



GAP Validation Report

Version 1.1

24-January-2025

Document Prepared by AENOR CONFIA S.A.U.



**Forest Carbon Partnership Facility (FCPF)
Carbon Fund**

GAP Validation Report (G-VAR)

ER Program Name and Country:	Zambézia Integrated Landscape Management Program (ZILMP) Republic of Mozambique
Crediting Period	01-01-2018 to 31-12-2024
Name of the VVB:	AENOR CONFIA S.A.U.
Contact information of the VVB:	Génova 6. 28004 Madrid - Spain. Telephone +34 914326000 jfuentes@aenor.com www.aenor.com
Date of the GAP Validation Report:	24-01-2025
Version:	1.1
Report Approved by	José Luis Fuentes

1. GAP VALIDATION STATEMENT

The review and cross-check of explanations and justifications included in the Monitoring Report Version 5.4 dated on 15-11-2024 and supporting documents, have provided AENOR with sufficient evidence to determine with a reasonable level of assurance the compliance of the Zambézia Integrated Landscape Management Program (ZILMP) with the applicable GAP-validation criteria set out in the VVG.

The scope covered by the GAP validation includes the ER Program's crediting period (01-01-2018 to 31-12-2024) the selected Reference Period (01-01-2005 to 12-31-2015), the accounting area (5,310,265.16 hectare), the REDD Country Participant's Forest Monitoring System, the national REDD+ Programs and Projects Data Management System and the following GHG sources, sinks, REDD+ activities and carbon pools:

GHG sources and sinks (REDD+ activities)
Emissions from deforestation – Included
Emissions from forest degradation – Excluded
Enhancement of carbon stock – Excluded
Sustainable forest management – Excluded
Conservation of Carbon Stocks – Excluded
Carbon pools
Above-Ground biomass (AGB) – Included
Below-Ground biomass (BGB) – Included
Biomass in non-woody vegetation – Excluded
Dead Organic Matter – Excluded
Soil Organic Carbon (SOC) – Excluded
GHG
CO ₂ – Included
CH ₄ – Excluded
N ₂ O – Excluded

The gap validation was performed through a combination of document review, 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) v2.7 section 11, to ensure compliance with all requirements.

A total of 4 MCAR, 3 mCAR and 2 Observations were raised as part of the GAP validation process. All findings were successfully addressed by the ER Program and closed by the VVB, as described in Appendix 1 of this report.

Regarding the Reference Level, it is AENOR's opinion that of the Zambézia Integrated Landscape Management Program (ZILMP) meets the applicable GAP validation criteria set out in the FCPF requirements and that it is free of material misstatements.

Statement issuing date: 24-January-2025

Intended User: World Bank Group, FCPF Carbon Fund Participants



Adrián Vidal de Prados
Team Leader



José Luis Fuentes
Climate Change Manager

2. Agreement

2.1 Level of Assurance

The 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 stated in the FCPF requirements, in conformance with paragraph 31 of the VVG v2.7. 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 assumptions made by the FCPF Program to estimate the Reference Level are materially correct and are a fair representation of the GHG data and information provided in the ER Monitoring Report, Annex IV 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 Zambézia Integrated Landscape Management Program, for the reporting period from 01-01-2018 to 31-12-2018 against the FCPF criteria applicable to validation with extended objectives and to determine if the reported information in the ER Monitoring Report and annex 4 is in compliance to the agreed criteria and free from material errors, omissions, or misstatements.

As required by paragraph 35 of the VVG v2.7 this GAP validation covers the specified objectives of paragraph 32 and 33 of the VVG 2.7.

The general objectives of the validation, as required by paragraph 32 of the VVG v2.7, were:

- Review of the ER Monitoring Report and supporting information to confirm the correctness of presented information;
- Assess whether the start date of the crediting period proposed by the ER Program is in compliance with the definition provided in the FCPF Glossary of terms;
- Assess the extent to which the reported ERs have been reported with a transparent and coherent step-by-step process that enables reconstruction and have meet the requirements of applicable criteria;
- Assess the extent to which the reported GHG emissions/Emission Reductions/Reference Level are materially accurate, i.e. free of material misstatements, errors or omissions;
- Assess the Forest Monitoring System (FMS) of the ER Program and validate that there are controls for sources of potential errors, omissions, and misstatements in place;
- Identify components of the FMS 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 extended validation, as required by paragraph 33 of the VVG v2.7, 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.
- FCPF Validation and Verification Guidelines v2.7 January 2025.
- Buffer Guidelines v4.2 June 2024.
- 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 v6.2 January 2025.
- Glossary of Terms v2.3 January, 2025.
- Guidelines contained in the ER Monitoring Report Template (v3.1), the GAP Validation Report Template (v1.0, January 2025).
- 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 GAP validation, as per paragraph 37 of the VVG 2.7:

Criteria/indicator	Topic
3	Scope and methods
4	Carbon pools and GHG
5	IPCC guidelines
10-13	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 the GAP validation included as per section 8.4 of the VVG v.2.7:

- The Crediting Period of the FCPF program applicable to the ER Program;
- The selected Reference Period (Validation) and the applicable Reporting Period (Verification);
- 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 or centralized REDD+ Program and Projects Data Management System.

2.5 Materiality

The materiality threshold of the validation, as required section 8.5 of the VVG v2.7, 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 GAP validation process based on the desk review found that there are not quantitative and/or qualitative material discrepancies affecting the assumptions made to define and estimate the reference level. The process for estimating the threshold of materiality is described below: any material discrepancy identified by the VVB through the application of the above criteria was considered as non-conformities as described in Section 11 of the VVG v2.7.

3. METHODOLOGY AND PLANNING

3.1 Validation Team

The following team carried out the GAP validation, in accordance with sections 7.6, 7.7, and 7.9 of the VVG v2.7:

Name	Role	Activities			
		Desk review	Reporting	Supervision	Technical review
Adrián Vidal	Team Leader	X	X	X	
João Barata	Validator Auditor	X	X		
Marcos Recio	Validator Auditor	X	X		
José Luis Fuentes	Reviewer				X
Javier Cócerá	Reviewer				X

3.2 GAP-Validation schedule

Tasks	Deliverable	Date	Responsible
1. Kick-off meeting	Minutes of KOM	18.07.2024	All parties
2. Initial Desk Review	Preliminary relevant findings, if applicable	01.08.2024	AENOR
3. Draft Sampling Plan	Preliminary sampling plan	09.08.2024	AENOR
4. Draft Audit Plan	Preliminary audit plan	09.08.2024	AENOR
5. Sampling plan	Sampling plan	16.08.2024	AENOR
6. Audit Plan	Audit plan	16.08.2024	AENOR
7. Issuance of the first round of findings	List of findings	15.10.2024	AENOR
8. Answer to findings	Answer to findings	29.10.2024	Country participant is responsible to response the round of findings, and after the answer, AENOR is responsible to review the Country participant responses
9. Review of findings and potential 2nd round of findings	2nd round of findings	08.11.2024	AENOR
10. Response to second round of findings	Answer to findings	18.11.2024	Country participant
11. Closure of findings	Closure of findings	29.11.2024	AENOR
12. Draft GAP validation report preparation	Preliminary report	16.01.2025	AENOR
13. Technical review	Draft validation report	24.01.2025	AENOR
14. Draft validation report revised by Country Participant and FMT	Plan with comments	31.01.2025	Country participant / FMT
15. Issuance of validation report after revision	Final validation report	12.02.2025	AENOR

3.3 Methodology description

The GAP validation was performed through a combination of document review 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 GAP validation of the ER Program, as required by section 9.4 of the VVG v2.7. 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.

All findings, 4 MCAR, 3 mCAR and 2 OBS, issued by AENOR's audit team during the validation process have been closed. 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 IPCC guidelines, the data and parameters used for calculations, the estimated uncertainty, and the design of the FMS.

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 communications, the validation team required additional documentation to the Country Participant to verify certain statements or have further clarification regarding 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.

4. VALIDATION OF ER PROGRAM DESIGN

4.1 Completeness of Report

AENOR has reviewed the ER Monitoring, supporting information, procedures, calculations, and supporting documentation of the Emission Reduction Program in Mozambique (ZILMP), and confirms that sufficient information has been included in Annex 4 of the ER Monitoring Report.

4.2 Sources and Sinks

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

Sources/Sinks	Included?
Emissions from deforestation	Yes
Emissions from forest degradation	No
Enhancement of carbon stocks	No
Sustainable management of forests	No
Conservation of carbon stocks	No

AENOR assessed the justifications and methods presented in Annex 4 - section 7.1 of the ER Monitoring Report and found that the included and excluded sources and sinks are correct in compliance with the requirements set by criterion 3 of the MF.

Additionally, AENOR confirms that the ER Program includes Emissions from deforestation and excludes Emissions and removals from:

- Forest degradation: Conservatively excluded since the estimation of forest degradation correspond to 37,945 tCO₂e which is less than a 10% of the emissions from deforestation.
- Enhancement of carbon stock: Conservatively excluded due to the small amount of plantations in the ZILMP area respecting the UNFFCCC safeguards and that carbon sequestration for such an area is not significant enough to be accounted for.
- Sustainable management of forest: Conservatively excluded since activities for IFM would only reduce degradation that is excluded as explained above.

- Conservation of carbon stocks: Excluded since this concerns to the RNG that will benefit from a REDD+ project fund.

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

4.3 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 (BGB) – Included
Biomass in non-woody vegetation – Excluded
Dead organic matter (Dead Wood and Litter) – Excluded
Soil Organic Carbon (SOC) – Excluded
GHGs
CO ₂ – Included
CH ₄ – Excluded
N ₂ O – 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 and GHG. No overestimations are occurring due to the inclusion of non-significant carbon pools and GHG.

AENOR confirms that the ER Program has proposed plans for improving data on excluded pools such as the Soil Organic Carbon (SOC) has assessed during the audit process and can be seen in MCAR 1 in appendix 1 of this report.

4.4 Reference Period

AENOR confirms that the start and end dates of the Reference Period (01-01-2005 to 12-31-2015) 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. The Reference Period has not changed from the proposed period in the ER-PD.

4.5 Forest Definition

The definition of the forest used for the construction of the FREL complies with the national REDD+ strategy and Final Forest Report (Falcão and Noa, 2016) approved by MITADER in November 2016. Considering that a forest in Mozambique is “minimum area of 1 ha, minimum height at maturity of 3 m and minimum tree cover of 30%”. Moreover, two types of forest are considered for the ZILMP, the Semi deciduous forests and Evergreen forest according to the Reference Level for Forestry emissions in Mozambique.

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 a forest definition.

4.6 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 GAP validation carried out, AENOR confirms that:

- Zambézia Integrated Landscape Management Program (ZILMP) 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.

4.7 Forest Monitoring System

4.7.1 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	$A(j,i)_{MP}$ = Area converted from forest type j to non-forest type i during the Monitoring Period.
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Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	Activity data used for the monitoring period are obtained from Tier 3 (data specifically produced for the ER Program) through a combination of an annual wall-to-wall deforestation map with sampling to generate deforested area estimates through a stratified estimator. The audit team reviewed the Source, Variable of interest, Annual deforestation map, Sampling design, Response design, and Analysis methods, as well as QA/QC procedures, to ensure their consistency and accuracy for obtaining the activity data. The 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 remote sensing 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 VVB confirmed that activity data are determined periodically, at least twice during the Crediting Period, and allow for ERs to be estimated from the Crediting Period Start Date.

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 Indicator 14.2 of the Methodological Framework and the IPCC Guidelines and Guidance,

4.7.2 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	AGB _{before,j} = Aboveground biomass of forest type <i>j</i> before conversion
Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	The audit team cross-checked that the data used are IPCC Tier 2 (country specific data or country level estimates or locally derived estimates), sourced from the NFI (for deciduous and evergreen forests) or for Mangrove forests. For semi-deciduous and evergreen forest, data are from the Zambézia Forest Inventory. It includes data that was collected in Zambézia province during the NFI, in 2017 and 2018. Although the inventory covers the whole province of Zambezia this is still representative of the forests located in the ZILMP as forests across the province are homogenous (floristic and structural composition). Moreover, the higher sample size of the inventory covering the whole province enables more precise estimates for emission factors. The audit team reviewed the Sampling design, Data collection, Prediction at plot level (including the list of allometric equations used to estimate above and below biomass), and Estimation methods, as well as QA/QC procedures, to ensure their consistency and accuracy for obtaining the parameter. Data from the sources has been re-evaluated by the VVB team, which confirmed that the values used are consistent with those of the program area and that the uncertainty the emission factor is documented. 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.

Parameters	BGB _{before,j} = Belowground biomass of forest type <i>j</i> before conversion,
Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	The audit team cross-checked that the data used are IPCC Tier 2 (country specific data or country level estimates or locally derived estimates). For semi-deciduous and evergreen forest, data are from the Zambézia Forest Inventory. It includes data that was collected in Zambézia province during the NFI, in 2017 and 2018. The audit team reviewed the Sampling design, Data collection, Prediction at plot level (including the list of allometric equations used to estimate above and below biomass), and Estimation

	methods, as well as QA/QC procedures, to ensure their consistency and accuracy for obtaining the parameter. Data from the sources has been re-evaluated by the VVB team, which confirmed that the values used are consistent with those of the program area and that the uncertainty the emission factor is documented. 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.
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Parameters	AGB _{after,i} = Aboveground biomass of non-forest type <i>i</i> after conversion
Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	The audit team substantiate that the data used are IPCC Tier 1. The audit team considers this method is justified, as country-specific data is not available, complying with Indicator 14.3 of the MF. For cropland: The values and assumptions of 2006 IPCC GL, Volume 4, Chapter 5 are used, as country-specific data is not available. The agricultural land in Mozambique is mostly under the annual-crop farming practices that drive conversion of forest land to agricultural lands. So, according to 2006 IPCC GL (Volume 4, Chapter 5, Section 5.28), for lands planted in annual crops, the default value of growth in crops planted after conversion is 5 tonnes of C per hectare, based on the original IPCC Guidelines recommendation of 10 tonnes of dry biomass per hectare (dry biomass has been converted to tonnes carbon in Table 5.9) (2006 IPCC, Volume 4, Chapter 5, Section 5.28). For grassland: The values and assumptions of 2006 IPCC GL, Volume 4, Chapter 6 are used, as country-specific data is not available. As the climate in most of Mozambique is tropical dry to subtropical dry, the value of peak-above ground biomass for tropical dry of Table 6.4 is assumed. For other lands: No default values are available. The audit team reviewed the Sampling design, Data collection, Prediction at plot level (including the list of allometric equations used to estimate above and below biomass), and Estimation methods, as well as QA/QC procedures, to ensure their consistency and accuracy for obtaining the parameter. Data from the sources has been re-evaluated by the VVB team, which confirmed that the values used are consistent with those of the program area and that the uncertainty the emission factor is documented. 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.
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Parameters	BGB _{after,i} = Belowground biomass of non-forest type <i>i</i> after conversion
Free of Material Misstatement	Yes
Reported Appropriately	Yes
Assessment Details	The audit team substantiate that the data used are IPCC Tier 1. The audit team considers this method is justified, as country-specific data is not available, complying with Indicator 14.3 of the MF. For cropland: The values and assumptions of 2006 IPCC GL, Volume 4, Chapter 5 are used, as country-specific data is not available. Tier 2 may modify the assumption that carbon stocks immediately following conversion are zero. In this case, it is assumed that conversion leads to annual croplands and in the case the carbon stock in biomass after one year for annual crops provided in Table 5.9 is used. For grassland: The values and assumptions of 2006 IPCC GL, Volume 4, Chapter 6, Table 6.1 and Table 6.4 are used, as country-specific data is not available. As the climate in most of Mozambique is tropical dry to subtropical dry, the value for semi-arid grassland in tropical dry climate zone is used, therefore a root-shoot ratio of 2.8 (Table 6.1) is applied to the value of peak above-ground biomass, 2.3 tonnes of dry biomass per hectare (Table 6.4), generating the expected values 6.4 tonnes of dry biomass per hectare. For other lands: No default values are available. The audit team reviewed the Sampling design, Data collection, Prediction at plot level (including the list of allometric equations used to estimate above and below biomass), and Estimation methods, as well as QA/QC procedures, to ensure their consistency and accuracy for obtaining the parameter. Data from the sources has been re-evaluated by the VVB team, which confirmed that the values used are consistent with those of the program area and that the uncertainty the emission factor is documented. 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.

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 that the Emission Factors are compliant with the Indicator 14.3 of Methodological Framework and the IPCC Guidelines and Guidance.

4.7.3 National Forest Monitoring System

Section 2.1 of the MR describes that Mozambique has not formalized its national monitoring system (NFMS) yet, with work in progress between the National Directorate of Forest (DINAF) and FNDS and other relevant stakeholders to formalize it. The current monitoring system has three sub-systems:

- Satellite and land monitoring system
- National forest inventory
- National GHG inventory

The forest monitoring system (FMS) under the ZILMP is simpler in terms of processes and entities as it relies on the first and second system above, and it is fully operated by the MRV unit within FNDS with collaboration of DINAF. Therefore, the system uses the standard technical procedures of the NFMS as required by Criterion 15 of the MF.

The audit team reviewed the last version of the MR, the FCPF website¹ and the MRV Unit website² to confirm the alignment of the ER Program with the National Forest Monitoring System. After carrying out the assessment, AENOR deems that it is in accordance with criterion 15 of the MF, as the MR articulates how the Forest Monitoring System fits into the emerging National Forest Monitoring System.

Likewise, the VVB confirmed that the ER program has QA/QC procedures in place to identify sources of potential errors, omissions, and misstatements.

4.7.4 Community participation in the Monitoring System

Section 2.1 of the MR describes that community monitoring is not relevant for the FMS of the ZILMP as it has not been used to monitor GHG emissions and Emission Reductions, yet this is still used for monitoring of implementation of program activities. There have been meetings held at district level and some communities.

In December of 2020, the MRV Unit tested the introduction of participatory MRV (PMRV) for annual monitoring of deforestation under the ZILMP, which is part of the recommendation of civil society, decision makers and the scientific community in the measurement, reporting and verification (MRV) of stocks of carbon with the participation of the local community. In phase one, the PMRV was tested in twelve communities across the districts of Alto Molocué, Mocuba, Mulevala and Gilé, where three communities were selected per district.

The aim of the PMRV activities was to involve communities in deforestation reporting activities (confirming deforestation cases and reporting new cases using GIS tools such as Survey123 for ArcGIS, ArcGIS Field Maps and ArcGIS Collector). In 2021 the field activity of PMRV was carried out in communities such as Munhiba in Mocuba district, Dindini and Sacane – Pebane district, Muapila and Cannaua – Mocubela district, Soares, Vacha, Muitchana, Mutchiua and Nehita in Alto Molocue district, and Namigonha, Vassele, Malema-Serra, and Namurua in Gilé district. This activity involved staff from government institutions, academia and civil society (BIOFUND, AQUA, ANAC, Unizambeze, Unilurio, Network for Community Management of Natural Resources (Regecom), DINAF and FNDS technicians to present and demonstrate the tool and its potential.

¹ <https://www.forestcarbonpartnership.org/country/mozambique>

² <https://www.fnds.gov.mz/mrv/>

The audit team reviewed the results of the PMRV on the MRV website³ and the PMRV report⁴ and confirmed that the ER Program adequately proved that it has explored and encouraged opportunities for community participation in monitoring and reporting of ER Program measures, with the initiatives described above as pilots, in accordance with Indicator 16 of the MF and the objectives described in Section 8.2 of the VVG.

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

The Reference Level does not exceed the average annual historical emissions over the Reference Period and no upward or downward adjustment to the annual historical emissions over the Reference Period has been proposed, in compliance with Criterion 13 of the Methodological Framework.

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

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, in accordance with criterion 10, indicator 10.2 and 10.3 of the Methodological Framework.

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

Crediting Period year <i>t</i>	Average annual historical emissions from deforestation over the Reference Period (tCO ₂ -e/yr)	If applicable, average annual historical emissions from forest degradation over the Reference Period (tCO ₂ -e/yr)	If applicable, average annual historical removals by sinks over the Reference Period (tCO ₂ -e/yr)	Adjustment, if applicable (tCO ₂ -e/yr)	Reference level (tCO ₂ -e/yr)
2018	5,253,267.99	-	-	-	5,253,267.99
2019	5,253,267.99	-	-	-	5,253,267.99
2020	5,253,267.99	-	-	-	5,253,267.99
2021	5,253,267.99	-	-	-	5,253,267.99
2022	5,253,267.99	-	-	-	5,253,267.99
2023	5,253,267.99	-	-	-	5,253,267.99
2024	5,253,267.99	-	-	-	5,253,267.99

³ <https://bit.ly/pmrvfndsredd>

⁴ <https://www.fnds.gov.mz/mrv/index.php/documentos/relatorios/55-relatorio-tecnico-do-teste-da-ferramenta-de-pmr-va-na-provincia-da-zambezia/file>

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 v2.7 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 v2.7.

All findings, 4MCAR, 3mCAR and 2 OBS, issued by AENOR's audit team during the GAP validation process have been closed. There are no non-compliances pending for the subsequent crediting period. The findings are reported in the appendix 1 of this report.

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

Major CAR (MCARs)

MCAR id.	01				Date: 27/09/2024																																																																
MCAR description																																																																					
In section 7.2 of the MR: (MF Indicator 4, 4.1, 4.2)																																																																					
1. Litter is not described as selected or non-selected carbon pool. 2. Not sufficient justifications are given for some carbon pools and greenhouse gases to comply with indicator 4.2 of the Methodological framework.																																																																					
Project proponent’s response					Date: 25/10/2024																																																																
1. It was an oversight, as it was implicitly included in the DOM row. Added a reference to litter in the table. Forest carbon stocks are available in three reservoirs, soil (soil organic carbon), trees/living matter (AGB & BGB) and dead matter (litter and dead wood). Biomass and carbon studies in Mozambique show that the contribution of litter is less than 10% (table 1), which justifies the non-incorporation of this reservoir in the emissions reduction program. Table 1: Contribution of different reservoirs to the carbon stock <table><tr><th rowspan="3">Carbon pools (ton. C/ha)</th><th colspan="7">Carbon proportion by source</th></tr><tr><th colspan="2">(João, 2016)</th><th>(Ribeiro et al., 2013)</th><th>(Sitoe et al., 2009)</th><th colspan="3">(Dimande, 2018)</th></tr><tr><th>Undifferentiated forest - Sofala</th><th>Miombo - Sofala</th><th>Miombo - Niassa</th><th>Miombo - Manica</th><th>Semi-evergreen forest - Manica</th><th>Miombo - Manica</th><th>Mopane-Manica</th></tr><tr><td>litter</td><td>1.68</td><td>1.63</td><td>0.09</td><td>4.82</td><td>0.42</td><td>0.41</td><td>0.37</td></tr><tr><td>herbaceous</td><td>0.07</td><td>1.90</td><td>3.07</td><td>2.09</td><td>0.03</td><td>0.39</td><td>0.12</td></tr><tr><td>Trees (AGB & BGB)</td><td>41.83</td><td>22.93</td><td>44.79</td><td>42.59</td><td>61.08</td><td>19.61</td><td>25.57</td></tr><tr><td>SOC</td><td>56.43</td><td>73.54</td><td>52.05</td><td>50.50</td><td>38.48</td><td>79.59</td><td>73.93</td></tr><tr><td>Total</td><td>100.01</td><td>100.00</td><td>100.00</td><td>100.00</td><td>100.00</td><td>100.00</td><td>100.00</td></tr></table>								Carbon pools (ton. C/ha)	Carbon proportion by source							(João, 2016)		(Ribeiro et al., 2013)	(Sitoe et al., 2009)	(Dimande, 2018)			Undifferentiated forest - Sofala	Miombo - Sofala	Miombo - Niassa	Miombo - Manica	Semi-evergreen forest - Manica	Miombo - Manica	Mopane-Manica	litter	1.68	1.63	0.09	4.82	0.42	0.41	0.37	herbaceous	0.07	1.90	3.07	2.09	0.03	0.39	0.12	Trees (AGB & BGB)	41.83	22.93	44.79	42.59	61.08	19.61	25.57	SOC	56.43	73.54	52.05	50.50	38.48	79.59	73.93	Total	100.01	100.00	100.00	100.00	100.00	100.00	100.00
Carbon pools (ton. C/ha)	Carbon proportion by source																																																																				
	(João, 2016)		(Ribeiro et al., 2013)	(Sitoe et al., 2009)	(Dimande, 2018)																																																																
	Undifferentiated forest - Sofala	Miombo - Sofala	Miombo - Niassa	Miombo - Manica	Semi-evergreen forest - Manica	Miombo - Manica	Mopane-Manica																																																														
litter	1.68	1.63	0.09	4.82	0.42	0.41	0.37																																																														
herbaceous	0.07	1.90	3.07	2.09	0.03	0.39	0.12																																																														
Trees (AGB & BGB)	41.83	22.93	44.79	42.59	61.08	19.61	25.57																																																														
SOC	56.43	73.54	52.05	50.50	38.48	79.59	73.93																																																														
Total	100.01	100.00	100.00	100.00	100.00	100.00	100.00																																																														

Another fact that justifies the non-incorporation of litter is the effect of the seasonality of this reservoir (litter), since with forest fires almost all the biomass/carbon in this reservoir is lost, making it unavailable when collecting field data (Pearson et al., 2005).

References

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- Sitoe, A., Guedes, B., Machoco, R., Cambule, A., Cunhete, D., Nacamo, E., & Guiamba, R. (2009). Baseline carbon estimation in Dombe , Manica Biofuel production area Mozambique Principle Energy.

Find the documentation or References here:

<https://www.dropbox.com/scl/fo/83pci65r9bfggpaan9kff/AHEhUeCntkpKGIWwtHGDP0A?rlkey=ryz2xtgkifd895sivii096inw&dl=0>

2. With regards to gases, CH₄ and NO₂ are relevant for wildfires, but these are not expected to generate significant emissions relative to deforestation, as miombo regularly burns and trees are adapted to these bushfires, so not much mortality. Expanded explanation in the table.

Documentation provided by the project proponent

MR report " ZILMP ER Monitoring Report - 2018 v.5.4 _29.10.2024_final_updated for AENOR" and **excel file** " Findings_Gap validation_Responses by MRV team"

VVB's evaluation

Date: 08/11/2024

1. Justification for the inclusion of litter is considered adequate. However, said explanation has not been included in Section 7.1. Deadwood and litter must be described and justified separately as they are different pools.
2. Section 7.2 has been updated. However, some issues remain as the program did not justify the exclusion of all carbon pools according to the criteria set in Indicator 4.2 of the MF:
 - a. Justifications for the exclusion of CH₄ and N₂O gases lack bibliographical or reference support.
 - b. No sound justification is provided for the exclusion of Deadwood (e.g. references, bibliography, etc), demonstrating its relative contribution to the carbon stock.
 - c. No sound justification is provided for the exclusion of Biomass in non-woody vegetation (e.g. references, bibliography, etc), demonstrating its relative contribution to the carbon stock.

d. The provided “Table 1: Contribution of different reservoirs to the carbon stock” contradicts the information stated in the MR, as according to it SOC is considered a significant source (contributing more than 10% of total forest related emissions). <u>Background (MF):</u> - Indicator 4.1: The ER Program accounts for all Carbon Pools and greenhouse gases that are significant within the Accounting Area, both for Reference Level setting and Measurement, Monitoring and reporting (MMR). - Indicator 4.2: Carbon Pools and greenhouse gases may be excluded if: i. Emissions associated with excluded Carbon Pools and greenhouse gases are collectively estimated to amount to less than 10% of total forest-related emissions in the Accounting Area during the Reference Period; or ii. The ER Program can demonstrate that excluding such Carbon Pools and greenhouse gases would underestimate total emission reductions. Therefore, MCAR 01 is not closed.	
Project proponent’s response	Date: 15/11/2024
Explanation provided in MR (section 7.2)	
Documentation provided by the project proponent	
2nd Round of Findings - FCPF - Gap validation – Mozambique_MRV response ZILMP ER Monitoring Report - 2018 v.5.4_15.11.2024_final_updated for AENOR	
VVB’s evaluation	Date: 29/11/2024
- Justification for the inclusion of litter has been included in Section 7.2 and it is considered adequate. Deadwood and litter have been described and justified under the Dead organic matter category for consistency. - Section 7.2 has been updated: - Justifications for the exclusion of CH₄ and N₂O gases with bibliographical and reference support have been included. - Justification has been provided for the exclusion of Deadwood, demonstrating its relative contribution to the carbon stock. - Justification has been provided for the exclusion of Biomass in non-woody vegetation, demonstrating its relative contribution to the carbon stock. - Justifications for the exclusion of SOC with bibliographical and reference support have been included. According to Section 3.1 of the MF, excluding certain pools (for example, soil carbon) is usually conservative for activities related to avoided deforestation and degradation. However, in some cases, such as reforestation activities involving heavy ground disturbance from land clearing and planting, or forest management on drained peat land, soil carbon emissions may be significant and should be accounted for to maintain environmental integrity. Given that the ZILMP accounts only for deforestation activities, and the uncertainty that could derive from applying SOC emission factors produced outside the boundaries of the emission reduction program, exclusion of the SOC pool is considered conservative. Therefore, MCAR 01 is closed.	

MCAR id.	02	Date: 27/09/2024
MCAR description		
In section 8.3: (MF Indicator 14.3) 1. Reference from 2006 IPCC Guidelines for National Greenhouse Gas Inventories Volume 4, chapter 3, section 3.33 does not exist. 2. The values for BGBbefore,i do not match with the description in page 101 of the MR. For the statement "These values are then applied in the range "C9:C26" of the "EMISSION REFERENCE LEVEL (ERL)" worksheet tab in the "ZILMP Emissions Calculations RL (2005 2015)". The reference cells are not correct, as they correspond to the AGBbefore,i column. It is a misstatement in the description of the values in the MR (referencing a different column), but it does not affect the calculations.		
Project proponent's response		Date: 25/10/2024
1. Thanks for pointing out the problem with the reference. In fact, the section "3.33" does not exist, and the correct section is "3A.3.5". We will ensure that the document is updated. 2. Thanks for your observation. We acknowledge that the description on page 101 of the MR incorrectly references the range. The correct range should be "E9:E26". We appreciate your attention to this detail and will ensure that the document is updated to reflect this correction.		
Documentation provided by the project proponent		
MR report " ZILMP ER Monitoring Report - 2018 v.5.4_29.10.2024_final_updated for AENOR" and excel file " Findings_Gap validation_Responses by MRV team"		
VVB's evaluation		Date: 08/11/2024
1. Sections 5.2.3 and 8.3 have been updated to include the correct IPCC reference. 2. Section 8.3 has been updated to include the correct range reference. Therefore, MCAR 02 is closed.		

MCAR id.	03	Date: 27/09/2024
MCAR description		
In section 8.2: (MF Indicator 12) 1. The definitions of all the subclasses of forests applicable to the country are not provided.		
Project proponent's response		Date: 25/10/2024
Done. Now the definitions of type/subclasses (semi deciduous forest and evergreen forest) of forest were provided. Please see page 90 and 91 of MR.		
Documentation provided by the project proponent		
MR report " ZILMP ER Monitoring Report - 2018 v.5.4 _29.10.2024_final_updated for AENOR" and excel file " Findings_Gap validation_Responses by MRV team"		
VVB's evaluation		Date: 08/11/2024
Section 8.2 has been updated with the definition of the two types of forests (Semi deciduous forest and Evergreen forest). However, forest subclasses have been listed without providing an operational definition for each one (Semi deciduous forest including Miombo, Mopane, Evergreen forest, Mangal and Mecrusse) on the MR. Therefore, MCAR 02 is not closed.		
Project proponent's response		Date: 15/11/2024
Provided the definition of each subclass of forest in MR (section 8.2)		
Documentation provided by the project proponent		
2nd Round of Findings - FCPF - Gap validation – Mozambique_MRV response ZILMP ER Monitoring Report - 2018 v.5.4 _15.11.2024_final_updated for AENOR		
VVB's evaluation		Date: 29/11/2024
Section 8.2 has been updated with definitions for the two types of forests (Semi deciduous forest and Evergreen forest) and for each subclass (Semi deciduous forest including Miombo, Mopane, Evergreen forest, Mangal and Mecrusse). Therefore, MCAR 03 is closed.		

MCAR id.	04	Date: 27/09/2024
MCAR description		
Section 8.6 (MF Indicator 10.2) has not been updated to confirm whether the Program's Reference Level is aligned with the methodology used in the AFOLU Section of the BUR already submitted to the UNFCCC in November 2022.		
Project proponent's response		Date: 25/10/2024
Included reference to the First BUR, which did use the same activity dataset that was used for the FREL and Program Reference Level.		
Documentation provided by the project proponent		
MR report " ZILMP ER Monitoring Report - 2018 v.5.4 _29.10.2024_final_updated for AENOR" and excel file " Findings_Gap validation_Responses by MRV team"		
VVB's evaluation		Date: 08/11/2024
Section 8.6 has been updated to describe the relation between the First BUR, the FREL and the Program Reference Level. Therefore, MCAR 04 is closed.		

Minor CAR (mCARs)

mCAR id.	01	Date: 27/09/2024
mCAR description		
In section 8.3: (MF Indicator 14.3) It is not provided the reference for allometric equations used to estimate above and below biomass for Evergreen forest (open and closed).		
Project proponent's response		Date: 25/10/2024
The allometric equations for Evergreen forest (AGB and BGB) are described in Annex-Table 9: List of allometric equations used to estimate above and below biomass. Please see page 100 of MR		
Documentation provided by the project proponent		
MR report " ZILMP ER Monitoring Report - 2018 v.5.4_29.10.2024_final_updated for AENOR" and excel file " Findings_Gap validation_Responses by MRV team"		
VVB's evaluation		Date: 08/11/2024
The reference in Annex-Table 9: for Evergreen forest (open and closed) is IPCC (2003), which is insufficient to be corroborated. The complete reference (Volume, Chapter and Section) has not been provided. Therefore, mCAR 01 is not closed.		
Project proponent's response		Date: 15/11/2024
The complete reference was provided in new version of the MR Volume 4, Chapter 4, Section 4A.2, Table 4.A.1 (IPCC 2003)		
Documentation provided by the project proponent		
2nd Round of Findings - FCPF - Gap validation – Mozambique_MRV response ZILMP ER Monitoring Report - 2018 v.5.4_15.11.2024_final_updated for AENOR		
VVB's evaluation		Date: 29/11/2024
The complete reference was provided in the updated version of the MR. Therefore, mCAR 01 is closed.		

mCAR id.	02	Date: 27/09/2024
mCAR description		
In section 2.1: (MF Indicator 15) Please clarify if any updates are needed regarding the formalization of the Mozambique national monitoring system (NFMS). Regarding the statement: "There is a work in progress between the National Directorate of Forest (DINAF) and FNDS and other relevant stakeholders to formalize the NFMS."		
Project proponent's response		Date: 25/10/2024
Replaced the text on the NFMS with an updated version. The NFMS still has not been formalized, but work has continued on the document. A first version of the document was published in 2021 and a second version was finalized in 2024, but has not been published to date.		
Documentation provided by the project proponent		
MR report " ZILMP ER Monitoring Report - 2018 v.5.4_29.10.2024_final_updated for AENOR" and excel file " Findings_Gap validation_Responses by MRV team"		
VVB's evaluation		Date: 08/11/2024
Section 2.1 has been updated. However, in the following statement: "The first version of the NFMS document was finalized in 2021 (link)", it appears that the link of the document is missing. Therefore, mCAR 02 is not closed.		
Project proponent's response		Date: 15/11/2024
The link of NFMS document was provided in the MR https://www.fnds.gov.mz/mrv/index.php/documentos/relatorios/78-nfms-document-mozambique-ver-1-en-final/file		
Documentation provided by the project proponent		
2nd Round of Findings - FCPF - Gap validation – Mozambique_MRV response ZILMP ER Monitoring Report - 2018 v.5.4_15.11.2024_final_updated for AENOR		
VVB's evaluation		Date: 29/11/2024
The link of NFMS document has been provided in the updated MR. Therefore, mCAR 02 is closed.		

mCAR id.	03	Date: 27/09/2024
mCAR description		
In section 2.1: (MF Indicator 16) Section 2.1 states "However, local community participation has not yet been fully achieved. This is something that FNDS will work on improving over the next year." The ER Program did not include a complete description demonstrating that it has explored opportunities for community participation in Monitoring and reporting, e.g., of ER Program Measures, activity data, emission factors, safeguards and Non-Carbon Benefits, and encourages such community participation where appropriate.		
Project proponent's response		Date: 25/10/2024
Included the description of the PMRV. Please see page 14 and 15 of the MR in section 2.1. This information had already been updated in subsequent reports.		
Documentation provided by the project proponent		
MR report " ZILMP ER Monitoring Report - 2018 v.5.4_29.10.2024_final_updated for AENOR" and excel file " Findings_Gap validation_Responses by MRV team"		
VVB's evaluation		Date: 08/11/2024
Section 2.1 has been updated to demonstrate that the ER Program has explored opportunities for community participation in Monitoring and reporting. Therefore, mCAR 03 is closed.		

Observations (OBs)

OBSERVATION ID	01	Date: 27/09/2024
OBSERVATION description		
In section 8.3: (MF Indicator 5, 13, 14.3) 1. It is not provided the reference of the Equation 12 to calculate the gross emissions of the RL from deforestation over the Reference Period. 2. MF Indicator 14.3: Pages 102 and 103 of the MR reference that $AGB_{after,i}$ and $BGB_{after,i}$ values are recorded in the spreadsheet "ZILMP_AD_Calculations_RL_(2005_2015)" in the "BIOMASS" worksheet tab. However, the cited spreadsheet does not contain the information that is referencing, as the "BIOMASS" worksheet tab is contained in the "ZILMP_Emissions_Calculations_RL_(2005_2015)" spreadsheet. It is a misstatement in the description of the values in the MR (referencing a different spreadsheet), but it does not affect the calculations.		
Project proponent's response		Date: 25/10/2024
1. The equation 12 provides the mathematical expression of the content described in the preceding paragraph. This mathematical expression is based on the UNFCCC's definition of Reference Levels, which states that "Reference levels are expressed as tonnes of CO2 equivalent per year for a reference period against which the emissions and removals from a results period will be compared" (UNFCCC, Forest Reference Emission Levels, available at https://redd.unfccc.int/fact-sheets/forest-reference-emission-levels.html). The expression was constructed to turn this definition into a mathematical formula that allows for the quantification of emissions for comparison purposes. 2. Thanks for pointing this out. There was an error on our part. The correct spreadsheet is ZILMP_Emissions_Calculations_RL (2005_2015), which indeed contains the "BIOMASS" tab with the $AGB_{after,i}$ and $BGB_{after,i}$ values. We will ensure that the document is updated to reflect the correct reference.		
Documentation provided by the project proponent		
MR report " ZILMP ER Monitoring Report - 2018 v.5.4_29.10.2024_final_updated for AENOR" and excel file " Findings_Gap validation_Responses by MRV team"		
VVB's evaluation		Date: 08/11/2024
1. The justification for Equation 12 is deemed correct. However, the reference has not been included in Section 8.3. 2. Section 8.3 has been updated to reference the correct spreadsheet. Therefore, OBS 01 is not closed.		
Project proponent's response		Date: 15/11/2024
The reference was included in section 8.3		
Documentation provided by the project proponent		
2nd Round of Findings - FCPF - Gap validation – Mozambique_MRV response ZILMP ER Monitoring Report - 2018 v.5.4_15.11.2024_final_updated for AENOR		



VVB's evaluation	Date: 29/11/2024
The reference has been included in Section 8.3. Therefore, OBS 01 is closed.	

OBSERVATION ID	02	Date: 27/09/2024
OBSERVATION description		
In section 7.1: (MF Indicator 3.3) Page 87 states that "The analysis based on exploited volume (as presented in the ZILMP Background Study) is detailed in Annex 3." It is not clarified that the analysis appears in the ERPD, not on this report.		
Project proponent's response		Date: 25/10/2024
Done. It is already clarified that the Annex 3 is from ERPD and not from the MR. See page 88		
Documentation provided by the project proponent		
MR report " ZILMP ER Monitoring Report - 2018 v.5.4_29.10.2024_final_updated for AENOR" and excel file " Findings_Gap validation_Responses by MRV team"		
VVB's evaluation		Date: 08/11/2024
Section 7.1 has been updated to clarify that the referenced Annex 3 is from ERPD and not from the MR. Therefore, OBS 02 is closed.		

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

The ERMR contains supporting evidence not included here which have been reviewed by the audit team.

Number	File
1	ZILMP ER Monitoring Report - 2018 v.5.4_15.11.2024_final_updated for AENOR.docx
2	FMT Assessment Note on Revised ERPD
3	Passo a Passo para o Levantamento e Estimativa de Emissões do AFOLU.pdf
4	ZILMP_Emissions_Calculations_RL_(2005_2015).xlsx
5	Emission_factor_v.2.xlsx
6	ZILMP_Emissions_Calculations_MR_(2018).xlsx
7	Relatorio de inventario florestal da zambesia actualizado.pdf
8	Inventario Florestal Nacional.pdf
9	Manual do Inventario Florestal.pdf
10	Directrizes do inventario florestal nacional.pdf
11	Nível de Referência de Emissões Florestais de Moçambique.pdf
12	moz_frel_report_final.v03_03102018.pdf
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Document information

Version	Date	Description
1.0	January 2025	Initial version adopted.
1.1	January 2025	Post ITR version