



# Verification Report

**Version 1.4**

**26-October-2023**

Document Prepared by AENOR INTERNACIONAL S.A.U.

**AENOR**  
Confía

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## Forest Carbon Partnership Facility (FCPF)

### Carbon Fund

## Verification Report (VER)

<b>ER Program Name and Country</b>	Promoting REDD+ through Governance, Forest Landscapes & Livelihoods in Northern Lao PDR
<b>Reporting Period Covered In this Report</b>	01-01-2019 to 31-12-2021
<b>Number of FCPF ERs</b>	3,204,614 tCO <sub>2</sub> e
<b>Number of ERs allocated to the Uncertainty Buffer</b>	665,317 tCO <sub>2</sub> e
<b>Number of ERs allocated to the Reversal Buffer</b>	377,014 tCO <sub>2</sub> e
<b>Number of ERs allocated to the Pooled Reversal Buffer</b>	188,506 tCO <sub>2</sub> e
<b>Name of the VVB</b>	AENOR INTERNACIONAL S.A.U.
<b>Contact information of the VVB</b>	Génova 6. 28004 Madrid - Spain. Telephone +34 914326000 jfuentes@aenor.com www.aenor.com
<b>Report Version</b>	1.4
<b>Date of the Verification Report</b>	26-10-2023
<b>Report Approved by</b>	José Luis Fuentes

# 1. VERIFICATION STATEMENT

The review and cross-check of explanations and justifications included in the Monitoring Report Version 4.1 dated on 26-09-2023 and supporting documents have provided AENOR with sufficient evidence to determine with a reasonable level of assurance the compliance of the reported information with the applicable verification criteria and materiality set out in the Forest Carbon Partnership Facility (FCPF) Methodological Framework (MF), the Validation and Verification Guidelines (VVG) and other applicable normative documents requirements.

The scope covered by the verification includes the ER Program’s crediting period (01-01-2019 to 31-12-2024), the reporting period (01-01-2019 to 31-12-2021), the accounting area (23,054,257 ha), the REDD Country Participant’s Forest Monitoring System, the Centralized REDD+ Programs and Projects Data Management System and the following GHG sources and sinks (REDD+ activities), carbon pools and type of GHGs:

<b>GHG sources and sinks (REDD+ activities)</b>
Emissions from deforestation – Included
Emissions from forest degradation – Included
Removals from forest restoration – Included
Removals from reforestation – Included
<b>Carbon pools</b>
Above-Ground biomass (AGB) – Included
Below-Ground biomass (BGM) – Included
Dead wood – Excluded
Litter – Excluded
Soil Organic Carbon (SOC) – Excluded
<b>GHG</b>
CO <sub>2</sub> – Included
CH <sub>4</sub> – Excluded
N <sub>2</sub> O – Excluded

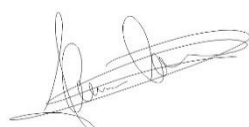
The verification was performed through a combination of document review, interviews, and communications with relevant personnel. Findings were issued, requesting; MAJOR Corrective Action Request (MCAR), MINOR Corrective Action Requests (mCAR) or Observations (OBS) according to the FCPF VVG v2.5 section 11, to ensure compliance with all requirements.

A total of 3 MCAR, 4 mCAR and 7 Observations were raised as part of the verification process. All MCAR and, mCAR were successfully addressed by the ER Program and closed by the VVB and no OBS remain open. These findings are described in Appendix 1 of this report.

AENOR is able to verify with a reasonable level of assurance that the ER program Promoting REDD+ through Governance, Forest Landscapes & Livelihoods in Northern Lao, quantified in accordance with the verification criteria, amount to 4,435,451 tCO<sub>2</sub>e. AENOR verified that the uncertainty buffer ERs amount to 665,317 tCO<sub>2</sub>e and that the reversal buffer ERs amount to 377,014 tCO<sub>2</sub>e. The amount of FCPF Units to be issued would be 3,204,614 tCO<sub>2</sub>e. There are no uncertainties associated with the verification conclusion.

Statement Issuing Date: 26-October-2023

Intended User: World Bank Group, FCPF Carbon Fund Participants



Javier Cócera Cañas  
Team Leader



José Luis Fuentes  
Climate Change Manager

## 2. AGREEMENT

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### 2.1 Level of Assurance

The verification audit assessment was conducted to provide a reasonable level of assurance concerning material misstatements, errors, or omissions in conformance with the verification criteria and scope set out in the FCPF requirements, in conformance with paragraph 31 of the VVG v2.5. The provisions undertaken to ensure such a reasonable level of assurance included a risk assessment of the sources and the magnitude of potential errors, omissions, and misstatements, as required by section 4.4.1 of ISO 14064-3:2006, previous to the elaboration of a sampling/evidence-gathering plan.

Based on the previous provisions and considering the findings raised during the audit, a positive evaluation statement reasonably ensures that the FCPF Program GHG assertion is materially correct and is a fair representation of the GHG data and information provided in the ER Monitoring Report and supporting documents.

### 2.2 Objectives

The objective of audit was to conduct a systematic, independent, and documented process for the evaluation of the GHG assertion made by the Emission Reduction Program in Lao PDR, for the reporting period from 01-01-2019 to 31-12-2021, against the FCPF criteria applicable to verification and to determine if the reported information in the ER Monitoring Report is in compliance to the agreed criteria and free from material errors, omissions, or misstatements.

The general objectives of the verification, as required by paragraph 32 of the VVG v2.5, were:

- Review of the ER Monitoring Report and supporting information to confirm the correctness of presented information;
- Identify if the methodological steps and data are publicly available in accordance with applicable criteria;
- Assess whether the start date of the crediting period proposed by the ER Program is in compliance with the definition provided in the FCPF Glossary of terms;
- Assess the extent to which the reported ERs have been reported with a transparent and coherent step-by-step process that enables reconstruction and have meet the requirements of applicable criteria;
- Assess the extent to which the GHG emissions/Emission Reductions are materially accurate;
- Identify sources of uncertainty due to both random and systematic errors related with any sources of bias that can impact the estimate of the total ERs and determine whether the ER Program has conducted the uncertainty analysis in compliance applicable criteria;
- Assess the National Forest Monitoring System (NFMS) of the ER Program and validate that there are controls for sources of potential errors, omissions, and misstatements in place;
- Identify components of the NFMS that require attention and/or adjustment in future monitoring and reporting or identify areas of risk of future non-compliance.

The specific objectives of the verification, as required by paragraph 34 of the VVG v2.5, were:

- Assess the extent to which the methodologies and methods used to estimate GHG emissions and removals during the Reporting Period are consistent with the Reference Level and with the Monitoring Plan as described in the ER Monitoring Report;
- Assess the extent to which the ER Monitoring Report includes a complete and accurate report, to the extent possible, on the implementation of its strategy to mitigate and/or minimize potential Displacement and on any on changes in major drivers in the ER Accounting Area;

- Assess the extent to which the ER Monitoring Report contains a complete and accurate report on the mitigation, to the extent possible, of significant risks of Reversals identified in the assessment, and addresses the sustainability of ERs;
- Determine whether the ER Program has quantified ERs allocated to the Uncertainty, Reversal, and Pooled Reversal Buffer during the Reporting Period in compliance with the Methodological Framework and other applicable criteria;
- Assess the extent to which systems to avoid that ERs generated under the ER Program have not been counted or compensated for more than once have been adequately implemented and confirm that issuance has not occurred in other known registries;
- Determine whether the national or centralized REDD+ Programs and Projects Data Management System are implemented and operated in compliance with the Methodological Framework and other applicable criteria. For that purpose, a specific audit of the operations of the REDD+ Programs and Projects Data Management System was carried, as per indicator 37.4 of the MF.

## 2.3 Criteria

The audit assessment was carried against the criteria set for verification by the following documents:

- FCPF Methodological Framework, v3, April 2020.
- Validation and Verification Guidelines v2.5 August 2021.
- Buffer Guidelines v3.1 May 2022.
- Guidelines on the application of the Methodological Framework.
  1. Use of Interpolation of Data in Relation to the Reference Period of an ER Program v1 June 2016.
  2. Technical Corrections to GHG Emissions and Removals Reported in the Reference Period v2 November 2020.
  3. The Definition of Reporting Periods of Emission Reduction Programs v1 November 2018.
  4. Uncertainty Analysis of Emission Reductions v1.0 November 2020.
- Process Guidelines v5.3 June 2023.
- Glossary of Terms v2.2 May, 2022.
- Guidelines contained in the ER Monitoring Report Template (v2.5), the Validation Report Template (v1.2, September 2021) and the Verification Report Template (v1.3, August 2022);
- ISO 14064-3:2006
- ISO 14065:2013
- ISO 14066:2011

The following documents will be considered as documents that provide acceptable methods for satisfying requirements provided in the above criteria, as per VVG paragraph 38:

- 2006 IPCC Guidelines;
- 2013 IPCC Wetlands Supplement;
- 2019 refinement to the 2006 IPCC Guidelines;
- GFOI 2016 Methods and Guidance Document;
- FCPF Guidance Notes.

Specifically, the following criteria and indicators of the MF were applicable to the verification, as per paragraph 37 of the VVG 2.5:

Criteria/indicator	Topic
6	Data availability
7, 8, 9.1	Identification and address source(s) of uncertainty
9.2, 9.3	Estimation of residual uncertainty
14.1	Consistency of monitored estimates with RL

17.3, 17.4	Monitoring and reporting of displacement mitigation
18.2	Addressing reversals
19	Account for reversals
22	Calculation of Emission Reductions
23	Double counting
37	REDD projects and programs DMS

## 2.4 Scope

The scope of verification included, as per section 8.4 of the VVG v2.5:

- The Crediting Period of the ER Program;
- The selected Reporting Period;
- The ER Program Accounting Area as defined in the ER Program's Final ER Program Document (ER-PD);
- The GHG sources and sinks associated with any of the REDD+ activities accounted for as required by the MF;
- The carbon pools and GHGs to be accounted for as required by the MF;
- The REDD Country Participant's NFMS as described in the ER Monitoring Report;
- The Centralized REDD+ Program and Projects Data Management System (DMS) as described in the Monitoring Report.

## 2.5 Materiality

The materiality threshold of the verification, as required section 8.5 of the VVG v2.5, was:

- Quantitative: the threshold for materiality with respect to the aggregate of errors, omissions, and misrepresentations relative to the total reported GHG emission and removals was one percent (1%). (Under-estimation of the Reference Level was not considered a material discrepancy).
- Qualitative: any issue related to management system and controls, poorly managed documentation, and non-compliance with the applicable requirements of the MF and other applicable criteria; and any errors in reporting of factual information in the ER Monitoring Report as required by the FCPF MF.

The verification process based on the desk review found that there are not quantitative nor qualitative material discrepancies affecting the Reference Level and the Reference Level setting. The verification process based on the desk review found that quantitative nor qualitative material discrepancies affecting the GHG assertion and leading to overestimations of the reported ERs.

### 3. METHODOLOGY AND PLANNING

#### 3.1 Verification team

Name	Role	Activities				
		Desk review	Site visit	Reporting	Supervision	Technical review
Javier Cócera	Team Leader	X	X	X	X	
Carlos Jiménez	Validator/verifier auditor	X		X		
Daniel Bermejo	Validator/verifier auditor	X		X		
Adrián Vidal	Validator/verifier auditor	X		X		
José Luis Fuentes	Reviewer				X	X
Pablo Moreno	Auditor in trainee	X		X		
Bouangeunh Khensabab	Local expert	X	X			

#### 3.2 Verification schedule

Tasks	Deliverable	Date	Responsible
1. Kick-off meeting	Minute of KOM	09.05.2023	All parties
2. Reception of ERMR	ERMR	16.05.2023	FMT
3. Initial Desk Review	Preliminary relevant findings, if applicable	30.05.2023	AENOR
4. Draft Sampling Plan	Preliminary sampling plan	05.06.2023	AENOR
5. Sampling Plan reviewed by FMT	Sampling plan with comments	09.06.2023	AENOR/ FMT
6. Sampling plan	Sampling plan	13.06.2023	AENOR
7. Draft Audit Plan	Preliminary audit plan	13.06.2023	AENOR
8. Audit Plan reviewed by REDD Country and FMT	Audit plan with comments	20.06.2023	AENOR/ Country participant / FMT
9. Audit Plan	Audit plan	26.06.2023	AENOR
10. Country visit / office meetings	Visit	31-07 to 01-08 2023	AENOR/ Country participant/ FMT
11. Issuance of the list of findings	List of findings	08.08.2023	AENOR
12. Review of the country's answer to the list of findings	Second round of findings, if applicable. If other rounds are needed, two weeks will be added for the review by the country, and two weeks to the	29.08.2023	Country participant is responsible to response the round of findings, and after the answer, AENOR is responsible to review the Country participant responses

	review and response by AENOR		
13. Draft validation and verification reports preparation	Preliminary reports	26.09.2023	AENOR
14. Technical review	Draft validation and verification reports	03.10.2023	AENOR
15. Draft validation and verification reports revised by Country Participant and FMT	Plan with comments	10.10.2023	Country participant / FMT
16. Issuance of validation and verification report after revision	Final validation and verification reports	17.10.2023	AENOR

### 3.3 Methodology description

The verification was performed simultaneously with the validation of the ER Program, through a combination of document review, interviews, and communications with relevant personnel. The conformity was evaluated against the criteria described in section 2.3.

A sampling/evidence-gathering plan was developed for the validation and first verification of the ER Program, as required by section 9.4 of the VVG v2.5. A risk assessment of the sources and the magnitude of potential errors, omissions, and misstatements was carried out, as required by section 4.4.1 of ISO 14064-3:2006, previous to the elaboration of the sampling/evidence-gathering plan. The sampling/evidence-gathering plan was developed considering all the criteria set by section 4.4.3 of ISO 14064-3:2006:

- a) Agreed level of assurance;
- b) validation and verification scope;
- c) validation and verification criteria;
- d) amount and type of evidence (qualitative and quantitative) necessary to achieve the agreed level of assurance;
- e) methodologies for determining representative samples; and
- f) risk of potential errors, omissions, or misstatements.

All evidence requested and reviewed was crosschecked in order to evaluate the consistency of information in the ER Monitoring Report. All statements, claims and procedures described within the scope of the verification included in the ER Monitoring Report were part of the assessment of the sampling/evidence-gathering plan and all the reviewed supporting evidence were evaluated against the ER Monitoring Report.

The magnitude of the sampling was based on the previous experience of AENOR as VVB and ensure the achievement of reasonable level of assurance. The sampling/evidence-gathering plan was open to be modified based on any new risks or materiality concerns that could potentially lead to errors, omissions or misstatements identified during the verification process.

The audit team carried out a deep and meticulous review of the calculation spreadsheets to verify the correct application of the used methodology (formulae, equations) and checked that data required to calculate the GHG emission was appropriately provided.

All documentation provided by the Country Participant was assessed against the applicable criteria described in section 2.3. Several MCAR, mCAR and OBS were raised and submitted to the Country Participant to ensure compliance with all requirements, which addressed them either by providing to the audit team with the requested information or by making the appropriate corrections. Updated versions



of the documentation were submitted by the Country Participant and the audit team reassessed them against the guidance documentation. This process was repeated iteratively until all MCAR were fully closed (there were no standing mCAR from validation).

All findings, 3 MCAR, 4 mCAR and 7 OBS, issued by AENOR's audit team during the verification process have been closed. The findings issued during the verification process and the inputs for their closure are described in Appendix 1 of this report.

### 3.4 Review of documentation

A detailed review of all documentation was conducted to ensure consistency with and identify any deviation from FCPF requirements. Initial review was focused on the ER Monitoring Report, specially, in relation to the reported ER, the methodological approach for their determination and its consistency with the Reference Level, the accuracy and availability of data and parameters used for calculations, the estimated uncertainty, the design of the DMS, displacement, reversals, and risk of double counting.

In addition to the ER Monitoring Report, all documentation cited in it was download and reviewed in order to verify its public accessibility and to crosschecked with the statements made in the ER Monitoring Report. These documents include, among others, calculation spreadsheets used for the determination of emission factors (EF) and estimation of the ER, GIS data (satellite images and remote sensing analysis) used for determination of activity data (AD), and additional documents related to monitoring procedures, literature sources of parameters, etc.

As result of the desk review of documents and interviews, the audit team required additional documentation to the Country Participant to verify certain statements or have further clarification regarding GHG assertions, data and parameters used or employed procedures. All the additional documents requested were added to the later versions of the ER Monitoring Report, as required by criterion 6 of the MF.

For a listing of all documents provided by the Country Participant and review for the verification, see Appendix 2.

AENOR confirms that sufficient evidence was presented for all GHG assertions and that there is a clear audit trail that contains the evidence and records that validate the stated figures in this verification report since:

- Sufficient evidence available: the Country Participant has provided the 100% of data used in the calculations to achieve the final estimated amount of GHG emissions and removals.
- Nature of evidence: the raw data were collected from reliable sources. They are detailed in the program documents and have been provided to the audit team.
- Cross-checked evidence: AENOR cross-checked the collected information through interviews with stakeholders and reproducing calculations.

### 3.5 REDD Country Visit

In accordance with FCPF Carbon Fund Facility Management Team (FMT) and the Country Participant, and provided that a reasonable level of assurance was achievable by other means, AENOR as VVB carried out a "hybrid" audit that ensured the achievement of the assurance level required by the FCPF.

Thus, the Audit was performed an onsite visit, and many aspects were assessed onsite by the team leader and the local expert, who visited the Country in July and August 2023. The rest of the team reviewed all documents remotely and they were able to attend the meeting remotely.

Two technical sessions (one for the validation and one for the verification) were carried on July 31<sup>st</sup> and August 1<sup>st</sup> of 2023, with Country Participant's staff involved in the management of the ER Program and the elaboration of the ER Monitoring Report. The aim of the sessions was to cross-check and verify with the responsible staff of each area the procedures described in the ER Monitoring Report and additional documents, as well as to clarify doubts from the audit team, prior to the issuance of the first round of

findings. The following tables include the list of all Country Participant's staff that participated in the technical sessions, who gathered in the DOF Meeting Room and the FIPD.

**ប្រសិទ្ធភាព**  
 កម្មវិធីប្រជុំ ក្នុងបន្ទប់ ការពិភាក្សាបណ្តោះអាសន្នសម្រាប់ប្រតិបត្តិការប្រតិបត្តិការប្រតិបត្តិការប្រតិបត្តិការ

ថ្ងៃទី ៣១ ខែ កើត ២០២២ ឪ ព្រឹក ១០ ព្រឹក ១០ ព្រឹក

ល/ក	ឈ្មោះ ឈ្មោះ និង គ្រួសារ	តំណែង/ប្រតិបត្តិការ	ស្ថាប័ន	លេខ ទូរស័ព្ទ	អ៊ីមែល	ហត្ថលេខា
1	អ៊ូ គី គី	លើកកម្ពស់	ក្រុមហ៊ុន			
2	អ៊ូ គី គី	ស្រាវជ្រាវ	—	99466829		
3	អ៊ូ គី គី	ស្រាវជ្រាវ	—	99964030		
4	អ៊ូ គី គី	ស្រាវជ្រាវ	—	88663942		
5	អ៊ូ គី គី	ស្រាវជ្រាវ	—	22230678		
6	Jeremy FERAND	MAV advisor	F-REDD 2	977 29201		
7	Xayavank INTHAPHYA	NFWS TA	—	5150392		
8	Eiji Egashira	CTA	F-REDD 2	9544 1570		
9	Bonnyedeth	country director	RiCOFIC	202 1210		
10	អ៊ូ គី គី	ស្រាវជ្រាវ	ក្រុមហ៊ុន	889 0446		

**ប្រសិទ្ធភាព**  
 កម្មវិធីប្រជុំ ក្នុងបន្ទប់ ការពិភាក្សាបណ្តោះអាសន្នសម្រាប់ប្រតិបត្តិការប្រតិបត្តិការប្រតិបត្តិការប្រតិបត្តិការ

ថ្ងៃទី ៣១ ខែ កើត ២០២២ ឪ ព្រឹក ១០ ព្រឹក ១០ ព្រឹក

ល/ក	ឈ្មោះ ឈ្មោះ និង គ្រួសារ	តំណែង/ប្រតិបត្តិការ	ស្ថាប័ន	លេខ ទូរស័ព្ទ	អ៊ីមែល	ហត្ថលេខា
1	Sambeth	Deputy FIPD	FIPD	55333290	sambeth@pms.org	
2	NELSON GAPARE	CARBON FINANCE	WORLD BANK	+360990054	ngapare@worldbank.org	
3	JANIER COCERA	Auditor / VVB	AENOR	+34 699 05 9220	jcocera@aenor.com	
4	Pounggeath Khensatol	Auditor	AENOR	5550 9165	khensatol@pms.org	
5	KUCK PIMMAYAK	NFWS	NFWS	55566933	khensatol@pms.org	
6	Songthong Vorngak	NFWS	SFLL	84345910	songthong@mail.com	
7	Ms. Phongsy Lethachan	Technical	DOF	59324477	phongsy@pms.org	
8	អ៊ូ គី គី	ស្រាវជ្រាវ	ក្រុមហ៊ុន	5590 8006		
9	អ៊ូ គី គី	ស្រាវជ្រាវ	ក្រុមហ៊ុន	889 0446		
10	អ៊ូ គី គី	ស្រាវជ្រាវ	ក្រុមហ៊ុន	59210202	np@pms.org	

ໃບລິខັດບຽນ  
ກອງປະຊຸມ ກ່ຽວກັບ ການຕອບຄໍາຖາມຜິດກວ່າສອບຖົງໃນສີ່ຊຸດ ການຕິດຕາມການຫຼຸດລົງອາກອນເຮືອນເກົາ

ໃນວັນທີ 31 ກໍລະກົດ 2023 ຢູ່ ສຳຄະນະຊຸມໃຫຍ່ກົມປ່າໄມ້

ລ/ດ No.	ຊື່ ນາມ ບຸກຄົນ Name and Family	ຕຳແໜ່ງ Responsibility	ອົງກອນ Organization	ເບີໂທ Telephone	ອີເມວ E-Mail	ຮູບ Signature
1	ນ. ອຸນຊິນ ສິມສິນ	ຮັບຜິດຊອບ	ໂພດ 2 ອົງກອນ	582163838		
2	ນ. ວຽງ ສິມສິນ	ຜູ້ປຸງ ທຳມະຊາດ	ອົງກອນ ວຽງ ສິມສິນ	83241222		
3	ນ. ສິມສິນ ສິມສິນ	ຮັບຜິດຊອບ	ກົມ ອຸປະກອນ	2237732	Praymsi.itv@gmail.com	
4	ນ. ສິມສິນ ສິມສິນ	PHA	GFL	54551623	laogpat2014@gmail.com	
5	ນ. ສິມສິນ ສິມສິນ	ຮັບຜິດຊອບ	ອົງກອນ	28227153		
6	ນ. ສິມສິນ ສິມສິນ	ຮັບຜິດຊອບ	ວິໄນ	22281224		
7	ນ. ສິມສິນ ສິມສິນ	ຮັບຜິດຊອບ	GFL	55540661		
8	ນ. ສິມສິນ ສິມສິນ	ຮັບຜິດຊອບ	ພັນທຸກ REDD+	23295699		
9						
10						

ໃບລິຂັດບຽນ  
ກອງປະຊຸມ ກ່ຽວກັບ ການຕອບຄໍາຖາມຜິດກວ່າສອບຖົງໃນສີ່ຊຸດ ການຕິດຕາມການຫຼຸດລົງອາກອນເຮືອນເກົາ

ໃນວັນທີ 1 ສິງຫ 2023 ຢູ່ ສຳຄະນະຊຸມໃຫຍ່ກົມປ່າໄມ້

ລ/ດ No.	ຊື່ ນາມ ບຸກຄົນ Name and Family	ຕຳແໜ່ງ Responsibility	ອົງກອນ Organization	ເບີໂທ Telephone	ອີເມວ E-Mail	ຮູບ Signature
1	ນ. ສິມສິນ ສິມສິນ	ຮັບຜິດຊອບ	ກົມປ່າໄມ້			
2	ນ. ສິມສິນ ສິມສິນ	ຮັບຜິດຊອບ	ກົມປ່າໄມ້	5786870		
3	ນ. ສິມສິນ ສິມສິນ	ຮັບຜິດຊອບ	ພັນທຸກ REDD+	39210202		
4	ນ. ອຸນຊິນ ສິມສິນ	ຮັບຜິດຊອບ	ໂພດ 2 ອົງກອນ	582163838		
5	ນ. ສິມສິນ ສິມສິນ	ຮັບຜິດຊອບ	ອົງກອນ	28227153		
6	ນ. ສິມສິນ ສິມສິນ	PHA	GFL	54551623	laogpat2014@gmail.com	
7	ນ. ສິມສິນ ສິມສິນ	NFMS-HMR	GFL	205550661		
8	Jeremy FERRAND	MRV advisor	F-REDD2	772 23 201		
9	Xamsavanh BUTHANHYA	NFMS TA	F-REDD2	51383392		
10	E.J. Egeshira	CTA	F-REDD2	9524152		

ໃບລິຂັດບຽນ  
ກອງປະຊຸມ ກ່ຽວກັບ ການຕອບຄໍາຖາມຜິດກວ່າສອບຖົງໃນສີ່ຊຸດ ການຕິດຕາມການຫຼຸດລົງອາກອນເຮືອນເກົາ

ໃນວັນທີ 1 ສິງຫ 2023 ຢູ່ ສຳຄະນະຊຸມໃຫຍ່ກົມປ່າໄມ້

ລ/ດ No.	ຊື່ ນາມ ບຸກຄົນ Name and Family	ຕຳແໜ່ງ Responsibility	ອົງກອນ Organization	ເບີໂທ Telephone	ອີເມວ E-Mail	ຮູບ Signature
1	BUCK BOUMIXAY	WB	AIRMS	55566933	boumixay@worldbank.org	
2	JAMES COCERO	Analyst	WORLD BANK	434 684 0340	worldbank.org	
3	ນ. ສິມສິນ ສິມສິນ	Auditor	DEMUR	5550 8165	boumixay@worldbank.org	
4	NELSON GAPARE	WB	WB		ngapare@worldbank.org	
5	Boungpone Sanythong	DOB	DOF	98059875		
6	ນ. ສິມສິນ ສິມສິນ	ຮັບຜິດຊອບ	ພັນທຸກ REDD+	23295699		
7						
8						
9						
10						

The program covered during the audit was the following:

Activity & Information	Date	Location
<p><b>Opening meeting</b></p> <p>Introduction and scope of the Audit. Review of meeting agenda. Generalities.</p>		
<p><b>Technical meetings (validation):</b></p> <p>1. <u>Interviews with stakeholders</u></p> <p>See chart below</p> <p>2. <u>Data availability</u></p> <p>Source and origin of the data</p> <p>3. <u>Uncertainties of the calculation</u></p> <p>Identification and address source(s) of uncertainty (identify, minimize, quantify remaining). Criterion 7, 8, 9.1 MF.</p>	31/07/2023	DOF Meeting Room
<p><b>Technical session (verification):</b></p> <p>1. <u>Implementation and operation of the ER program during the reporting period</u></p> <p>Monitoring and reporting of displacement mitigation Criterion 17.3, 17.4 MF.</p> <p>2. <u>System for measurement, monitoring and reporting emissions and removals occurring within the monitoring period</u></p> <p>Consistency of monitored estimates with RL 14.1 MF.</p> <p>3. <u>Data and parameters</u></p> <p>Key data and methods detailed and available for reconstruction of the reported emissions and removals. Criterion 6 MF.</p> <p>4. <u>Quantification of emission reductions</u></p> <p>Calculation of Emission Reductions. Criterion 22 MF</p> <p>5. <u>Uncertainty of the estimate of emission reductions</u></p> <p>Identification and address source(s) of uncertainty (identify, minimize, quantify remaining). Criterion 7, 8, 9.1 MF.</p> <p>Estimation of residual uncertainty. Criterion 9.2, 9.3 MF.</p> <p>6. <u>Transfer of title to ERs</u></p> <p>REDD projects and programs DMS. Criterion 37.</p> <p>Double counting. Criterion 23 MF.</p> <p>7. <u>Reversals</u></p> <p>Addressing and account for reversals Criterion 18.2 and 19 MF</p>	01/08/2023	FIPD
<p><b>Closing Meeting:</b></p> <p>Remarks, clarifications, questions, following steps.</p>		

## 4. SUMMARY OF FINDINGS

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### 4.1 Implementation status of the ER Program and update on drivers

AENOR has reviewed the Emission Reduction Program in Lao PDR (Promoting REDD+ through Governance, Forest Landscapes & Livelihoods in Northern Lao PDR) and all supporting documents and deems they are complete and accurate. The verification team confirms that sufficient information has been included to explain any changes in major drivers in the ER Accounting Area and the status of the implementation of the strategy to mitigate and minimize potential displacement.

### 4.2 System for measurement, monitoring and reporting emissions and removals occurring within the monitoring period

#### 4.2.1 Forest Monitoring System

AENOR confirms that the NFMS (National Forest Monitoring System) of the Emission Reduction Program in Lao PDR is functioning and can produce high quality data. The documents reviewed by the verification team demonstrate the necessary controls to address relevant sources of potential errors, omissions, and misstatements are in place. AENOR also confirms that the NFMS has been developed in accordance with the requirements of the FCPF Methodological Framework.

#### 4.2.2 Measurement, monitoring and reporting approach

AENOR assessed section 2.2 (Measurement, monitoring and reporting approach) of the Emission Reduction Program in Lao PDR Monitoring Report and attests that the equations and methods used for measuring, monitoring, and reporting are correct and consistent with the Reference Level.

In addition, AENOR confirms that the link among the equation parameters and the parameters under fixed data and parameters and monitored data and parameters are appropriate and correct.

### 4.3 Fixed Data and Parameters

After review of all information, procedures, calculations, and supporting documentation, AENOR confirms that the fixed data and parameters are applied consistently in line with the ER Monitoring Report template (see sections 4.8.1 Activity data and 4.8.2 Emission Factors, in AENOR's Validation Report of the Emission Reduction Program in Lao PDR) and are consistent with the reported fixed data and parameters described in Annex 4.

AENOR confirms that fixed data and parameters are made publicly available according to criterion 6 of the MF, since links to access all sources are provided in the ER Monitoring Report.

### 4.4 Monitored Data and Parameters

AENOR confirms that all data and parameters subject to monitoring have been reported and are free of errors and material misstatements. Additionally, the verification team confirms that the reported data is in line with the guidelines provided in the ER Monitoring Report template.

AENOR reproduced all spreadsheets' information to check the correctness of each step of monitoring from measurement to data transfer and calculation, and in line with IPCC methods used to estimate emissions and removals for Measurement, Monitoring and Reporting (MMR). AENOR confirms the reliability of the source and nature of the reported evidence justified the selection of the monitored data and parameters; and that have been reported in line with the verification criteria.

AENOR also confirms that methodological steps and data were publicly available in accordance with applicable criteria, and the open links to the multiple sources are provided in the Emission Reduction Program in Lao PDR Monitoring Report. AENOR confirms that the evidence provided by the ER MR is sufficient and appropriate to determine the GHG reductions and removals.

AENOR confirms that the Emission Reduction Program in Lao PDR monitors emissions by sources and removals by sinks included in the scope using the same methods to those used to set the Reference Level.

AENOR confirms that ER Monitoring Report states as monitoring period from 01-01-2019 to 31-12-2021, which matches with the Reporting Period.

Assessment details are as follows per monitored parameters:

<b>Parameter</b>	$A(j, i)_{MMR}$ - Activity Data (AD) for the Reporting Period 2019-2021 (3 years)
<b>Free of Material Misstatement</b>	Yes
<b>Reported Appropriately</b>	Yes
<b>Assessment Details</b>	<p>This parameter represents: Area of REDD+ strata change over the Reporting Period (2019-2021) is provided by the overlay of the stratified Forest Type Maps and adjusted by a sample-based estimation. Twenty possible changes describe four activities: Deforestation, Forest Degradation, Forest Restoration and Reforestation.</p> <ul style="list-style-type: none"> <li>• Deforestation: loss of forest carbon stock due to conversion of a forest land stratum to non-forest land stratum.</li> <li>• 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.</li> <li>• Forest Restoration: upward shift of a forest/land stratum with lower carbon stock to another forest/land stratum with higher carbon stock.</li> <li>• Reforestation: gain of forest carbon stock due to conversion of non-forest land stratum to a forest land stratum</li> </ul> <p>ERP Lao PDR presented information about data sources for estimating Activity Data, methods for mapping land-use and land-use change (including sampling design and size, assessment and labelling, analysis and Activity Data calculation), QA/QC procedures applied, values applied, and uncertainty associated with these parameters.</p>

	<p>The verification team conducted an independent analysis of similar remotely sensed data to confirm that the source data was reliable and appropriate. Additionally, the validation team was able to ensure that LULC classification was appropriate and followed the defined classification system.</p> <p>The validation and verification team conducted independent data checks for each step necessary for the quantification of these parameters. Activity data parameters were examined using remotely sense imagery to ensure accurate classification of LULC classification. Spatial analyses conducted in ESRI GIS confirmed the geographical boundary, ensuring that all activity data fell within the Accounting Area and that the Accounting Area was computed correctly. Independent data checks were used to ensure that the quantification of the parameters was performed correctly. This included an independent review of the literature cited in reference to the applied equations. The uncertainty associated with this parameter was independently calculated after a thorough review of the calculation spreadsheets. The calculation of uncertainty applied the methodology from Olofsson, et al. (2014), and the validation and verification team reviewed and confirmed that the estimation was correct and without any error.</p>
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<b>Parameter</b>	RegrowthRate , Reversal and Doublecounting(stumps) <i>Adjustments to emissions and removals for the Reporting Period to account for previous change in cover class</i>
<b>Free of Material Misstatement</b>	Yes
<b>Reported Appropriately</b>	Yes
<b>Assessment Details</b>	<p>This parameter represents: Adjustments to emissions and removals for the Reporting Period to account for previous change in cover class.</p> <p>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).</p> <p>QA/QC procedures applied, values applied, and uncertainty associated with these parameters. An internal review of the calculation steps is conducted by an external expert. Verification team has assessed the parameter and crosschecked with the source of data an description referenced in the section. The QA/QC procedures have been reviewed and the reproduction of the calculations has been followed to crosscheck the origin of the data and the transposition of the parameters. The validation and verification team reviewed and confirmed that the estimation was correct and without any error.</p>

<b>Parameter</b>	<i>Emissions<sub>logging</sub></i> Emissions from logging for the Monitoring Period
<b>Free of Material Misstatement</b>	Yes
<b>Reported Appropriately</b>	Yes
<b>Assessment Details</b>	<p>This parameter represents: Emissions from logging estimated from the February 2023 field stump survey in the six northern provinces of the ER Program.</p> <p>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.</p> <p>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.</p> <p>The verification team has reviewed the SOP referenced in the MR as well as the applicability of the procedure within the calculations and the MR.</p>



## 5. VERIFICATION OF GHG ASSERTION

### 5.1 ER Program Reference level for the Reporting Period

The Reference level for the Reporting Period, according to the ER Monitoring Report, and, as reported in AENOR's Validation Report, is as follows:

Year of Reporting period	Average annual historical emissions from deforestation over the Reference Period (tCO <sub>2</sub> e/yr)	If applicable, average annual historical emissions from forest degradation over the Reference Period (tCO <sub>2</sub> e/yr)	If applicable, average annual historical removals by sinks over the Reference Period (tCO <sub>2</sub> e/yr)	Adjustment, if applicable (tCO <sub>2</sub> e/yr)	Reference level (tCO <sub>2</sub> e/yr)
2019	3,748,645	6,760,730	-1,964,406	n.a.	8,544,969
2020	3,748,645	6,760,730	-1,964,406	n.a.	8,544,969
2021	3,748,645	6,760,730	-1,964,406	n.a.	8,544,969
<b>Total</b>	<b>11,245,935</b>	<b>20,282,190</b>	<b>-5,893,218</b>	<b>n.a.</b>	<b>25,634,907</b>

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

Year of Reporting period	Average annual historical emissions from deforestation over the Reference Period (tCO <sub>2</sub> e/yr)	If applicable, average annual historical emissions from forest degradation over the Reference Period (tCO <sub>2</sub> e/yr)	If applicable, average annual historical removals by sinks over the Reference Period (tCO <sub>2</sub> e/yr)	Adjustment, if applicable (tCO <sub>2</sub> e/yr)	Reference level (tCO <sub>2</sub> e/yr)
2019	3,015,639	10,627,760	-1,337,395	n.a.	12,306,004
2020	3,015,639	10,627,760	-1,337,395	n.a.	12,306,004
2021	3,015,639	10,627,760	-1,337,395	n.a.	12,306,004
<b>Total</b>	<b>9,046,917</b>	<b>31,883,281</b>	<b>-4,012,185</b>	<b>n.a.</b>	<b>36,918,012</b>

## 5.2 ER program emissions by sources and removals by sinks

After the review of all ERMR-Lao PDR information, procedures, calculations, and supporting documentation, AENOR confirms that the equations and methods used for measuring, monitoring, and reporting are correct and consistent with the Reference Level, free of material misstatements, errors, and omissions.

The Country Participant presented the estimated emissions by sources and removals by sinks included in the ER Program. The Country Participant also prepared spreadsheets with all the calculation processes. It can be publicly accessed, and the links are provided in the ER Monitoring Report.

AENOR reviewed the entire estimation process to confirm that is in with the MF and the verification criteria. AENOR was able to reconstruct ER estimate with given calculation spreadsheets. The formulae applied were correct to reproduce the final estimate of ER. The reported ERs are materially accurate. AENOR confirms that the ERs have been reported following a transparent and coherent step-by-step process that enabled the reconstruction of estimates.

Year of Monitoring/Reporting Period	Emissions from deforestation (tCO <sub>2</sub> e/yr)	If applicable, emissions from forest degradation (tCO <sub>2</sub> e/yr)	If applicable, removals by sinks (tCO <sub>2</sub> e/yr)	Net emissions and removals (tCO <sub>2</sub> e/yr)
2019	3,718,168	8,951,203	-1,841,850	10,827,521
2020	3,718,168	8,951,203	-1,841,850	10,827,521
2021	3,718,168	8,951,203	-1,841,850	10,827,521
<b>Total</b>	<b>11,154,503</b>	<b>26,853,610</b>	<b>-5,525,551</b>	<b>32,482,562</b>

## 5.3 Uncertainty of Emission Reductions

### 5.3.1 Uncertainty analysis

The Country Participant identified and assessed through a stepwise approach, the sources of uncertainty of the Emission Reduction in Activity Data (measurement, representativeness, sampling), Emission Factors (DBH measurement, H measurement, plot delineation, wood density estimation, biomass allometric model, sampling, and in other parameters such as Carbon Fraction, root-to-shoot ratios, etc.), as well as in Integration. This approach was the same as for the uncertainty analysis of Reference Level.

The audit team recalculated the uncertainty statistics independently to confirm the accuracy of the reported precision, reviewed assumptions and sources associated with parameters used in the quantification, and reviewed uncertainty of the Emission Reductions due to random and systematic errors. AENOR confirms that the sources of uncertainty are systematically identified and correctly assessed in the Measurement Monitoring, and Reporting system, and addressed according to verification criteria, including the Guideline on the application of the Methodological Framework Number 4.

Additionally, AENOR confirms that there is an appropriate process for reducing uncertainty in the activity data and emission factors, where possible: systematic errors are minimized through the implementation of a consistent and comprehensive set of standard operating procedures, including a set of quality assessment and quality control processes; and random errors and other uncertainties are minimized to the extent practical based on the assessment of their relative contribution to the overall uncertainty of the emissions and removals.

### **5.3.2 Uncertainty of the estimate of Emission Reductions**

The Country Participant estimated the uncertainty of aggregated Emission Reductions based on Monte Carlo analysis, same as for the Reference Level. A total of 10,000 iterations were calculated for the cumulative emissions of the monitoring period. The uncertainty estimate for the Emission Reductions strictly follows the guidelines of Approach 2: Monte Carlo simulation from 2006 IPCC Volume 1 General Guidance and Reporting Chapter 3 as well as the Guideline on the application of the Methodological Framework Number 4.

The verification team reviewed and confirmed that elements mentioned in 5.3.1 related to the estimation of uncertainty for the ER were all addressed in the provided Uncertainty spreadsheet. AENOR also confirmed that the estimations were correct and that the results matched the Reference Level included in the ER Monitoring Report. Therefore, AENOR concludes that the application of Monte Carlo simulation for the quantification of Uncertainty of the Emission Reductions was performed correctly and free of errors and misstatements.

### **5.3.3 Sensitivity analysis and identification of areas of improvement of the MRV system**

In order to identify the relative contribution of each parameter to overall uncertainty, a sensitivity analysis was conducted by the Country Participant in which the uncertainty of each parameter was selectively removed prior to running Monte Carlo simulations and combining uncertainties.

AENOR confirms that uncertainty of AD and EF used in Reference Level setting is quantified in a consistent way.

AENOR confirmed that the underlying sources of error in data and methods for integrated measurements of deforestation, degradation and enhancements were combined into a single combined uncertainty estimate and are reported at the two-tailed 90% confidence level, obtaining a result of 15% of for the uncertainty discount.

AENOR reviewed and confirmed that above-mentioned (section 5.3.1) elements related to the sensitivity analysis were all addressed in the provided calculation spreadsheets. The validation team also confirmed that the estimations were free of errors and the results matched the sensitivity analysis included in the ER Monitoring Report. Therefore, AENOR concludes that the sensitivity analysis was performed correctly.

## **5.4 Transfer of Title to ERs**

### **5.4.1 Ability to transfer title**

According to the information reported in the ER Monitoring Period and the evidence provided during the audit 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. Consultations on this issue with land holders and provincial agencies (PAFOs and DAFOs) in the six ER Program provinces were also done. Currently, no titles to the ERs from the ER Program were contested during this 1st reporting period. The MAF does not foresee such risks for the 2nd reporting period. Thus, there is no existence of unclear or contested title to ERs during the Reporting Period, and th 100% of ERs belong to the State.

### **5.4.2 Program and Projects Data Management System**

AENOR confirms that the ER-MR Lao PDR has a fully documented DMS in place that includes specific provisions to ensure transparency and avoid multiple claims of ER Title. AENOR confirms that Operational guidance are in place and comply with the requirements of the MF.

An audit of the operations of the DMS by AENOR was not deemed necessary as per the instructions of the FMT.

### 5.4.3 Double counted ERs

AENOR confirms that systems to effectively detect and prevent double counting and/or compensation of ER generated has been properly designed and put in place and that, during the audit, no evidence of ER double-counted or compensated have been found.

No ERs have been 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 nor ERs have been set-aside to meet Reversal management requirements under other GHG accounting schemes.

## 5.5 Reversals

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

This section is not applicable since this is the first verification of the Emission Reduction Program in Lao-PDR.

### 5.5.2 Quantification of Reversals during the Reporting Period

This section is not applicable since this is the first verification of the Emission Reduction Program in Lao-PDR.

### 5.5.3 Reversal Risk Assessment and Buffer ERs

Risk Factor	Risk indicators – Assessment by VVB	Resulting reversal risk set-aside percentage
Default risk	N/A	10%
Lack of broad and sustained stakeholder support	Reversal Risk is considered low: 10% discount  The ER Program interventions are designed to assist and engage directly with village communities, and also with private businesses.  AENOR considers that the information is appropriated.	0%
Lack of institutional capacities and/or ineffective vertical/cross sectorial coordination	Reversal Risk is considered medium: 5% discount  Along with the significant progress Lao PDR has made in REDD+ in the recent years, the ER Program has been gaining increasing support and understanding by the Government agencies and partners in the country. High levels of commitment, leading to effective participation and coordination, have been secured from central and provincial government leaders and staff involved in the ER Program. Various capacity building activities have been conducted, based on respective capacity building plans. AENOR confirms that understanding improves the acceptance of the stakeholders about that activities and project could be implemented, coordinated, and efficient.	5%

<p><b>Lack of long term effectiveness in addressing underlying drivers</b></p>	<p>Reversal Risk is considered low: 5% discount</p> <p>there has been significant progress in developing the enabling environment to generate ERs since the acceptance of the ER Program.</p> <p>The Government has renewed its commitment to the forestry sector and improving forest sector governance.</p>	<p>0%</p>
<p><b>Exposure and vulnerability to natural disturbances</b></p>	<p>Reversal Risk is considered low: 5% discount</p> <p>The ER Program area is not prone to many natural disturbances (mostly natural disasters in the ER Program’s context). None of the three approaches identified natural disasters as a major driver, and there are no information that indicate significant changes in this analysis.</p> <p>No catastrophic events have been reported that severely reversed or risked the implementation of the ER Program. Forest fires usually due to the slash-and-burn fires that spread elsewhere, are addressed by ER Program interventions</p> <p>AENOR considers that the information and the rating is appropriated.</p>	<p>0%</p>
<p><b>Total reversal risk set-aside percentage</b></p>		<p>15%</p>
<p><b>Total reversal risk set-aside percentage from ER-PD or previous monitoring report (whichever is more recent)</b></p>		<p>23%</p>

## 5.6 Calculation of emission reductions

AENOR confirms that the ERMR Lao-PDR has quantified ERs in compliance with the FCPF Methodological Framework, the ER Monitoring Report template, and the rest of applicable criteria, including FCPF Guidelines.

AENOR confirms that the evidence provided allow to assess the GHG assertion made in the ER Monitoring Report as sufficient, without material discrepancy, and with a reasonable level of assurance, with respect to material misstatements, errors, or omissions.

The results are as follows:

		2019	2020	2021	Total
A	Reference Level (tCO <sub>2</sub> -e) (Section 5.1)	12,306,004	12,306,004	12,306,004	36,918,012
B	Net emissions and removals under the ER	10,827,521	10,827,521	10,827,521	32,482,562

		2019	2020	2021	Total
	<b>Program (tCO<sub>2</sub>-e) (Section 5.2)</b>				
<b>C</b>	<b>Emission Reductions during Reporting Period (tCO<sub>2</sub>-e) (A-B)</b>	1,478,483	1,478,483	1,478,483	4,435,451
<b>D</b>	<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)</b>	(89,111)	(89,111)	(89,111)	(267,333)
<b>E</b>	<b>Number of Emission Reductions estimated using measurement approaches (C-D)</b>	1,567,595	1,567,595	1,567,595	4,702,784
<b>F</b>	<b>Percentage of ERs (A) for which the ability to transfer Title to ERs is clear or uncontested (Section 5.4.1)</b>	100%	100%	100%	100%
<b>G</b>	<b>ERs for which the ability to transfer Title to ERs is unclear or contested because they are sold, assigned or otherwise used by any other entity for sale, public relations, compliance or any other purpose (Section 5.4.3)</b>	0	0	0	0
<b>H</b>	<b>Total ERs (D+E)*F-G</b>	1,478,483	1,478,483	1,478,483	4,435,451
<b>I</b>	<b>Conservativeness Factor to reflect the level of uncertainty from non-proxy based approaches associated with the estimation of ERs during the Crediting Period (Section 5.3.2)</b>	15%	15%	15%	15%
<b>J</b>	<b>Emission Reductions allocated to the Uncertainty Buffer (0.15*D/C*H)+(I*E/C*H)</b>	221,772	221,772	221,772	665,317

		2019	2020	2021	Total
<b>K</b>	<b>Total reversal risk set-aside percentage applied to the ER program (Section 5.5)</b>	15%	15%	15%	15%
<b>L</b>	<b>Emission Reductions allocated to the Reversal Buffer (H-J)*(K-5%)</b>	125,671	125,671	125,671	377,014
<b>M</b>	<b>Emission Reductions allocated to the Pooled Reversal Buffer (H-J)*5%</b>	62,835	62,835	62,835	188,506
<b>N</b>	<b>Number of FCPF ERs (H-J-L-M)</b>	1,068,205	1,068,205	1,068,205	3,204,614

## 6. NON-COMPLIANCES AND OBSERVATIONS

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To ensure conformance of the ER Program with all requirements set by the FCFC and the audit criteria (section 2.3), the validation team issued findings in accordance with section 11 of the VVG v2.5 in the following cases:

- **Major Corrective Action Request (MCAR):** i) the evidence provided to demonstrate conformity is insufficient, unclear, or not transparent and may lead to a material error, omission, or misstatement, and/or a breakdown in the systems delivery; ii) underlying assumptions used to develop the reported estimates are not supported by data; iii) material errors, omissions or misstatements have been made in applying assumptions, in data or calculations; or i) non-compliance with verification criteria.
- **Minor Corrective Action Requests (mCAR):** i) the evidence provided to demonstrate conformity is insufficient, unclear, or not transparent, but does not lead to a material error, omission, or misstatement, and/or a breakdown in the systems delivery; or ii) non-material errors, omissions or misstatements have been made in applying assumptions, in data or calculations;
- **Observations (OBS):** i) there is no objective evidence to prove that there is a non-conformity, but the VVB observes practices and/or methods that could result in future MCAR and mCAR; or ii) the VVB wishes to identify an area of the Forest Monitoring System that requires attention and/or adjustment in future monitoring and reporting.

The findings were submitted by the audit team in a single document, in which the Country Participant was able to offer answers to each of them and list supporting documents provided.

The Country Participant made the requested corrections and provided the audit team with updated versions of the ER Monitoring Report, which the audit team reassessed against the guidance documentation. The audit team either closed the opened findings when corrections, evidence and answers were satisfactory to comply with the audit criteria or asked for further corrections or clarifications. This process was repeated iteratively until all MCAR were suitably closed, as required by paragraph 62 of the VVG v2.5.

All findings, 3 MCAR, 4 mCAR and 7 OBS, issued by AENOR's audit team during the joint validation and first verification process have been closed. There are no non-compliances pending for the subsequent crediting period. Appendix 1 includes the description of all findings issued and the inputs for their closure.



*APPENDIX 1: OVERVIEW OF NON-COMPLIANCES & OBSERVATIONS ISSUED DURING THE VERIFICATION BY THE VERIFICATION TEAM*

**Non Conformities (NCs)**

<b>NC ID: Major</b>	<b>01</b>	<b>Date: 08/08/2023</b>
<b>Description of NC</b>		
<p>During the whole document, some links which reference certain evidence are broken. Therefore, the audit team cannot check and review the information within these external sources. Some of these links are:</p> <ul style="list-style-type: none"> <li>• Link of Ministry of Agriculture and forestry in page 8</li> <li>• The links of the Ministry of Agriculture and Forestry in Table 6 and those under subsection "Processes for collecting, processing, consolidating and reporting GHG data and information" are broken.</li> <li>• The link of the Ministry of Agriculture and Forestry in page 30 and the link for Standard Operation Procedures (SOP) for the Terrestrial Carbon Measurement in page 32 are broken.</li> <li>• The link for the SOP fore terrestrial carbon measurement in pages 32, 40 and 47 or section 8.3</li> <li>• The link in section 2.2.2: <a href="http://www.ipcc-nggip.iges.or.jp/EFDB/main.php">http://www.ipcc-nggip.iges.or.jp/EFDB/main.php</a></li> </ul>		
<b>Project Participant response</b>		<b>Date: 29/08/2023</b>
<ul style="list-style-type: none"> <li>• We confirmed that the Ministry of Agriculture and Forestry web-server is accessible now, and the links under <a href="http://dof.maf.gov.la...">http://dof.maf.gov.la...</a> are all active and correct.</li> <li>• Alternatively, we provide the documents through Google Drive &lt;<a href="https://drive.google.com/drive/folders/1aLSFDLDI2z_VqFiD3IMltoyMFAqytopD?usp=drive_link">https://drive.google.com/drive/folders/1aLSFDLDI2z_VqFiD3IMltoyMFAqytopD?usp=drive_link</a>&gt;.</li> <li>• Meanwhile, we confirmed that the link in section 2.2.2: <a href="http://www.ipcc-nggip.iges.or.jp/EFDB/main.php">http://www.ipcc-nggip.iges.or.jp/EFDB/main.php</a> is valid.</li> </ul>		
<b>Documentation provided by the Project Participant</b>		
<b>VVB Assessment</b>		<b>Date: 20/09/2023</b>
<p>The links have been updated and are accessible. Therefore, MCAR 01 is closed.</p>		

<b>NC ID: minor</b>	<b>02</b>	<b>Date: 08/08/2023</b>
<b>Description of NC</b>		
<p>The MR template has specific requirements for each section as well as specific sections for each information. However, the following sections or topics do not comply with the MR template:</p> <ol style="list-style-type: none"> <li>1. The information reported just under section 1 should be moved to the following section 1.1, which is about Implementation status of the ER Program and changes compared to the ER-PD. Complementary, according to the template, this section could only occupy 2 pages as maximum.</li> <li>2. In section 1.2, the template indicates: “Discuss changes in major drivers and how these might affect the Displacement risks associated with the ER Program and any lessons from the ER Program’s efforts to mitigate potential Displacement. “. However, this requirement is not met.</li> <li>3. In section 2.1, please, include further information about “Systems and processes that ensure the accuracy of the data and information” as indicated in the template</li> </ol>		
<b>Project Participant response</b>		<b>Date: 29/08/2023</b>
<ol style="list-style-type: none"> <li>1. We moved the information just under Section 1 to under Section 1.1. We understand there is no longer restrictions on the length of any section of the document as per the latest ERMR template (v.2.5, May 2023).</li> <li>2. At the on-line discussion on 14 August 2023, we confirmed “...any lessons from the ER Program’s efforts to mitigate potential Displacement.” need to be further described. We added additional texts in Section 1.2 which summarizes the key lessons and efforts to mitigate potential Displacement.</li> <li>3. At the on-line discussion on 14 August 2023, we agreed on the principle of avoiding excessive duplications. We updated the text by explaining a little more on the nature of the approach, data and information used.</li> </ol>		
<b>Documentation provided by the Project Participant</b>		
<b>VVB Assessment</b>		<b>Date: 20/09/2023</b>
<ol style="list-style-type: none"> <li>1. Section 1.1 has been updated and deemed correct.</li> <li>2. Section 1.2 has been updated and deemed correct.</li> <li>3. Section 2.1 has been updated and deemed correct.</li> </ol> <p>Therefore, mCAR 02 is closed.</p>		

<b>NC ID: minor</b>	<b>03</b>	<b>Date: 08/08/2023</b>
<b>Description of NC</b>		

The MR template has specific requirements for each section as well as specific sections for each information. However, the following sections or topics do not comply with the MR template:

1. In section 4.1, the template indicates: “Please provide the Reference Level for the ER Program for the Reporting Period covered in this report as provided in the most recent version of the ER Program Document and/or Annex 4 of the MR. If there are differences, explain these differences and whether Technical Corrections have been applied”, however, this requirement is not fulfilled.
2. Regarding section 4.1, please provide further explanations and a detailed comparison between the RL and explain the technical corrections prior to the calculations quantification.
3. According to the template, in section 4.1 and 4.2, Provide sample calculations using the actual values from section 3 above with sufficient information to allow others to reproduce the calculation. Also, Regarding the reporting period, (step-by-step description of the calculation) should clearly describe the steps through which the pro-rata allocation has occurred and how the ERs for the Reporting Period have been calculated. However, the MR does not provide enough information to comply with the requirements.

**Project Participant response**

**Date: 29/08/2023**

1. Lao PDR applies technical correction and the details are provided in Annex 4, with further technical details in the ‘technical note’ (link provided in the footnote). We added a table of the RL before technical correction (ERPD 2018) which helps to compare the differences in values. In short, two corrections have been made:
  - a. Updated carbon stock values using the 3rd National Forest Inventory and the 2nd Regenerating Vegetation survey data which provides more accurate estimates.
  - b. Use of a specific map (the continuous change detection and classification spectral mixture analysis or CCDC-SMA script) that better analyzes the dynamics of shifting cultivation and therefore provides a better stratification for forest degradation for the sample-based estimation.
2. We added explanations and a comparison between the RL of the EROD and its technical corrections.
3. We provided some explanations and examples corresponding to the steps described in Section 2.2.2.

**Documentation provided by the Project Participant**

**VVB Assessment**

**Date: 20/09/2023**

1. Annex 4 provides adequate information regarding the Reference Level and the Technical Corrections.
2. Section 4.1 has been updated and deemed correct.
3. Sections 2.2.2, 4.1 and 4.2 have been updated and deemed correct.

Therefore mCAR 03 is closed.

<b>NC ID: minor</b>	<b>04</b>	<b>Date: 16/08/2023</b>
<b>Description of NC</b>		
<p>The MR template has specific requirements for each section as well as specific sections for each information. However, the following sections or topics do not comply with the MR template:</p> <ol style="list-style-type: none"> <li>1. In section 5.2, within the Monte Carlo table, the source of assumption shall be reported transparently. However, this requirement is not met since the information is not reported properly.</li> <li>2. In section 6.2, according to the template: "Please describe the design and operation by the ER Program and/or the host country of an appropriate arrangement to avoid having multiple claims to an ER Title. Discuss the design and provide evidence of the implementation and operation of a Program and Projects Data Management System in accordance with the requirements of the Methodological Framework. If applicable, highlight any changes compared to what was anticipated in the ER-PD and explain why these changes were made". However, this requirement is not met.</li> <li>3. In section 6.3, the template indicates: "Beyond the use and operation of the WB Emission Reduction Transaction Registry (CATS – Carbon Assets Tracking System) to issue and transfer the ER units generated under the current Program, discuss, if that's the case, the design and provide evidence of the implementation and operation of a national ER transaction registry". However, this requirement is not met.</li> <li>4. In section 6.3, according to the template, the following information is missing: "arrangement to ensure that any ERs from REDD+ activities under the ER Program are not generated more than once; and that any ERs from REDD+ activities under the ER Program sold and transferred under an ERPA are not used again by any entity for sale, public relations, compliance or any other purpose"</li> </ol>		
<b>Project Participant response</b>		<b>Date: 29/08/2023</b>
<ol style="list-style-type: none"> <li>1. We filled in the column 'Assumption'.</li> <li>2. We provided a brief update of the progress that Lao PDR has been making since the ERPD.</li> <li>3. In accordance with Table 1 of the Validation and verification Guidelines 2.4 (August 2021), section 6.3 on ER transaction registry is not part of scope of VVB review. These sections have been reviewed by the World Bank task team and legal department. For your reference, as described, there is no intention other than to use the WB CATS. There is no national ER transaction registry for Lao PDR.</li> <li>4. As above or in accordance with Table 1 of the Validation and verification Guidelines 2.4 (August 2021), section 6.3 on ER transaction registry is not part of scope of VVB review. These sections have been reviewed by the World Bank task team and legal department.</li> </ol>		
<b>Documentation provided by the Project Participant</b>		
<b>VVB Assessment</b>		<b>Date: 20/09/2023</b>

1. Section 5.2 has been updated and deemed correct.  
 2. Section 6.2 has been updated and deemed correct.  
 3. The justification is deemed correct.  
 4. The justification is deemed correct.

Therefore, mCAR 04 is closed.

<b>NC ID: Major</b>	<b>05</b>	<b>Date: 08/08/2023</b>
<b>Description of NC</b>		
<p>The VVB has identified the following errors, or, the following sections are not correct according to the Methodological Framework from the FCPF:</p> <ul style="list-style-type: none"> <li>• In section 1.1, according to the criteria 17.3, By the time of verification, the ER Program has implemented its strategy to mitigate and/or minimize potential Displacement. However, this information is not clear in the MR</li> <li>• In section 1.2, according to the criteria 17.4, the following information is not met: “any lessons from the ER Program’s efforts to mitigate potential Displacement”</li> <li>• In section 2.2.2, and according to the criteria 5.1, the ER Program identifies the IPCC methods used to estimate emissions and removals for Reference Level setting and Measurement, Monitoring and reporting (MMR). However, within the different tables of values, the correlation between forest class (MR) and the ecological zone or domain from the IPCC is not sometimes traceable.</li> <li>• In section 2.2.2, and according to the criteria 6, Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online. In cases where the country’s or ER Program’s policies exempt sources of information from being publicly disclosed or shared, the information shall be made available to the third party validation and verification body and a rationale is provided for not making these data publicly available. In these cases, reasonable efforts shall be made to make summary data publicly available to enable reconstruction.. However, section 2.2.2 is not very clear and the information provided does not comply with the MFw criteria.</li> <li>• In section 4.2, and according to the criteria 6, Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online. In cases where the country’s or ER Program’s policies exempt sources of information from being publicly disclosed or shared, the information shall be made available to the third party validation and verification body and a rationale is provided for not making these data publicly available. In these cases, reasonable efforts shall be made to make summary data publicly available to enable reconstruction. However, the information in this section is not clear at all, and the VVB is requesting for further information and clarifications.</li> </ul>		
<b>Project Participant response</b>		<b>Date: 29/08/2023</b>

<ul style="list-style-type: none"> <li>- In addition to the description in <i>Section 1.1.b. Update on the strategy to mitigate and/or minimize potential displacement</i>, we provided additional texts in Section 1.2 to supplements the analysis.</li> <li>- As responded in mCAR 02, we added additional texts in Section 1.2 which summarizes the key lessons and efforts to mitigate potential Displacement.</li> <li>- In Section 2.2.2, Table 10, a column was added to provide more traceability to the specific R/S ratio values according to the forest type and a similar forest or ecozone in the referenced IPCC tables.</li> <li>- Section 2.2.2 was improved by outlining the various steps of the carbon accounting which are described in section 2.2.1. In addition, information on the calculation itself is provided by indicating which spreadsheet is used.</li> <li>- Section 4.2 was revised by adding explanations using the information already provided in the sections 2.2.1, 2.2.2 and 3 in a concise manner.</li> </ul>	
<b>Documentation provided by the Project Participant</b>	
<b>VVB Assessment</b>	
<b>Date: 20/09/2023</b>	
<ul style="list-style-type: none"> <li>• Sections 1.1 and 1.2 have been updated and deemed correct.</li> <li>• Section 1.2 has been updated and deemed correct.</li> <li>• Section 2.2.2 has been updated and deemed correct.</li> <li>• Section 2.2.2 has been updated and deemed correct.</li> <li>• Section 4.2 has been updated and deemed correct.</li> </ul> <p>Therefore, MCAR 05 is closed.</p>	

<b>NC ID: Major</b>	<b>06</b>	<b>Date: 08/08/2023</b>
<b>Description of NC</b>		
<p>The following information is missing by contrasting the MR and the FCPF guidelines on uncertainty analysis:</p> <ol style="list-style-type: none"> <li>1. In section 4.2, REDD Countries shall conduct an uncertainty analysis for the Emission Reduction estimation in the following way. Managing and reducing uncertainty of activity data and emission factors by minimizing (i) systematic errors (bias) through the implementation of Standard Operating Procedures (SOPs) and Quality Assurance / Quality Control (QA/QC) Procedures and (ii) random errors by other means (e.g. sampling intensification).</li> <li>2. In section 5.1, biases must be avoided as far as practical, and this can be avoided through a correct sample design which can be ensured through adequate QA/QC processes. However, this information is missing or is not clear.</li> <li>3. In section 5.1, please, determine within the contribution column if the risk is random or bias.</li> </ol>		
<b>Project Participant response</b>		<b>Date: 29/08/2023</b>

<ol style="list-style-type: none"> <li>1. At the on-line discussion on 14 August 2023, the V.V.B. confirmed this as a mistake, i.e. Section 4.2. does not require description on uncertainty analysis.</li> <li>2. After the on-line discussion on 14 August 2023, the V.V.B. suggested the Lao team to provide further explanations on the points below. We updated the descriptions for each of the items accordingly:             <ol style="list-style-type: none"> <li>a. Further information about the QA/QC process or the SOP is requested for Measurement;</li> <li>b. For the representativeness, please provide a little bit more of information to determine that the uncertainty level is low;</li> <li>c. The sampling for activity data requires more information within the description; and</li> <li>d. For approach 3, the information is not very clear when talking about “adjustments”</li> </ol> </li> <li>3. We followed the table format of the template and filled in the ‘Contribution to overall uncertainty (High/Low)’ column including information on bias and random.</li> </ol>	
<b>Documentation provided by the Project Participant</b>	
<b>VVB Assessment</b>	
<b>Date: 20/09/2023</b>	
<ol style="list-style-type: none"> <li>1. The justification is deemed correct.</li> <li>2. Section 5.1 has been updated and deemed correct.</li> <li>3. Section 5.1 has been updated and deemed correct.</li> </ol> <p>Therefore, MCAR 06 is closed.</p>	

<b>NC ID: minor</b>	<b>07</b>	<b>Date: 08/08/2023</b>
<b>Description of NC</b>		
Please, in section 5.1, conclude if extrapolation is conducted, and if YES, they should justify if this will lead to an overestimation of ER and apply corrective measures. These errors may be avoided with QA/QC procedures		
<b>Project Participant response</b>		<b>Date: 29/08/2023</b>
Explanation was conducted, however, we believe it does not lead to an overestimation of the Emission Reductions. We clarified this by adding descriptions.		
<b>Documentation provided by the Project Participant</b>		
<b>VVB Assessment</b>		
<b>Date: 20/09/2023</b>		
Section 5.1 has been updated and deemed correct.		
Therefore, mCAR 07 is closed.		

**Observations (OBSs)**

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<b>Obs ID:</b>	<b>01</b>	<b>Date: 08/08/2023</b>
<b>Description of the CL</b>		
It is stated in the initial table, that the current version, used for the VVB to review the document is the “draft version 3.1”. however, this is not a draft, but a final version sent to validate/verify.		
<b>Project Participant response</b>		<b>Date: 29/08/2023</b>
We deleted ‘draft’.		
<b>Documentation provided by the Project participant</b>		
<b>VVB Assessment</b>		<b>Date: 20/09/2023</b>
The table at the front page has been updated and deemed correct. Therefore, OBS 01 is closed.		



<b>Obs ID:</b>	<b>02</b>	<b>Date: 08/08/2023</b>
<b>Description of the CL</b>		
<p>Please provide the following explanations:</p> <ol style="list-style-type: none"> <li>1. explain the meaning of GOL in section 1.1</li> <li>2. in section 2.1, please provide brief explanations about the SOPs explained in the section, processes for collecting, processing etc.</li> <li>3. please, provide further information about the LAO NFMS Roadmap in section 2.1</li> <li>4. please, provide further explanations to determine that the contribution in section 5.1 is categorized as “low”.</li> <li>5. Please, explain the meaning of ODK in section 5.1</li> <li>6. Please, explain the following: “ The lack of QA/QC procedures for the selection of the values may lead to systematic errors, however such possibility is expected to be low considering the application of IPCC default value” stated in section 5.1</li> <li>7. Please, under sections 7.1 and 7.2, provide explanations to leave in blank both sections.</li> </ol>		
<b>Project Participant response</b>		<b>Date: 29/08/2023</b>
<ol style="list-style-type: none"> <li>1. GOL is an abbreviation for Government of Lao PDR. We updated the MR.</li> <li>2. A brief introduction of each SOP added.</li> <li>3. A brief summary of the NFMS Roadmap provided in footnote.</li> <li>4. We updated the table on “Sources of uncertainty” in Section 5.1 by providing further explanations.</li> <li>5. Open Data Kit (ODK). A brief explanation provided in footnote.</li> <li>6. We modified the text as follows: “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”.</li> <li>7. As this is the first MR, there is no reporting of the reversals, thus 7.1. and 7.2 are not applicable and left intentionally blank.</li> </ol>		
<b>Documentation provided by the Project participant</b>		
<b>VVB Assessment</b>		<b>Date: 20/09/2023</b>
<ol style="list-style-type: none"> <li>1. List of acronyms has been updated and deemed correct.</li> <li>2. Section 2.1 has been updated and deemed correct.</li> <li>3. Section 2.1 has been updated and deemed correct.</li> <li>4. Section 5.1 has been updated and deemed correct.</li> <li>5. Section 5.1 has been updated and deemed correct.</li> <li>6. Section 5.1 has been updated and deemed correct.</li> <li>7. The justification is deemed correct.</li> </ol>		

Therefore, OBS 02 is closed.

<b>Obs ID:</b>	<b>03</b>	<b>Date: 08/08/2023</b>
<b>Description of the CL</b>		
<p>Please provide further information about the following:</p> <ol style="list-style-type: none"> <li>1. In section 2.1, provide further information about the enforcement and participation of DOFI Provincial government and private sector in table 3.</li> <li>2. In section 2.2, it is stated that the implementation of the NFI follows a SOP as well as the SOP to guide the production of the forest type maps. Please provide further information about those topics. Also provide the SOP for the NFI.</li> <li>3. In section 5.1, please provide further information about the contribution of sampling within the table</li> <li>4. About the risk to exposure and vulnerability to natural disturbances in section 7.3</li> </ol>		
<b>Project Participant response</b>		<b>Date: 29/08/2023</b>
<ol style="list-style-type: none"> <li>1. We added some information for DOFI, Provincial Government, private sector and local community.</li> <li>2. Brief descriptions about the two SOPs abovementioned, namely SOP for the Terrestrial Carbon Measurement and SOP for Forest Type Map development are provided in a table under Section 2.1. <i>Processes for collecting, processing, consolidating and reporting GHG data and information</i>. The links and file data are also provided (see MCAR 01).</li> <li>3. We updated the table on “Sources of uncertainty” in Section 5.1 including ‘Sampling’ under Activity Data, by providing further explanations (also see MCAR 06).</li> <li>4. Additional information are provided, referring to the drivers analysis conducted for the ERPDP.</li> </ol>		
<b>Documentation provided by the Project participant</b>		
<b>VVB Assessment</b>		<b>Date: 20/09/2023</b>
<ol style="list-style-type: none"> <li>1. Section 2.1 has been updated and deemed correct.</li> <li>2. Section 2.1 has been updated and deemed correct. The evidence has been provided.</li> <li>3. Section 5.1 has been updated and deemed correct.</li> <li>4. Section 7.3 has been updated and deemed correct.</li> </ol> <p>Therefore, OBS 03 is closed.</p>		

<b>Obs ID:</b>	<b>04</b>	<b>Date: 08/08/2023</b>
<b>Description of the CL</b>		
<p>In section 3.1, some values for degradation have applied a correction factor which modify the value in some of the spreadsheet tabs. The calculation through this factor is explained in a different tab than the summary tab in the spreadsheet. Please, include the final degradation value within the final or summary tab indicating the source of this degradation after the correction factor.</p>		
<b>Project Participant response</b>		<b>Date: 29/08/2023</b>
<p>References to the specific spreadsheet, tab and cells are now added into Section 3.1. In addition, the spreadsheet MMR1_AD_ER_Calculation_20230413.xlsx has been revised with more explanation in the tab "toread" for the calculation of forest degradation, and the values outlined in Section 3.1 are now clearly linked to the tab "Total".</p>		
<b>Documentation provided by the Project participant</b>		
<p></p>		
<b>VVB Assessment</b>		<b>Date: 20/09/2023</b>
<p>Section 3.1 and the calculation spreadsheet have been updated and deemed correct. Therefore, OBS 04 is closed.</p>		

<b>Obs ID:</b>	<b>05</b>	<b>Date: 08/08/2023</b>
<b>Description of the CL</b>		
<p>Please provide the following evidence:</p> <ol style="list-style-type: none"> <li>1. provide the evidence of the agreement between the DOF and the VCS project which will not generate ER credits</li> <li>2. please, provide the PLUP 2.0 guideline on participatory Land Use Planning (PLUP)</li> </ol>		
<b>Project Participant response</b>		<b>Date: 29/08/2023</b>
<ol style="list-style-type: none"> <li>1. As responded in mCAR 04, this falls outside the scope of the assessment and therefore, a response is not required. However, the evidence letters were provided confidentially, for the V.V.B's reference.</li> <li>2. We inserted a link to the PLUP 2.0 guideline.</li> </ol>		
<b>Documentation provided by the Project participant</b>		
<b>VVB Assessment</b>		<b>Date: 20/09/2023</b>
<ol style="list-style-type: none"> <li>1. The justification is deemed correct.</li> <li>2. Section 1.2 has been updated and deemed correct.</li> </ol> <p>Therefore, OBS 05 is closed.</p>		

<b>Obs ID:</b>	<b>06</b>	<b>Date: 08/08/2023</b>								
<b>Description of the CL</b>										
<p>Regarding the Equations, the following topics need to be addressed:</p> <ol style="list-style-type: none"> <li>in the Vietnam equation, please, explain if the correction factors have been used.</li> <li>In section 2.2.2, equation 1c, the parameters described under the equation do not correspond to the parameters found in the equation.</li> <li>In section 3.1, within the first parameter, sub-section “source of data or description (...)”, Bamboo (B), entions that the value of the northern central Coast Region of Vietnam is Used, quoting the scientific evidence, P10 table 1.6. afther checking such evidence, the audit team did not find the correlation between the value 24.4tc/ha of the MR and the evidence mentioned: <table border="1" data-bbox="475 831 1129 902"> <tr> <td>6. Bamboos</td> <td>14 ± 10%</td> <td>13 ± 9%</td> <td>13 ± 7%</td> <td>15 ± 11%</td> </tr> </table> </li> <li>In some of the sections it is stated that the period for some calculations is referred to 2019-2021, while in other sections they refer to 2019-2022. Please, unify. For example, page 41. Same for the period 2010-2015 whereas in the spreadsheet sometimes is mentioned 2011-2015</li> <li>In some parameters, the value for degradation differs from the final tab of the spreadsheets and the different tables of the section 3.2 of the MR. according to the visit, and as it was explained by the technical team, it is due to a technical correction and the value is in other tabs. Please, unify the parameters or homogenize the source of these values.</li> </ol>						6. Bamboos	14 ± 10%	13 ± 9%	13 ± 7%	15 ± 11%
6. Bamboos	14 ± 10%	13 ± 9%	13 ± 7%	15 ± 11%						
<b>Project Participant response</b>				<b>Date: 29/08/2023</b>						
<ol style="list-style-type: none"> <li>We have not applied correction factors for the Vietnam’s allometric equation. We clarified this in Section 3.1, parameter <math>EF_{ij}</math> and <math>RF_{ij}</math> – Emission and Removal factor</li> <li>The parameters for equation 1c were corrected by revising the AGB, adding the BGB and deleting the n.</li> <li>The source of the value is revised to Table 3.6, p.66 of the linked document. In addition, steps for the calculation for deriving the value 24.4 tC/ha for Bamboo were added.</li> <li>We believe that “2019–2021” is consistently used for describing the monitoring period. At the on-line discussion on 14 August 2023, the Lao team understood that the year “2022” for the forest type map might be causing confusion. We added a footnote under Table 5 to explain that the Forest Type Map 2022 represents the land and forest cover of 2022/01/01. With regards to the confusion of the period 2010-2015 and 2011-2015 in the spreadsheet, the spreadsheet “MMR1_AD_ER_Calculation_20230413” was revised.</li> <li>See our response to Obs ID 04.</li> </ol>										
<b>Documentation provided by the Project participant</b>										
<b>VVB Assessment</b>				<b>Date: 20/09/2023</b>						

1. The section has been clarified.
2. The parameters have been corrected
3. The parameter and the source have been updated and deemed correct
4. The sections have been updated to avoid confusions with the dates.
5. The issue has been solved and it is deemed correct.

Therefore, OBS 06 is closed

<b>Obs ID:</b>	<b>07</b>	<b>Date: 22/08/2023</b>
<b>Description of the CL</b>		
<ol style="list-style-type: none"> <li>1. Please, provide the origin of the net emissions annual average 8,533,067tco2e/year of page 69 in annex 4</li> <li>2. Please improve the comparison and explanations between the original RL, showing the comparison between the data and the values in annex 4.</li> <li>3. Please, provide the origin of the value for the parameter: <i>Emissions<sub>logging</sub></i> Emissions from logging for the Reference level in section 8.3</li> <li>4. Please, provide the source of the table quantification of the uncertainty of the reference level of page 115 in section 12.2</li> </ol>		
<b>Project Participant response</b>		<b>Date: 29/08/2023</b>
<p>It seems that the VVB is using a file different from the ones DOF submitted to the FMT on 15 May 2023. We understand that the four comments here are on all for Annex 4. But the page numbers are incorrect.</p> <ol style="list-style-type: none"> <li>1. While re-checking the entire calculation, we found an error in the logging emission estimates for the RL. In the updated Annex 4 and the main report, the logging emission was corrected to 815,195 tCO2e/year (from 803,295 tCO2e/year). We corrected Table 1 of Annex 4 accordingly and clarified that 8,544,969 tCO2e/year is an aggregation of Total Emission 10,509,375 tCO2e/year and Total Removals -1,964,406 tCO2e/year. Table 2 was also corrected.</li> <li>2. See our response to mCAR 03. In section 8.3, the origin of the value for the parameter <i>Emissions<sub>logging</sub></i> is now clearly indicating where it can be found in the spreadsheet. Furthermore, the spreadsheet “emissions from logging.xlsx” has been revised by adding a tab “StumpWork_2ndNFI FCPF CF” that includes only the stumps found in the 6 provinces of the ER program. This tab indicates specifically the data and calculations that are relevant for the ERMR.</li> <li>3. In section 8.3, the origin of the value for the parameter <i>Emissions<sub>logging</sub></i> is now clearly indicating where it can be found in the spreadsheet. Furthermore, the spreadsheet “emissions from logging.xlsx” has been revised by adding a tab “StumpWork_2ndNFI FCPF CF” that includes only the stumps found in the 6 provinces of the ER program. This tab indicates therefore specifically the data and calculations that are relevant for the ER MR.</li> <li>4. The source is now provided with the spreadsheet name and link and the specific tab and rows where the values are.</li> </ol>		
<b>Documentation provided by the Project participant</b>		
<b>VVB Assessment</b>		<b>Date: 20/09/2023</b>

1. The explanation and the new values have been assessed by the VVB and are deemed correct
2. The section has been updated and deemed correct
3. Clarifications provided are deemed correct
4. The source is provided and deemed correct.

Therefore OBS 07 is deemed closed



*APPENDIX 2: EVIDENCE PROVIDED BY COUNTRY PARTICIPANT AND REVIEWED BY AENOR*

In the following table, the validation team shows the main evidence reviewed by the VVB. Nevertheless, within the ERMR there are more evidence and supporting evidence which have been reviewed by the audit team. AENOR confirms that all the links referenced in the MR work properly and they are updated.

Number	File
1	Lao PDR 1st ERMR_v.4.1_20230926.docx
2	AM FCPF ERPA mission Aug 14-17 2023.pdf
3	ML FCPF ERPA mission Aug 14-17 2023.pdf
4	Annexure 4 Carbon Accounting 1st ERMR_v.4.0_20230901.docx
5	DOF-Burapha letter ER Titles LaoPDR.pdf
6	Lao PDR 1st ERMR and Annexure 4_v.4.0_20230901.pdf
7	NFMS Overview.pptx
8	vietnam_frl_modified__submission_final_for_posting.pdf
9	GFL Introduction and Progress Status 2023.pptx
10	Emissions from logging.xlsx
11	LaoPDR_Uncertainty MC MMR1 20230413.xlsx
12	MMR1_AD_ER_Calculation_20230413.xlsx
13	Note to FTM on TC rev20220411.pdf
14	Official letter_technical Correction.pdf
15	Combined_map_sampling_AD1922_v3.tif
16	All plots MMR 20220928.xlsx
17	CCDC_SMA_2005_2010_v11.tif
18	CCDC_SMA_2010_2015_v11.tif
19	ERPD_REL+UncertaintyAssessment180516re.xlsx
20	SBE_matrix_final_for_TC.xlsx
21	TC_plots_2005_2010.xls
22	TC_plots_2010_2015.xls
23	Final NFI3 Cstock.xlsx
24	FI3 Cstock Calculation.xlsx
25	MMR1_AD_ER_Calculation_20230303.xlsx

**Document information**

Version	Date	Description
1.3	May 2022	Page 1 and sections 5.4.1 and 5.6 have been adjusted to reflect the definition of Total ERs
1.2	September 2020	Minor adjustments have been made to show consistency with the last version of the Validation and Verification guidelines.
1.1	November 2020	Reference to the guidelines on uncertainty analysis of emission reductions was included.
1.0	August 2020	Initial version adopted.