-	-	-	582.364,64	-	-	582.364,64	14,1%
Contingencies	-	-	-	-	-	-	-	-	-	-	-	-	-	0,0%
Sub-Total	243.357,19	21.593,50	-	1.076.828,94	178.724,92	-	955.610,33	199.314,33	140.530,80	942.585,60	114.763,88	249.637,75	4.122.947,24	100,0%
Percentage (%)	92%	8%	0%	86%	14%	0%	74%	15%	11%	72%	9%	19%		
Total	264.950,69			1.255.553,86			1.295.455,46			1.306.987,23			4.122.947,24	

In terms of expenditures spent by different government levels towards the total 1st ER Payment, NPMU (National Project Management Unit)/REDD+ Division is still the dominant central agency (78.1%), followed by PPMU (Provincial Project Management Unit) and DPMU (District Project Management Unit) with 12.5% and 9.5% respectively (Figure 13). DPMU (DAEO) started making expenses in 2024 for consultant services, workshops and meetings, training, and incremental operating costs. A table detailing the expenses per quarter from July 2022 to June 2025 can be found here.

Figure 13. Expenditures spent by Different Government Levels (during the first BSP Implementation Report toward the total 1st ER Payment)

	2022-2025					
	Monetary	%	Non-monetary	%	Total	%
National	2.522.367,98	78%	696.014,08	22%	3.218.382,06	78%
Regional	191.415,04	37%	322.981,59	63%	514.396,63	12%
Municipal	156.706,85	0%	233.461,70	0%	390.168,55	9%
Total	2.870.489,87	70%	1.252.457,37	30%	4.122.947,24	100%

In terms of expenditures per program component activity, component 4—program management and coordination—is the most expensive (17,3% of the total 1st ER Payment), whereas component 1 and component 3 contribute to 3.7% and 3.2%, respectively. The detailed expenditure per year can be found here.

Figure 14. Expenditures by Component Activities July 2022 - June 2025

Description		July 2022 - Dec 2023	2024	Jan-June 2025	Total	%
Component-1 : Enabling Environment for REDD+ Implementation		**241.993,54**	**215.000,84**	**132.534,15**	**589.528,52**	**3,68%**
1,1	Strengthen Policies and Legal Framework	175.643,03	81.083,17	66.202,25	322.928,45	
1,2	Improving the regulatory and management framework, and elements of REDD+	38.115,00	42.505,00	6.255,00	86.875,00	
1,3	Improved Forest Law Enforcement and Monitoring	21.062,42	9.832,85	1.763,13	32.658,40	
1,4	Improved Provincial, District, and Village Level Land Use Planing and tenure security	7.173,09	80.092,38	58.313,77	145.579,23	
1,5	Legal framework on approval, management and control of REDD+ projects proposed by private sector, NPOs and so on	-	1.487,44	-	1.487,44	
1,6	Agreement on authorization and corresponding adjustment procedures with concerned Departments and Ministries esp. DCC/MONRE;	-	-	-	-	
1,7	Selection of a jurisdictional REDD+ Results-Based-Finance (REDD+ RBF) scheme to target and commencement of preparation for required elements.	-	-	-	-	
1,8	Concept and rough design of REDD+ registry (Program/projects and carbon credits transaction)	-	-	-	-	
1,9	Capacity building on REDD+ for officers of REDD+ and related Divisions	-	-	-	-	
Component-2: Climate Smart Agriculture (CSA) and sustainable livelihoods for forest dependent		**4.105,26**	**38.860,02**	**461.876,03**	**504.841,31**	**3,15%**
2,1	Establish enabling environment to promote CSA and REDD+	4.105,26	38.860,02	461.876,03	504.841,31	
2,2	Implement Climate Smart Agriculture Models	-	-	-	-	
Component-3: Sustainable Forest Management (SFM)		**51.986,06**	**24.021,06**	**184.565,37**	**260.572,49**	**1,63%**
3,1	Establish Enabling Environment to Implement and Scale up Village Forest Management	5.343,28	1.658,59	-	7.001,87	
3,2	Implement and Scale up Village Forest Management	-	4.786,78	175.159,58	179.946,36	
3,3	Sustainable Management of Production Forests Areas (PFA)	28.587,64	4.105,98	-	32.693,62	
3,4	National Protected Area (NPA) management	18.055,14	13.469,71	9.405,79	40.930,64	
Component-4: Program management and Coordination		**1.222.419,69**	**1.017.573,55**	**528.011,67**	**2.768.004,91**	**17,28%**
4,1	Program Management	934.926,79	643.277,41	398.980,84	1.977.185,04	
4,2	Monitoring & Evaluation and MMR	98.270,66	61.033,55	50.548,01	209.852,22	
4,3	Programme Communication and Safeguards	**189.222,24**	313.262,59	78.482,82	580.967,65	
Total		**1.520.504,55**	**1.295.455,47**	**1.306.987,23**	**4.122.947,24**	**25,73%**

Some challenges faced by the project are outlined in the sub-section below.

3.1 Have there been any challenges faced in the distribution of funds to beneficiaries? If yes, please describe them and how they will or have been addressed.

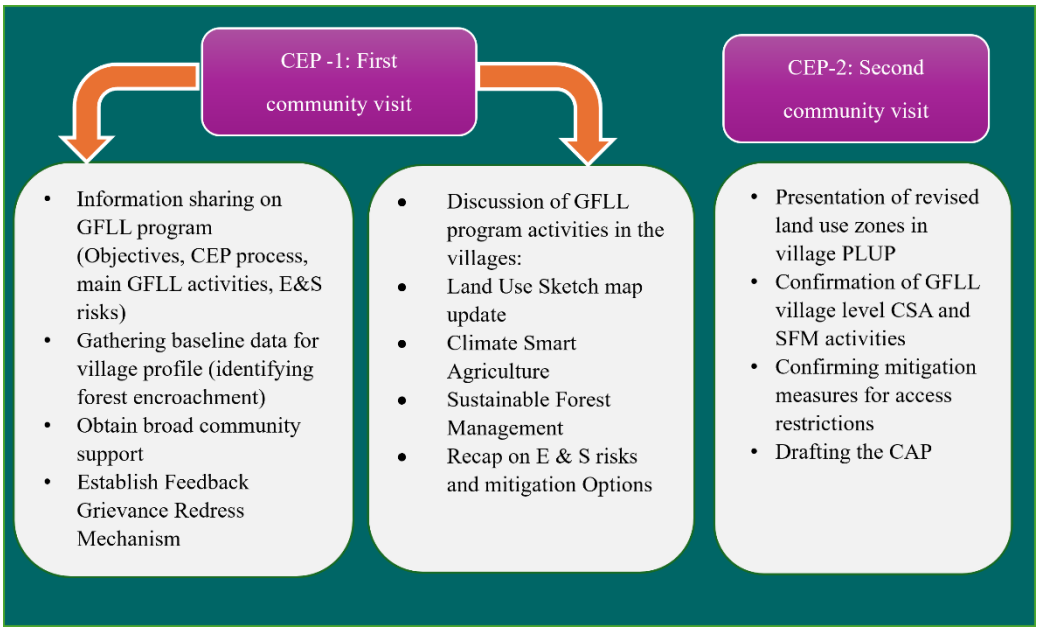
Table 33. Challenges faced in the distribution of funds to beneficiaries

Challenges Faced by The Project Team	Addressed by the Project Team
Changes in Senior Management from 2022 – 2024 (two times for CTA) slowed down the decision-making on the project activities.	The current CTA has been recruited since November 2024. Since the CTA is a full-time position, any decision-making on project activities can be made quickly obtained.
Due to changes in the personnel of consultants (including senior management), the direction to achieve the project goals was challenging. With having a part-time senior management, commitment to accelerating the project activities was slowly achieved.	With the full-time CTA in Vientiane, regular coordination within the project team and also with the REDD+ Division is conducted every month. Any problems and issues are quickly discussed and addressed.
Challenges in getting qualified project consultants, especially getting international consultants	The CTA has been recruited since November 2024. Since the CTA is a full-time position, decisions regarding project activities can be made quickly. Regular monthly meetings between the project team and REDD+ Division is conducted to evaluate/review ongoing activities and develop new plans (adjustment) so that the project goals can be achieved as planned.
The allocation of benefits per province was determined through a comparison between the baseline and the actual province's performance in a certain period. However, it becomes challenging when determining benefit allocation to each village. Emission Reductions are calculated at the six provincial levels, but benefit allocations are expected at the local.	The result of benefit allocation for each province was presented to the PAEOs and DAEOs in November 2024 in Oudumxay. The number of villages for each province was determined once the result of benefit allocation per province was acknowledged by sub-national governments. The amount of benefits per village was also consulted from national to sub-national level. It is agreed that the benefits for each village is allocated up to US$ 45,000.
Due to changes in the personnel of consultants (including senior management), no clear instruction was provided from project management.	With the full-time CTA in Vientiane, regular coordination within the project team and also with the REDD+ Division is conducted every month. The main focus of the short-term target achievement is to conduct implementation of funds disbursements to beneficiaries.
The implementation of funds disbursement to beneficiaries was challenging. Multiple steps are required	The development of a community work plan (or community action plan/CAP) has several steps as follows (see 15):

to produce a community action plan (CAP).	- **Step 1 (known as community engagement process – 1/ CEP 1): Information sharing on the GFLL program (objectives, CEP process, main GFLL activities, E&S risks) and gathering baseline data for village profile (identifying forest encroachment)** - **Step 2: (still as a part of CEP-1) discussion of GFLL program activities in the village, update and review PLUP, discussion on Climate Smart Agriculture and Sustainable Forest Management, seeking potential environmental and social risks and mitigation options.** - **Step 3 (known as the community engagement process – 2/CEP 2). This step is also known as the development of a community action plan (CAP). The activity covers revising land use zones in village PLUP, confirming GFLL village-level CSA and SFM activities proposed by the community, confirming mitigation measures for access restrictions, and drafting and finalizing the CAP proposal.** Capacity Buildings for PAEOs and DAEOs for CEP-1, CEP-2, and CEP-3 have been conducted from November 2023 to October 2024. The material for the CAP document is taken from the results of CEP-1, CEP-2, and CEP-3. To simplify and accelerate the process of CAP in the villages, in consultation with the WB task team, the DoF endorsed the decision letter No.0206/DoF on 13 January 2025. One of the main points of the letter is that the development of CAPs can be started in parallel with the development of PLUPs providing that existing PLUP data and map is still valid (not older than 5 years), and draft PLUP data updated (older than 5 up to 10 years) or newly prepared (older than 10 years) is available. This means that the CAP development process can be started while waiting for the DAEO and district governor's approval of the draft PLUP (for those updated and newly prepared). The WB Task Team suggested that a draft PLUP or sketch (*unfinished*) map is sufficient to finalize CAPs because the full PLUP process is lengthy and could delay achieving the project's CAP targets.

	Moreover, the CEP process is simplified and streamlined to the project design. CEP1 is simplified and integrated into CEP2 (or CEP1 + CEP2 = CEP1) to improve efficiency as community consultation and FPIC is ongoing process and IEC materials (audio/visual aides) is used to improve broader outreach to those absent at initial consultation. The CEP-3 bceomes CEP-2, in which the community starts to develop and confirm their action plans (CAP). The targeted villages for receiving benefits under the first ER Payment are 247 villages. However, for the year 2025, the total number of targeted CAPs will be 135 CAPs. Up to June 2025, 40 CAP documents were completed in line with the two model CAPs reviewed and cleared by the WB. These 40 villages have received the 1st ER payment.

Figure 15. Steps in Community Engagement Process (CEP)



3.2 Are the governance and funds flow arrangements as described in the BSP and operations manuals (if relevant) functioning well? Please provide as an annex a summary of meetings, consultations with stakeholders and decisions undertaken during the reporting period to implement and monitor the benefit sharing plan.

The GFLL project has followed the funds flow and disbursement arrangement as mentioned in the POM (Figure 16). Implementing funds flow arrangements works well from the Central (Bank of Lao

PDR) to the six Provinces (PAEOs) and 18 Districts (DAEOs). The 40 CAP documents are completed and certified by the relevant authorities, the transfer of funds for those 40 villages has done from the Bank of Lao (B0L) to VDC's Bank account.

The current funds flow arrangements for local government agencies (PAEOs/DAEOs) can be found in the POM and FMM that were finalized after the BSP. The funds flow arrangements for villages (VDC), including the guidelines for financial administration and management, procedures, requirements, and formats to implement activities at the village level, can be also found in the Financial Management Manual for VDC.

Figure 16. Accounts and Overall Fund Flow Arrangement66

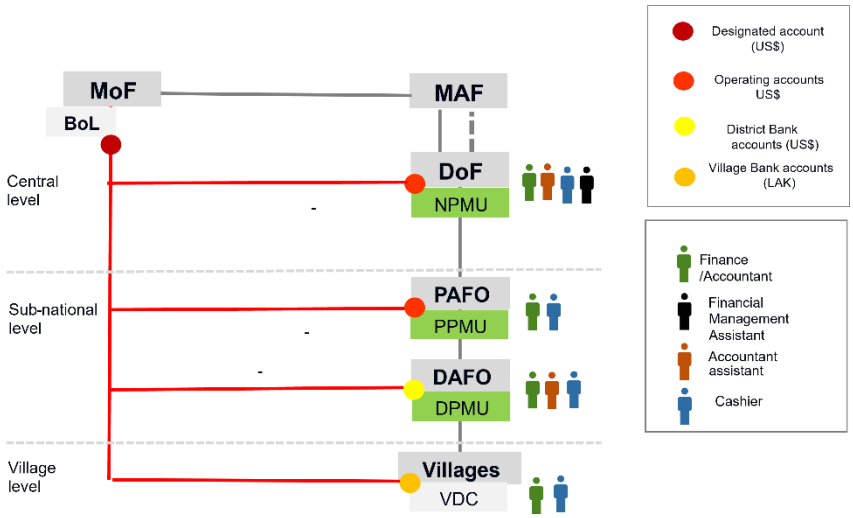
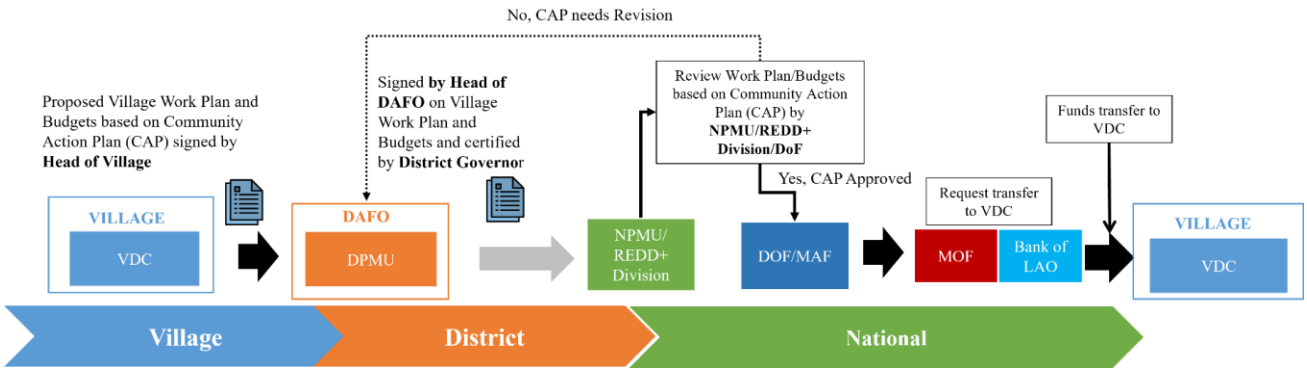


Figure 17. CAP Process and Funds Flow for VDC



To ensure the flow fund arrangements, work well, the project has developed Financial Management Manuals, one for NPMU, PAEOs, and DAEOs, and the other one for VDCs. Capacity building on the use of the Financial Management Manual VDC for PAEOs, DAEOs, and VDCs have been conducted in Oudomaxay and Luang Prabang in January 2025. The current training on the Manual was attended by 6 PAEOs (12 persons), 18 Districts (44 persons), and 18 Villages (53 persons). The total number of participants who attended the training was 109 participants (9 participants were women, and the

[66] MAF has been merged with MONRE into Ministry of Agriculture and Environment

ethnic groups represented were Akha, Phounoy, Yuan, Thaidam, Thaideng, Khamu, Hmong, and Lao). The total participants were from as follows:

- 1 finance officer and 1 cashier from each province (6 PAEOs = 12 participants)
- 1 finance officer, 1 cashier, and 1 Admin-Assistant from each district (18 DAEOs = 44 participants)
- 1 Head of Village, 1 VDC, and 1 Accountant or Cashier (18 Villages = 53 participants)

Figure 18. Training on Financial Management Manual for VDC held in Luang Prabang, January 2025

Figure 19. Training on Financial Management Manual for VDC held in Oudomxay, January 2025

Since October 2023, the GFLL project has been using KPACC, a software for Computerized Accounting Systems for capturing financial transactions. The KPACC has been installed at NPMU/ DoF and in all six participating provinces (PPMUs) and all eighteen (18) districts. Data is entered on independent installations, whereby consolidation at district, provincial, and national levels is done using K-PACC's export/import function. The software is configured in such a way as to produce required financial statements and reports automatically once all transactions have been entered and reconciled. Training on this accounting system for VDC was conducted in January 2025[67].

[67] https://drive.google.com/open?id=1lSfELjoFFIPsFKAzMlEhilnsLf17E3dL&usp=drive_fs

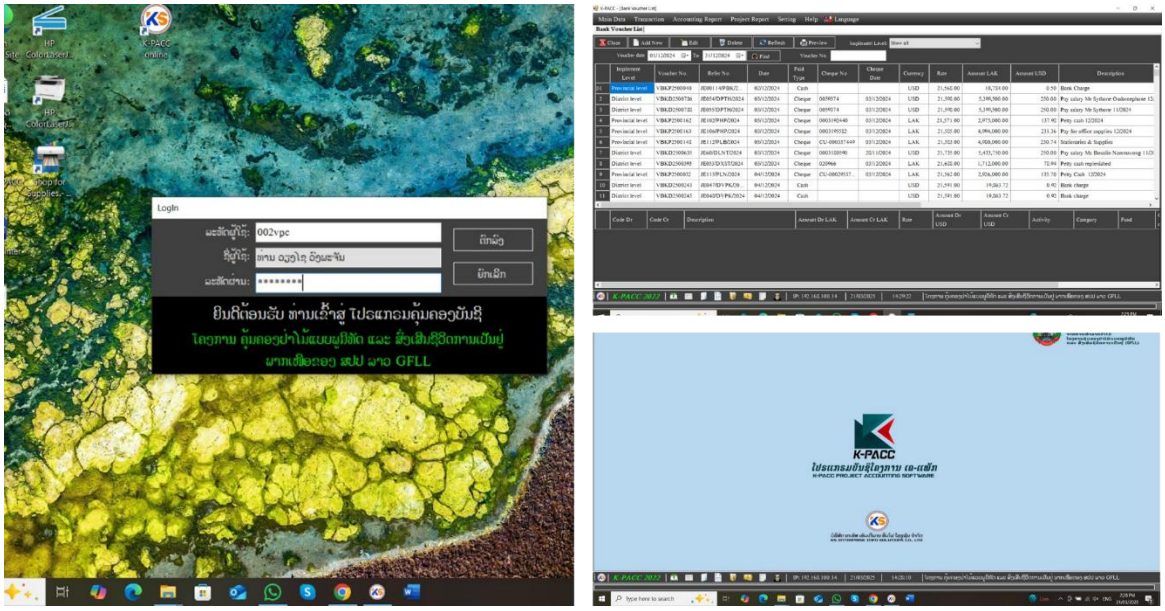


Figure 20. Example of Journal entry for K-PACC, an accounting software installed for GFLL project

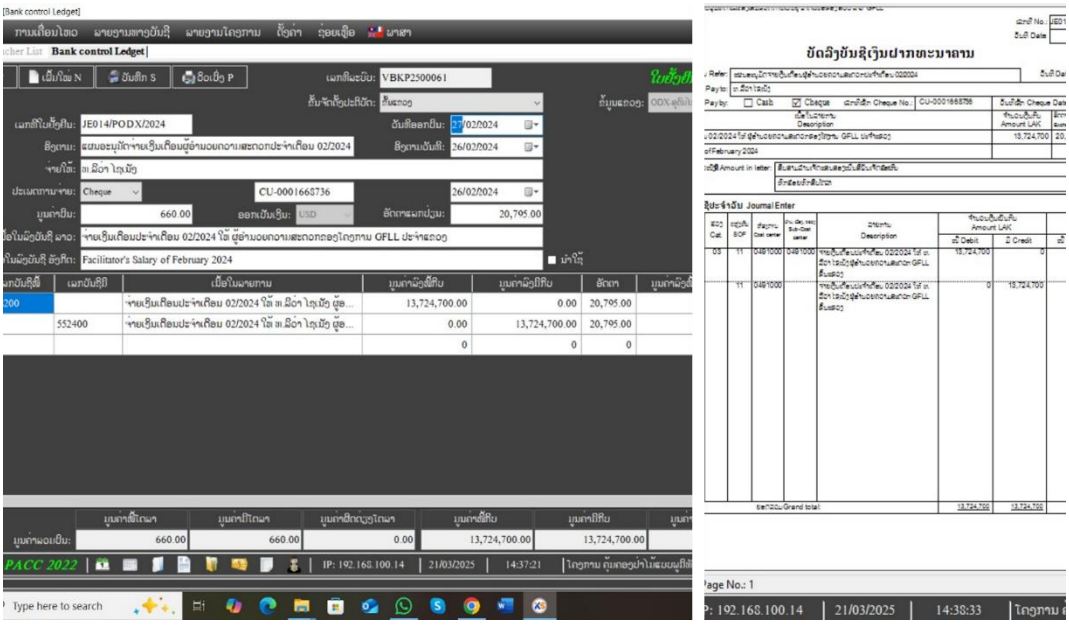


Figure 21. Example of Journal Entry and Record on the Salary Payment to the Provincial Facilitator

Is the FGRM functioning and accessible to people in the target areas with uptake channels? Is there evidence on the number and types of feedback and grievances, and how they were addressed? Please briefly describe them here, and as relevant, please also include links.

The Feedback and Grievance Redress Mechanism (FGRM) was developed and operational prior to the proposed deadline of August 2024, with hard copy forms available in all provinces, districts, and all villages visited. The system was supported by a QR code[68] that allowed the alternative of

[68] It was found that the QR Code was not effective due to the unavailability of internet connection in some field areas.

direct online submission of grievances logged to an online Excel spreadsheet. A flaw in this system included the lack of notification to sub-national SESUs of new grievances initiated at a lower level. Being based on a Microsoft SharePoint system, the security measures to grant access to some folders for other users proved difficult to sustain over time.

This latter aspect of the system was found to be too difficult to administer by the National SESU, and cut the sub-national SESU levels out of the process initiated at a lower level. For these reasons, and to improve accessibility, the system has since been simplified to rely on a slightly modified version of the same spreadsheet into which data will be entered at the respective level from the hard copy form.

Training on FGRM has been included in each step of the Community Engagement Process (steps 1 to 2) and the modifications to the system are highlighted to sub-national SESU levels.

To date, three grievances have been lodged with either the initial or the modified system. While this may not necessarily be connected to community satisfaction, the multi-stage CEP, which leads to the preparation of CAPs, ensures that communities can express their views. As CAP implementation is now underway, safeguards implementation will enhance monitoring of access to CAP resources, with additional support from EnaBLE. Two program assessments (the first TPM and a general program assessment by Ecoecurities), along with World Bank missions, examined program implementation and FGRM and confirmed that the system is functional and generally accessible to local communities. The grievances in Section 5.3 of Annex 1 provide evidence of the proactive nature of FGRM monitoring, as potential grievances were detected upfront. The government acknowledges the gaps that may exist and is pursuing incremental improvement of LNSIS, including using digital options for data aggregation. Because of support from multiple development partners, GFLL continues to adapt based on lessons from other projects, which is particularly important given the recently approved GCF results-based payment (FP282) that will commence in 2027 in the southern provinces.

As part of process and system improvement, regular monitoring found that there is need to improve the system to respond to literacy barriers found in village locations where: some ethnic groups cannot read and speak Lao. The offline system does not work for groups who cannot read and write Lao. The Akha group, for example, in Poewan village, cannot speak Lao except the Head of Village and the Village Secretary.

- Limited facilities: some villages, such as Poewan village (Luang Namtha Province) do not have any electricity. The phone line connection is not present in the village.

Two program assessments (the first TPM and a broader review by Ecosecurities) conducted in 2025 and 2026, found the FGRM to be functional and generally accessible to local communities. These TPM assessments as well as an internal GRM review in 2023 and an Overall Assessment/ Borrower Framework Assessment (OA/BFA) in 2024 covering the Lao portfolio's E&S risk management provide systematic recommendations to further strengthen GRM operation and accessibility, particularly in villages with ethnic and vulnerable groups. These include: (i) raising awareness of the needs and requirements for GRM among project management and decision-makers; (ii) providing targeted training on ESS10 and GRM; and (iii) developing and using ethnic specific IEC materials on GRM. Where feasible, they also recommend establishing helplines and online submission mechanisms, with designated focal points at PMU and subnational levels, complementing existing national structures and procedures (including village mediation committees and relevant fiduciary and legislative institutions) to ensure timely escalation and resolution of grievances received.

3.3 In cases where capacity building initiatives are ongoing, confirm whether the Program Entity has completed required capacity building measures to ensure system effectiveness. What other measures are still outstanding?

Several required capacity buildings have been conducted from July 2022 – June 2025 as follows:

Table 34. Capacity Buildings conducted during the 1st BSP Implementation Report

Key action	In charge	Date	Target Participants	Remarks	Outcomes
Safeguards, PLUP, Monitoring and Evaluation (M&E), and CAP					
TOT on FPIC	NPMU/TA	October 2022	A. Huaphanh province 20 representatives (including 8 women) of national and sub-national level. They come from LNFC, LWU and DAEO of 3 districts of Xamtai, Xiengkhor and Kuan B. Luang Prabang province 18 representatives (including 10 women) of national and sub-national level. They come from LNFC, LWU and DAEO of 3 districts of Phoukhoun, Pakxaeng and Nambak C. Xayabuly province 25 representatives (including 6 women) of national and sub-national level. They come from LNFC, LWU and DAEO of 3 districts of Kaenthao, Xaisathan and Boten D. Oudomxai province 25 representatives (including 7 women) of national and sub-national level. They come from LNFC, LWU and DAEO of 3 districts of La, Houn and Pakbaeng E. Luangnamtha province 23 representatives (including 8 women) of national and sub-national level. They come from LNFC, LWU and DAEO of 3 districts of Luangnamtha, Viengphoukha and Sing F. Bokeo province 24 representatives (including 7 women) of national and sub-national level. They come from LNFC, LWU and DAEO of 3 districts of Meung, Paktha and Pha-Oudom	Completed	FPIC was started and conducted by PAEO, DAEO, LNFC, and LWU
Training on Safeguards for SESUs, P-SESUs and District SESU staff	NPMU/TA	Sept 2023	National SESU, Provincial SESUs, District SESU staff, and members of the Community Engagement Teams of both provincial and district levels including staff from PONRE	Completed	PAEO and DAEO started to introduce the Safeguards Package to the Communities

CEP 1 training for PAEOs/DAEOs	NPMU/TA	December 2023	6 PAEOs and 18 DAEOs including LWU and NDLF	Completed	CE-1 Process was started and conducted by DAEO, LWU, and NDLF
CEP 2 training for PAEOs/DAEOs	NPMU/TA	June – Aug 2024	6 PAEOs and 18 DAEOs including LWU and NDLF	Completed	CE-2 Process was started and conducted by DAEO, LWU, and NDLF
CEP 3/CAP training for PAEOs/DAEOs	NPMU/TA	Sept – Oct 2024	6 PAEOs and 18 DAEOs including LWU and NDLF	Completed	CE-3 Process was started and conducted by DAEO, LWU, and NDLF
PLUP training	NPMU/TA	June – Aug 2024	6 PAEOs and 18 DAEOs including LWU and NDLF, including implementation supporting consultants (junior consultants)	Completed	Identification of PLUP was started during the CEP-2 processes at village level
Finance Management					
Training workshop on Procurement and Use of Accounting Program	FM/TA	September 2022	22 staff (including 7 women) from Finance Unit/REDD+ Division and FPF Division under DoF.	Completed	Finance team started to use the Accounting Program
Training workshop on Financial Management and Procurement	FM/TA	October 2022	33 staff (including 16 women) from GoL staff from Finance Unit/REDD+ Division, Planning and Cooperation Division, FPF Division, and PAEO of 8 (six) provinces (Xaiyabouly, Luang Prabang, Houaphanh, Oudomxai, Luangnamtha and Bokeo)	Completed	Finance team started to use the Accounting Program (advance level)
Training on FM-Manual for Facilitators	NPMU/TA	February 2023	6 Provinces Facilitators	Completed	The Facilitators discussed with Province and District Finance Team on Finance Management based on the Manual.
Training/ equip central level/sub-national finance staff in the use accounting software (K-PACC)	KS Co.Ltd	October 2023	112 participants including 53 women. The participants come from the Administration/Finance Unit under the REDD+ Division, PAEO of six provinces, and DAEO of 18 districts	Completed	Finance Team started to use the accounting software (K-PACC).
Training on General Financial Management	NPMU	October 2023	Administration/Finance Unit under PAEO of six provinces, and DAEO of 18 districts	Completed	PAEO/DAEO finance team understood the general financial

					management.
Training on FM-Manual for VDC	NPMU	October 2023	Administration/Finance Unit under PAEO of six provinces, and DAEO of 18 districts	Completed	The PAEO/DAEO understood the FM Manual for VDC.
Training on Financial Management for Village Development Committee (FMM for VDC)	NPMUs/PPMUs/ DPMUs	December 2023	Targeted 111 Villages (total 588 participants, 148 women) - 18 districts	Completed	The Manual was introduced to VDCs.
Refresh training on financial reporting for DPMUs	NPMU	May 24	18 DPMUs	Completed	VDCs are ready to implement the financial management based on the Manual
Training on FM-Manual and FMM VDC for ISCs (Admin-Finance Assistant)	NPMU	September 2024	9 admin-Finance assistants based in district level	Completed	The Finance assistants started to support DAEOs.
Advance training/equip central/sub-national finance staff on K-PACC software (accounting and reporting) – refresh training	FM/TA	December 2024	The participants come from the Administration/Finance Unit under the REDD+ Division, PAEO of six provinces, and DAEO of 18 districts	Completed	The Administration/ Finance Unit under the REDD+ Division, PAEO of six provinces, and DAEO of 18 districts are ready to sue the K-PACC software (refresh training)
Second Batch for Training on FM-Manual and FMM VDC for ISCs (Admin-Finance Assistant)	NPMU	January 2025	9 admin-Finance assistants based in district level	Completed for 18 Villages, 18 DAEOs, and 6 PAEOs.	The Finance assistants started to support DAEOs.
Training/equipping village finance staff (Accounting Report by VDC)	LWU/TA	January 2025	The participants were from the Administration/Finance Unit under the REDD+ Division, PAEO of six provinces, and DAEO of 18 districts	Completed for 18 Villages, 18 DAEOs, and 6 PAEOs.	Administration/ Finance Unit under the REDD+ Division, PAEO of six provinces, and DAEO of 18 districts are ready to support VDC for accounting report.
Monitoring Reporting and Verification (MRV)					
Training on MRV (Monitoring, Reporting and Verification)	FIPD/TA	October 2022	24 staff (including 4 women) from FIPD, REDD Division, Forestry Training Center, F-REDD2 Project, and the World Bank Team	Completed	The staff understood the MRV

Training on PDMS (Near-real time Provincial Deforestation Monitoring System)	NPMU/TA	Nov-Dec 2022	FIPD, REDD+ Division and DOFI; 6 provincial technical staff from Forestry Section and Forest Inspection Section (one from each section) and 48 district technical staff from Forestry Unit and Forest Inspection Unit in 16 districts	Completed	FIPD started to conduct PDMS in district level.
Training on Writing CAP Documents	NPMU/TA	April 2025	86 participants/11 female from 9 districts of ODX, HP and Xayabouly 81 participants/20 female from 9 districts of LPB, LNT and BK	Completed	18 CAPs produced
Safeguards implementation Report	NPMU/TA	June 2025	6 PAEOs and 18 DAEOs including LWU and NDLF, including implementation supporting consultants (junior consultants)	Completed	Data on Safeguards collected by sub-national level
CAP Monitoring and Report (M&E at Village level)	NPMU/TA	June 2025	6 PAEOs and 18 DAEOs including LWU and NDLF, including implementation supporting consultants (junior consultants)	Completed	Data on CAP completion collected.
Detail Budgets for SFM and CSA (18 CAPs) plus Procurement	NPMU/TA	June 2025	- 91 participants/29 female; Provided to JCs and members of VDC from 3 districts - Phaoudom, Paktha and Merng - 91 participants/29 female; Provided to JCs and members of VDC from 3 districts - Sing, Namtha and Viengphoukha	Completed	Breakdown budget for SFM and CSA was conducted at village level.

The other indicative capacity building that is needed for 2026 is as follows:

Table 35. The indicative capacity buildings needed

Indicative Capacity Building	In charge	Indicative Date	Target Participants	Remarks
Detail Budgets for SFM and CSA (22 CAPs) plus Procurement	NPMU/TA	Sept - Oct 2025	22 VDCs and Junior Consultants including LWU and NDLF, including implementation supporting consultants (junior consultants)	Scheduled
Training on PLUP/Sketch Map	NPMU/TA	Nov 2025	6 PAEOs Monitoring and Evaluation 18 DAEOs Monitoring and Evaluation 18 GFLL District Junior Consultants	Scheduled
PLUP Advance training (Report) and GIS (basic training for generating maps and report)	NPMU/TA	Nov 2025	6 PAEOs and 18 DAEOs including LWU and NDLF, including implementation supporting consultants (junior consultants)	Scheduled
Safeguards Implementation Report (22 CAPs)	NPMU/TA	Dec 2025	18 DAEOs and Junior Consultants including LWU and NDLF, including implementation supporting consultants (junior consultants)	Scheduled
CAP Monitoring and Report (M&E at Village level) (22 CAPs)	NPMU/TA	Dec 2025	18 DAEOs and Junior Consultants including LWU and NDLF, including implementation supporting consultants (junior consultants)	Scheduled

4. Status of Benefit Distribution *[Indicate the payment period, e.g., first ER payment, etc.].* If there has been any delay in the overall disbursement of funds, please explain.

During the GFLL project implementation (2022-2024), the transfer of the funds to the village level was slow due to delays and slow progress of the preparation and facilitation of project implementation at the field level, especially for safeguards, FPIC, and community engagement processes, including capacity building for local government agencies (sub-national level).

Early Project Implementation (Using Advance ER Payment from July 2022 – June 2024), the causes of the delay were as follows:

- Decision to select Fund Manager Agency between Environmental Protection Fund (under the Ministry of Natural Resources and Environment/MoNRE) or Forest Protection Fund (under the Ministry of Agriculture and Forestry/MAF).
- Decision to select villages to be supported by the GFLL project. The process was done through consultations at the district and province levels and then continued to the national level.
- Free Prior Informed Consent (FPIC) guideline was discussed with relevant stakeholders at the National level. The use of the FPIC guideline was reviewed in order to in line with the improvement of the safeguards package. The FPIC process was then put into place as part of the Community Engagement Process (CEP-1)

- The Community Action Plan (CAP) template required approval (or no objection) from the World Bank. The review process takes time.
- Once CAP is completed and approved by the Department of Forestry, the CAP document has to be sent from the Ministry of Agriculture and Environment (MAE) to the Ministry of Finance. The process from CAP approval to the transfer from Bank of Lao to the Village bank account can take more than one month (see Section 5.2 below).

4.1 Indicate the overall number of beneficiaries who received benefits, and please provide this information as per the arrangements described in the BSP. For instance, number of beneficiaries should be disaggregated as follows:

- type of benefits: monetary and non-monetary
- gender
- type of beneficiaries: (public organizations, private sector, IPs, communities, CSOs, etc.). geographic location of the beneficiaries (e.g., village, province)

Type of Benefits, Gender, and Type of Beneficiaries

The number of beneficiaries who received the benefits can be found here. The type of benefits in terms of monetary and non-monetary benefits can be seen in Figure 13. On the other hand, in terms of Gender, the number of men was higher than that of women. The figures were recorded during the trainings/meetings (non-monetary benefits) from June 2022 – June 2025, and 18 villages that received the 1st ER Payment - see Table 36.

Table 36. Benefit distribution to local communities divided by monetary and non-monetary and gender

	Total monetary				Total non-monetary			
	No. of people	US$ amount disbursed	% total	TOTAL	No. of people	US$ amount disbursed	% total	TOTAL
Men	6371	325.917,53	56%	325.917,53	8739	65.149,6	56%	65.149,6
Women	5013	256.447,11	44%	256.447,11	7941	51.611,4	44%	51.611,4
TOTAL	**11384**	**582.364,64**	**100%**	**582.364,64**	**16680**	**116.761,0**	**100%**	**116.761,0**

The non-monetary benefits of US$116,761 were allocated to communities that attended workshops/meetings from 2022 to 2024 under the category of “workshops and meetings”, whereas the monetary benefits of US$582,365 is the ”Grants to 18 villages”.

In terms of disbursements to beneficiaries, the benefits were disbursed to NPMU (National Project Management Unit)/REDD+ Division (20.1%), PPMU (Provincial Project Management Unit, 3.2%), DPMU (District Project Management Unit, 2.4%), and Local communities (18 Villages, 3.6%). The total disbursement of the 1st ER Payment up to June 2025 is US$ 4.1million (25.7%).

Table 37. Type of Beneficiaries received Benefits during BSP Implementation Report (under 1st ER Payment)

1st ER Payment (US$):		16.023.070	100%	
Subcategory	Amount allocated as of June 2025		Amount distributed as of June 2025	
	(US$)	%	(US$)	%
DoF/REDD+ Division	4.757.165	29,69%	3.218.382	20,09%
PAFOs	1.046.720	6,53%	514.397	3,21%
DAFOs	1.824.610	11,39%	390.169	2,44%
Local Communities	810.000	5,06%	582.365	3,63%
TOTAL	8.438.495	52,66%	4.122.947	25,73%

Table 38. Benefits received by Provinces (6 PAEOs)

Province	Total benefits distributed to PAFO (up to June 2025)					
	Amount allocated		Amount distributed		Balance	
	(US$)	%	(US$)	%	(US$)	%
Bokeo	170.150,00	1,06	81.638,37	0,51	88.511,63	0,55
Houaphane	167.110,00	1,04	85.799,63	0,54	81.310,37	0,51
Luangnamtha	171.290,00	1,07	83.202,95	0,52	88.087,05	0,55
Luangprabang	199.550,00	1,25	89.433,44	0,56	110.116,56	0,69
Oudomxay	167.010,00	1,04	107.735,04	0,67	59.274,96	0,37
Xayabouly	171.610,00	1,07	66.587,20	0,42	105.022,80	0,66
Total	1.046.720,00	6,53	514.396,63	3,21	532.323,37	3,32

Table 39. Benefits received by 18 Districts (DAEOs)

District	Total benefits distributed to DAFO (up to June 2025)					
	Amount allocated		Amount distributed		Balance	
	(US$)	%	(US$)	%	(US$)	%
Merng	98.680,00	0,62	17.317,06	0,11	81.362,94	0,51
Phaoudom	100.060,00	0,62	18.366,84	0,11	81.693,16	0,51
Paktha	77.280,00	0,48	18.008,77	0,11	59.271,23	0,37
Xum Tai	110.420,00	0,69	31.223,20	0,19	79.196,80	0,49
Kuan	95.050,00	0,59	30.036,38	0,19	65.013,62	0,41
Xieng Khor	110.020,00	0,69	25.262,98	0,16	84.757,02	0,53
Louangnamtha	110.630,00	0,69	19.459,66	0,12	91.170,34	0,57
Viengphoukha	111.080,00	0,69	19.330,71	0,12	91.749,29	0,57
Sing	108.860,00	0,68	16.143,93	0,10	92.716,07	0,58
Nambak	93.410,00	0,58	23.346,03	0,15	70.063,97	0,44
Phoukhoun	110.130,00	0,69	25.081,03	0,16	85.048,97	0,53
Pakxaeng	85.350,00	0,53	26.715,45	0,17	58.634,55	0,37
La	94.260,00	0,59	21.610,46	0,13	72.649,54	0,45
Pakbaeng	91.240,00	0,57	21.843,46	0,14	69.396,54	0,43
Houn	87.060,00	0,54	22.263,65	0,14	64.796,35	0,40
Boten	115.950,00	0,72	17.541,13	0,11	98.408,87	0,61
Kenthao	112.000,00	0,70	15.762,19	0,10	96.237,81	0,60
Xaisthan	113.130,00	0,71	20.855,62	0,13	92.274,38	0,58
	1.824.610,00	**11,39**	**390.168,55**	**2,44**	**1.434.441,45**	**8,95**

Table 40. The 18 Villages that received the 1st ER Payment

No	Province	District	Villlage name + ID number	Budget CSA (USD)	Budget SFM (USD)	Sub totals per villa	1st Fund Transfer (	2nd Fund Transfer	TOTAL Per Village (
1	Houaphan	Kuan	Nahome 0709046	23.071	9.416	32.487	32.487	12.513	45.000
2	Houaphan	Siengkhor	Sobvan 702081	18.646	10.450	29.096	29.096	15.904	45.000
3	Houaphan	Samtai	Phoxay 701149	16.068	13.081	29.149	29.149	15.851	45.000
4	Sayabury	Xaysathan	Kongthieng 811110	20.760	8.746	29.505	29.505	15.495	45.000
5	Sayabury	Khaenthao	Nabon 808011	30.214	11.639	41.854	41.854	3.146	45.000
6	Sayabury	Boten	Namphou 809006	16.749	9.424	26.174	26.174	18.826	45.000
7	Luang Prabang	Paksaeng	Nong 607127	21.010	12.654	33.664	33.664	11.336	45.000
8	Luang Prabang	Phoukhoon	Phakengnoy 611007	21.099	11.289	32.387	32.387	12.613	45.000
9	Luang Prabang	Nambak	Kachet 605065	20.979	12.707	33.687	33.687	11.313	45.000
10	Bokeo	Paktha	Huaysanguek 505013	23.317	11.997	35.314	35.314	9.686	45.000
11	Bokeo	Phaoudom	Phouviengxay 504120	13.043	14.875	27.918	27.918	17.082	45.000
12	Bokeo	Merng	Phonchalern 503004	20.807	9.424	30.231	30.231	14.769	45.000
13	Luang Namtha	Sing	Erla 302060	24.185	3.476	27.662	27.662	17.338	45.000
14	Luang Namtha	Viengphoukha	Namphae 304050	25.878	9.424	35.302	35.302	9.698	45.000
15	Luang Namtha	Luang Namtha	Phouvan 301092	16.921	14.875	31.796	31.796	13.204	45.000
16	Oudomxay	Houn	Konkham 406034	20.576	11.133	31.710	31.710	13.290	45.000
17a.	Oudomxay	Pakbaeng	Phouzang hamlets One 205047	12.333			-	-	-
17b.	Oudomxay	Pakbaeng	Phouzang hamlets Two 205047	20.572	12.059	44.963	44.963	37	45.000
18	Oudomxay	la	Mokhong 402059	16.438	13.028	29.466	29.466	15.534	45.000
				382.666	**199.698**	**582.365**	**582.365**	**227.635**	**810.000**

The excel for table 7,8, 9, 10, and 11 can be seen here.

4.2 Following the BSP and operations manuals (if relevant), please provide information on the mechanisms for benefit distribution. For example, a BSP may include the submission of project proposals or selected investments, community action plans, institutional work plans etc. for beneficiaries to receive benefits.

For each type of benefit to be distributed, summarize the status of approval and allocation.

- For PPMUs/DPMUs, the mechanism for benefit distribution is the same process as mentioned in section 3.2 above and section 4.4 below. The Project Annual Work Plans (AWP) were developed through consultation processes at district, province, and national levels. The proposed budgets as inputs from 18 Districts and 6 Provinces, and the proposed budgets from NPMU, are put into the Annual Budget Plan of the Project. The Annual Budget is then submitted to the REDD+ Division to be used for consultations with the National Project Management Committee (NPMC) and National REDD+ Task Force (NRTF). The results of consultations are then used by the REDD+ Division/Department of Forestry (DoF) to submit a request for transfer to the Ministry of Finance from the Bank of Lao to the NPMUs, PPMUs, and DPMUs. See Figure 22 and Figure 25.
- The PPMUs can make a financial request (replenishment) if their project funds are less than one hundred thousand dollars (< US$100,000). On the other hand, the DPMUs can request a replenishment if their project fund is less than 50% of the total amount of funds previously transferred.
- For Communities, the mechanism for benefit distribution is explained in sub-section 3.2 (above) and is also based on the Financial Management Manual for VDC (the Manual has been endorsed by DoF). The timeframe of funds distributions from the community engagement process to receiving funds from the Bank of Lao will take 21 days. Please see section 4.4 below for further information on the distribution of benefits to villages. See Figure 23.
- For the Pilot Initiative, it was agreed that no pilot initiative was conducted under the 1st ER Payment. The Pilot Initiative cannot be conducted under the first RBP due to insufficient preparation to implement it, including announcements, consultations, and capacity-building for beneficiary proposal development (such as Non-Profit Associations, local Community Social Organizations, and Research/Universities).

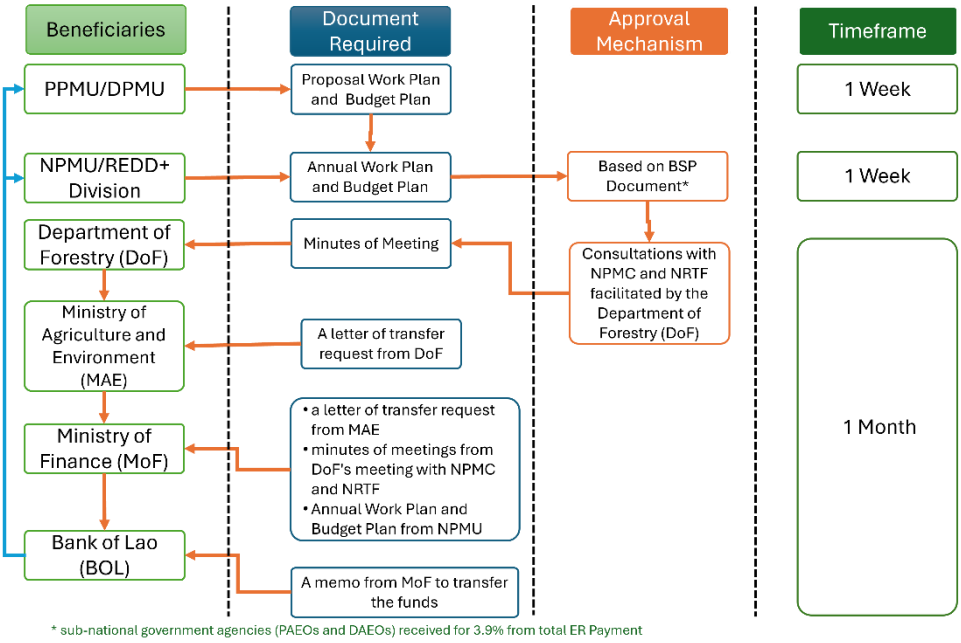


Figure 22. Timeframe and Review Process for Benefits to be distributed to Sub-national Agencies (PPMU and DPMU)

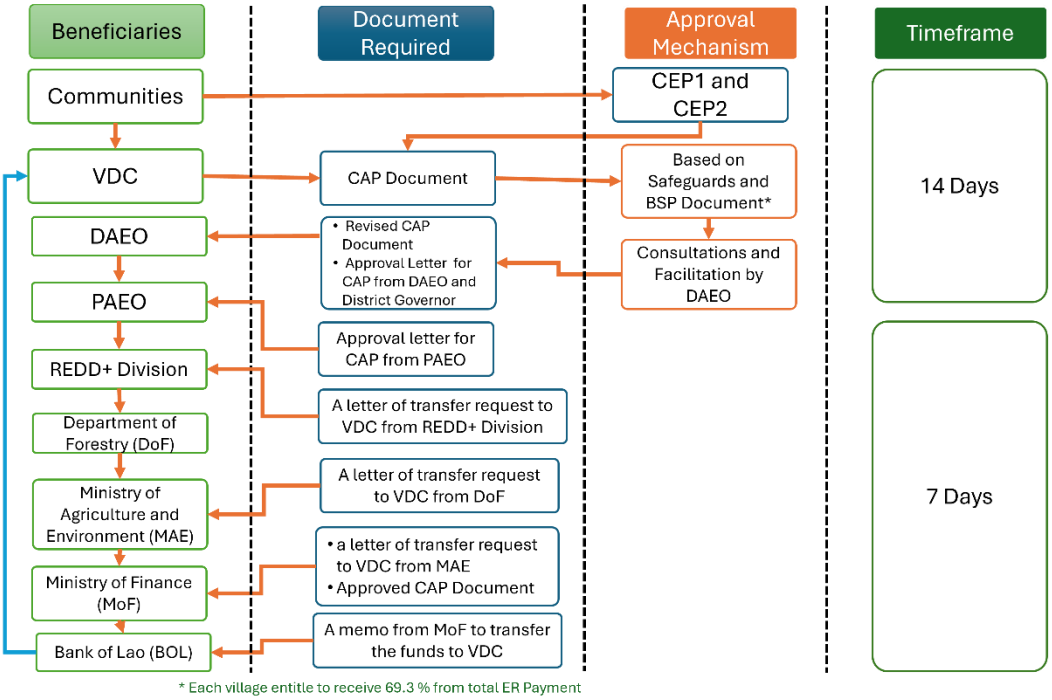


Figure 23. Timeframe and Review Process for Benefits to be distributed to Communities (VDCs)

4.3 Are the eligibility criteria to access benefits as described in the latest BSP still relevant? If there have been any revisions to the criteria during the reporting period, please describe.

The eligibility criteria are still relevant. Based on the minutes of meeting BSP Technical Working Group on 12 July 2021, (BSP document - Page 89), the eligibility criteria for villages to access the benefits are as follows:

- Agreed to refer to the existing criteria such as high forest-low deforestation, high forest-high deforestation, low forest low deforestation high, poor and low forest cover, or area based-approach (all villages in the district).
- Agreed to give priority of the local authority's priority for village selection that is the most suitable criteria for their region. For example, local authority might decide their village as village for conservation purpose.
- Agreed to the criteria of villages that do not overlap with any other projects. This is to ensure that all villages would get supported.

The list of the eligibility villages can be found here.

Criteria of Village Selection

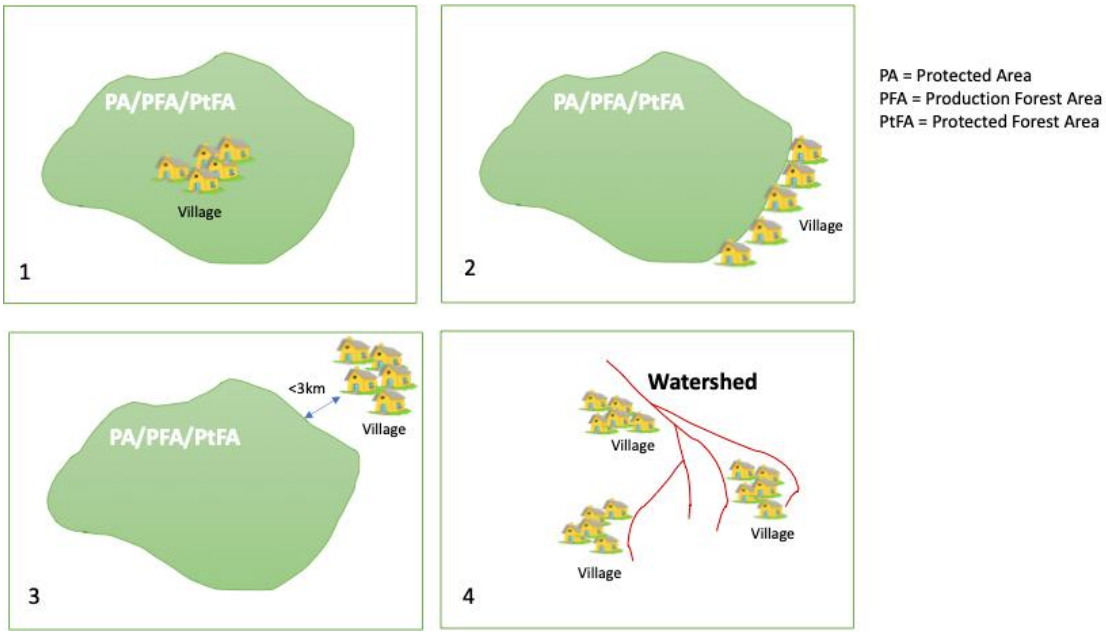
Process of the selection of village priority was done through two levels. First was done by government and project staff in determining villages that fallen down into one out of four the following criteria (Figure 24):

1. Village inside either in Protected Areas/PA, Production Forest Areas/PFA, or Protected Forest Areas/PtFA
2. Village adjacent or surround either in Protected Areas/PA, Production Forest Areas/PFA, or Protected Forest Areas/PtFA
3. Outside of those three forest categories (PA, PFA, or PtFA) but the distance from the village to the boundary of those forest areas is less than 3 km.
4. Villages located near watershed area (upstream and downstream) of the irrigation schemes/water supply schemes.

The sequence step on the first level selection was as follows:

- Step 1: Overlay shape file boundary of 3 category forests into the districts
- Step 2: Overlay shape file boundary of district administration
- Step 3: Identify villages per district that are met with the criteria of the first layer selection

Figure 24. General Criteria of Village Selection for GFLL



Second level was that if those villages fallen down into one or more of those above criteria, then the villages would be prioritised based on scoring with the following additional criteria:

a. Availability of either land allocation or land use planning – 40%
b. Local village institutions such as Village Development Committee (VDC) and/or Village Development Fund (VDF) – 10%
c. Poor/Poorest and Vulnerable groups (including ethnic minority groups) – 20%
d. Existing project (either from donor or government projects) – 30%

The sequence steps for second level selection were as follows:

- Step 1: Asking DAEO which villages that have only village allocation or Land use Plan
- Step 2: Asking DAEO which village that have village institutions established
- Step 3: Asking DAEO which village that have poor/poorest and minority ethnic groups
- Step 4: Asking DAEO which village that have supports from other projects.
- Step 5: Do calculation based on Table 41

Weight (percentage) **x Score** (based on indicator) = **Ranking Village**.
The high score is the highest village priority. .

Table 41. Scoring and Weighting Additional Criteria for Village Priority (Second Level of Village Selection)

	Criteria	Weight (%)	Score	Indicator	Verifier
a.	Village Land Allocation or Land Use Plans	40	1	Only land allocation (not yet for land use planning)	Village Land Allocation or Land Use Plan Document
			3	partly completed land use planning (not yet finished)	
			5	have completed land use planning (administrative boundaries of villages, different types of land and other lands are officially set up and recognized)	
b.	Village institutions such as Village Development Committee (VDC) and/or Village Development Fund (VDF)	10	1	There are informal local institutions or forum that deal with village development or forest management in the villages (but no formal VDC and/or VDF or other village committee established)	Decree or regulation on Village Institution
			3	There are local institutions (VDC and/or VDF or other village committee established) that deal with village development or forest management in the villages through village decree or regulation	
			5	local institutions (VDC and/or VDF, or other village committee) established with adequate fiduciary capacity	
c.	Poor/Poorest and Vulnerable groups (including ethnic minority groups)	20	1	less than or equal to 20% of population are vulnerable groups	Current District or Village statistic book/document
			3	<20% and ≤50% of population are vulnerable group	
			5	More than 50% of population are vulnerable group	

	Criteria	Weight (%)	Score	Indicator	Verifier
d.	Existing Forest or ER Program from donor or government project	30	1	Only one forest management or ER program activity in the village	Activity Report
			3	More than one forest or ER program activity in the village	

4.4 Provide information on the processes and timeline for distributing the benefits (e.g., whether the benefits are distributed one-time or continuous/periodic).

Benefits from Result Based Payment (77% out of total first ER Payment) consist of a) benefits for the Community (90% out of 77%), b) benefits for pilot initiative (5% out of 77%), and c) benefits as incentives for sub-national government agencies (5% out of 77%) (BSP, page 24).

The process and timeline for distributing the benefits as incentives for sub-national government agencies (PAEOs and DAEOs) are relied on the process of approval of the Annual Work Plan and its Budget from the Department of Forestry. The procedures and guidelines are regulated under Financial Management Manual. The process and timeline for distributing the benefits (after AWP approved) to PPMUs and DPMUs will take maximum **one month (or 20 working days)**.

The PPMUs can request replenishment if the funds available are less than twenty thousand dollars (< US$20,000) per PMU and less than eighteen thousand five hundred dollars (< US$18,500) per DMPU.

Funds for both PPMUs and DPMUs can be replenished regularly if at least 50% of the previously transferred funds have been utilized. In principle, if at least half of the remaining funds in the operating accounts of PPMUs/DPMUs have been used, the PMUs can request replenishments, and the NPMU will transfer the funds based on the actual request from PPMUs/DPMUs.
The funds will be transferred from the designated account (DA) to the operating account (OA) directly by NPMU.

The replenishment processes for both PPMU and DPMU are as follows:

- It takes at least one month for completion of PPMUs/DPMUs replenishments process.
- Sub-national initial prepared the replenishment documents for one day and submit the softcopy to NPMU for re-checking that will take for another one day (so, total will be 2 days).
- PPMUs/DPMUs will send the original replenishment documents to NPMU by Express transport company, it will take time three days.
- NPMU prepared the request letter to DoF (5 working days).
- DoF submitted request letter to MAE (5 working days).
- MoF Processing the request and takes 5 days then to Bank of Lao (BOL)
- Processing at the BOL takes 3 days

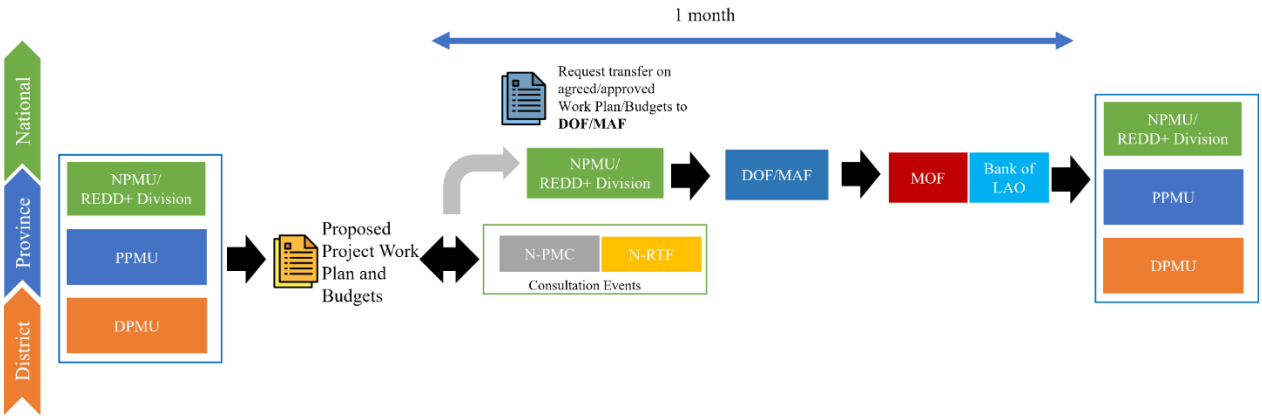


Figure 25. Processes and Timeline benefits disbursed to sub-national government agencies (PAEOs and DAEOs) for 5% out of 77% from total 1st ER Payment

For Communities, the process and timeline for distributing the benefits will take 21 days for VDC to receive the funds from DoF. The WB mission in August 2025 asked the GFLL to shorten the process of CEP in the village in order to speed up the time to deliver the funds to the communities. The CEP-1 and CEP-2 are merged into CEP-1, whereas the old CEP-3 becomes the new CEP-2 (see Figure 15).

The process of CEP-1 (field visit and sketch map development) will take 5 days (maximum). The process of CEP-2 (field visit, development of community proposals, and identification of risks) will take 4 days. The development of the CAP document will take 5 days (maximum). The completed CAP document process (from document approval to transfer payment to the Village's Bank Account) will take 7 days (Table 42). So, the total number of days to disburse the benefits to villages will take 21 days (maximum). See also Figure 23.

Table 42. Process and Timeline for Benefits Disbursement

No	Activity	Days	Remarks
1	CEP-1	5	Field Visit is conducted; Sketch Map is developed with communities
2	CEP-2	4	Field Visit and proposal of community activities (including budgets) and risks are identified
4	Develop and Writing CAP document	5	Compiling data CEP-1 and CEP-2 into the CAP document.
5	CAP Document Approval and Transfer to Village's Bank Account	7	Approval from DoF (2 Days) Approval from DoPI (1 Days) Approval from MAF and Transfer to VDC (4 Days)
	Total	**21**	

The project uses the Financial Management Manual for VDC on the procedures of fund distribution.

Based on the WB Mission in May 2025, the WB agreed to allow funds disbursements to villages that have completed the CEP-1. This advance payment, known as the "Trust Building Fund" (TBF) will be used by the village to empower their skills and finance VCD's operational costs, including completing their CAP document. The village can also use the TBF to revise or develop the village land use plan (PLUP). The detailed guideline for the village to access the ER funds is being developed. However, some considerations in the guideline are as follows:

Eligibility Criteria for the Village to receive ER Funds:

- The village should be the GFLL approved target village.
- Conditions for disbursement of each of the 3 individual installments can be divided as follows:
    - **1st installment**: The village should have completed CEP-1 (including the FPIC process) in order to get access to 1st installment for the Upfront CAP Payment, known as "Trust Building Funds".
    - **2nd installment**: The village should have completed conditions above, and in addition completed CEP-2, and have an approved/endorsed CAP and signed CAFLA by relevant authorities, to get access to 2nd installment for SFM and CSA main components.
    - **3rd installment:** The village should have completed all conditions mentioned above, plus the community should have demonstrated a certain level of implementation success to get access to the 3rd installment for village Performance Based Payment. The assessment will be conducted before the 3rd installment is delivered.

The Table 43 show the breakdown of the budget for villages.

Table 43. Budget breakdown for Village by component

Installment	Component	Purpose
1st	Trust Building Fund	Small-scale public infrastructure and VDC capacity building, including operational costs for VDC and revision or new PLUP
2nd	SFM and CSA	Sustainable Forest Management (SFM) & Climate-Smart Agriculture (SFM) and Capacity Building/Administration Cost
3rd	Performance-Based Payment	Community-led revolving fund or continued SFM and/or CSA activities

Below is a summary of the financial allocation for each installment in both US Dollar (USD) and Laotian Kip (LAK), specifying component-wise breakdowns and providing maximum eligible amounts in both currencies. This breakdown is designed to ensure clarity in fund planning, budgeting, and monitoring by the community in conjunction with DAEO/JCs, SESU, Lao Women Union (LWU), and Lao National Front (LNF) while preparing the CAP/CAFLA.

Table 44. Breakdown ER payment per village

Breakdown CAP main components and budget allocation agreed during GFLL meeting in ODX November 2024, including new component TBF introduced in 2025				
Proposed components	Percentage breakdown	Max (USD)	Max (LAK)	Installment no.
Trust Building Fund (TBF), including infrastructure (and revision or new PLUP) and operational cost of VDC	22%	10.000	210.000.000	1st installment
CSA	30%	13.500	283.500.000	2nd installment
SFM	30%	13.500	283.500.000	
Performance-Based Payment (PBP) for the village	18%	8.000	168.000.000	3rd installment

Breakdown CAP main components and budget allocation agreed during GFLL meeting in ODX November 2024, including new component TBF introduced in 2025				
Proposed components	Percentage breakdown	Max (USD)	Max (LAK)	Installment no.
Total	100%	45,000	945,000,000	

4.5 Provide information on any specific agreements signed with the beneficiaries for them to receive the benefits, and the key terms of such agreements.

For the PPMUs and DPMUs, the agreement is represented by the request letter/transfer together with a statement of expenditures (other necessary documents) sent by PPMUs/DPMUs to NPMU for project implementation at the sub-national level. See Figure 23 and Figure 25.

For the community, the project adopts the guidelines of the funds transfer mechanism from other existing WB project (Landscapes and Livelihoods/p170559). The procedural steps to access the benefits are as follows:

- Once the CAP Document is completed, the development of the MoU for receiving benefits can be started.
- The MoU is discussed and signed by representative communities (Head of Village) and the project (represented by DAEO) and has it endorsed by the District Governor.
- DAEO summarizes the Village MoU and via the District Administration Office request the fund transfer from DoF (using the formats as specified by DoF and endorsed according to DoF standards). The letter of request fund transfer is also copied to NPMU (REDD+ Division).
- The NPMU might ask for further data and information to DAEO if the proposal activities or budgets are required for clarity.
- The DOF reviews the request letter from DAEO. The DOF prepares the request letter and submits to MAF together with the total payment request.
- The MAF prepares the request letter together with supporting documents and submits it to the MOF (at least 2 weeks).
- Once the MOF completes the review, the funds are transferred within 1 day.
- So total time required from CAP document submitted by VDC including preparation of documents and request letter until the funds transfer directly to VDC's Bank Account would be 21 days. (See Table 42 above).

The agreement between the NPMU/REDD+ Division with the community is put into the CAP document. The example of the signed approval mentioned in the CAP document is here, whereas the example of the signed written agreement for activities known as CAFLA in Annex 11 of the CAP document is here. The CAFLA (stands for Community Agriculture Forestry and Livelihood Agreement) is a written agreement between a village community and the GFLL that outlines rights, duties, and benefits and potential risks related to forest resource and land use management.

4.6 Describe the mechanisms that are in place to verify how benefits are used and whether those payments provide incentives to participate in the ER program activities.

Each government level has its roles and responsibilities in the financial performance and operational activities of the project. The roles and responsibilities of the appointed government agencies/bodies are to ensure that the use of benefits is in line with the objectives of the ER Program. At the national level, the Ministry of Finance (MoF) and the Bank of Laos (BoL) have overall responsibility for overseeing financial performance, operating the Designated Account, delegating and ensuring the appropriateness of Project bank account operations, and monitoring overall performance. The Department of Forestry (DoF) under the Ministry of Agriculture and Forestry (MAF) is responsible for the overall implementation and coordination of REDD+ activities throughout the country. The DoF also has the primary responsibility for ensuring that the Project is implemented in accordance with project plans and that resources are used efficiently and effectively and only for project purposes. The REDD+ Division at the DoF and National Project Management Unit (NPMU) is wholly responsible for managing and implementing the financial and operational activities of the Project. This includes responsibility for the production of financial reports, preparing and approving all payments requested, and project utilization. The key role of the NPMU is the control of financial management and disbursement of ER payments to all involved beneficiaries, in accordance with the Benefit Sharing Plan (BSP).

At sub-national level, The Provincial Project Management Units (PPMUs) are comprised of two accountants and a cashier based in the REDD+ Office at the Provincial Agriculture and Forestry Office (PAEO). These provincial staff oversee day-to-day finance operations within their respective province, coordinating with the district PMUs (DPMUs).

The DPMUs in the District Agriculture and Forestry Office (DAEO) are comprised of one accountant and a cashier, with the role of assisting the disbursement of funds to participating villages. The DPMUs will assist the Village Development Committees (VDCs) and provide capacity building to develop the work plans, budgets, bookkeeping, monitoring and reporting. The DPMUs are also in charge of supporting and supervising the communities, which are the main beneficiaries of the project. The DPMUs coordinate closely with and provide support to VDCs, in cooperation with relevant technical offices and organizations such as the Lao Front for National Development (LNFD) and the Lao Women's Union (LWU). The Village Development Committee (VDC) plays a crucial role to oversee and coordinate the use of benefits (non-monetary and monetary) provided by the project.

For NPMU, PPMUs, and DPMUs, the benefits are disbursed to beneficiaries after the Annual Work Plans (AWPs) and Budgets are approved by the DoF/MAF. The AWPs provide activities, timing, estimated costs, and output of each planned activity, the completion of which will achieve the indicators selected for that year. At the national level, the NPMU consolidates all the Annual Work Plans and Budget Plans from all the DPMUs and PPMUs in November. The NPMU consults and presents to National Project Management Committee (NPMC) and ultimately the National REDD+ Task Force (NRTF) for final approval in December. At the sub-national level, the financial staff work together with project coordinators, technical staff and procurement staff to draft the Annual Work Plan under the guidance of the DPMUs/PPMUs and submit the plan to the Provincial Project Management Committees (PPMCs) for approval in October/ November. The final Annual Work Plan from sub-national levels is submitted to the NPMU for consolidation in November. The disbursement and replenishment procedures can be found in the Financial Management Manual. The Manual also mentioned that the beneficiaries should not use the benefits for ineligible expenditures, including the following:

- **Charitable donations.**
- **Funeral services.**
- **Wedding expenses.**
- **Birthday expenses.**
- **Gifts.**
- **Expenditure declared ineligible on account of audit or review.**
- **Expenditure for which the NPMU, PPMU, DPMU and VDC have not been able to provide sufficient supporting evidence.**
- **Any ineligible expenditures stated in the MoF Ministerial Decision no. 0200 on Public Administrative Budgets, dated 25 January 2023.**

For Villages, the VDC plays a key role in verifying the use of benefits. It includes receiving, using, and reporting on the utilization of the funds. It also includes controls to ensure accuracy, completeness, integrity, transparency, and accountability. The activities that would be acceptable to be funded generally include a) an acceptable land use arrangement would be required to start the Village Grant Agreement[69], b) Forest Management (VFM) planning, c) action planning for livelihood or Good Agriculture Practices (GAPs), d) Participatory village action planning and implementation, e) Village livelihoods/good agriculture practices grant, f) Participatory monitoring and evaluation, g) Village infrastructure/facilities, and h) Capacity building, extension, meetings, and facilitation.

The identification of community activity plan is conducted during the CEP-2, which later on is put into the Community Action Plan (CAP) document. The VDC and DAEO have to ensure that the community plans and their budget plans are adequate and realistic. If there is any deviation of the plans from the CAP, then such a request would need to be submitted formally through relevant authorities (DAEO/PAEO) for consideration and approval.

The types of benefits for each category of beneficiaries have been explained in Table 8 of the BSP Document. See Table 45.

Table 45. Type of benefits for each category of beneficiaries

Beneficiaries	**Types of Benefits**		**Rationale**
National Level	***Monetary***	***Non-monetary***	
National Government Agencies	Monetary benefits for covering operational costs, administrative and financial management of the ER Program, and coordination across sectors between and within line ministries and agencies.	Non-monetary benefits in capacity building in financial management systems for the ER Program, strengthening institutions for ER project management.	The monetary benefit is given to **compensate** for the roles and responsibilities taken under the ER Program implementation. The non-monetary benefit is given as support for activities to ensure the implementation of the ER Program at the national level.
Sub-National Level	***Monetary***	***Non-monetary***	
Sub-National Government Agencies	Monetary benefits for covering operational costs in relation to the implementation of ER activities at the field levels. This includes	Non-monetary benefits include capacity development on monitoring implementation of ER activities at the province, district, and village levels; and training on ESMF, Climate Smart Agriculture (CSA), and SFM.	The monetary benefit is given to **compensate** for the roles and responsibilities taken under the ER Program implementation.

[69] Land Use Arrangement includes status of PLUP (Participatory Land Use Planning)

Beneficiaries	Types of Benefits		Rationale
	monitoring of the implementation of ER activities undertaken by communities		The non-monetary benefit is given as support for activities to improve the ER Program management and implementation at the sub-national level.
Community Level	***Monetary***	***Non-monetary***[70]	
Communities (including village institutions, farmer groups, cooperatives, and women enterprise groups)	Benefits are channeled through Village Development Committees (VDCs): - Operational costs for the Village Development Committee.	Non-monetary benefits are as follows: - Training in managing funding for the community, facilitating communities (e.g., awareness, conflict resolution, etc.). - Capacity building/training and equipment for FLR, SFM, CSA, and livelihoods opportunities for communities. - Forest law enforcement, including patrolling, equipment, and capacity building/training. - Development projects (e.g., health, education, public facilities) that do not contribute to deforestation and forest degradation. - Additional livelihood support for community businesses, including capacity building/training, equipment, market access, or agricultural inputs. - Secure land tenure through strengthening village land use planning and improving implementation of land use plans. - Improved productivity from access to agricultural extension services, such as farm field schools.	The monetary benefit is given to **compensate** the operational cost for VDC under the ER Program implementation. The non-monetary benefit (not in cash) is given to provide **incentives** for community achievements in reducing emissions, and to implement long-term strategies in protecting forest and improving community livelihood, as the community is the key actor in environmental protection. The non-monetary benefit is given as a support for activities to improve the capabilities in managing and implementing the ER Program on the ground at the village level.
Pilot Initiatives[71]	***Monetary***	***Non-monetary***	
Private Sectors	Monetary benefits are granted if the eligibility of private proponent meets the criteria. Note: monetary benefits aim to finance the	Non-monetary benefits in the form of capacity building/training facilitated by PAEOs/DAEOs are as follows: - Proposal development related to mitigating climate change (ER Program).	Both monetary and non-monetary benefits are given to improve the private companies' capabilities in managing forest and land, in relation to the achievement of the ER Program objectives.

[70] Benefits will not be in the form of cash for the communities, instead the benefits will be in a long-term investment to provide long-term impact under the poverty alleviation and environmental sustainability framework, such as seeds for farms, improving agroforestry systems, livestock, and similar investments.

[71] See section 2.5.3 for removal of pilot initiative under this BSP document

Beneficiaries	Types of Benefits		Rationale
	implementation of proposals by actors from the private sectors.	- Sustainable forest management practices in relation to complying with FLEGT policy. - Rehabilitation of natural degraded forest. - Plantations of native trees species. - Improved agriculture systems. - Climate resilience through crop diversification. - Improved soil conservation. Non-monetary benefits include equipment and inputs (e.g., seeds and organic fertilizers) to support sustainable practices.	
Non-profit Associations (NpAs)/CSOs	Monetary benefits are granted if the eligibility of the NpA proponent meets the criteria.	Non-monetary benefits in the form of capacity building/training facilitated by PAEOs/DAEOs in relation to the ER implementation at the province and district levels.	Both monetary and non-monetary benefits are given to compensate NpAs services in providing facilitation and skills for communities' capacity building, in relation to the achievement of the ER Program objectives.
Education/ Research Institutions	Monetary benefits are granted if the eligibility of the education/ research institution proponent meets the criteria.	Non-monetary benefits in the form of capacity building/training facilitated by PAEOs/DAEOs in relation to the ER implementation at the province and district levels.	Both monetary and non-monetary benefits are given to compensate education/ research institutions' services in providing analysis and research, in relation to the achievement of the ER Program objectives.

Funds disbursement to the VDC must be disbursed following approved detailed budgets and work plans. The participating villages will submit approved[72] detailed work plans and budgets, together with payment requests. The primary supporting documents for the fund disbursement have been outlined in detail in POM, and in the MoF Ministerial Instruction on required supporting documents for state budget spending and development funds no 0866, dated 22 March 2019. The VDC will be submitted within one week, and then submitted the detailed work plans and budgets to the NPMU/ DoF, who will complete the approval within a one-week timeframe.

Following approval, the requests will be submitted to the Department of Planning and Finance at the MAF for endorsement. Then the MoF will authorize the funds to be transferred from the DA to the VDC at the commercial banks and onto the beneficiaries within two weeks Figure 17. The supervision and support will be facilitated by the DAEOs and PAEOs. On a quarter basis, the VDC shall submit the financial report to the NPMU/DoF via the DPMU and PPMU, with supporting documentation that may include bank statements, monthly cash books, bank books, bank reconciliation, cash count, and budget versus actual expenditure. Therefore, all benefits used by beneficiaries at the village level will be verified. See the Finance Management Manual for VDC.

[72] Approval will be done by DOF

The willingness and participation of the community in the process of CEP processes (CEP-1, 2, and 3)[73] and CAP were high. As a result, the 40 CAPs have been completed. Due to the delayed approval process for CAPs at the national level (DoF→ MAF→MoF→ BoL→ VDC's Bank Account), the first 18 villages have received the funds. The other 22 villages received the funds in July 2025.

4.7 Describe the financial management arrangements and financial control mechanisms that are in place for recording the distribution of benefits, tracking payments, and maintaining accounting and internal controls.

All financial transactions of the GFLL project are captured in the Computerized Accounting System, KPACC. The system has been installed and used by the project since October 2023. Up to December 2024, the software has been installed at the NPMU office, six PAEO offices, and 18 DAEO offices. Please see sub-section 3.2.

In addition, the financial transactions and arrangements have to be based on the Financial Management Manual that has been endorsed by DoF. For the arrangements at the Village level, it has to follow the Financial Management Manual VCD, which is also already endorsed by DoF.

Funds transferred to the sub-national level are informed by NPMU to the Villages, DAEO, and PAEO. The copy of the payment slips from NPMU is sent to them. The Village, DAEO, and PAEO are required to check with the bank where they opened the bank account.

The National Project Account Assistant at NPMU is responsible for oversight of the K-PACC and can adjust or make any changes if necessary. At the sub-national level, PAEO & DAEO staff assigned for GFLL Finance, as well as Finance and Procurement Junior consultants, have access to the K-PACC and do the financial data entries. The GFLL internally assigns/authorizes an accountant assistant to control of K-PACC.

At the VDC level, all expenses are recorded manually in a simple bookkeeping system (Excel spreadsheet for budget monitoring based on the CAP approval document).

Please see sub-section 4.6 above on the financial management arrangements at both national and sub-national levels.

4.8 Provide information on how beneficiaries are using and reporting the benefits received. Are the systems in place able to track the use of the funds? Please describe any challenges encountered.

The implementing agencies of the GFLL project are responsible for maintaining good accounting records for cash-based payments, using the double-entry accounting principle. All the implementing agencies of the GFLL-ERPA shall comply with the financial requirements and regulations from the MoF, Law on Accounting (Amended) no 025 dated 26 Dec 2013, and the Benefit Sharing Plan of this project.

All financial transactions are captured in the Computerized Accounting System. The system is used to support the automation and integration of public financial management processes, including budget formulation and execution (e.g., commitment control, cash/debt management, treasury operations), accounting, and reporting. The accounting software is installed at the NPMU/REDD+ Division Office and in all six participating provinces (PPMUs) and 18 participating districts (DPMUs). The software is configured in such a way as to produce the required financial statements and reports automatically, once all transactions have been entered into and reconciled. The project has installed K-PACC software

[73] It becomes CEP 1 and 2 only.

(accounting and reporting system) in 6 PAEOs and 18 DAEOs offices. The capacity building for finance staff on the use of software (accounting and reporting) was completed since last year (November 2024). The financial data has been restored to the K-PACC accounting and reporting system. See section 3.2 for examples of KPACC.

For the village level, the track system for the use of benefits is to use the simple financial report template. The report should at least consist of a) activities to be spent, b) the amount of funds received and spent, and c) fund balances. Financial reports are prepared and submitted quarterly and annually to the DPMU, PPMU, and NPMU. The financial report prepared by VDC is supported by the Junior Consultant and Finance Officer from DAEO. The interim financial reports are required every quarter. These will be submitted to NPMU via DPMU and PPMU. For internal purposes, the VDC shall prepare a monthly report that should include monthly cash books, bank books, bank reconciliation, cash count, budget versus actual expenditure, and other payment supporting documents. The NPMU will monitor and evaluate every quarter. The benefits for communities have been disbursed to 18 villages. The monitor for this disbursement will be conducted in September/October 2025.
See the Finance Management Manual for VDC (endorsed by DoF).

Table 3. Total monetary benefit distribution breakdown. The table below is a generic template, please adjust as per the BSP. *[information below is extracted from the detailed excel Table 3 from Tab 2 prepared and submitted with this report]*

See detailed table here.

Total monetary benefits distributed per beneficiary						
Subcategory	**Amount allocated**		**Amount distributed**		**Balance**	
	(US$)	**%**	**(US$)**	**%**	**(US$)**	**%**
DoF/REDD+ Division	3.284.555,0	20,5%	1.940.003	12,11%	1.572.187	9,81%
PAEOs	237.720,0	1,5%	191.415	1,19%	46.305	0,29%
DAEOs	202.500,0	1,3%	156.707	0,98%	45.793	0,29%
Local Communities*	810.000,0	5,1%	582.365	3,63%	227.635	1,42%
TOTAL	**4.534.775,00**	**28,3%**	**2.870.489,86**	**17,91%**	**1.664.285**	**11,81%**
Note: * Funds are transferred to VDC Bank Accounts here temporarily defined as monetary benefits. After the VDC financial reports are collected, the type of benefits (monetary or non-monetary) will be clearly defined.						

Note: Categories and subcategories should follow the BSP and as relevant for the program.

Table 4. Total non-monetary benefit distribution breakdown. The table below is a generic template, please adjust as per the BSP. *[information below is extracted from the detailed excel Table 4 from Tab 2 prepared and submitted with this report]*

See detailed table here.

Total non-monetary benefits distributed per beneficiary							
Category	**Subcategory**	**Amount allocated**		**Amount distributed**		**Balance**	
		(US$)	**%**	**(US$)**	**%**	**(US$)**	**%**
Government	NPMU	1.472.610	9,19	696.014	4,34	776.596	4,85
	PAEO	809.000	5,05	322.982	2,02	486.018	3,03
	NAEO	1.622.110	10,12	233.462	1,46	1.388.648	8,67
Local Communities		-		-		-	

TOTAL		3.903.720	24,36	1.252.457	7,82	2.651.263	16,55

Note: Categories and subcategories should follow the BSP and as relevant for the program.

Table 5. Benefit distribution to local communities divided by monetary and non-monetary and gender. The table below is a generic template, please adjust as per the BSP. *[information below is extracted from the detailed excel Table 5 from Tab 2 prepared and submitted with this report]*

See detailed table here.

	Total monetary				Total non-monetary			
	No. of people	US$ amount disbursed	% total	TOTAL	No. of people	US$ amount disbursed	% total	TOTAL
Men	6371	325.917,53	56%	325.917,53	8739	65.149,6	56%	65.149,6
Women	5013	256.447,11	44%	256.447,11	7941	51.611,4	44%	51.611,4
TOTAL	**11384**	**582.364,64**	**100%**	**582.364,64**	**16680**	**116.761,0**	**100%**	**116.761,0**

Note: the number of people receiving monetary benefits is taken from the number of beneficiaries in 18 villages, whereas the people receiving non-monetary benefits is taken from number of participants participated in GFLL capacity building from July 2022 – June 2025.

5 Key issues and actions

5.1 Based on experience with the implementation of the BSP during the reporting period, identify and explain other key issues encountered not already described above, and how and when they are going to be addressed.

Other key issues that are not yet encountered include:

The internal REDD+ Division has discussed ERPA extension (The extension for the project beyond Dec 2025). Discussion with WB TT during the last mission in May 2024 was also conducted. The estimated result of the 2nd Monitoring Report has been submitted to the REDD+ Division and DoF. The letter to propose project extension is being drafted and discussed within the relevant Government Ministries (MOAE and MOF).

Next steps: The Government of Laos will likely propose an extension for the GFLL project to the Carbon Fund to disburse the ER Payment to beneficiaries. The aim is not only to obtain support from the World Bank to facilitate the second validation and verification for the 2nd ER monitoring report, but also to obtain the 2nd ER payment.

Acceleration of implementation (CAPs) in the fields

Next steps: The training to develop CAP documents for DAEOs and GFLL Junior consultants will continue to accelerate the CEP processes and CAPs. Monitoring of the CAP processes will be conducted every month.

5.2 Are there any other emerging risks that may affect the implementation, sustainability, or effectiveness of the BSP? Please describe.

The emerging risks that may affect the implementation are as follows:

The allocated funds for operational costs (18% of the 1st ER Payment) of the GFLL project based on the BSP document (2021) have been spent (17.8%) to finance the operating activities of the project from July 2022 to December 2024. By June 2025, the operational cost has been spent 22.1% or US$3.5 million. There is a high risk that GFLL project staff and consultants are not able to conduct field facilitations due to limited budgets for operational costs.
Based on the WB Mission in May 2025, the operational cost can be adjusted if the project meets the conditions as follows: a) ERPA Payment made to complete 111 villages by 15 December 2025, and b) ERPA Payment made to complete 111 villages by 30 October 2026 (Table 31)[74].

With the current capacity and capabilities of the GFLL project staff and consultants, it is very challenging to produce 135 CAPs with high-quality standards[75] by the end of December 2025. Although the Trust Building Fund ($10,000) will provide the upfront ER payment to villages that have completed CEP-1, the process of such fund disbursement cannot be simplified. It has to follow more or less the same procedures as the fund disbursements for CAPs. See Figures below.

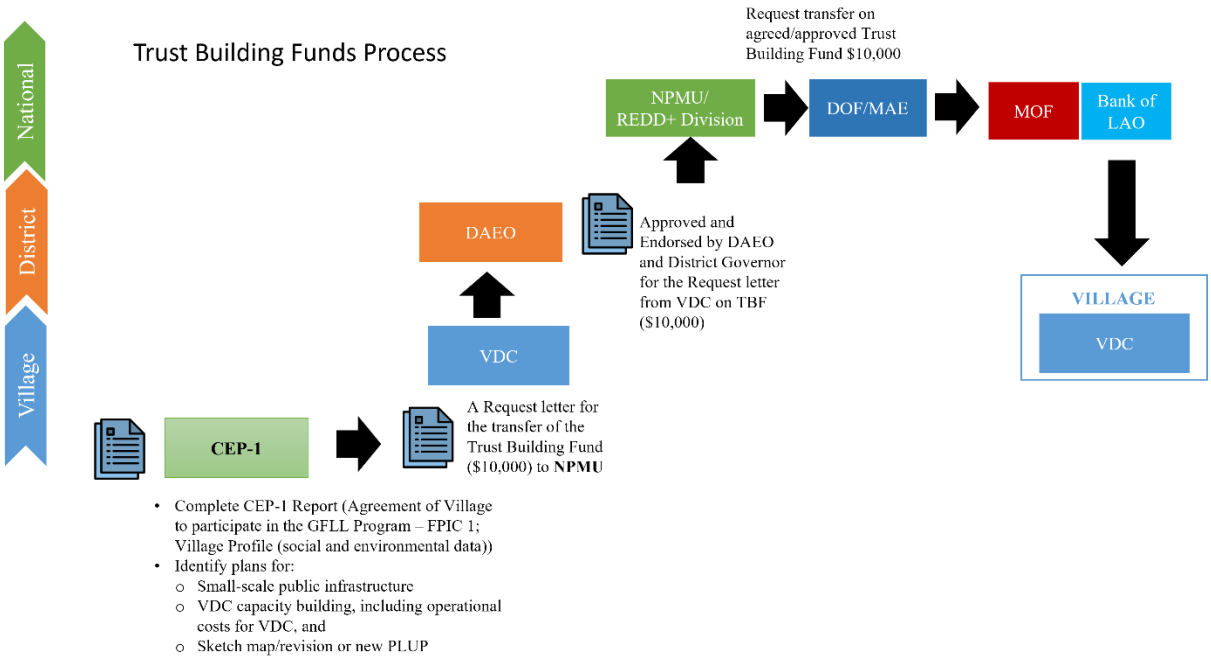


Figure 26. Trust Building Funds - Process of Disbursements

[74] By August 2025, the WB TT asked the GFLL to complete 135 villages by December 2025.
[75] The CAP document has to meet the principles: participatory, accountability, equity, transparency, and compliance with World Bank and Lao PDR financial management and procurement policies.

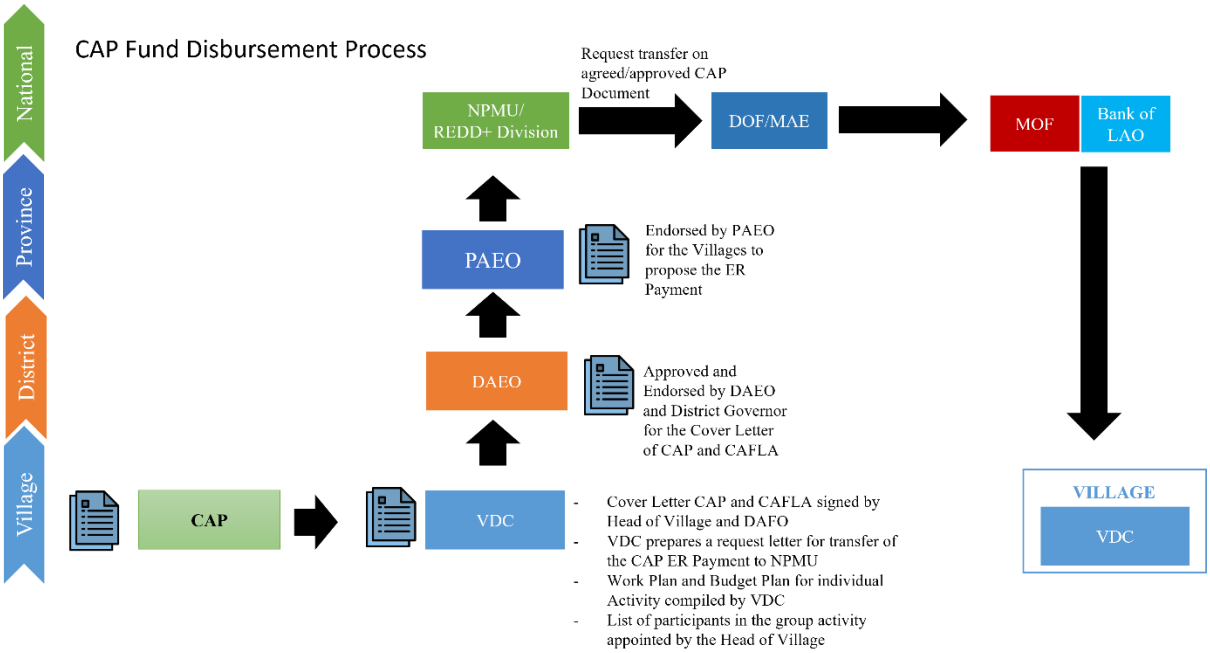


Figure 27. CAP Fund Disbursement Process

In other words, the GFLL is not able to increase the allocation of operational costs because the expected output might not achieve either ER Payments for 135 villages or completion of 135 CAPs by 31 December 2025.

Recommendation: to expedite the process of fund disbursement, the proposal is as follows:

The current process for transferring the fund from the Designated Account at the Bank of Lao PDR to directly target village bank accounts can take more than 1 month or about six weeks to complete the financial transaction.

The first two weeks is to have an endorsement letter from PAEO for the Community Action Plan Document. The letter is then submitted to the Department of Forestry (DoF). To get approval from DoF, it will take a week, and another week will be in the Department of Cooperation and Planning, Ministry of Agriculture and Environment. Once the letter is out from MAE, it will be sent to the Ministry of Finance (MOF).

It will take another two weeks to obtain endorsement from the National Treasurer at the Ministry of Finance and the Bank of Lao PDR for a few days before the fund is finally sent to community bank accounts.

So, total spent of fund disbursement process from NPMU to Bank of Lao might take six weeks.

A similar process is applied to the potential transfer of the Trust Building Fund. This is again time-consuming. In order to shorten the process, it is wise to transfer a certain amount of funds to sit in the operating account at the commercial bank, i.e. BCEL bank, where the GFLL Operating Project Account has already been opened. In this case, the ceiling for replenishment of the operating account should be set at least one million USD in order to allow flexibility for making transactions for fund transfer to the VDC Bank Accounts. This process is shortened to about four weeks because it does not need to go through the above process several times.

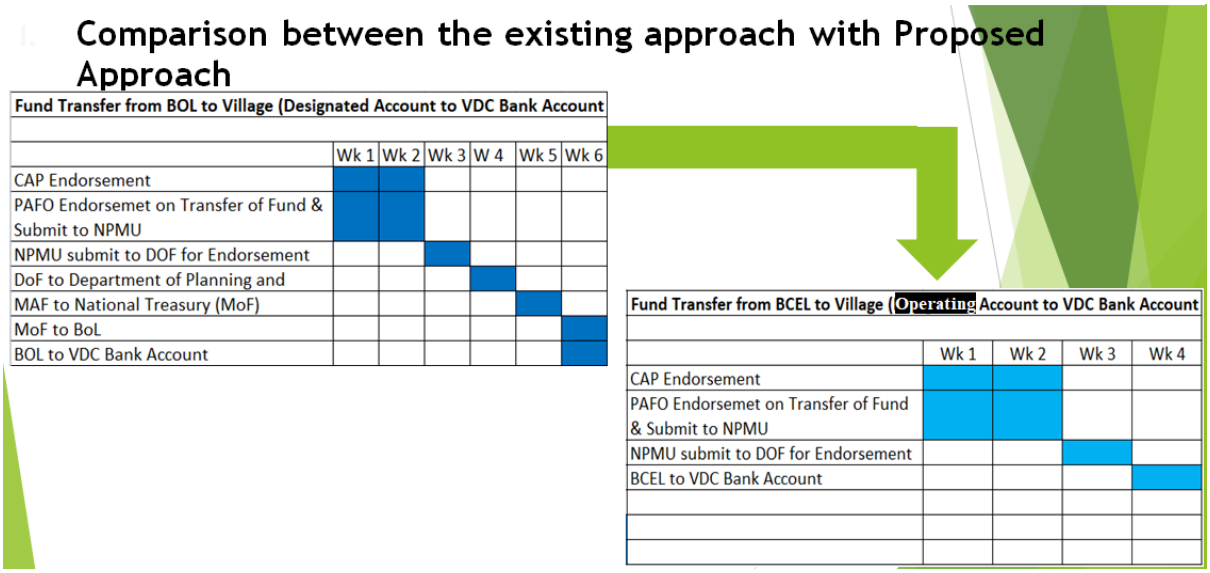


Figure 28. Comparison of Channeling Funds under Designated Project and Operated Project Account

5.3 Is the Benefit Sharing distribution contributing to the core objectives and legitimacy of the ER Program and effectively rewarding/incentivizing the adoption or sustainability of emission reduction measures? Please describe as relevant.

The ER program implementation at the village level, based on the proposed community action plan (CAP), has just started in May 2025 (after the fund disbursement to 18 villages). The number of participants below, on the other hand, was only a reflection of the willingness of the community to participate in the ER program, which was high during the CEP-1 consultation in six provinces. The 98% of participants agreed in principle to participate in the ER Program (see Table 46 and Table 47). In addition, the number of participants who received the ER payments for 18 villages can be seen here.

Number of villages attended CE-1 can be summarized as follows:

Table 46. Number of Male (256) and Female (289) during CEP 1 Consultation in 6 Provinces (total 545 participants)

Meeting venue	Number of participants		
	Male	Female	Total
Kongthieng Village, Saysathan District, Sayabouly Province	54	53	107
Houaysa-ngok Village, Paktha District, Borkeo Province	24	23	47
Thasae Village, Luang Namtha District, Luang Namtha Province	36	54	90
Konekham Village, Houn District, Oudomxay Province	47	54	101
Kajet Villag, Nambak District, Luang Prabang Province	54	71	125
Sobvarn Village, Xiengkhor District, Huah Phanh Province	41	34	75
Total	**256**	**289**	**545**

Summary of Votes of the Village is as follows:

Table 47. Number of participants principally agreed to participate the GFLL Program in six provinces (Agree = 533 (98%); Disagree = 10 (2%))

Meeting venue	Number of Votes by villagers		
	Agree	Dis-agree	Total
Kongthieng Village, Saysathan District, Sayabouly Province	107	0	107
Houaysa-ngok Village, Paktha District, Borkeo Province	47	0	47
Thasae Village, Luang Namtha District, Luang Namtha Province	85	5	90
Konekham Village, Houn District, Oudomxay Province	97	5	102
Kajet Villag, Nambak District, Luang Prabang Province	125	0	125
Sobvarn Village, Xiengkhor District, Huah Phanh Province	72	0	72
Total	**533**	**10**	**543**

5.4 Describe any lessons learned and, if relevant, recommendations for BSP improvement or modifications.

The first two and half years of the GFLL project (2022-2024), the transfer of the funds to village level was slow due to delay and slow progress of the preparation and facilitation of project implementation at field level especially for safeguards, FPIC, and community engagement processes, including capacity building for local government agencies (sub-national level).

The significant delays in decision-making might also affect the project implementation. Some examples of delays in decision-making were as follows:

a. The decision of the fund management agency for the project (Environmental Protection Fund/EPF or Forest Protection Fund/FPF).
b. The decision of eligibility for village selection.
c. The decision of the FPIC guidelines
d. The decision of the CAP template
e. The insufficient time available for the senior management (part time) and technical staff (part time)
f. The fund approval process between and within different Ministerial levels (MAE and MOF)

6. If relevant, please provide information on any other indicators as contained in the BSP and operational manuals (if relevant), including the explanation of un-met indicators.

The other indicators related to BSP are found in the Result framework indicators (RFI), especially for Component 2 (Promote and implement climate-smart agriculture models/CSA) and Component 3 (Sustainable Forest Management). These two components are closely related to the implementation of community action plans, such as number of villages developing forest planning, community patrolling, and capacity building for best agriculture practices. The link for RFI is here.

Table 48. Indicators in RFI related to the BSP Implementation

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
The **overall goal** of the GFLL is to support the transition to low-emissions, climate-resilient and sustainable development pathways in forestry, agriculture and cross-cutting areas	Greenhouse gas emission reduction	Reference Level (RL) with the technical correction in the 1st MMR is 10,827,521 tonCO_2	(12,306,004 tCO_2 from ER)	*Government sources:* -Approved RL of the FCPF ER-PD *Project Sources:* -1st Monitoring Report (1st result-based payment, AENOR report -2nd result-based payment, anticipated 2026) In ERPA/CF	GHG estimates are based on the 5-year project life span	Periodically	FIPD[76]/MMR Consultant	The first ERMR was approved in December 2024
Project Development Objective/Specific Objective (SO)								
SO 1 Reduced emissions	Emission reductions and removals of carbon dioxide equivalent (CO2e)		Emission reductions and removals of up to 16.1 million metric tons (Mt) carbon dioxide equivalent (CO2e) over the term of the ERPA from land use, deforestation and forest degradation through sustainable land	Government resources: Project resources: -1st ERMR in 2023/AENOR report 2023 -2nd ERMR in 2026	GFLL is aligned with NFS 2035 (vision 2050) and contributes to other national policies and strategies such as green growth, poverty alleviation, NSEDPs (2016-	Periodically	FIPD/MMR Consultant	

[76] FIPD will follow up the progress of achievements of the overall goal by attending several events such as (1) World Bank Mission, (2) VVB meeting, etc

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
			use/forest management, conservation and enhancement of forest carbon stocks Potential ERPA benefits up to US$ 42 million if ER target of 8.4 Mt of CO2 is achieved		2020 and 2021-2025)			
SO 2 Increased ecosystem resilience	Build ecosystem resilience	Accounting area of the ER Program has experienced 50%[77] of the country's deforestation and forest degradation (in area terms) in 2005-2015	Increased forest ecosystem resilience on 320,000 ha	*Government sources:* -Approval of districts and target villages participating in the ER Program by District/Provincial levels - *Project Sources:* -M&E Reports prepared by NPMU/PPMUs including reports on CAP implementation		Quarterly	PAEO/DAEO Implementation Support Consultants (ISCs)/Junior Consultants National CE Team	
SO 3 Enhanced livelihoods of rural people	Improved livelihoods of rural people	Expected to cover 18 districts and 247villages[78]. However, # of villages will be	Enhanced livelihoods of half of forest-dependent people from 247 villages,	*Government sources:* -Approval of 247 target villages by District/Provincial levels	The sub-national (district and village) project structure is	Quarterly	PAEO/DAEO ISCs National CE Team	18 CAPs approved, and submitted to DoF for buglet transferring

[77] Project Appraisal Document (PAD)on an Emission Reduction Crediting Project, dated December 11, 2020
[78] The first ER payment

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
		dependent on the total ER payment # of households and forest-dependent people will vary with # of villages agreed with participated with the project		*Project Sources:* -CAP document	finalized by the end 2022 The GFLL project can commence early 2023			
			40% women and members of ethnic minority groups	*Government sources:* - Approval of 247 target villages by District/Provincial levels *Project Sources:* -The M&E Monitoring Report	The sub-national (district and village) project structure will be finalized by the end 2022/early 2023 The GFLL project can commence early 2023			
Outcomes								
Outcome 1 Improved land use management practice	Number of verified PLUP increased	65 out of 247 villages[79] have PLUP	All 247 villages have verified PLUPs	*Government sources:* -Approval of PLUPs by DAEO/District Governor *Project Sources:* -Copies of approved PLUPs	DONRE will engage with PLUP. Results of PLUP are shared between DAEO and DONRE	Periodically Link with CAPs development	Forestry Unit/DAEO	18 PLUPs approved by Village Authority
Outcome 2 Strengthened institutional systems	Number of Sub-national government staff involved with the project increased	Insufficient facilities for technical staff	At least 100 sub-national government staff have been built	*Government sources:* -Decision on the nomination of sub-national government		Periodically	TA team members PPMUs	499 staff including 99 women staff trained on (1)

[79] Under the first ER Payment

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
	Number of hardware (facilities, transportation means) increased	In-adequate skills of sub-national staff	their capacities (Approximately 6 and 10 staff from province and district, respectively, nominated to the project) Note: At least 1,086 government staff members working mainly in the agricultural and forestry sectors.[80] 18 DAEOs and 6 PAEOs offices are equipped with facilities (computers, tablets, motorbikes, etc.)	staff involved with the project; *Project Sources:* -Copies of decision on the nomination of sub-national government staff involved with the project; -Reports on capacity building prepared by TA and FMT; -Fixed assets reports		Periodically	Finance Team (FM)	CEP, (2) GIS, (3) PDMS and (4) M&E/Secondary Data Collection Set of computers to each target district 4 motorbikes to each target district
Outputs – Expected Results								
Component 1 Strengthening enabling conditions for REDD+'								
1.1. Strengthening policies and the legal framework	Strengthen policies and legal framework at the national level that contributes to	Forestry Strategy 2035 (vision to 2050)	Legal framework on the approval, management and	*Government sources:* -Forestry Strategy 2035 (vision to 2050)	Strong support from the national	Periodically	REDD+ Policy Consultant DoF/REDD+ Division	Decision on Forest Carbon Management No.

[80] These numbers pertain to the life of the I-GFLL programme, funded by GCF and implemented by GIZ, 2020-2028 (Quoted from PAD)

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
	reducing deforestation and forest degradation and integrate into provincial strategies and policies		control of REDD+ projects; Manual on Forest Carbon Policy Note of DoF/MAF's prospective on carbon business for national regulation	-Approval of national (DoF/MAF's) legal framework on measurements on degradation and forest degradation *Project Sources:* -Report prepared by International Consultant for REDD+ Policy -Annual M&E Reports prepared by NPMU/PPMUs	relevant agencies/TWG			4564/MAF, dated 6 September 2024
	Strengthen and promote implementation of policies and guidelines that reduce deforestation and enhance forest restoration at province and district level		Policy Note that prioritizes policies and guidelines and implementation plan in project provinces;[81] Annual landscape-level meeting of government and sector representatives of six provinces on strategies to implement policies and guidelines	*Government sources:* -Minutes of the meeting; -Revised and updated landscape-level plan for improved coordination and implementation -Annual Reports prepared by PPMUs; *Project Sources:* -Annual M&E Reports prepared by NPMU/PPMUs	Strong leadership from PPMU/PAEO Active participation from other provincial agencies as member of Provincial REDD+ Task Force	Annually	PAEO as member of the Provincial REDD Task Force PPMU will organize the annual meeting	
1.2. Improved forest law enforcement and monitoring	Capacity development for provincial and	None	At least 100 forest staff from 6 provinces and 18	*Government sources:* -Training reports prepared by FIPD	Good collaboration	Quarterly/Annually	SFM NC FIPD	16 sub-national (provincial and

[81] DCC under MONRE will be updated through the Annual National REDD Task Force meeting

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
	district-level government staff on using PDMS as tool to monitor		districts received training on PDMS	-Manual on PDMS developed by FREDD2/JICA *Project Sources:* -Copies of training reports shared by SFM National Consultant	between GFLL and FIPD			district) staff from Forestry and Forest Inspection Sectors trained
	Strengthen forest fire prevention and management mechanism in forest fire-prone areas		247 community action plans (CAP) with community-level forest fire prevention arrangements in fire-prone areas	*Government sources:* -CAP approved by VDC, DAEO and District governor/deputy governor *Project Sources:* -Copies of CAP document		Quarterly	SFM NC DAEO's staff in charge for CSA M&E Junior Consultant	18 CAPs
			14 training programmes/outreach in fire-prone locations to prevent and manage forest fires	*Government sources:* -Training/outreach activity reports prepared by PPMUs -Registration list of participants *Project Sources:* -Copies of training/outreach activity reports and registration list		Quarterly	DAEO's Forestry Unit & Forest Inspection Unit	Every year carried out by district staff

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
	Provision of technical & financial support to government staff for effective implementation of monitoring & enhanced law enforcement	Develop project's activities and budget plan	Budget provided for additional field staff & transportation to enable inspections & improved law enforcement, and to address identified law violations in forested areas	*Government sources:* -Assignment/delegation of DAEO staff to undertake field surveys -Field/ground survey reports approved by its organizations and DPMU/PPMU -PDMS Implementation results reports prepared by DAEO staff *Project Sources:* -Financial reports with supporting documents -Copies of PDMS Implementation results reports -Quarterly/Annual M&E reports prepared by NPMU	Active participation and commitment of DAEO staff	Quarterly	DAEO's Forestry Unit & Forest Inspection Unit	

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
	Development of forest fire management prevention and awareness raising	DAEO/PAEO has set up regulations on the fire management Annual Notice on forest fire management and prevention issued and disseminated to upland framing households during before the clearing seasons for shifting land preparation	At least 50% of target villages awareness raising campaigns during before the clearing seasons for shifting land preparation and villagers have increased awareness of fire prevention	*Government sources:* -Annual Notice on forest fire management and prevention issued and disseminated to upland farming households -Quarterly report on awareness raising activity prepared by DAEO staff *Project Sources:* -Copies of quarterly reports on the implementation of outreach activities prepared by DAEO/PAEO	Active mobilization of the campaigns team (PAEO/DAEO)	Quarterly	DAEO's Forestry Unit & Forest Inspection Unit	
1.3. Improved provincial, district and village level land use planning	Improved land use planning approaches to the deforestation and forest degradation hotspots	At sub-national level, DONRE is the main actor for PLUP.	Joint district cooperation between DAEO and DONRE	*Government sources:* -Nomination of staff from DONRE *Project Sources:* -MOU and MoM with DALaM and DoF/MONRE	Availability of human resources to be appointed from DONRE			
		PLUPs cover roughly 40% of the ER Program area	Boundaries of different land use at the village level are already delineated and demarcated (Depending on budget availability)	*Government sources:* -Approved Land Use Maps -Land Use Rights *Project Sources:* -Copies of Land Use Maps		Periodically link with CAPs preparation	DAEO's Forestry Unit	

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
				- Copies of PLUP reports prepared by DAEO				
		Insufficient facilities (GPS, Computers, Laptops)	Procurement of equipment and tools for land use planning (Note book)	*Government sources:* - *Project Sources:* -Report on fixed assets		Periodically	Procurement NC FM team	
	Capacity building and technical support to government staff and communities to support the implementation and enforcement of improved land use planning approaches (including PLUP)		At least 4 trainings implemented on PLUP per province. Government staff provides ongoing support for the implementation, monitoring, enforcement and scaling up of forest landscape management, PLUP	*Government sources:* -Minute of the training -Field trip reports prepared by DAEO/PAEO -Reports on the trainings prepared by DALaM if they are invited as resource persons *Project Sources:* -Reports on the trainings prepared by SFM NC -Copies of trainings reports shared by SFM NC	Timing and availability of human resources from DALaM	Periodically	SFM NC	
Component 2 Climate Smart Agriculture (CSA) and sustainable livelihoods								

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
2.1. Promote & implement Climate-Smart Agriculture models (CSA)	Identify and pilot potential climate-smart agriculture practices (the white list-black list) that contribute to rural livelihoods		Develop white list of potential CSA practices	*Government sources:* - *Project Sources:* -White list of CSA practices available -				
			At least 100 training courses on CSA practices in target villages	*Government sources:* -Quarterly training report on the CSA practices prepared by DAEO's Technical staff and M&E staff *Project Sources:* -Quarterly training report on the CSA practices prepared by M&E Implementation Support Consultant (ISC)/Junior Consultant -Quarterly/Annual M&E reports prepared by NPMU	Sufficient capacities of technical staff of DAEO's Agriculture Unit	Periodically link with CAPs preparation	DAEO's staff in charge for CSA	
	Development and operation of Farmer Field Schools (FFS) and provision of technical support (extension service) to build capacities and support the implementation CSA	At least 40% members of ethnic minorities groups will benefit from ER-Program[82]	Extension services are carried out effectively through technical and financial support in deforestation hotspot areas and reach diverse ethnic minorities	*Government sources:* - Field trip reports prepared by DAEO's Technical staff and M&E staff *Project Sources:* -Copies of the reports shared by CSA NC	Existing experiences of DAFAO staff from other former projects, UN agencies (FAO)	Periodically link with CAPs preparation	DAEO's staff in charge for CSA	

[82] ER-PD, 18 May 2018 as date for Submission or Revision.

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
	activities in deforestation hotspots		groups and women	-Quarterly report on the CSA activities implementation prepared by M&E Implementation Support Consultant (ISC)/Junior Consultant -Quarterly/Annual M&E reports prepared by PPMU/NPMU				
			At least 10 FFSs have been developed and are operational per province	*Government sources:* -Approval of establishment of FFSs by DAEO/PAEO *Project Sources:* -Copies of approval of FFSs' establishment -Quarterly/Annual M&E reports prepared by NPMU/PPMUs		Periodically link with CAPs preparation	DAEO's staff in charge for CSA	
2.2. Implementation of climate-smart agriculture models	CSA's activities offer in the white list of infrastructure	Most of existing infrastructure are not functional	At least increased 10% of existing infrastructure facilities maintained to support CSA production	*Government sources:* -CAP approved by VDC/Village Authority, DAEO and District governor/deputy governor -Quarterly reports on the progress of the CSA's activities implementation prepared by DAEO's technical staff and M&E staff *Project Sources:*	Availability of human resources (DAEO/PAEO) and their timing to follow up and monitor the implementation of CSA's activities in the field	Periodically link with CAPs preparation	Irrigation engineers from DAEO	

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
				-Quarterly reports on the progress of the CSA's activities implementation prepared by ISC -Copies of the reports shared by CSA NC -Quarterly/Annual M&E reports prepared by PPMU/NPMU				
	Environmental and social management and monitoring of infrastructure activities and any activities related to CSA and SFM	Environmental and Social Safeguards Package Trainings have been conducted	At least 5 staff from PAEO, Provincial facilitator per province, and at least 5 staff from DAEO, one representative from LWU and LNFC and 3 Implementation Support Consultants (ISCs) have been trained on Environmental and Social Management Safeguards package for infrastructure and activities related CSA and SFM	*Government sources:* -Decision on nomination of Sub-national SESU's staff, technical staff from DAEO and representative from LWU, LNFC to the trainings *Project Sources:* -Reports on the training prepared by Social and Environmental Safeguards Consultants -Annual safeguards report		Periodically link with CAPs preparation	District SESU's staff under DAEO	
			Training on participatory	*Government sources:*		Periodically link with	Safeguards NCs	

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
			consultation and grievance mechanisms establishment and operation (1 training per 3 districts per year)	-Nomination of Sub-national SESU's staff to the trainings -Quarterly Monitoring Reports prepared by DAEO and M&E staff *Project Sources:* -Reports on the trainings prepared by Social Safeguards Specialists		CAPs preparation	District SESU's staff under DAEO	
			Support government staff in the preparation and operationalization of Social and Environmental Management and Monitoring Plan for infrastructure activities and activities related to CSA and SFM per province	*Government sources:* -Nomination of P-SESU staff to preparing works *Project Sources:* -Project Activities Plan -Quarterly Monitoring Reports prepared by ISC	High support and commitment of P-SESU members	Periodically link with CAPs preparation	Safeguards NCs District SESU's staff under DAEO	
			At least 50% of households from target villages demonstrated and applied CSA practices according to their preference	*Government sources:* -Quarterly reports on the progress of the CSA's activities implementation prepared by DAEO's technical staff and M&E staff *Project Sources:*		Periodically link with CAPs preparation	DAEO's staff in charge of CSA	

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
				-Quarterly reports on the progress of the CSA's activities implementation prepared by ISC -Copies of the reports shared by CSA NC -Quarterly/Annual M&E reports prepared by PPMU/NPMU				
2.3. Production groups management	Establishment of production groups	Existence of production groups in some target villages	Two main agricultural production groups are set up (Livestock and Agriculture Production Groups)	*Government sources:* -Decision on production groups establishment approved by VDC and Village Authority *Project Sources:* -Copies of decision on production groups establishment		Periodically link with CAPs preparation	DAEO's staff in charge of CSA	
	Capacity building		At least 50 training courses on the groups and financial management	*Government sources:* *Project Sources:* -Training reports prepared by ISC	Close collaboration between VDC and ISC	Periodically link with CAPs preparation	VDC and ISC/VDF Implementation Junior Consultant	
Component 3 Sustainable Forest Management (SFM)								
3.1. Implement and scale up conservation/protection forest management	Develop sustainable conservation/protection forest management	SFM activities developed in CAPs	Sustainable conservation/protection forest management activities	*Government sources:* -CAPs approved by VDC/Village Authority, DAEO and	Active participation of communities Commitment of Community	Periodically link with CAPs preparation	SFM NC DAEO's staff in charge of VFM/SFM	Already included in 18 CAPs

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
	activities in target villages		(including patrolling and forest fire prevention) are developed and implemented in at least 70% of [83]247 villages (Under the first ER Payment)	District/Deputy Governor -Quarterly Reports on the SFM activities implementation prepared by Forestry Unit and M&E staff; *Project Sources:* -Quarterly Reports on the SFM activities implementation prepared by ISC -Copies of quarterly reports on the SFM activities implementation;	Forest Management Committee			
			Sustainable forest reforestation/restoration (ANR, enrichment planting, etc.) activities are prepared and implemented at least 50% of target villages with patrolling and forest fires	*Government sources:* -CAPs approved by approved by VDC/Village Authority, DAEO and District/Deputy Governor -Quarterly Reports on the SFM activities implementation prepared by Forestry Unit and M&E staff; *Project Sources:* -Quarterly Reports on the SFM activities		Periodically link with CAPs preparation	SFM NC DAEO's staff in charge of VFM/SFM	Already included in 18 CAPs

[83] Still need to identify these two types of forest based on PLUPs

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
				implementation prepared by ISC -Copies of quarterly reports on the SFM activities implementation shared by SFM NC; -Quarterly/Annual M&E reports prepared by PPMU/NPMU				
	Outreach/dissemination for scaling up sustainable forest management and selected non timber forest products for target villages and staff	SFM activities developed in CAPs	At least 1 campaigns per year and village to disseminate sustainable forest management and value addition of potential NTFP arranged for village communities	*Government sources:* - -Field trip reports on the project's activities implementation progress prepared by DAEO's technical staff and M&E staff *Project Sources:* - Field trip reports on the project's activities implementation progress prepared by ISC - Copies of quarterly reports on the SFM activities implementation shared by SFM NC -Quarterly/Annual M&E reports prepared by PPMU/NPMU		Annually	DAEO's Forestry Unit & Forest Inspection Unit	Every year
3.2. Implement and scale up sustainable	Develop sustainable village use forest management	Existing Village Forestry	150 villages have prepared and implemented	*Government sources:* -Village use forest management plans		Periodically link with	SFM NC	Already included in 18 CAPs

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
village use/production forest	activities in production forest areas adjacent to target villages	Committee (potentially have their VFM Plans)	village use forest management activities	approved by VDC/Village Authority and DAEO -Quarterly Reports on the SFM activities implementation prepared by Forestry Unit and M&E staff -Reports on the status of the VFM plans implementation progress prepared by Village Forestry Committee *Project Sources:* -Copies of the report shared by SFM NC -Quarterly/Annual M&E reports		CAPs preparation	DAEO's staff in charge of VFM/SFM	
	Develop and implement Agro-forestry system	Existing Agro-forestry systems practices are in place	Approximately 3 Agro-forestry systems such as (1) Coffee plantation under shade trees, (2) Cardamom growing under production forest, etc. developed and implemented	*Government sources:* -NAFRI documents *Project Sources:-* Quarterly/Annual M&E reports		Periodically link with CAPs preparation	SFM NC DAEO's staff in charge of VFM/SFM	
Component 4 Project management, monitoring and evaluation								

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
	Management and coordination of the ER-Program implementation	Until now the institutional arrangements at national and provincial levels are in place	Institutional arrangements are in place and operational	*Government sources:* -Provincial and District Decision on nomination of the PMC/DMC and PPMU/DPMU *Project Sources:* -Copies of the Provincial and District Decision				
	Monitoring and Evaluation of the ER-Program implementation	No M&E system in place	A M&E system is in place and effectively monitoring the implementation of ER-Program activities and integrated into sectoral M&E frameworks	*Project Sources:* -M&E framework and its Log Frame are developed and used by relevant stakeholders involved with the project	Close coordination and collaboration between national, sub-national M&E teams and ISC, and CAP's activities implementing agencies (VDC with support by DAEO)		M&E NC	Completed and in use
	Communication and information sharing on ER-Program implementation and knowledge sharing among provinces and districts		National annual meetings/workshop to share lessons learned	*Project Sources:* -Annual reports on the project's achievements to be shared at the meetings/workshops -IEC materials developed (depending on the budget availability)		Annually	DAEO/PAEO	Annual GFLL Workshop

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
			Public information campaigns, local media like oral speakers were carried out	*Government sources:* -Reports on number of outreach activities like National Trees Planting Day *Project Sources:* -Reports on financial support to local media (i.e. radio, TV, newspaper, etc.) -Records on IEC materials distributed like Posters, flyers used during the Community Engagement Process		Annually	DAEO/PAEO	
	BSP Implementation report		Two BSP Implementation reports are prepared: The first BSP report was submitted six months after receiving the ER Payment, and the second one is the annual report in 2026.	*Government sources:* *Project Sources:* -BSP implementation reports prepared by BSP International Consultant				
	Safeguards Monitoring report		Annual Safeguards Monitoring reports are prepared	*Government sources:* *Project Sources:* -Safeguards Monitoring reports prepared by the	Support from the sub-national Safeguards teams	Quarterly/Annually	Safeguards Team Sub-national SESUs	The first Annual Safeguards Monitoring report for 2024 was

Logic of intervention	Indicators	Baseline	Targets	Means of Verification (MoV)	Assumptions	Frequency	Responsible persons/organizations	Progress of achievements
				Safeguards Consulting team -Quarterly and annual M&E report				submitted to WB

ANNEX 3: INFORMATION ON THE GENERATION AND/OR ENHANCEMENT OF PRIORITY NON-CARBON BENEFITS

(Updated in June 2026)

ER programs should review potential Non-Carbon Benefits, identifying a set of priority Non-Carbon Benefits and report on the generation or enhancement of such priority Non-Carbon Benefits. The priority Non-Carbon Benefits should be culturally appropriate and, where relevant, gender- and intergenerationally inclusive.

The information provided on Non-Carbon Benefits should be up to date (not only related to the specific Reporting Period).

*Refer to **criteria 34 and 35** of the Methodological Framework*

Priority non-Carbon benefits

It is important to clarify that the ERP represents the results-based payment component of a wider package of investments under GFLL and its associated financing streams (including I-GFLL), which together support forest governance, community engagement, and sustainable land-use practices across the program area and generate significant non-carbon benefits. Within this broader architecture, GFLL and related investments finance the upfront activities and enabling conditions, such as participatory land-use planning, village forest management, institutional strengthening, and climate-smart agriculture, while the ERP provides ex-post payments for verified emission reductions, channeled through the BSP to incentivize continued implementation of these activities at the local level.

In this sense, the ERP does not operate as a standalone intervention but rather as a performance-based layer that reinforces and sustains the outcomes of GFLL-supported investments. Therefore, in these monitoring reports it should be understood that the first GFLL ERPA payment targeted 247 villages and depending on the 2nd payment may increase to about 386. However, across the ERP, the total number of villages that will benefit from the broader underlying investments through GFLL, IGFLL and other development partners is much higher (over 800). Hence, the benefits described in this report are much broader. It is also necessary to note that GFLL and I-GFLL villages do not overlap.

The ERP design did not include specific performance indicators for particular priority non-carbon benefits such as biodiversity monitoring. Instead, this report draws on summary information from other participating projects, which in themselves are not an indicator of the GFLL.

1. List the **set of priority Non-Carbon benefits that were identified in the ERPD** and provide necessary details on activities for generation and enhancement of these Non-Carbon benefits. (See questions in sections 2 and 3 below for examples of details on potential specific non-carbon benefits identified). The list of achievements or results indicators presented in this table are specific to each project and do not form part of GFLL indicators but are presented as contributing and indicative proxies for non-carbon benefits arising from the ERP.

A few new projects have started in the ERP area in the 2nd Reporting Period as shown in Section 2.5.1., which are not included in the 1st ERMR. However, they are relatively new or their implementation has been delayed, therefore it is premature to assess their impacts on the priority non-carbon benefits. Most of the	○ **Details on activities for generation and enhancement** ○ Relevant Indicators as defined in ERPD ("Indicative Parameters" in the Lao ERPD) ○ Results of indicators (information to justify the generation and enhancement of non-carbon benefits

results of indicators and detailed activities are taken from the latest or completion reports of the following projects; The Lao Land and Livelihoods Project (LLL), the Integrated Conservation of Biodiversity and Forest Project (ICBF), the Scaling-up Participatory Sustainable Forest Management Project (SUFORD SU), the Village Forest Management Project (VFMP), the Implementation of Governance, Forest Landscape and Livelihoods Project (I-GFLL) and Scaling-up I-GFLL (SU-I-GFLL), and the Second Lao Environment and Social Project (LENS 2). Their reports are available is here. **Priority Non-Carbon Benefit in the Lao ERPD**	
1. Reduced poverty incidence	○ Indicative Parameter Income levels; Access to subsistence needs such as access to land, access to food, etc. ○ Results of parameter - ICBF's expenditure survey in 2022 for its target area covering Bokeo and Luang Namtha Provinces shows an increase of 24% from the baseline[84]. -I-GFLL/SU-I-GFLL's household survey in 2024 showed that almost all PSAP[85] households (93%) expressed satisfaction over the yields obtained on PSAP fields, while 80% confirm a positive impact on their income. - LENS2 provided community grants to 43 communities[86] and benefited 33,703 people by supporting sustainable livelihood development. Initial results from a pilot project for coffee harvesting estimated that household incomes increased by 114 percent. - VFMP has an outcome indicator, "Forestry activities (NTFP) increase the total income of households participating in Village Forest models by 15% in 40 villages," and the baseline has been established. An endline survey is planned at the end of the project in 2026.
2. Enhanced food security	○ Indicative parameter

[84] External factors such as inflation are not taken into account.
[85] the Promotion of Sustainable and Deforestation-free Agricultural Practices and Value Chains (PSAP)
[86] LENS2 supported selected Protected Areas in 8 Provinces and out of these Provinces Nam Et Phou Loey National Park (Houphan), Nam Sam National Protected Area (Houaphan) and Phoupheung-Phouphathoun-Tad Kuang Se (Luangpabarn) in the ERP area. Therefore, 43 communities include those outside of the ERP area.

	Perceived food security (access to food) ○ Results of parameter This indicator is covered in the Indicator 1 above.
3. Increased participation (particularly of women and ethnic groups) in sustainable forest management, land use planning, and village development activities	○ Indicative parameter - Number of participants among women and ethnic groups in key village level activities; Perceived role in decision making ○ Results of parameter Not all projects reported number of participants by gender, ethnic group and so on in their progress or completion reports. - I-GFLL/SU-I-GFLL Women and men have opportunities to participate in all Project activities in line with the Gender Action Plan. Monitoring information shows that there is strong participation of women in all village meetings and in all key areas of intervention (e.g., FPIC 54%, PLUP 46%, PSAP 47%, VFAG[87]47%). Furthermore, female-led households and young households are given priority in the selection of PSAP participants. Monitoring data shows, that there are approximately 10 female participants in PSAP per village (27% of participants). 7% of PSAP beneficiary households are led by women, which is approximately double the ratio of female-led households in rural Laos. This proves that the prioritization has been implemented in practice. In 80% of villages women are represented in VFAG Committees, thereby attaining financial management capacities and promoting women's inclusion in economic activities promoted by the Project. The consideration of gender aspects is also included as a component within the ESMP Checklist. Implementing partners and project staff have been provided with instruction materials and are required to consider gender aspects in the project's activities. - SUFORD-SU In partnership with the Women in Law Enforcement Initiative, the project ensured that around 20 percent of the law enforcement training participants were women. Moreover, 82 percent of the female law enforcement officers within DOFI received specialized training (e.g., investigation operations) compared to 65 percent of the male officers. The share of female labor to conduct forest restoration work increased compared with the preceding SUFORD project. Data show that the forest restoration grants benefited more than 46,000 laborers, of whom over 7,500 were women, approximately 16 percent of the total. This is an improvement on the 11 percent achieved by SUFORD as women's share of work input and wages in 2010. - LENS2

[87] Village Forestry and Agriculture Grant (VFAG)

<table>
<tr>
<td></td>
<td>Women accounted for 4,405[88] (27 percent) of the 16,246 participants in project-supported training courses and study tours for sub-project delivery agencies (SDA) and SDA partner institutions. This exceeded both the target for women trained (600) and for representation of women (20 percent). All village organizations receiving sub-grants under community conservation agreements included women, and 184 of the 191 recipient organizations had at least 40 percent female participation, exceeding the target of 160

- VFMP
During 2024 loudspeakers have been installed in all villages. The loudspeakers procured open the opportunity for informing all villagers about VFMP and the ongoing implementation. The information is and will be broadcasted not only in Lao language but also in ethnic group languages depending on the composition of population in the villages.

- LLL
3,199 most vulnerable households[89] (MVH) engaged in forest-smart livelihood activities in 404 villages received the MVH grant ($200/HH).</td>
</tr>
<tr>
<td>4. Increased watershed protection, protection of streams and water sources</td>
<td>○ Indicative parameter
Protection of forests around protected areas (information on land cover change including around protected areas).

○ Results of parameter
Deforestation rate (deforested area/category area/3*100) by forest category is calculated from the Forest Type Maps (FTM) for 1st and 2nd Reporting Period, and for the Reference period as below[90].

<table>
<tr><th>Deforestation rate (per year,%) by forest category</th><th>1st RP</th><th>2nd RP</th><th>Reference period</th></tr>
<tr><td>Production</td><td>0.43</td><td>1.09</td><td></td></tr>
<tr><td>Protection</td><td>0.54</td><td>1.32</td><td></td></tr>
<tr><td>National Park</td><td>0.13</td><td>0.6</td><td></td></tr>
<tr><td>Conservation</td><td>0.22</td><td>0.64</td><td></td></tr>
<tr><td>No category</td><td>0.43</td><td>1.11</td><td></td></tr>
<tr><td>Total</td><td>0.44</td><td>1.12</td><td>0.49</td></tr>
</table>
Protected Areas (National Park + Conservation Forest) has the lowest deforestation rate among the 3 forest categories though the rate jumped from the 1st Reporting Period to 2nd RP. They are located relatively remote areas and have been well managed with continuous international support.

On the other hand the deforestation rate in Protection Forest is highest among all categories including no category and for both reporting periods. Deforestation rates of all categories including no</td>
</tr>
</table>

[88] Same as footnote 10

[89] 10 MVH/ village eligible for MVH grant are selected by villagers based criteria including poverty, economic or natural disaster and so on.

[90] Deforestation figures are directly taken from the FTMs in order to meet the purpose of this non-carbon benefit. Deforestation area (activity data) in the ERMR is the sample-based area estimate and different from the areas from the FTMs

<table>
<tr><td></td><td>category jumped from 1st to 2nd reporting period. There are mainly two reasons for the higher deforestation rate in Protection Forest. 1. Its designation is relatively new after that of Protected Areas and Production Forest, therefore forests in Protection Forest are located closer to communities and 2. Their management system is still under development and receiving less international support than other categories.</td></tr>
<tr><td>5. Increased forest restoration/rehabilitation</td><td>○ Indicative parameter
Presence/ restoration of forests particularly in Regenerating Vegetation areas (RV)

○ Results of parameter
Restoration of RV, which covers almost 40 % of the ERP area, has been a priority measure to reach the 70% forest cover rate since the national forest conference in 1991. PLUP + livelihoods support has been a major instrument for this purpose. RV restoration during the 1st and 2nd reporting periods from the FTMs as well as the ratio against that of the Reference Level (RL) are shown below.

<table>
<tr><td>Restoration (ha/year)
Activity data in Reference level (RL, ERPD)</td><td>10334</td><td>Ratio against RL (%)</td></tr>
<tr><td>1st RP</td><td>10665</td><td>103</td></tr>
<tr><td>2nd RP</td><td>3,851</td><td>37</td></tr>
<tr><td>ERPA period</td><td>7,258</td><td>70</td></tr>
</table>

The restored forest area in the 1st RP is a little bit above the RL, RS area in the 2nd RP is far less than RL. The total performance is only 70% of the RL. This is in line with the increase in deforestation area in 2nd RP.</td></tr>
<tr><td>6. Increased participation in forest management</td><td>○ Indicative parameter
Number of village forest management plans and agreements

○ Results of parameter
All projects have agreements on the village forest management with project specific names with participating villages/villagers and provide technical and/or financial support for forest management activities such as forest patrol, fire control, reforestation activities, etc.
ICBF; Village Biodiversity Conservation Contract (VBCC) with 70 villages, I-GFLL; Village Forest Management Agreements (VFMA) with 240 villages, VFMP; VFM agreements with 70 villages, LENS 2; Community Conservation Agreements (CCAs) with 48 villages, SUFORD SU; PLUP and Forest Restoration Grant ($2000/village) with 329 villages, LLL; Forest Land Use Zoning (FLUZ) Agreements with 122 villages
Total: 879 villages[91] covering more than 65% of 1338 villages inside or adjacent to the 3 forestland categories in the ERP area.</td></tr>
</table>

[91] 879 villages are the aggregate total across GFLL and I-GFLL and include villages not located inside or adjacent to the 3 forestland categories. However, the total area of the 3 forestland categories occupy more than 80% of the total ERP area.

7. Improved land tenure security	○ Indicative parameter - Number of village forest management plans and agreements - Land loss related complaints ○ Results of parameter - Number of village forest management agreements; provided in 6 above - Land loss related complaints As the parameters are indicative, these activities in the ER program create the enabling conditions for pathways to improved land tenure security as stated in the ERPD and BSP. The focus of the ER Program will be to create the enabling conditions and contribute to wider government programs primarily through village level land use plans and Village Forest Management Plans (VFMPs). Considering that roughly 40 percent of the ER Program areas are already under land use plans or VFMPs, the ER Program is supporting updating of the plans hence the inclusion of PLUPs in Community Action Plans
8. Improved capacity for law enforcement, monitoring and reporting	○ Indicative parameter - Number of trainings offered on legal matters - Monitoring of social or environmental safeguards and impact - Conformance of concessions ○ Results of parameter - Number of trainings offered on legal matters ICBF conducted more than 1,000 events in the form of technical training, dissemination workshop and coaching on law enforcement for their target area (National Protected Area areas and their corridors in Luang Namtha and Bokeo Province). SUFORD SU organized a total of 171 capacity development events on law enforcement, which trained an aggregated total of 3,370 participants and steadily strengthened the capacity of the agencies in charge at the central and provincial levels: DOFI and the Provincial Offices of Forest Inspection (POFIs). Importantly, standardized forest law enforcement and prosecution procedures were established under the project with the roles and responsibilities of relevant parties clearly defined. The Provincial Deforestation Monitoring System (PDMS) has been established through 16 training sessions of relevant staff of PAFOs and DAFOs in the 6 Provinces in the ERP area in collaboration between I-GFLL, SU-I-GFLL, GFLL, LLL and FIPD/FREDD2, which provides technical assistance. It is officially recognized as an official forest monitoring and inspection tool by MAF. It has been introduced in all of the remaining Provinces. - Monitoring of social or environmental safeguards and impact Monitoring of social and environmental SG and impact As stated in Indicator 7 above, all projects screened their activities in villages through ESMP and/or SEP and found no serious impact on society and environment in their project areas. - Monitoring of illegal activities in forests SUFORD-SU (for the all of 18 Provinces)

	With SUFORD-SU support, DOFI conducted forest crime investigations. The number of investigations peaked in 2016 which coincided with the issuance of the PMO15. After this DOFI, as well as other law enforcement agencies, intensified their activities. As a result, illegal logging was reduced by about 75 % in one year. There was a dip in the number of investigations in 2019 and 2020 due to a break in financing and the Covid-19 pandemic. With ICBF support, official law enforcement statistics compiled by the Department of Forestry Inspection (DoFI) indicate enhanced efficiency of supported law enforcement efforts jointly conducted by different agencies who are members of the Provincial Wildlife Enforcement Network (P-WEN). This resulted in an increase of detected offences 2016/17 and a decrease towards 2021. However, the detected offences increased again in 2022, possibly due to Corona related impacts. A similar trend was detected related to the prosecution of offenders. They increased 2017, followed by a decrease towards 2021 and a subsequent increase again in 2022. PDMS has been operational in the 6 Provinces and in the dry season of 2025 82 plots (118.6 ha) of deforestation were detected and reported to concerned PAFO and DAFO for corrective actions. Most cases are for upland rice followed by tree plantation and commercial agriculture crops. - Conformance of concessions No project is monitoring land concessions in the ERP area mostly due to lack of reliable boundary data based on GIS at the Province level.

Other Non-Carbon benefits and additional information as linked to Monitoring and Evaluation Framework

The following indicators are to meet the monitoring requirements within the revised M&E Framework as endorsed at PC25 to be measured through the ER-Monitoring template.

*Refer to **Annex 4** of the FCPF Monitoring and Evaluation Framework March 2018*

2. Provide **additional details** for the following Non-Carbon Benefits as linked to Monitoring and Evaluation Framework::

<u>Livelihood enhancement and sustainability</u>

2.1. Is your CF program testing ways to sustain and enhance livelihoods (e.g. one of your program objective/s is explicitly targeted at livelihoods; your approach to non-carbon benefits explicitly incorporates livelihoods)? Please provide detailed information to justify.

The Component 2 of GFLL is ”Climate smart agriculture and sustainable livelihoods”. Other projects in the ERP area also have livelihood improvement as one of project components and objectives. I-GFLL/SU-I-GFLL; Promotion of Sustainable and Deforestation-free Agricultural Practices and Value Chains (PSAP),

VFMP; NTFP production and sales, LLL; forest-smart livelihood activities and vocational training, ICBF; Livelihood support and investment in livestock raising, agroforestry and improved rice production.

Biodiversity

2.2. Is your CF program testing ways to conserve biodiversity (e.g. one of your program objective/s is explicitly targeted at biodiversity conservation; your approach to non-carbon benefits explicitly incorporates biodiversity conservation)? Please provide detailed information to justify.

Biodiversity conservation is not listed as a Priority non-carbon benefit in the Lao ERPD, but the ERPD many times refers to biodiversity conservation as an important target of the program in the section on non-carbon benefits and others.

LENS2 supported development of management plans for 15 out of the 24 National Protected Areas in Lao PDR.
ICBF directly supports biodiversity conservation in the two National Protected Areas and from biodiversity surveys through the detection and prosecution of biodiversity-related offenses. It also supports the development of nature-based tourism in the Nam Ha and Nam Khan National Protected Areas.

I-GFLL and LLL also support the Nam Et Phou Loey National Park in boundary demarcation, management planning, and village training, as well as in the detection and prosecution of offenses. In addition, they support the Park Office and, through WCS, in developing nature-based eco-tourism, which provides additional funding for conservation efforts and enhances the importance of biodiversity conservation in society.

Under the ongoing I-GFLL project, one of VFMP's seven models is "Forestry management through village conservation agreements," implemented in all 70 participating villages. Activities include enrichment planting, patrolling, and firebreak construction. Its indicator is "Species diversity maintained or increased in the conservation forest of 40 participating target villages," and species data are collected and reported by patrolling villagers through a dedicated application developed for this purpose.

All projects indirectly support biodiversity conservation through PLUP and village forest management agreements.

Protected/conserved areas

2.3. What amount (in ha) of protected or conserved areas are included in your CF program area? Has this amount increased or decreased in the last year? If so, by how much?

There are 1 National Park and 4 National Protected Areas (NPA) in the GFLL area. Their names and areas are as follows;
Nam Et Phou Loey National Park: 401,720 ha
Nam Ha NPA: 220,755ha
Nam Kan NPA: 145,440ha
Nam Sam NPA: 68,092 ha
Nam Phouy NPA: 177,515 ha
Total Area: 1,013,522 ha
There was no area change in 2024.

Re/afforestation and restoration

2.4. Total forest area re/afforested or restored (in ha) through the program

The total areas of reforestation (mostly non-forest -> RV) and forest restoration (mostly RV -> Forest) during the Reference Period (RP), and 1st and 2nd Reporting Period from FTMs are stated in the table below.

It is observed that both reforestation and restoration don't reach the levels of RP except the forest restoration in the 1st RP. In addition, the performance in the 2nd RP is lower for both changes, especially forest restoration.

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	2005-2010	2010-2015	2019-2021	2022-2024
Reforestation	178,200	148,853	93,493	88,003
Forest restoration	45,869	45,606	61,756	27,868

Finance and Private Sector partnerships

2.5. Update on CF program budget (as originally presented in ERPD), with updated detail on secured (i.e. fully committed) finance, in US$

2.5.1. Detail the amount of finance received (including ER payments) in support of development and delivery of your CF program. Figures should only include secured finance (i.e. fully committed): ex ante (unconfirmed) finance or in-kind contributions should not be included:

Amount (US$)	**Source** (e.g. FCPF, FIP, name of gov't department)	**Date committed** (MM/YY)	**Public or private finance?** (Delete as appropriate)	**ERP, grant, loan, equity or other?** (Delete as appropriate)
$ 16.0 million (including $ 3 million of advance payment made in Jun 2022)	FCPF Carbon Fund (GFLL)	Jun 2022-	Public	ERP RBP
$ 37.6 million	GCF/GIZ (SU-I-GFLL)	Mar 2023 (FAA effective) – Mar 2027	Public	Grant
$1.0 million	GCF/BMZ(SU-I-GFLL)	Mar 2023-Mar 2027	Public	Grant
$15.7 million	WB/GEF/CC (LLL)	Jun 2021- Sep 2027	Public	Loan; 13.7 Grant; 2.0
$ 17.7 million	GCF/GIZ (I-GFLL)	May 2020 (FAA effective)-May 2025	Public	Grant
$ 6.9 million	GIZ/BMZ (I-GFLL)	Apr 2020-May 2025	Public	Grant
$ 7.7 million	KfW/BMZ (VFMP)	Jun 2019-May 2026	Public	Grant
$ 1.3 million	JICA (F-REDD 1&2)	Nov 2015 – Jan 2027	Public	Grant
$ 9.8 million	KfW/BMZ (ICBF)	Jun 2015- Feb 2024	Public	Grant
$ 1.4 million	FCPF (REDD+ Readiness 2nd phase)	Jul 2018-Jun 2022	Public	Grant
$ 3.3 million	SUFORD SU	Nov 2013-Jul 2022	Public	Grant
$ 3.7 million	EPF/World Bank (LENS 2)	Mar 2018-Jun 2021	Public	Grant

Sub-total	$ 51.8+70.3=122.1 M (146% of the necessary international finance ($ 83.5 M) assessed in the ERPD)			
$ 13.5 million	ADB (SRIWSM)*	Oct 2019	Public	Loan
$ 8.5 million	IFAD (PICSA)*	Sep 2019	Public	Loan

*ADB and IFAD projects have co-financing arrangements with GCF/GiZ (I-GFLL)

2.5.2. Not including ER payments from the FCPF Carbon Fund, what is the value of REDD+ ER payments that your CF projects have received, and that your country has received overall? If no ER payments were received, please indicate by entering '0' in the table below.

	Total REDD+ ER payments received to date ($US)
Carbon Fund project/s (i.e. ER payments from sources other than the FCPF Carbon Fund)	0
All other national REDD+ projects	0

2.5.3. How many formal partnerships have been established between your CF program and private sector entities? If no formal partnerships were established, please indicate by entering '0' in the table below.

Formal partnerships are defined as:

- The partnership is based on a written MoU (or equivalent), and/or
- The partnership involves tangible financial exchange/s, and/or
- The partnership involves tangible non-financial exchange/s (e.g. in-kind contributions)

LENS2 and others (NEPL NP; WCS)

To develop or improve coffee growing by households in and around the NEPL National Park, a coffee company (SAFFRON) and WCS has a partnership document "Understanding of mutual benefits concerning partnership between WCS and Saffron Coffee". The partnership aims to develop an organic, shade-grown, wildlife-friendly coffee industry in 5 villages inside the NEPL NP, to reduce illegal encroachment and extraction of national park resources. Currently, 97 HH with about 90 ha of coffee plantation are under this partnership and their average annual income from coffee is $134/HH.

	Established in recent reporting period	Total to date
Number of private sector partnerships involving financial exchange	None	None
Number of private sector partnerships involving non-financial exchange	1	1

3. Other Non-Carbon benefits and additional information

Any other activities that generate or enhance non-carbon benefits in addition to those listed as earlier priority or those that are required for the Monitoring and Evaluation Framework

Policy development

3.1. Is your CF program engaged in contributing to the development, reform and/or implementation of policies to help institutions/people/systems/sectors? Please provide information on the approach taken and any other relevant indicators or outcomes.

The projects listed in this Annex have contributed to the formulation of forest/REDD+ policy and forest related legislation as well as implementation of the policy and legislation in the form of collaborative work with different degrees of input both financial and technical. Main outcomes are listed below;

- Forestry Law amendment in 2019

The Projects supporting the ER program together other Development Partners supported the technical team established for the amendment of Forestry Law in organizing their meetings, drafting and consultations with stakeholders in 2019. The amended Forestry Law was approved by the National Assembly in June 2019. The 2019 Forestry law provides detailed rules on timber harvesting and transportation including legality assurance system, strict rules on conversion of forestland to other land categories, simplified process for harvesting and transportation of planted forest after registration, promotion of REDD+ and forest carbon trade and provisions on village forest management planning.

- Wildlife Law amendment in 2023

The Law on Wild Animals was amended in Jul 2023 with more stringent provisions for protection and management of wildlife in order to meet the international requirements such as CITES. This law addresses ownership of wild animals, recognizing that wild animals in their natural habitat are the property of the nation, managed by the state. It also acknowledges the right of individuals and organizations to utilize wild animals they raise or breed with authorization.

- Prime Minister Decrees on 3 Forest categories; No. 219 on Protected Area in Jun 2023, and No.1 on Protection Forest and No.2 on Production Forest Area both in Jan 2024.

The Prime Minister issued new Decrees on three forest categories as implementation regulations for the relevant provisions of the Forestry Law (2019). These Decrees define objectives, designation authorities and procedures, including registration of designated forestland areas in the natural resource and environment sector, balancing benefits for both people and nature, and improving forest conditions and livelihoods. They also address land tenure rights for those living within the three forest categories and promote sustainable financing mechanisms.

- MAF Instruction No. 4143 Oct 2023 on Village Forest Management Planning

This instruction operationalize the village forest management planning provided in Article 39 of the Forestry Law (2019) by defining steps and rules for village forest management including protection, restoration, tree planting, NTFP collection and planting, and so on.

- Forestry Strategy 2035 Vision to 2050

The Forestry Strategy 2035 with Vision to 2050 was endorsed by the Prime Minister in Jun 2024. It maintains the 70% forest cover target and defines measures and actions to reach the target including promotion of REDD+.

- PM Order No. 20 on Land Tenure in Forestland in Nov 2024 and MAF Instruction No. 4143 on Implementation of PM Order No. 20 in May 2025

The PM Order No. 20 recognize households living in forest areas to obtain land use rights and titles for permanent agricultural and residential purposes. They may also receive land use certificates for forestland for production of NTFP, tree planting, forest regeneration and so on for 50 years and up to 20ha per HH.

The MAF Instruction No. 4143 provides steps and rules for the issuance of land use certificates, the contents of the forest management plan, and the contract for the forestland under the land use certificate.

- PM Decree No. 292 on Carbon Credits

The Prime Minister officially adopted the Carbon Credit Decree on May 28, 2025. This decree establishes a legal framework for the management and monitoring of carbon credit activities, providing rules for carbon markets and aiming to attract investment to support low-carbon development in the country. Sectoral regulations and other regulations for the implementation of this Decree will be continued.

- Updating the National REDD+ Strategy

The MAF Minister approved updating the National REDD+ Strategy 2025, which was approved by MAF Minister in April 2021 and submitted to UNFCCC. Updating work is going on.

Capacity building

3.2. Is your CF program involved in training, education, or provision of capacity building opportunities to increase the capacity of institutions/people/systems? Please provide information on the approach taken and any other relevant indicators or results.

All projects in the ERP area

Numerous training sessions and capacity-building activities related to the GFLL program have been conducted by the projects in the following areas (training on project-specific areas such as project management mechanisms, institutional arrangements, financial management, and so on is not listed);

- FPIC
- PLUP
- ESMP and other safeguards instruments
- CEP and CAP
- Village Forest Management Plans and Agreements
- Use of equipment for law enforcement, including SMART and PDMS
- Biodiversity survey
- Nature-based tourism
- Others

Safeguards Plans and Environmental and Social Management Framework (ESMF)

3.3. Has your CF program realized any Non-Carbon Benefits as a result of implementing the safeguards plans and ESMF? Please provide details on any relevant indicators or outcomes.

In all Projects in the ERP area, a Community Engagement Process or a similar framework for working with villages is developed based on or included in the SG Plans or the ESMF. This contributes to successful outcomes for social indicators, such as participation, especially among women and ethnic minority people, and to positive outcomes for livelihood support activities and income generation. On the other hand, PLUP and village forest management agreements/contracts made through CEP contribute to the protection of primary forest and wildlife habitat and to the restoration of degraded forests.