Validation Report

Version 1.5

23-January-2024

Document Prepared by AENOR.

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Forest Carbon Partnership Facility (FCPF) Carbon Fund **Validation Report (VAR)**	
ER Program Name and Country:	Payment for emission reductions project around the Taï National Park
Crediting Period	30-10-2020 to 31-12-2024
Name of the VVB:	AENOR CONFIA S.A.U.
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Date of the Validation Report:	23-01-2024
Version:	1.5
Report Approved by	José Luis Fuentes

1. VALIDATION STATEMENT

The review and cross-check of explanations and justifications included in the Monitoring Report Version 1.2 dated on 03-04-2023 and supporting documents, have provided AENOR with sufficient evidence to determine with a reasonable level of assurance the compliance of the Emission Reduction Program in Cote d'Ivoire (Payment for emission reductions project around the Taï National Park), with the applicable validation with extended scope criteria and materiality set out in the Forest Carbon Partnership Facility (FCPF) requirements.

The scope covered by the validation with extended scope includes the ER Program´s crediting period (30-10-2020 to 31-12-2024), the selected Reference Period (01-01-2001 to 31-12-2015), the accounting area (4,632,941 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:

GHG sources and sinks (REDD+ activities)
Emissions from deforestation – Included Emissions from forest degradation – Included Enhancement of carbon stock – Included Conservation of Carbon Stocks - Excluded
Carbon pools
Above-Ground biomass (AGB) – Included Below-Ground biomass (BGM) – Included Dead wood – Excluded Litter – Excluded Soil Organic Carbon (SOC) – Excluded
GHG
CO_2 – Included CH_4 – Excluded N_2O – Excluded

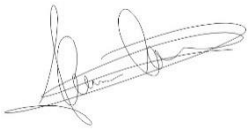
The validation with extended scope was performed through a combination of document review, interviews and communications with relevant staff. Findings were issued, requesting: MAJOR Corrective Action Request (MCAR); MINOR Corrective Action Request (mCAR); and Observations (OBS) according to the FCPF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

A total of 8 MCAR, 2 mCAR and 2 Observations were raised as part of the validation process. All MCAR, and OBS were successfully addressed by the ER Program and closed by the VVB. Not all of the mCAR were closed in the current verifications. One of the mCAR (mCAR 10) needs to be addressed during the next verification. The findings are reported in the appendix 1 of this report.

Regarding the reference Level, it is AENOR´s opinion that the ER program Payment for emission reductions project around the Taï National Park meets the applicable validation criteria set out in the FCPF requirements, and that it is free of material misstatements. Hence, AENOR recommends the FCPF Carbon Fund to continue with the relevant subsequent steps to proceed with the verification of the FCPF ERs.

Statement issuing date: 23-January-2024

Intended User: World Bank Group, FCPF Carbon Fund Participants



Javier Cócera Cañas
Team Leader

José Luis Fuentes
Climate Change Manager

2. Agreement

2.1 Level of Assurance

The validation with extended scope audit assessment was conducted to provide a reasonable level of assurance concerning material misstatements, errors, or omissions in conformance with the validation 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 Reference Level 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 Côte d'Ivoire, against the FCPF validation criteria to determine if the Program is in compliance to the agreed criteria, and its implementation can be expected to result in the proposed GHG reductions and removal enhancements as described in the ER Monitoring Report and its Annex 4.

The general objectives of the validation, 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 Reference Level has 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 Reference Level is materially accurate;
- Identify sources of uncertainty due to both random and systematic errors related with the Reference Level setting 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 validation with extended scope, as required by paragraph 33 of the VVG v2.5, were:

- Determine that the ER Program's scope in terms of sources, sinks and carbon pools is in accordance with the applicable validation criteria;
- Assess whether the ER Program's methods are in accordance with applicable validation criteria as the latest IPCC Guidelines;
- Assess if the Reference level is in accordance with applicable validation criteria.

2.3 Criteria

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

- FCPF Methodological Framework, v3, April 2020.
- Validation and Verification Guidelines v2.5 September 2023.
- 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 validation with extended scope, as per paragraph 37 of the VVG 2.5:

Criteria/indicator	Topic
3	Scope and methods
4	Carbon pools and GHG
5	IPCC guidelines
6	Data availability
7, 8, 9.1	Identification and address source(s) of uncertainty
10 to 13	Reference level
14.2, 14.3	Robust Forest Monitoring system
15	National Forest Monitoring System
16	Community participation in Monitoring and Reporting

2.4 Scope

The scope of validation included as per section 8.4 of the VVG v.2.5:

- The Crediting Period of the FCPF program applicable to the ER Program;
- The selected Reference 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 Methodological Framework;
- The Carbon Pools and greenhouse gases to be accounted for as required by the Methodological Framework;
- The REDD Country Participant's Forest Monitoring System as described in the ER Monitoring Report;
- The national REDD+ Program and Projects Data Management System (DMS) as described in the Monitoring Report.

2.5 Materiality

The materiality threshold of the validation, 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 validation process based on the desk review found that there are not quantitative and or qualitative material discrepancies affecting the Reference Level and the Reference Level setting.

3. METHODOLOGY AND PLANNING

3.1 Validation Team

Name	Role	Activities				
		Desk review	Site visit	Reporting	Supervision	Technical review
Javier Cócera	Team Leader	X		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		
Yao Elvis	Local expert	X	X			

3.2 Validation schedule

Tasks	Deliverable	Date	Responsible
1. Kick-off meeting	Minute of KOM	15.06.2023	All parties
2. Reception of ERMR	ERMR	16.06.2023	FMT
3. Initial Desk Review	Preliminary relevant findings, if applicable	23.06.2023	AENOR
4. Draft Sampling Plan	Preliminary sampling plan	26.06.2023	AENOR
5. Sampling Plan reviewed by FMT	Sampling plan with comments	30.06.2023	AENOR/ FMT
6. Sampling plan	Sampling plan	07.07.2023	AENOR
7. Draft Audit Plan	Preliminary audit plan	21.07.2023	AENOR
8. Audit Plan reviewed by REDD Country and FMT	Audit plan with comments	26.07.2023	AENOR/ Country participant / FMT
9. Audit Plan	Audit plan	28.07.2023	AENOR
10. Country visit / office meetings	Visit	21/23.08.2023	AENOR/ Country participant/ FMT
11. Issuance of the list of findings	List of findings	30.08.2023	AENOR
12. Review of the country's answer to the list of findings	Response of the Country to the 1st round of findings	21.09.2023 (officially scheduled as 27.09.2023)	Country Participant
13. Issuance of the second round of findings	Second round of findings, if applicable. If other rounds are needed, two weeks	05.10.2023	AENOR

	will be added for the review by the country, and two weeks to the review and response by AENOR		
14. 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 review and response by AENOR	19.10.2023	Country participant is responsible to response the round of findings, and after the answer, AENOR is responsible to review the Country participant responses
15. Issuance of the third round of findings	Third round of findings used for raising an extra finding related overlapping with other scheme.	24.10.2023	AENOR
16. Review of the country's answer to the list of findings	All findings are closed	11.12.2023	Country participant is responsible to response the round of findings, and after the answer, AENOR is responsible to review the Country participant responses
17. Draft validation and verification reports preparation	Preliminary reports	28.12.2023	AENOR
18. Technical review	Draft validation and verification reports	04.01.2024	AENOR
19. Draft validation and verification reports revised by Country Participant and FMT	Plan with comments	18.01.2024	Country participant / FMT
20. Issuance of validation and verification report after revision	Final validation and verification reports	24.01.2024	AENOR

3.3 Methodology description

The validation with extended scope was performed simultaneously with the first verification, 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 with extended scope 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 validation 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 validation process.

The validation 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 validation team with the requested information or by making the appropriate corrections. Updated versions of the documentation were submitted by the Country Participant and the validation team reassessed them against the guidance documentation. This process was repeated iteratively until all MCAR were fully closed.

Not all findings, 8 MCAR, 2 mCAR and 2 OBS, issued by AENOR's audit team during the validation process have been closed. All MCAR, and OBS were successfully addressed by the ER Program and closed by the VVB. Not all of the mCAR were closed in the current verifications. One of the mCAR (mCAR 10) needs to be addressed during the next verification.

The findings issued during the validation 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 focused on the ER Monitoring Report and included an examination of the Annex 4. Specially, in relation to the carbon pools, sources and sinks included within the scope of the ER Program, the methodological approach for the determination of the Reference Level, its alignment with IPPC guidelines, the data and parameters used for calculations, the estimated uncertainty, and the design of the NFMS.

In addition to the ER Monitoring Report, all documentation cited in it was downloaded 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 Reference Level, 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 validation 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 validation, 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 validation 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 validation 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 local expert, who visited the Country in 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 with extended scope and one for the verification) were carried on August 21st and 22nd 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.

WORLD BANK GROUP
THE WORLD BANK IFC

REUNION AVEC LE SEP-REDD – 21/8/2023

LUNDI 21 AOUT 2023

Liste de présence

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7.	KOUAME Michel	Chef de Etudes & projets SODEFOR	SODEFOR	07 07 57 49 71	mdjoucakouame@yahoo.fr
8.	KPALOU Jean-Yves	Conseiller Technique	MINEF	07 77 53 84 83	Jkpalou@gmail.com
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10.					

WORLD BANK GROUP

REUNION AVEC LE SEP-REDD

MARDI 22 AOUT 2023

Liste de présence

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8.					
9.					

The program covered during the audit was the following:

Activity & Information	Date	Location
Opening meeting	21/08/2023	

Activity & Information	Date	Location
Introduction and scope of the Audit. Review of meeting agenda. Generalities.		World Bank office on Rue Washington, Abidjan
Interviews to stakeholders DAY 1 Independent agenda.	21/082023	
Technical meeting 1 (validation with extended scope): 1. <u>Carbon pools, sources and sinks</u> Sources and sinks associated with the REDD+ Activities. Criterion 3 MF Significant Carbon Pools and greenhouse gases. Criterion 4 MF 2. <u>Reference level</u> Use of the most recent Intergovernmental Panel on Climate Change (IPCC) guidance and guidelines. Criterion 5 MF. Key data and methods detailed and available for reconstruction of the Reference Level. Criterion 6 MF. Clearly documented Forest Reference Emission Level or Forest Reference Level for the ER Program Measures Area. Criterion 10,11, 12 and 13 MF 3. <u>Measurement, monitoring and reporting</u> Robust Forest Monitoring Systems. Criterion 14 MF. National Forest Monitoring System. Criterion 15 MF. Community participation in Monitoring and Reporting. Criterion 16 MF. 4. <u>Uncertainties of the calculation</u> Identification and address source(s) of uncertainty (identify, minimize, quantify remaining). Criterion 7, 8, 9.1 MF.	21/08/2023	
Interviews to stakeholders DAY 2 Independent agenda.	22/08/2023	World Bank office on Rue Washington, Abidjan

Activity & Information	Date	Location
Technical meeting 2 (verification): 1. <u>System for measurement, monitoring and reporting emissions and removals occurring within the monitoring period</u> Consistency of monitored estimates with RL 14.1 MF. 2. <u>Quantification of emission reductions</u> Calculation of Emission Reductions. Criterion 22 MF 3. <u>Uncertainty of the estimate of emission reductions</u> Estimation of residual uncertainty. Criterion 9.2, 9.3 MF. 4. <u>Transfer of title to ERs</u> REDD projects and programs DMS. Criterion 37. Double counting. Criterion 23 MF. 5. <u>Reversals</u> Addressing and account for reversals Criterion 18.2 and 19 MF	22/08/2023	
Closing Meeting: Remarks, clarifications, questions, following steps.	22/08/2023	

4. VALIDATION OF ER PROGRAM DESIGN

4.1 Completeness of Report

AENOR made a review of the ER Monitoring Report, supporting information, procedures, calculations, and supporting documentation of the Emission Reduction Program in Côte d´Ivoire (Payment for emission reductions project around the Taï National Park), and confirms that Annex 4 of the ER Monitoring Report contains the required information to be subject to validation with extended scope.

4.2 Start date of the crediting period

AENOR assessed information provided in the ER Monitoring Report and is able to confirm that the start date of the ER Program's crediting period, 30 of October 2020, complies with the definition of the start date provided in the FCPF Glossary of Terms, since:

- It is not earlier than the date the first ER Program Measure generating ERs has been implemented.
- It has justified with objective evidence to AENOR.
- It is not earlier than January 2016, date of program inclusion into the carbon fund portfolio.
- It does not fall within the Reference period (January 1, 2001- December 31, 2015).
- It has been demonstrated to AENOR that the ER Program complies with requirements on safeguards, carbon accounting, and double-counting as specified in the MF since the start date.

4.3 Sources and Sinks

The ER Program selected the following GHG sources and sinks (REDD+ activities):

GHG sources and sinks (REDD+ activities)
Emissions from deforestation – Included Emissions from forest degradation – Included Enhancement of carbon stock – Included Conservation of Carbon Stocks - Excluded

AENOR assessed the justifications and methods provided in Annex 4 - section 7.1 of the ER Monitoring Report and found acceptable the justifications provided to include or exclude the sources and sinks. Emissions from deforestation are included in the Reference Level, as well as emissions from forest degradation since these emissions are significant, in compliance with the requirements set by criterion 3 of the MF. Enhancement of carbon stocks are also included, since these are mainly removals related to reforestation, natural regeneration, and agroforestry plantations.

Additionally, AENOR confirms that the ER Program the exclusion of conservation of forest carbon stocks and sustainable management of forests, because there is no national definition for these REDD+ activities, and there is comprehensive accounting for GHG emissions and removals from forests so that GHG emissions and removals that may be included in these sources are included in previous REDD+ activities.

There are no plans for improving data since the excluded sources represent a small fraction of forest-related emissions.

4.4 Carbon pools and GHG

The following carbon pools and types of GHG have been included from the ER Program:

Carbon Pools
• Above-Ground biomass (AGB) – Included

• Below-Ground biomass (BGM) – Included • Litter – Excluded • Dead wood – Excluded • Soil Organic Carbon (SOC) – Excluded
GHGs
• CO2 – Included • CH4 – Excluded • N2O – Excluded

AENOR has assessed the rationale of the ER Program for selecting or excluding carbon pools and greenhouse gases and deems that it is reasonable and in accordance with criterion 4 of the MF. The program accounts all significant carbon pools.

CH_4 and N_2O emissions represent are not significant during the reference period.

No overestimations are occurring due to the inclusion of non-significant carbon pools and GHG. AENOR confirms that the ER Program has no proposed plans for improving data on excluded pools, as they already included them all.

4.5 Reference Period

According to the MR and the information provided by the Country, the reference period for the ERP was initially incorrect due to a mistake in the calculation of the length of the reference period. It was initially determined to last 16 years (January 1, 2000 to December 31, 2015) which, is in line with the reference level submitted to the UNFCCC in 2017. However, according to criteria 11.2 and 16 of the Methodological Framework, the Reference period should not exceed 15 years. To correct this issue, a pro-rata estimate of a 15-year Forest Reference Emission Level / Forest Reference Level was calculated. Considering that the reference period was estimated based on two monitoring events (2000-2010 and 2010-2015), the emission of the 2000-2010 period was pro-rated to an adjusted period 2001-2010. Finally, the new Reference period was calculated by adding adjusted emissions of 2001-2010 with emissions of 2010-2015 to obtain the reference level emission adjusted to 15-year reference period. Therefore, AENOR confirms that the start and end dates of the Reference Period (01-01-2001 to 31-12-2015) have been defined in accordance with criterion 11 of the MF and that it complies with the definition provided in the FCPF Glossary of Terms.

4.6 Forest Definition

The definition of the forest used for the construction of the FREL complies with that definition submitted by Côte d'Ivoire to the UNFCCC, which refers to the Ivorian Forest Code of July 2019. According to the Ivorian Forest Code, Forest means "any land constituting a dynamic and heterogeneous environment, excluding plant formations resulting from agricultural activities, with a minimum area of 0.1 hectare bearing trees whose crown covers at least 30% of the surface and which can reach at maturity a minimum height of 5 meters.

AENOR assessed the information according to criterion 12 MF and the guidance from UNFCCC decision 12/CP.17, and deems that it was an appropriate selection of forest definition, and consistently used in the construction of the Reference Level of the ERP in Côte d´Ivoire.

4.7 Calculation of average annual historical emissions

After review of all ER Monitoring Report information, procedures, calculations, and supporting documentation, and according to the scope of the validation with extended scope carried out, AENOR confirms that:

- Payment for emission reductions project around the Taï National Park made a systematic and step-by-step assessment of the methods, assumptions, and approaches used for the calculation of historical emissions, i.e., the Reference Level;

- All equations parameters and fixed data, such as AD and EF, are appropriately linked to the equations used for the quantification of the Reference Level;
- The correctness of presented information, publicly available, reported with a transparent and coherent step-by-step process that enables reconstruction of the Reference Level to validate its compliance with the requirements of applicable criteria;
- 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;
- The GHG emissions, emission reductions of the Reference Level, and its technical corrections, are materially accurate, and free of material misstatements, errors, or omissions;
- The ER Program's equations and methods are in accordance with applicable validation criteria as the latest IPCC Guidelines, using the most recent guidance and guidelines, as adopted or encouraged by the Conference of the Parties as a basis for estimating forest related GHG emissions by sources and removals by sinks.
- The emissions from forest degradation are accounted. These emissions were estimated using the best available data according to indicator 3.3 of the MF.

4.8 Activity data and emission factors

4.8.1 Activity data

AENOR confirms that the reliability of the source and nature of the reported evidence justified the selection of the monitored data and parameters; and that all parameters related to activity data and described below have been reported in line with guidelines provided in the template and validation criteria.

AENOR confirms the correctness of each step of monitoring from measurement to data transfer and calculation and confirmed the information for each parameter is complete and that the stated parameters are free of error and material misstatements.

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

AENOR confirms that Activity Data were determined periodically and allowed for the Reference Level to be estimated for the Reference Period.

Assessment details are as follows per activity data grouped parameters:

Parameters	Area converted from forest type j to non-forest type i during the reference period (2000-2015). $A(j,i)$
Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	The activity data used for the reference period was obtained from a sampling approach for estimating areas that incorporates the following characteristics: A sufficiently dense and balanced sample size to capture changes in land cover classes. Hybrid machine (algorithm) / human (visual) interpretation to assign land cover classes and changes: Several change detection

	algorithms, from several sources of satellite images and/or other spatially explicit information and visual interpretation were used to detect change classes. Cross-validation principle, both for machine interpretation (convergence of evidence) and human interpretation (elimination of subjective bias). This required the formalization of decision rules. Quality control and integrated quality assurance at all stages of the process. ER-MR 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. The validation 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. The validation 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. An empirical analysis with a reference product (ESA CCI map 2015-2020) shows that a systematic sampling of 1km x 1km over the ERP area is required to capture the changes with a relative sampling error of less than 15% on the land cover change classes. Complementary, the audit team attended during the onsite visit, the explanations from the technical staff of CIV and considers that the explanations and the development of these parameters are correct and are in relation to the information stated in the MR.

Parameters	Area converted from forest type j to non-forest type i during the monitoring period (2020-2021). A(j,i)
Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	ER-MR 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. The validation 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. The validation 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 validation team has also reviewed the specific manual used to improve the quality of the process and the value. The visual interpretation of the plots uses Collect Earth Online projects to enable the technicians to assess various drivers of forest degradation.

Thus, AENOR confirms the sufficiency of quantity and appropriateness of quality of the evidence used to determine the Activity data factors and later used in the GHG reductions and removals calculations, and also that the Activity data is compliant with the Methodological Framework and the IPCC Guidelines and Guidance.

4.8.2 Emission Factors

AENOR confirms the reliability of the source and nature of the reported evidence justified the selection of the emission factors; and that these have been reported in line with guidelines provided in the template and validation criteria.

AENOR confirms the correctness of each step of monitoring from measurement to data transfer and calculation and confirms the information for each parameter is complete and that the stated parameters are free of error and material misstatements.

AENOR confirms the source of emission factors is from data collected during different national inventories, and models or average values of direct measurements reported in literature and following IPCC Guidance and Guidelines.

AENOR confirms that emission factors of the ER-MR and the methods to determine them are the same for Reference Level setting and for Monitoring.

Assessment details on emission factors are as follows:

Parameters	Aboveground biomass of forest before conversion 〖AGB〗_(Before,j)
Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	The data used in this document are from Tier 2 level (country-specific data) and come from the National Forest Inventory of 2017 for forests

	(dense forest and secondary forest in the ombrophilic sector; dense forest and secondary forest in the mesophilic sector). The biomass of forest strata before conversion was obtained using a 3-phase approach: (i) sampling plan development, (ii) field data collection and (iii) biomass estimation. The sampling plan adopted for collecting forest biomass data in Côte d'Ivoire is stratified random and was based on the country's phytogeographical zoning (ombrophilous, Mesophilic, pre-forest and Sudanese). This sampling technique has several advantages, including (i) the elimination of any subjectivity in the choice of sampling units to be measured, (ii) the calculation of parameters per stratum and of the distinct sampling error for certain strata, and (iii) the reduction of the variability of a parameter of a given stratum. A three-level collection system is implemented within each SU, corresponding to three different levels of readings: • level 1 consists of four rectangular plots of 25 m x 200 m each intended for measuring trees with a DBH ≥ 10 cm, standing, dead wood standing, dead wood lying on the main strip (axis of the plot); • Level 2 consists of a rectangular sub-plot of 10 mx 50 m each located inside each rectangular space. It is intended for measuring trees with small diameters (5 cm ≤ DBH < 10 cm); • Level 3 consists of a square sub-plot of 5 m x 5 m in each plot and intended for the assessment of biodiversity (count of individuals of woody species with DBH < 5 cm and height ≥ 1.30 m). The pantropical allometric equation developed by Chave et al. (2014) was used to convert field measurements into estimates of aboveground biomass (AGB) because it is considered more robust (s= 0.357; Akaike Information Criterion (AIC)=3130 and df=4002), recent and covers a wide range of vegetation types, for a total of 4004 trees ranging in trunk diameter from 5 cm to 212 cm, and includes data from other pantropical equations including Brown's equation (1997), the Chave (2005) and that of Fayolle (2013). To ensure data quality, the following QA/QC procedures were applied: · Design of a field data collection manual to serve as a guide. · Training of collection teams; · Collection of field data in 2 formats, paper (field sheet) and digital (tablets on which the Collect tool of the Open Foris platform has been installed; · Verification of the conformity of the data collected in the field sheets and tablets; · Constitution of 2 mixed teams for the verification on the ground of 8% of the total of the formed sampling units. These teams were made up of SEP-REDD+, universities and research centres and civil society organizations.

	The validation team conducted independent analysis of the information provided to confirm that the source data was reliable and appropriate. The validation team has reviewed the sources and these parameters were explained during the onsite visit. Additionally, the validation team judged that the methods to estimate these parameters were reasonable and appropriate. The validation team performed an independent check of the IPCC Guidance and Guidelines to ensure the parameters ensuring correctness. The validation team conducted independent data checks for each step necessary in the quantification of these parameters. Additionally, the validation team conducted an independent review of the literature cited in reference to each equation in the calculation procedure. The uncertainty associated with these parameters was independently calculated after a thorough review of the calculation spreadsheets; and the validation team reviewed and confirmed that the estimation of uncertainty was correct and without any error. The validation team reviewed the ER Monitoring Report and associated links to ensure that all data related to this parameter are made public.

Parameters	Belowground biomass of category forest j before conversion BGB Before,j
Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	Belowground biomass is calculated by applying the stem to root ratio on AGB for tropical forest as reported in Table 4.4 IPCC 2006 vol 4 (IPCC, 2006). The validation team conducted independent analysis of the information provided to confirm that the source data was reliable and appropriate. The validation team has reviewed the sources and these parameters were explained during the onsite visit. Additionally, the validation team judged that the methods to estimate these parameters were reasonable and appropriate. The validation team performed an independent check of the Uncertainties in belowground biomass estimates for dense and secondary forests. The validation team conducted independent data checks for each step necessary in the quantification of these parameters. Additionally, the validation team conducted an independent review of the literature cited in reference to each equation in the calculation procedure. The uncertainty associated with these parameters was independently calculated after a thorough review of the calculation spreadsheets; and the validation team reviewed and confirmed that the estimation of uncertainty was correct and without any error.

	The validation team reviewed the ER Monitoring Report and associated links to ensure that all data related to this parameter are made public.

Parameters	AGB After,i Aboveground biomass of the cropland category: cocoa
Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	In Côte d'Ivoire, the main driver of deforestation is agriculture, with cocoa production being the lead driver. Forests are largely converted to cocoa plantations, especially in the ER-Program area.BGB Before,j The biomass for cocoa plantations comes from the study by N'Gbala et al., (2017). Following an inventory carried out in cocoa plantations in the central western zone of the country, they used the diameter measurements at 30 cm from the ground (because cocoa trees generally branch off below 1.30 m) in the allometric equation de Segura et al., (2005), to determine the above-ground biomass of cocoa plantations. The validation team performed an independent check of the Uncertainties in AG biomass estimates for cocoa plantations. The validation team conducted independent data checks for each step necessary in the quantification of these parameters. Additionally, the validation team conducted an independent review of the literature cited in reference to each equation in the calculation procedure. The uncertainty associated with these parameters was independently calculated after a thorough review of the calculation spreadsheets; and the validation team reviewed and confirmed that the estimation of uncertainty was correct and without any error. The validation team reviewed the ER Monitoring Report and associated links to ensure that all data related to this parameter are made public.

Parameters	BGB After,i Category Belowground Biomass: Cocoa
Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	The underground biomass for cocoa plantations comes from the study by N'Gbala et al. (2017).

	This study applied the allometric model r2 = 0.84 developed by Cairns et al., (1997) and widely used by a number of authors (Somarriba et al., 2013). This model is an accepted methodology within the framework of the IPCC on land use, land use change and forestry (Penman et al., 2003). data from the literature has been re-evaluated by the VVB team, which confirms that the values are consistent with those of the program area. The validation team conducted independent data checks for each step necessary in the quantification of these parameters. Additionally, the validation team conducted an independent review of the literature cited in reference to each equation in the calculation procedure. The uncertainty associated with these parameters was independently calculated after a thorough review of the calculation spreadsheets; and the validation team reviewed and confirmed that the estimation of uncertainty was correct and without any error. The validation team reviewed the ER Monitoring Report and associated links to ensure that all data related to this parameter are made public.

Parameters	AGB After,i Aboveground biomass of the category: Perennial crop
Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	The category of land of the perennial crop type essentially includes agricultural commodities other than cocoa that are practiced in the ER-Program area. These are particularly rubber and palm oil; The biomass for the perennial crop category is derived from the average biomass of rubber and oil palm plantations. The data for each of them are taken from the literature. These are regional studies carried out in Ghana. Grieco et al., (2012) used information from an inventory in samples of rubber and oil palm plots. They used the sampling protocol used to detect changes in the aboveground biomass carbon pool proposed by the FAO: Assessing carbon stocks and modelling win-win scenarios of carbon sequestration through land-use changes. (Ponce Hernandez, 2004). The average age of plantations considered in this study of 10 years and 20 years respectively for rubber and oil palm. Data from the literature has been re-evaluated by the VVB team, which confirms that the values are consistent with those of the program area. The validation team conducted independent data checks for each step necessary in the quantification of these parameters. Additionally, the validation team conducted an independent review of the literature cited in reference to each equation in the calculation procedure. The uncertainty associated with these parameters was independently calculated after a thorough review of the calculation spreadsheets; and the validation team reviewed and confirmed that the estimation of uncertainty was correct and without any error.

	The validation team reviewed the ER Monitoring Report and associated links to ensure that all data related to this parameter are made public.

Parameters	BGB After,i belowground biomass of the category: Perennial crop
Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	The category of land of the perennial crop type essentially includes agricultural commodities other than cocoa that are practiced in the ER-Program area. These are particularly rubber and palm oil; Belowground biomass was calculated by applying the AGB stem-to-root ratio (Cairns et al., 1997; Mokany et al., 2006) considering that the underground biomass represents 20% of the aboveground biomass Data from the literature has been re-evaluated by the VVB team, which confirms that the values are consistent with those of the program area. The validation team conducted independent data checks for each step necessary in the quantification of these parameters. Additionally, the validation team conducted an independent review of the literature cited in reference to each equation in the calculation procedure. The uncertainty associated with these parameters was independently calculated after a thorough review of the calculation spreadsheets; and the validation team reviewed and confirmed that the estimation of uncertainty was correct and without any error. The validation team reviewed the ER Monitoring Report and associated links to ensure that all data related to this parameter are made public.

Parameters	AGB After,i Aboveground biomass of category: Grassland
Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	In the ERP area, the grassland category consists mainly of shrublands as described in the land use class nomenclature. The data of the biomass for the grass category is taken from a regional study (Ilboudo, 2018) conducted in Burkina Faso (located north of Côte d'Ivoire). The author used inventory data (diameter at breast height and height measurements) in sample units to estimate the above-ground biomass of the grassland category using polynomial allometric equations The QA/QC procedure consisted of evaluating the differences between the applied value from Ilboudo (2018) and what has been done elsewhere by other authors.

	Data from the literature has been re-evaluated by the VVB team, which confirms that the values are consistent with those of the program area. The validation team conducted independent data checks for each step necessary in the quantification of these parameters. Additionally, the validation team conducted an independent review of the literature cited in reference to each equation in the calculation procedure. The uncertainty associated with these parameters was independently calculated after a thorough review of the calculation spreadsheets; and the validation team reviewed and confirmed that the estimation of uncertainty was correct and without any error. The validation team reviewed the ER Monitoring Report and associated links to ensure that all data related to this parameter are made public.

Parameters	BGB After,i Belowground Biomass Category: Grassland
Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	Belowground biomass was calculated by applying the AGB stem-to-root ratio (Cairns et al., 1997). According to Cairns et al., 1997 study, belowground biomass can be calculated from aboveground biomass using a global model that they developed for forest root biomass estimation from total aboveground biomass. The study found that below-ground biomass accounts for about 26% of the total biomass. The validation team conducted independent data checks for each step necessary in the quantification of these parameters. Additionally, the validation team conducted an independent review of the literature cited in reference to each equation in the calculation procedure. The uncertainty associated with these parameters was independently calculated after a thorough review of the calculation spreadsheets; and the validation team reviewed and confirmed that the estimation of uncertainty was correct and without any error. The validation team reviewed the ER Monitoring Report and associated links to ensure that all data related to this parameter are made public.

Parameters	AGB After j Above-ground biomass of the agroforest category
Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	The biomass for cocoa-based agroforests comes from the study by Asigbaase et al., (2021). In their methodological approach, they relied on an inventory of different agroforestry systems in Ghana. Using diameter at breast height (DBH) measurements in the allometric

	equation of Chave et al., (2014) for shade trees and Andrade et al., (2008) for cocoa. A literature review carried out on the theme related to the quantification of agroforestry systems was carried out in order to confirm our choice of the value applied above. Thus, taking the same approach in Ghana, Nimo et al., (2021) showed that agroforestry systems store around 74 tdm/ha. This difference results from the diversity of the forest species used but especially from the difference of the allometric equations. The validation team conducted independent data checks for each step necessary in the quantification of these parameters. Additionally, the validation team conducted an independent review of the literature cited in reference to each equation in the calculation procedure. The uncertainty associated with these parameters was independently calculated after a thorough review of the calculation spreadsheets; and the validation team reviewed and confirmed that the estimation of uncertainty was correct and without any error. The validation team reviewed the ER Monitoring Report and associated links to ensure that all data related to this parameter are made public.

Parameters	BGB After j Belowground biomass of the agroforest category
Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	Belowground biomass was calculated by applying the AGB stem-to-root ratio (Cairns et al., 1997). The validation team conducted independent data checks for each step necessary in the quantification of these parameters. Additionally, the validation team conducted an independent review of the literature cited in reference to each equation in the calculation procedure. The uncertainty associated with these parameters was independently calculated after a thorough review of the calculation spreadsheets; and the validation team reviewed and confirmed that the estimation of uncertainty was correct and without any error. The validation team reviewed the ER Monitoring Report and associated links to ensure that all data related to this parameter are made public.

Parameters	BGB After, RFreg Removals in the BGB due to carbon sequestration due to creation of forest plantation
Free of Material Misstatement	Yes
Reported Appropriately	Yes

Assessment Details	The root shoot ratio developed by MOKANY, KAREL & Raison, RJ & Prokushkin, Anatoly in 2005 was used: Critical analysis of root: Shoot ratios in terrestrial biomes. The validation team conducted independent data checks for each step necessary in the quantification of these parameters. Additionally, the validation team conducted an independent review of the literature cited in reference to each equation in the calculation procedure. The uncertainty associated with these parameters was independently calculated after a thorough review of the calculation spreadsheets; and the validation team reviewed and confirmed that the estimation of uncertainty was correct and without any error. The validation team reviewed the ER Monitoring Report and associated links to ensure that all data related to this parameter are made public.

Thus, AENOR confirms the sufficiency of quantity and appropriateness of quality of the evidence used to determine the Emission factors and later used in the GHG reductions and removals calculations, and also that the Emission Factors are compliant with the Methodological Framework and the IPCC Guidelines and Guidance.

4.9 Adjustments to the average annual historical emissions over the reference period

The Reference Level has not been adjusted in the average annual historical emissions regarding the conditions mentioned in Criterion 13 in ER-MR.

However, a technical correction was applied to the Reference Level. Initially, the forest degradation emissions estimate corresponded to the area of forest land remaining in the Forest Land category with a decrease in cover and biomass in the ombrophiles and mesophilic areas. It had been considered as forest degradation in those forest areas with a forest cover rate of more than 70% in 2000, which decreased to a forest cover rate between 30-70% in 2015. Now, this calculation corresponds to the areas of forested lands converted into other forest types. All transitions between secondary and dense forests, agroforests, and forest plantations are considered. AENOR validated that All the technical modifications are in line with paragraph 2 of the "Guideline on the application of the methodological framework Number 2: Technical corrections to GHG emissions and removals reported in the reference period". Technical corrections do not compromise the consistency of GHG emissions and removals estimates between the Reference Period and monitoring periods, as both calculations apply the improvements. None of the improvements relate to a change in policy and design decisions affecting the Reference Level. Carbon pools and gases, GHG sources, reference period, forest definition, REDD+ activities, Accounting Areas, forest types remain unchanged.

Therefore, the VVB has assessed the technical corrections and the information related to its assessment and considers that the information is reliable, accurate and correct.

Further detail about the technical corrections made to the Reference Level as compared to that the estimates provided in the ER PD were presented in detail in ER Monitoring Report.

4.10 Estimated Reference Level

AENOR assessed the Reference Level for the ER Program for the Crediting Period and confirms that the Reference Level is materially accurate. AENOR confirms the relation, and its consistency, between the Reference Level, the development of the FREL/FRL submitted to the UNFCCC and the country's existing greenhouse gas inventory.

The results of the estimated Reference Level before technical correction are as follows, according to ER Monitoring Report:

Year of Reporting period	Average annual historical emissions from deforestation over the Reference Period (tCO2e/yr)	If applicable, average annual historical emissions from forest degradation over the Reference Period (tCO2e/yr)	If applicable, average annual historical removals by sinks over the Reference Period (tCO2e/yr)	Adjust-ment, if applic-able (tCO2e/yr)	Reference level (tCO2e/yr)
2016	7,692,979	1,779,971	-10,320	0	9,462,630
2017	7,692,979	1,779,971	-15,480	0	9,457,470
2018	7,692,979	1,779,971	-20,640	0	9,452,309
2019	7,692,979	1,779,971	-25,801	0	9,447,149
2020	7,692,979	1,779,971	-30,961	0	9,441,989
2021	7,692,979	1,779,971	-36,121	0	9,436,829
2022	7,692,979	1,779,971	-41,281	0	9,431,669
2023	7,692,979	1,779,971	-46,441	0	9,426,509
2024	7,692,979	1,779,971	-51,601	0	9,421,349
Total	69,236,809	16,019,741	-278,647	0	84,977,903

4.11 Consistency of the Program's Reference Level with national FREL/FRL and GHG Inventory

All procedures and methodologies to produce ADs and EFs are defined and validated at national level by all actors in the NFMS. The methodologies designed by these groups are the same and respond to the local and international context and the roles and responsibilities of the different national organisations remain identical.

The collection procedures on EFs are the same used at national and sub-national level. It is worth recalling that the procedure for producing ADs recently updated with the support of the World Bank, FAO and IGN-FI, is the one that will be used for the next determinations of ADs both at the sub-national and national levels in the framework of the development of FRELs.

AENOR confirms that ERP-CIV proposed Reference Level is consistent with the national FREL/FRL submitted to the UNFCCC and with the country´s existing and future GHG inventory.

4.12 Uncertainty of the Reference Level

4.12.1 Identification and assessment of sources of uncertainty

The Country Participant identified and assessed though a stepwise approach, the sources of uncertainty of the Reference Level 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.

The validation 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 Reference Level due to random and systematic errors. AENOR confirms that the sources of uncertainty are systematically identified and correctly assessed in the Reference Level, and addressed according to validation 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.

4.12.2 Uncertainty of the estimate of the Reference Level

Ivory Coast's ER Program applied Monte Carlo methods (IPCC Approach 2) for quantifying the Uncertainty of the Emission Reductions. Because the MC propagation analysis includes 146 parameter values, it has been provided access to uncertainty and emission factor calculation tool to see all parameter values used in the analysis. The Country Participant estimated the uncertainty of the Reference Level based on Monte Carlo analysis. The uncertainty estimate for the Reference Level 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 validation team reviewed and confirmed that elements mentioned in section 4.12.1 related to the estimation of uncertainty for the Reference Level 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 Reference Level was performed correctly and free of errors and misstatements.

4.12.3 Sensitivity analysis and identification of areas for 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 and the monitoring period are quantified in a consistent way.

AENOR reviewed and confirmed that above-mentioned (section 4.12.1) 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.

4.13 Data quality and availability

The validation team reviewed the quality and descriptions of the data and reproduced calculations of the Reference Level as presented in the ER Monitoring Report and related documents and is able to confirm that the steps are described with enough detail to enable the reconstruction of the Reference Level.

Additionally, AENOR confirms that the main methodological steps, relevant spatial information, maps, or synthesized data, related to the Reference Level, and the reported emissions are documented and included in the monitoring report and made publicly available online. There is not a specific webpage to find together all the references, but along the ER Monitoring Report there are links and references that lead to the data, methods, and assumptions.

5. NON-COMPLIANCES AND OBSERVATIONS

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 validation 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.

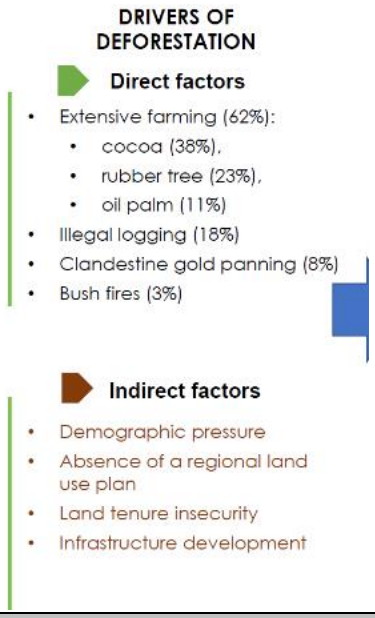
The findings were submitted by the validation team in a single document, in which the Country Participant was able to offer answers to each of them and list supporting documents provided.

The Country Participant made the requested corrections and provided the validation team with updated versions of the ER Monitoring Report, which the validation team reassessed against the guidance documentation. The validation 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.

Not all findings, 8 MCAR, 2 mCAR and 2 Observations, issued by AENOR's audit team during the joint validation and first verification process have been closed. All MCAR, and OBS were successfully addressed by the ER Program and closed by the VVB. Not all of the mCAR were closed in the current verifications. One of the mCAR (mCAR 10) needs to be addressed during the next verification. The findings are reported in the appendix 1 of this report.

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

Non Conformities (NCs)

NC ID: minor	**01**	**Date: 30/08/2023**
Description of NC		
Section 1.1 in the first paragraph the text does not mention all the drivers of deforestation detailed in table 2 and the ones presented in the meeting with the audit team:  Also, in this paragraph, slash and burn agriculture is delt with as more than one factor, please correct this.		
Project Participant response		**Date:** 15/09/2023

Section 1.1 of the Monitoring Report has been adjusted to provide further descriptions on the drivers of deforestation. A summary of the editions is included below: In Côte d'Ivoire, the drivers of deforestation and forest degradation are prioritized according to 2 categories. These are the direct and indirect drivers. At the level of direct drivers, the expansion of agricultural land is the main element of deforestation and forest degradation. The weight of agriculture is 62% in the hierarchy of direct drivers of forest loss. In this sector, the main crops that significantly impact deforestation and forest degradation are cocoa, rubber and oil palm crops with respectively 38%; 23% and 11%. After the agricultural sector, there is illegal logging, which is responsible for 18% of deforestation. The extension of infrastructure such as habitats (rural and urban), transport (roads, rail) play a role in the loss of forest cover. The contribution of this sector is estimated at 10%. We also have, to a small extent, illegal gold panning and bush fires which occupy the fourth (8%) and fifth (3%) place. At the level of indirect drivers, which are factors that promote deforestation, several elements are listed: - Economic factors (economic attractiveness, in particular the price of agricultural commodities); - Factors related to the absence of land use plans or plans; - Demographic factors (significant population growth); Political and institutional factors (non-compliance due to weak governance in the forest sector).
Documentation provided by the Project Participant
This answer can be verified in the study on the analysis of the drivers of deforestation and forest degradation in Côte d'Ivoire (pages 14 to 64). The document is available from the following link: http://reddplus.ci/download/analyse-qualitative-des-facteurs-de-deforestation-et-de-degradation-des-forets-en-cote-divoire-2/

VVB Assessment	**Date:** 27/09/2023
The section has been updated properly, and the evidence provided is deemed correct. Therefore, mCAR 01 is closed	

NC ID: Major	**02**	**Date: 30/08/2023**
Description of NC		
Along the document, some links that reference certain evidence are broken. Therefore, the audit team cannot check and review the information within these external sources. Some of these links are: 1. Table 1: the data base in shapefile format. 2. Table 2: there is no link for the evidence in the section of table 2 “Demographic Pressures” the implementation of the PNSFR through several projects. 3. Section 3.1 Grieco et al., (2012).		
Project Participant response		**Date:** 15/09/2023

All links in the document have been corrected and verified.

4. Table 1: 14, 289.34 hectares of agroforestry established in classified forests. This figure can be verified in the report available at the following link, precisely on page 24: https://1drv.ms/w/s!AjuGNp-WjLPhtl-N-qWpPJJaZmP6?e=PdhqBz.

The geolocation of these plots is underway, to date only 4,337,154 hectares have been realized. The database in shapefile format is available here

5. Table 2: Clarification and securing of land tenure and conflict resolution through the National Program for Securing Rural Land (PNSFR) which was launched in July 2018 and is led by AFOR through the PNSFR, which is implemented through several projects including PAFR which can be view here
6. Section 3.1 Grieco et al., (2012).

   https://dspace.unitus.it/bitstream/2067/2435/1/egrieco_tesid.pdf

Documentation provided by the Project Participant	
VVB Assessment	**Date:** 27/09/2023
The links provided are corrected. Therefore MCar 02 is closed	

NC ID: Major	**03**	**Date: 30/08/2023**
Description of NC		
Provide appropriate evidence or clarify the information given for the following: 1. Table 1 the figure of 5,000ha of agroforestry established outside of classified forests, according to the available evidence it is 3,075.72ha. Clarify and provide the correct evidence or number. 2. Table 1: 903 cocoa producers. Provide evidence. 3. Table 1: 200,000 trees in production, the evidence shows 240,571 although it is similar, there is around a 25% deviation, please clarify. 4. Table 1 reforestation of 26ha and conservation of 34ha of individual natural forests. Provide evidence. 5. Section 2.1 Provide the SOPs mentioned. 6. Section 2.1 update the information in the subsection Design and maintenance of the Forest Monitoring System clarify if the reorganization phase is finished. 7. Section 2.2.2: the evidence provided in table AGB Other crop (annual) is different from the source you provide, please clarify. 8. Section 2.2.2 table AGB RF_reg < 20 years provide the evidence.		
Project Participant response		**Date:** DD/MM/YYYY

The above requested evidence has been included in the document as summarized below:

7. Indeed 5,000 ha of agroforestry have been established, the activity report can be consulted via this link: https://1drv.ms/b/s!AjuGNp-WjLPhtmE-aDojZ0WoYN94?e=JGBwn3. However we recall that only 3,077.32 ha have already been mapped whose database in shapefile format is available here.
8. **Table 1: 903 cocoa producers. Provide evidence.** This is an omission. This figure can be verified here on page 6 section 4-4.
9. **Table 1: 200,000 trees in production, the evidence shows 240,571 although it is similar, there is around a 25% deviation, please clarify.** That's actually 240,571 trees. This value can be verified here on page 7 section 4-3.
10. **Table 1 reforestation of 26 ha and conservation of 34 ha of individual natural forests. Provide evidence.** Ces chiffres peuvent être vérifiés ici à la page 6, section 4-5
11. **Section 2.1 Provide the SOPs mentioned.** All SOPs (1; 2; 3 and 4) mentioned in the document are available from the following link: https://1drv.ms/f/s!AjuGNp-WjLPhtk47zw8QWulVmC17?e=vYVEGu .
12. **Section 2.1 update the information in the subsection Design and maintenance of the Forest Monitoring System clarify if the reorganization phase is finished.** la phase de réorganisation du geoportail est en cours et devrait être finalisée d'ici la fin de l'année 2023.
13. **Section 2.2.2: the evidence provided in table AGB Other crop (annual) is different from the source you provide, please clarify.** Côte d'Ivoire being in the humid tropical zone, the value 2.6 t/C/ha in terms of carbon stock by default. In the document, AGB values were estimated in tonnes of dry matter per hectare. The value 2.6 t/C/ha was therefore converted using 0.47 which is the default value for (sub)tropical forests according to the 2006 IPCC AFOLU Guidelines, Table 4.3. A link to the IPCC Guidelines has been included in the document.
14. **Section 2.2.2 table AGB RF_reg < 20 years provide the evidence.** This is IPCC 2019 refinement to the 2006 Guidelines, volume 4. table 4.8 (updated) aboveground biomass (agb) in forest plantations (tonnes d.m. ha-1). The document is available here.

Documentation provided by the Project Participant	
VVB Assessment	**Date:** 27/09/2023

1. The PP has properly explained the difference between the evidence and the data.
2. The evidence provided is deemed correct
3. The evidence provided in the clarification is correct. However, the evidence on the MR is different. This is not correct
4. The evidence provided is deemed correct
5. The evidence of the SOPs is deemed correct.
6. The clarification provided is deemed correct
7. Please, provide further clarifications, the evidence provided in the MR (IPCC 2006, Volume 4, Chapter 5 https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4_Volume4/V4_05_Ch5_Cropland.pdf) corresponds to a different value than the one in the MR and the evidence provided in the response of the finding.
8. Please, explain why the specie used as evidence is Tectona grandis.

Country participant response	**Date:** 06/10/2023

3- The evidence provided in the monitoring report has been updated and verified. It confirms the values indicated (see table 1, page 9 of the monitoring report).

7- The table 5.9 of IPCC 2006, Volume 4, Chapter 5 shows the following value in tonnes C/ha.

TABLE 5.9
DEFAULT BIOMASS CARBON STOCKS PRESENT ON LAND CONVERTED TO CROPLAND IN THE YEAR FOLLOWING CONVERSION

Crop type by climate region	Carbon stock in biomass after one year (ΔC_G) (tonnes C ha^{-1})	Error range[#]
Annual cropland	5.0	± 75%
Perennial cropland		
Temperate (all moisture regimes)	2.1	± 75%
Tropical, dry	1.8	± 75%
Tropical, moist	2.6	± 75%
Tropical, wet	10.0	± 75%

[#] Represents a nominal estimate of error, equivalent to two times standard deviation, as a percentage of the mean.

This convert this value into tonnes of dry matter per hectare, it was divided by 0.47 (as per table 4.3 IPCC 2006 chapter 4): **2.6**/0.47 = **5.53**

The value provided in the evidence IPCC 2006, Volume 4, Chapter 5 was added to the monitoring report (see page 23 of the monitoring report).

Land category	**AGB**			
Other crop (annual)	**AGB (t/C/ha)**	**AGB (tdm/ha)**	90% Confidence Interval [tdm/ha]	90% Confidence Interval [%]
	2.6	5.53	4.15	75%

8- *Tectona grandis* is used as evidence because this species is indicated as the major species in reforestation in Côte d'Ivoire. This can be verified in the report on the general state of the forest, fauna and flora on page 42. This document is available here. Furthermore, of the values proposed by the IPCC (IPCC 2019 refinement to the 2006 Guidelines, volume 4. table 4.8 updated aboveground biomass in forest plantations), only the species *tectona grandis* is used for reforestation in the ERP area.

This explanation has been added to page 25 of the monitoring report

VVB Assessment	**Date: 14**/10/2023

3. the evidence provided is correct. Furthermore, the evidence on the MR is now correct.

7. the evidence and the explanations are deemed correct

8. the evidence provided as well as the explanation on the MR are deemed correct.

Therefore, MCAR 03 is closed.

NC ID: Major	**04**	**Date: 30/08/2023**
Description of NC		

Provide appropriate evidence or clarify the information given for the following:

1. Section 3.1 study by N'Gbala et al., (2017) provide this study in PDF.
2. Section 3.2 A(j,i) Area converted from forest type j to non-forest type i during the reference period (2000-2015). Provide the spreadsheet source for Table 2 "Annual deforestation and degradation (ha/ year) in the mesophile zone between 2000-2015"
3. Section 3.2 A(j,i) Area converted from forest type j to non-forest type i during the reference period (2000-2015).; Source of data and description of measurement/calculation methods and procedures applied. The document states that the MP is 2020-2021 while the spreadsheet has different dates for MP1 and MP2. Please clarify.
4. Section 3.2 A(j,i) Area converted from forest type j to non-forest type i during the monitoring period (2020-2021). Provide the source to check the values for the source of data and the uncertainty according to criterion 9.
5. Section 3.2 A(j,i) Area converted from forest type j to non-forest type i during the monitoring period (2020-2021). The reference period in this table is different. Please clarify.
6. Section 4.1 According to the template: *If Guidelines on the application of the MF Number 3 on reporting periods is applied, the years should reflect the years of the Monitoring Period*. It is stated that the two years of MP (highlighted in grey) are 20-21. however, is this the reporting period? Provide further explanations.
7. Section 5.1 provide further information about the QA/QC process to address errors (SOPs)
8. Section 5.1 regarding the high value of measurement to the overall uncertainty explain if this contribution is because of random or bias factors.
9. Section 5.1 Representativeness: Provide further explanations about the QA/QC process to avoid biases.
10. Section 5.1 provide the following evidence: the recommendations of Cochran (1977) and the GFOI MGD (2020).
11. Section 5.1 Other parameters; further information about the IPCC and the source of the values.

Project Participant response	**Date:** DD/MM/YYYY

1. **Section 3.1 study by N'Gbala et al., (2017) provide this study in PDF.** The document in PDF format is available via this link .
2. **Section 3.2 A(j,i) Area converted from forest type j to non-forest type i during the reference period (2000-2015). Provide the spreadsheet source for Table 2 "Annual deforestation and degradation (ha/ year) in the mesophile zone between 2000-2015".** Activity data tool has been updated with the summary information in sheet summary. The link to the spreadsheet has been updated in the document.
3. **Section 3.2 A(j,i) Area converted from forest type j to non-forest type i during the reference period (2000-2015); Source of data and description of measurement/calculation methods and procedures applied. The document states that the MP is 2020-2021 while the spreadsheet has different dates for MP1 and MP2. Please clarify.** The 2000-2015 period is the reference period, and the outline recommends that only data from the 2020-2021 follow-up period be processed. However, it essential to clarify that the calculation of emission reductions for the first ER-MR is based on two monitoring periods: i. 1/1/2016 to 12/31/2020 and ii. 1/1/2021 to 12/31/2021. Considering that Reporting Period is from October 30th, 2020, to December 31st, 2021, the total ERs correspond to the sum of the 3% of the emission reduction of the 2015-2020 monitoring period and the total ERs of 2020-2021. A clarification text has been added to the parameter description table in sections 3.2 and in 4 of ERMR. The source of the values for the periods 2015-2020 and 2020-2021 are available from this link.
4. **Section 3.2 A(j,i) Area converted from forest type j to non-forest type i during the monitoring period (2020-2021). Provide the source to check the values for the source of data and the uncertainty according to criterion 9.** The data source is available Here .
5. **Section 3.2 A(j,i) Area converted from forest type j to non-forest type i during the monitoring period (2020-2021). The reference period in this table is different. Please clarify**. The period 2000 – 2015 corresponds to the reference period while 2020-2021 to the follow-up period. To clarify this in the document to avoid confusion, only activity data for the monitoring periods 2015-2020 and 2020-2021 are retained and those for 2000-2015 have been removed from section 3.2.

6. **Section 4.1 According to the template: *If Guidelines on the application of the MF Number 3 on reporting periods is applied, the years should reflect the years of the Monitoring Period*. It is stated that the two years of MP (highlighted in grey) are 20-21. however, is this the reporting period? Provide further explanations.**

Yes, the 2020-2021 period corresponding to the two years highlighted in grey is the reporting period (30-10-2020 to 31-12-2021). Further explanations have been provided in section 4.3.

In accordance with the signed ERPA , the start date of the crediting period is October 30, 2020.This date corresponds to the definition of the start date of the crediting period provided in the FCPF glossary, namely:- It is not earlier than 2019, the date of inclusion of the program in the carbon fund portfolio.- It does not fall under the 2000-2015 reference period.

7. **Section 5.1 provide further information about the QA/QC process to address errors (SOPs).** Links to each of the QA/QC procedures are added to the document. These SOPs describe in full detail the treatments performed. They are available here for verification.

8. **Section 5.1 regarding the high value of measurement to the overall uncertainty explain if this contribution is because of random or bias factors.**

The contribution of the AD measurement is considered mostly bias factors. The random contribution has been minimized with the optimization of the sample size and location in land use change classes

previously defined with satellite imagery information. In this sense the large contribution is linked to the visual photointerpretation process, due to the challenge to determine the land use change based on colour, size, shape, structure, texture, and its arrangement with neighboring objects observed in the satellite imagery.

Level and Contribution type (random or bias) have been indicated for each source of uncertainty in Section 5.1 table.

9. **Section 5.1 provide the following evidence: the recommendations of Cochran (1977) and the GFOI MGD (2020).** Les liens permettant d'accéder à ces documents sont ajoutés dans le document.

MGD (2020) disponible Here and Cochran (1977) available via this link.

10. **Section 5.1 Other parameters; further information about the IPCC and the source of the values.** Les valeurs pour chacun des paramètres considérés sont détaillées dans la section 3.1 du document (paramètres fixes).

Documentation provided by the Project Participant	
VVB Assessment	**Date:** 28/09/2023

1. The evidence provided is deemed correct
2. The evidence provided is deemed correct
3. The clarification provided is deemed correct
4. The evidence provided is deemed correct
5. The clarification is deemed correct
6. The clarification provided is deemed correct
7. The evidence provided is deemed correct
8. The section has been updated and deemed correct
9. The evidence provided is deemed correct
10. The clarification provided is deemed correct

Therefore MCAR 04 is closed

NC ID: Major	**05**	**Date: 30/08/2023**
Description of NC		

Provide further clarifications:

1. Table 1: in the evidence “reports of activities carried out in the ICF” provide further explanations on where the information provided can be found in the document.
2. Table 1: provide further explanation on why the National indicative is referred to 2014-2020 and 2021-2027, while the regional indicative program was developed in 2019-2025.
3. Table 2: According to the REDD* strategy, there are other drivers of deforestation. Please explain why these have not been assessed in the ERMR.
4. Table 2: explain why the 1st phase 2018-2021 only provides evidence for years 2018, 2019 and 2020.
5. Table 2: in the section for strategy to combat expansion of agriculture, there is no mention of other types of farming such as rubber, also explained in the zero-deforestation section. Provide an explanation for not including it.
6. Section 1.2 Provide further clarification and information about the drivers and the displacement so it is clear.
7. Section 2.1 SOPs: The MP covers the period 2020-2021, however some of the SOPs, such as the one for data collection, were implemented in February 2023. please, explain such difference.
8. Section 5.1 Provide further explanation for the evidence “density of 0.58 g.m-3 which is the average value for tropical Africa (Reyes et al., 1992).”
9. Section 6.2 Provide further explanations about the arrangement to avoid multiple claims to an ER title.

Project Participant response	**Date:** DD/MM/YYYY

1. **Table 1: in the evidence "reports of activities carried out in the ICF" provide further explanations on where the information provided can be found in the document.**

All this information is contained in the annual report cocoa and forests initiative Côte d'Ivoire 2021 accessible from this link: https://drive.google.com/file/d/1GUqhK2Rn0JIgh9r5FRQ-XIT43urE0ksl/view?usp=drive_link

- More than 12,945,000 trees distributed for agroforestry and reforestation: Page 10
- More than 22,000 hectares of forests restored in rural areas: Page 10
- 193,395 hectares of cocoa agroforestry under development: Page 24
- More than 12,700 farmers benefiting from payments for environmental services: Page 10
- More than 387,200 farmers trained in good agricultural practices: more cocoa on less land: Page 11
- 249,807 farmers trained in smart practices in the face of climate change: Page 11
- More than 114,200 farmers benefiting from financial products and services: Page 11
- Improved traceability with mapping of more than 465,400 farms: Page 11
- Improved livelihoods of farmers through income-generating activities (production and sale of other agricultural products than cocoa, livestock or non-agricultural activities): Page 27.

All activities of the Cocoa and Forest Initiative are carried out throughout the cocoa supply basin in Côte d'Ivoire, which covers the southern half of the country including the emission reduction program area around the Taï Park.

2. **Table 1: provide further explanation on why the National indicative is referred to 2014-2020 and 2021-2027, while the regional indicative program was developed in 2019-2025**. This is a mistake. The regional programme also covers the period 2021-2027 (see link below: https://international-partnerships.ec.europa.eu/system/files/2022-01/mip-2021-c2021-9373-sub-saharan-africa-annex_en.pdf . This has been corrected in Table 1 of the document.
3. **Table 2: According to the REDD* strategy, there are other drivers of deforestation. Please explain why these have not been assessed in the ERMR.** We focused on the main drivers of deforestation (significant) for which the contribution to GHG emissions/removals can be directly assessed. This finding is reflected in the document by supplementing Table 2 with the evaluation of indirect drivers.
4. **Table 2: explain why the 1st phase 2018-2021 only provides evidence for years 2018, 2019 and 2020.** This is an omission from the report for the year 2021. It has therefore been added. All these reports are available via this link: https://1drv.ms/f/s!AjuGNp-WjLPhtlgjdfoUjoGUlHzG?e=Ab0MHf

5. **Table 2: in the section for strategy to combat expansion of agriculture, there is no mention of other types of farming such as rubber, also explained in the zero-deforestation section. Provide an explanation for not including it.** The report focused on cocoa cultivation, which is the main driver of deforestation in the agricultural sector. In the strategic option of zero deforestation agriculture, deforestation attributable to other agricultural speculations are addressed. In the document this finding was addressed:

For the rubber sector, the strategy is:

- Direct rubber cultivation to non-forested areas so that it contributes to the restoration of forest cover. A partnership agreement was signed between SEP-REDD+ and APROMAC to define, promote and develop a zero deforestation rubber sector in Côte d'Ivoire;

- Contribute to the regeneration of old rubber plantations in the forest zone and encourage the development of new rubber plantations in the forest-savannah transition zone while respecting these areas;
- Promote the technical and economic valorization of rubber wood into timber and wood energy to limit harvesting in the forest, but also to facilitate the regeneration of old plantations.

For the oil palm sector

- Development of new palm plantations as part of a land use and management plan that respects the identified protection zones (high carbon stock, high conservation value, peatlands, etc.);
- Promotion of zero deforestation Ivorian palm oil to international buyers and investors who have made zero deforestation commitments to their customers;
- Intensification of oil palm operations through the adoption of better agricultural and conservation practices that respect environmental sustainability and maximize social benefits.

6. **Section 1.2 Provide further clarification and information about the drivers and the displacement so it is clear.**

This finding is reflected in the document, as updating the information in the table in sections 1.1 and 1.2 helps to align and clarify the main drivers of deforestation and forest degradation.

7. **Section 2.1 SOPs: The MP covers the period 2020-2021, however some of the SOPs, such as the one for data collection, were implemented in February 2023. please, explain such difference.**

The reporting period goes from 2020-2021 (precisely from October 30, 2020 to December 31, 2021). Therefore. the work to determine activity data and development of the SOPs was carried out after this period, between 2022 and 2023.

8. **Section 5.1 Provide further explanation for the evidence "density of 0.58 g.m-3 which is the average value for tropical Africa (Reyes et al., 1992).”** The proof for this Default Average Density Value of wood can be obtained from the following link: https://www.srs.fs.usda.gov/pubs/gtr/gtr_so088.pdf
9. **Section 6.2 Provide further explanations about the arrangement to avoid multiple claims to an ER title.**

A national register for the identification and geolocation of emission reduction initiatives at the national level is being developed in Côte d'Ivoire to count the emissions reduced by each of the national projects/initiatives and thus ensure that they are not counted twice. This registry will:

- Collect all basic information related to REDD+ projects and programmes, including the ERP (it will clarify: who owns the emission reductions; what are the precise geographical boundaries with geolocation; planned activities, duration of the project, reduced emissions, etc.)
- Address potential overlap between projects and initiatives to avoid double counting;
- Specify the technical elements of the project (carbon pools selected, baseline scenario, etc.)
- To make available in a clear, centralized and free way, all information relating to projects and initiatives underway in the territory.

Once this register is integrated into the Geoportal Platform (http://www.geoportailsst.com/) under development. The information will be freely available online, in the official language of the country (French).

While waiting for the registry, SEP-REDD+ has already started to inventory all REDD+ initiatives in the country.

Documentation provided by the Project Participant	
VVB Assessment	**Date:** 28/09/2023

1. The evidence provided is deemed correct. Nevertheless, in the MR, the link provided shows different evidence. Please, detail in the MR which evidence corresponds to the mentioned data
2. Section updated and deemed correct
3. The clarification provided is deemed correct
4. The evidence and the information provided is deemed correct
5. The section is considered clear
6. Section updated and deemed correct
7. The statement provided is deemed correct
8. Please, explain where is possible to find within the evidence provided the default value of 0.58
9. Section updated and deemed correct

Project Participant response	**Date:** 06/10/2023

8- In the evidence provided, the default value of 0.58 g.m-3 for wood density is not clearly written. This value of 0.58 g.m^{-3} corresponds to the arithmetic mean of all the wood density values for the tropical African region provided in the document by Reyes et al., 1992 (page 12 to 14), which is the reference study. However, based on this study, the FAO (1997) clearly mentioned the value 0.58 g.m^{-3} as the default value for wood density in tropical Africa. This can be verified here in section 3.1.2, see figure below.

The arithmetic mean and most common wood density values (t/m^3 or g/cm^3) for tropical tree species by region

Tropical region	No. of species	Mean	Common range
Africa	282	0.58	0.50-0.79
America	470	0.60	0.50-0.69
Asia	428	0.57	0.40-0.69

(from Reyes et al. 1992)

The reference (FAO, 1997) has therefore been added to the monitoring report on page 67.

VVB Assessment	**Date:** 14/10/2023

8. the evidence provided is deemed correct. Therefore, MCAR 05 is closed

NC ID: Major	**06**	**Date: 30/08/2023**
Description of NC		

Complete the following sections to comply with the requirements of the template:

1. Section 1.1. According to the template the following information is missing: *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.*
2. Section 2.1 states "Describe the Forest Monitoring System including the systems and processes that ensure the accuracy of the data and information" in the document it is only mentioned, not explained.
3. Section 2.1 same as the previous item, provide a description of the SOPs.
4. Section 4.2 Complete the section to comply with the template and with Criterion 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.*
5. Section 7.2 delete the instructions.

Project Participant response	**Date:** DD/MM/YYYY

1. **Section 1.1. According to the template the following information is missing:** ***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.*** Regarding the financial plan, the PRE like any REDD+ project is results-oriented and aims to capitalize on the efforts of programmes, projects and initiatives (Table 1) and the public and private investments implemented in the area. Also, it should be added that an advance of 1,000,000 US dollars compared to the revenues generated by the sale of emission reductions was obtained by the country at the end of 2022. This advance is managed by the Foundation for Parks and Reserves of Côte d'Ivoire (FPRCI) and is used for MRV activities, estimation of emission reductions and the conduct of daily activities.
2. **Section 2.1 states "Describe the Forest Monitoring System including the systems and processes that ensure the accuracy of the data and information" in the document it is only mentioned, not explained.**

Further explanations have been provided as summarized below:

- Implementation of QA/QC processes in all data production processes:

Case of forest inventory data. A field data collection manual has been developed to serve as a guide. Subsequently, training of data collection teams was carried out with a view to strengthening their competence. A pilot phase of data collection allowed the teams to understand the collection process; In the field, data collection was done in 2 formats, paper (field sheet) and digital (tablets on which the Collect tool was installed). The verification of the conformity of the data collected on the field sheets and tablets made it possible to make corrections if necessary;- The establishment of mixed teams (SEPREDD+, universities and research centers, and civil society organizations) for missions of control and verification of the data inventoried in the field.

- In terms of activity data, 4 standard operating procedure (SOP) documents have been established.

They are described in detail and accessible at the following links:

- SOP1 : Design of the sampling plan. This document describes a spatially referenced, probability-based sampling design and a balanced geographic distribution for estimating land use and land change.
- SOP2 : Response System. This procedure describes how to assign labels (occupancy or land use category) to a sample unit. The response plan provides the best available classification of changes for each spatial unit sampled and contains all the information necessary to replicate the process of labeling the sampling unit. The response plan establishes an objective procedure that interpreters can follow and that reduces interpretation bias.
- SOP3 : Baseline Data Collection. This SOP explains how to set up and execute data collection for visual sample interpretation using primarily remote sensing data for sample information collection and quality management.
- SOP4 : Analysis system. This SOP describes how area estimates and their uncertainties through the combined use of reference data and maps.

3. **Section 2.1 same as the previous item, provide a description of the SOPs.**

See above response.

4. **Section 4.2 Complete the section to comply with the template and with Criterion 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.

The Reference Level and emissions monitoring methods have been shared publicly in the ER-MR report, which can be found on the FCPF website (https://www.forestcarbonpartnership.org/system/files/documents/civ_1st_fcpf_er-mr_ghg_only_v1.1_jun-7-2023_final.pdf) . The report also contains links that allow unrestricted access to all the data and calculation tools. A note has been added below the table of section 4.2.

5. Section 7.2 delete the instructions.

This is an omission. The instructions have been removed from the document.

Documentation provided by the Project Participant	
VVB Assessment	**Date:** 28/09/2023
1. Section updated and deemed correct 2. The clarification provided is deemed correct 3. Please, provide the explanations in the MR 4. The evidence provided is deemed correct 5. All the instructions have been deleted	
Project Participant response	**Date:** 06/10/2023
3- The explanations are provided in section 2.1 of the monitoring report, specifically on pages 18 and 19.	
VVB Assessment	**Date: 14**/10/2023
3. the explanation provided in the MR is correct. Therefore MCAR 06 is closed	

NC ID: Major	**07**	**Date: 30/08/2023**
Description of NC		
Provide further clarifications: 1. Section 3.1 AGB, the Chave et al. (2014) formula does not coincide exactly with the one stated in the document. Provide further explanation.		
Project Participant response		**Date:** DD/MM/YYYY

This is a font error in the document. The formula has been corrected: **AGB = 0.0673 x (r DHP2 H)$^{0.976}$** Where: **AGB** is the estimated aboveground biomass in Kg; **DHP** is the diameter at breast height in cm; **H** is the total height of the tree (m); **r** is the specific density of the wood (g.cm-3)
Documentation provided by the Project Participant

VVB Assessment	**Date:** 28/09/2023
The formula has been corrected. Therefore, MCAR 07 is closed	

NC ID: Major	**08**	**Date: 30/08/2023**
Description of NC		
Correct the following: 1. Section 5.1 according to the Uncertainty guidelines the source of uncertainty from other parameters is high.		
Project Participant response		**Date:** DD/MM/YYYY
Section 5.1 has been adjusted to indicate that the source of uncertainty for that parameter is high.		
Documentation provided by the Project Participant		
VVB Assessment		**Date:** 28/09/2023
Section updated and deemed correct. Therefore, MCAR 08 is closed		

NC ID: Major	**09**	**Date: 18/10/2023**
Description of NC		

A GHG project registered under a voluntary carbon program has been detected in the host country. This project is overlapped with the FCPF ER program in terms of project area and crediting period.

Project is certified by Plan Vivo using the Acorn framework. Please, see some details of the project:

https://acorn.rabobank.com/en/projects/farmstrong-foundation-ivory-coast/

https://acorn.rabobank.com/en/registry/

https://assets.ctfassets.net/9vhdnop8eg9t/2a1ScULYFT0OT98dSZ0awn/d72c54fa4d8d22587e93a6bebae5db27/C__te_d-Ivoire_FarmStrong_ADD-6-.pdf

https://www.planvivo.org/acorn

Then, AENOR requests explanations on how the host country is preventing the double claiming for this project and others, if applicable.

Project Participant response	**Date:** 11/12/2023

Following the finding raised by AENOR regarding the Farmstrong Côte d'Ivoire GHG project detected in the ERP area, the Government contacted RABOBANK who is the financier of the Farmstrong project, requesting it to share all related documentation. Analysis of these documents shows that the Farmstrong project undertook an assessment of carbon sequestration attributable to the agroforestry activities carried out. However, there were no documents or contracts signed that gave RABOBANK the right to carry out carbon transactions in Côte d'Ivoire.

The Government further contacted Plan vivo (the certifier listed on Rabobank's website: https://acorn.rabobank.com/en/registry/), where email exchanges revealed that Plan Vivo did not certify the carbon credits for this project, but rather the ACORN standard. According to the Acorn framework, article 4.7.2 stipulates that "An Acorn project shall not be incorporated by any other accounting program (e.g. compliance, voluntary or national GHG program) unless upon Acorn approval and with official agreement that demonstrates that no double counting is taking place". Such official agreement isn't available and therefore the Farmstrong project is not compliant.

Therefore, an official letter signed by the Minister of the Environment, Sustainable Development and Ecological Transition was sent to RABOBANK requesting it to cancel their carbon credit valorization activities in the ERP zone, to align with the Presidential decree No. 2021-674 and interministerial decree No. 0183 in place that stipulate that all ERs issued in the ERP area are Government property and per the signed ERPAs, 10 million ERs will be transferred to the WB, and any additional ERs are subject to negotiations through a Call Option. In addition, since the ERP takes into account all activities that have contributed to reducing emissions, including reforestation, agroforestry and forest conservation, the Minister invited Rabobank to direct its project's producers to the ERP who could be potential ERP beneficiaries.

While information about carbon credits issued by RABOBANK are being verified, these volumes (122,457 tCO2eq) are temporarily subtracted from the reduced emissions to be transferred to the FCPF. This reduction is made as an exceptional measure and to avoid double counting.

In terms of future projects, beyond the ERPA duration (October 2020 – December 2024), a national institutional and regulatory framework for accessing carbon markets including the voluntary market is currently being developed and will allow the country to have the necessary tools to register, evaluate and give a notice of no objection to projects whose objectives are to access carbon markets and thus align them, as applicable, with Cote d'Ivoire's nationally determined contributions. A national register will also be developed and will make it possible to monitor projects to avoid double counting.

Documentation provided by the Project Participant

Decree No. 2021-674 of November 3, 2021 on the transfer of carbon credits under the ERPA : http://reddplus.ci/download/decret-no-2021-674-du-03-11-2021-portant-transfert-des-titres-carbone-dans-le-cadre-du-pre/ Decree No. 0183/MEF/MEMINADER/MINEF/MBPE/MINEDD of February 16, 2022 on the management modalities of carbon credits around the Tai National Park : http://reddplus.ci/download/arrete-no0183-du-16-02-2022-portant-modalites-de-gestion-des-titres-carbone-pre/ Letter signed by the Minister of Environment, Sustainable Development and Ecological Transition addressed to RABOBANK to request that it suspend its activities to value carbon emission reduction credits : https://1drv.ms/b/s!AmRJ_eqaQcEHhcMpcgkqHlbfQjr9lw?e=09XfQb

VVB Assessment	**Date: 18/12/2023**
AENOR considers that the response provided by the Country is reasonable, acceptable, and justifiable. AENOR has reviewed the evidence provided such as the agreements or letters, as well as the explanations demonstrating the lack of compliance of The Acorn project with its Acorn standard. Therefore, AENOR deems that the finding has positively closed. Therefore MCAR 09 is closed	

NC ID: Minor	**10**	**Date: 22/01/2024**
Description of NC		
By the time of the validation and verification report submission, the VVB has identified the following issue: Within section 6.2 of the implementation and operation of Program and Projects Data Management System, the Country has indicated that “Once this register has been integrated into the geoportal platform web platform currently under development (scheduled for completion by the end of 2023). The information will be freely available online, in the country's official language (French). In anticipation of the register, SEP-REDD+ has already begun to make an inventory of all the country's REDD+ initiatives.” However, by the finalization of the validation and verification report, in January 2024, the web platform is still under development and does not work. Hence, please provide evidence about the good functioning of the web platform once it is totally developed. This Minor CAR (mCAR is Open)		
Project Participant response		**Date:** DD/MM/YYYY
Documentation provided by the Project Participant		
VVB Assessment		**Date:** DD/MM/YYYY

Observations (OBSs)

OBS ID	**01**	**Date: 30/08/2023**
Description of OBS		
The following formatting errors were found: 1. In the header table there are different fonts used. 2. Table 1: the thousands separation should be according to the template´s instructions. 3. In table 1 a different font has been used. 4. Section 1.1 las paragraph, the font used is different. 5. Section 8.3 and 9.1 overlapping tables.		
Country participant response		**Date:** 15/09/2023
These elements are well noted and will be taken into account directly in the document.		
Documentation provided by the Country Participant		
VVB assessment		**Date:** 28/09/2023
All the issues have been addressed. Therefore, OBS 01 is closed		

OBS ID	02	Date: 30/08/2023
Description of OBS		
The following mistakes were found: 1. Table 1: the link for the report of the agroforestry activity leads to a map folder, not the described report. 2. Table 1 In the ISLA information, there are no dates specified. 3. Section 2.2.2 equation 4 & 10, the reference is wrong, it is not equation 2.16 of the IPCC.		
Country participant response		**Date:** DD/MM/YYYY

1. **Table 1: the link for the report of the agroforestry activity leads to a map folder, not the described report.** Indeed 5,000 ha of agroforestry have been established, the activity report can be consulted via this link: https://1drv.ms/b/s!AjuGNp-WjLPhtmE-aDojZ0WoYN94?e=JGBwn3. However we recall that only 3,077.32 ha have already been mapped whose database in shapefile format is available here.

2. **Table 1 In the ISLA information, there are no dates specified**: This is an omission. The dates have been added to the document. This document was developed in 2020 to serve as a basis for the spatial planning master plan for the Cavally region for the period 2021-2025.

3. **Section 2.2.2 equation 4 & 10, the reference is wrong, it is not equation 2.16 of the IPCC.**

Both equations have been corrected. Please see below Equation 2.16 in CHAPTER 2 GENERIC METHODOLOGIES APPLICABLE TO MULTIPLE LAND- USE CATEGORIES accessible at the following link https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4_Volume4/V4_02_Ch2_Generic.pdf .

EQUATION 2.16
INITIAL CHANGE IN BIOMASS CARBON STOCKS ON LAND CONVERTED TO ANOTHER LAND CATEGORY

$$\Delta C_{CONVERSION} = \sum_i \{(B_{AFTER_i} - B_{BEFORE_i}) \bullet \Delta A_{TO\_OTHERS_i}\} \bullet CF$$

Where:

$\Delta C_{CONVERSION}$ = initial change in biomass carbon stocks on land converted to another land category tonnes C yr^{-1}

B_{AFTER_i} = biomass stocks on land type *i* immediately after the conversion, tonnes d.m. ha^{-1}

B_{BEFORE_i} = biomass stocks on land type *i* before the conversion, tonnes d.m. ha^{-1}

$\Delta A_{TO\_OTHERS_i}$ = area of land use *i* converted to another land-use category in a certain year, ha yr^{-1}

CF = carbon fraction of dry matter, tonne C (tonnes d.m.)$^{-1}$

i = type of land use converted to another land-use category

Documentation provided by the Country Participant	
VVB assessment	**Date:** 28/09/2023
1 and 2. The information provided is deemed correct 3. the equation 2.16 is still incorrect according to the reference of equations 4 and 10 of the MR and evidence provided	
Country participant response	**Date:** 09/10/2023
Equations 4 and 10 has been corrected according to the equation 2.16.	
VVB Assessment	**Date:** 14/10/2023
the formula has been corrected. Therefore, OBS 02 is closed	

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

AENOR has reviewed all evidence provided. The evidence provided by the country are located within the Monitoring report in the corresponding section for each evidence. The evidence is located within external links that can be visited to contrast the information. AENOR confirms that all the links referenced in the MR work properly and they are updated. If some links were broken when AENOR tried to open them, some findings have been raised to solve the problem.

Document information

Version	Date	Description
1.2	September 2021	Section 4.3 has been included to request information on the start date of the crediting period.
1.1	November 2020	Reference to the newly approved Guidelines on Uncertainty Analysis of Emission Reductions.
1.0	August 2020	Initial version adopted.