



Validation Report

Version 2.3

26 March 2025

Document Prepared by Alexa Dugan & Erynn Maynard-Bean



Forest Carbon Partnership Facility (FCPF) Carbon Fund Validation Report (VAR)	
ER Program Name and Country:	Mai-Ndombe ER-Program, Democratic Republic of Congo
Crediting Period	01-01-2019 to 31-12-2024
Name of the VVB:	Scientific Certification Systems Global Services (SCS)
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Date of the Validation Report:	26 March 2025
Version:	V2.3
Report Approved by	Christie Pollet-Young

1. VALIDATION STATEMENT

The review and cross-check of explanations and justifications included in the Monitoring Report (Version 3.2) dated 04-04-2025 and supporting documents have provided Scientific Certification Systems Global Services (herein referred to as SCS) with sufficient evidence to determine with a reasonable level of assurance the compliance of the Mai-Ndombe ER-Program with the applicable validation criteria set out in the FCPF requirements.

The scope covered by the validation with extended scope includes the ER Program's crediting period 01-01-2019 to 31-12-2024, the selected Reference Period 01-01-2005 to 31-12-2014, the accounting area 12,848,321 hectares, the REDD Country Participant's Forest Monitoring System, the national REDD+ Programs and Data Management System, and the following GHG sources, sinks, REDD+ activities and carbon pools:

- GHG sources, sinks and/or reservoirs from REDD+ Activities:
 - Emissions from deforestation
 - Emissions from forest degradation
 - Removals from carbon stock enhancements
- Carbon pools:
 - Above Ground Biomass (AGB)
 - Below Ground Biomass (BGB)
- Types of GHGs:
 - CO₂

A total of 35 MCAR, 2 mCAR and 2 Observation findings were raised as part of the Validation process. All MCARs have been successfully addressed by the ER program. One mCAR remains open (mCAR 39) and is required to be addressed at the next verification. These findings are described in Appendix 1 of this report.

Regarding the Reference Level, it is SCS's opinion that the Mai Ndombe ER Program meets the applicable Validation criteria set out in the FCPF requirements and that it is free of material misstatements. Hence, SCS recommends the FCPF Carbon Fund to continue with the relevant subsequent steps to proceed with the verification of the FCPF Emission Reductions units.

Statement Issuing Date: 26 March 2025

Intended User: World Bank Group, FCPF Carbon Fund Participants



TEAM LEADER: Dr. Erynn Maynard-Bean



LEGAL REPRESENTATIVE: Christie Pollet-Young

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 FCPF program validation criteria and scope stated in the FCPF Validation and Verification Guidelines. The provisions undertaken to ensure such a reasonable level of assurance included:

- Perform a risk-based assessment of the program area and program activities to ensure that the program, and the measuring, monitoring and quantification of GHG emission emissions and removals for the verification period conforms to the FCPF verification criteria.
- Assess and select samples of data and information from in order to confirm they meet a reasonable level of assurance and the materiality requirements of the program, as required by the FCPF.
- Assessment of the data collection, the selection of categories, the measuring, monitoring and reporting methods, standard operating procedures, the ER program documentation, the parameters, equations, calculations and supporting documentation are correct and in conformance with the FCPF program requirements.

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

2.2 Objectives

The assessment team conducted a systematic, independent, and documented process for the evaluation of the GHG assertion made by the FCPF Mai-Ndombe Emissions Reductions Program (ER Program), DRC against the FCPF criteria applicable to validation to determine if the program is in compliance to the agreed criteria.

The validation assessment included the following objectives:

- Review of the ER Monitoring Report (ER-MR) and supporting information to confirm the correctness and completeness of presented information.
- Validate and confirm that the program methodological steps and data are publicly available.
- Ensure that the data reported enable the reconstruction of the reported Reference Level.
- Assess the reported Reference Level and ensure that it is materially accurate.
- Identify the sources of uncertainty and confirm they were properly identified and analyzed in compliance with applicable criteria.
- Review the components of the Forest Monitoring System and ensure they include areas of risk of future non-compliance.

The extended scope of the validation assessment included the following objectives:

- Review the ER Program's scope in terms of sources, sinks and carbon pools and ensure is in accordance with the applicable validation criteria.
- Ensure the ER Program's methods are in accordance with applicable validation criteria as per the latest IPCC Guidelines.
- Validate that the Reference Level is in accordance with the FCPF applicable validation criteria.

The extended scope of the validation assessment included the following objectives:

- Assess that methods, reference level and scope in terms of sources, sinks, and carbon pools are in accordance with applicable Validation criteria
- Assess how the National Forest Monitoring System and whether Robust Forest Monitoring Systems are applied to the ER Program including community participation in monitoring and reporting.
- Assess that ER Program's methods are in accordance with the applicable Validation criteria as the latest IPCC Guidelines

2.3 Criteria

The criteria applicable for the assessment included:

- FCPF Process Guidelines, Version 6.1
- Validation and Verification Guidelines, Version 2.6
- FCPF Methodological Framework, Version 3.0
- FCPF Glossary of Terms, Version 2.2
- FCPF Buffer Guidelines, Version 4.2
- FCPF Guideline on the application of the Methodological Framework Number 1, On the use of interpolation of data in relation to the Reference Period of an ER program, Version 1.0
- FCPF Guidelines on the application of the MF Number 2, Guideline on the application of the Methodological Framework Number 1 On the use of interpolation of data in relation to the Reference Period of an ER program, Version 2.0
- FCPF Guidelines on the application of the MF Number 3, On the definition of reporting periods of Emission Reduction Programs, Version 1.0
- FCPF Guidelines on the application of the MF Number 4, On Uncertainty Analysis of Emission Reductions, Version 1.0
- ER Monitoring Report Template, Version 3.1.2
- FCPF Validation Report Template, Version 1.2
- ISO 14064-3:2006
- ISO 14065:2013
- ISO 14066: 2011
- IAF MD 6:2014
- Any formal clarification provided by the FMT

The following guidance documents (or collections of documents) were considered to contain good practice in undertaking the assessment, though said documents were not formally considered to be part of the assessment criteria.

- 2006 IPCC Guidelines for GHG Inventories
- 2019 refinement to the 2006 IPCC Guidelines
- GFOI 2020 Methods and Guidance Document
- FCPF Guidance Notes

2.4 Scope

The scope of the validation of the Mai Ndombe ER Program included the following:

- The following time period:
 - Crediting period: 01-January-2019 to 31-December-2024
 - Reporting period: 01-January-2019 to 31-December-2020
 - Monitoring period: 01-January-2019 to 31-December-2020
- The ER Program Accounting Area
- The GHG sources, sinks, and reservoirs associated with any of the REDD+ Activities accounted for as required by the Methodological Framework:
 - Emissions from deforestation
 - Emissions from forest degradation
 - Removals from carbon stock enhancements
- The following Carbon pools:
 - Above Ground Biomass (AGB)
 - Below Ground Biomass (BGB)
- The following types of GHGs:
 - CO₂
- The ER-Program's Forest Monitoring System comprised the following data collection components:
 - Activity data derived from probability-based sample of time-series imagery based on Landsat composite time-series data supplemented by Google Earth Data and interpreted by a team of expert image interpreters and developed in partnership with the University of Maryland/GLAD lab.
 - Field inventory data based on the compilation of three datasets: the national forest pre-inventory (PRE-IFN), inventory carried out by the Direction des Inventaires et Aménagements Forestiers / Forest Inventory and Management Directorate (DIAF) within the framework of the DIAF-JICA Forests project (DIAF-JICA data), and the inventory carried out by the DIAF within the framework of the biomass mapping project supported by the WWF-DRC (WWF data) which were used to develop the emission factors for aboveground and belowground carbon pools.
- The national REDD+ Programs and Projects Data Management System as described in the Monitoring Report.

2.5 Materiality

The materiality for this validation process is the same as for the first verification period. Since the first verification of the ER program is conducted concurrently, please refer to the Verification Report.

3. METHODOLOGY AND PLANNING

3.1 Validation Team

The validation team was conformed as follows:

Name	Role	Activities				
		Desk review	Site visit	Reporting	Supervision	Technical review
Dr. Erynn Maynard-Bean	<ul style="list-style-type: none"> Lead auditor, Verification Forester 	X		X	X	
Alexa Dugan	<ul style="list-style-type: none"> Auditor, GHG Program Technical Manager 	X		X		
Dr. Raleigh Ricart	<ul style="list-style-type: none"> Auditor, Verification Forester 	X				
Andre Hessini	<ul style="list-style-type: none"> Translator, SCS Global 	X				
Vanessa Mascorro	<ul style="list-style-type: none"> Technical reviewer, Verification Forester 					X
Christian Kalinde Riziki	<ul style="list-style-type: none"> In-country Technical Expert 	X				

3.2 Validation schedule

The schedule for this validation process is the same as for the first verification period. Since the first verification of the ER program is conducted concurrently to validation, please refer to the Verification Report.

3.3 Methodology description

The assessment was performed through a combination of document review and interviews with relevant personnel, as discussed in Sections 3.4 and 3.5 of this report. At all times, the MR and the ER Program described therein were assessed for conformance to the criteria described in Section 2.3 of this report. As a result of this validation process, findings were issued to identify any actual or potential areas of risk or concern.

A risk assessment was conducted, and a sampling plan produced, in accordance with Sections 4.4.1 and 4.4.3 of ISO 14064-3:2006, respectively, following a proprietary approach developed by SCS. The process involved identification of key areas of “residual risk” (areas where there exists risk of a material discrepancy that is not prevented or detected by the QA/QC processes of the ER Program). Sampling and data testing activities were planned to address any risk where the likelihood of an area of nonconformance or material discrepancy going undetected by the assessment team was judged to be unacceptably high. A verification plan was created that took the sampling plan into account.

The assessment team took the following steps to assess whether the best available data sets, methods, models and assumptions have been used with transparency, consistency, completeness and accuracy, and are in conformity with the FCPF’s Methodological Framework requirements:

- Held meetings with the program’s technical team to gain a clear understanding of the process in determining the best available data sets, methods and models employed by the program.
- Independently reviewed available literature regarding the availability of datasets pertaining to forest inventory and land cover change in the DRC to confirm that the best available data sets have been utilized by the program.
- Independently reviewed the Program’s Forest Reference Level quantification to assess whether the data, methods, and assumptions used to quantify the GHG emissions and removals are in conformity and represent the best available data in the country.
- If no country specific or region-specific information was available, the assessment team confirmed that the most relevant and accurate default values from the IPCC Guidelines were applied in conformance with Criterion 5 of the FCPF Methodological Framework requirements.

3.4 Review of documentation

The ER Monitoring Report, DRC fcpf_1st_ER-MR_template_v3.1.2_Track_FMT_HFLD_032125_clean, was carefully reviewed for conformance to the FCPF assessment criteria. The following documents, provided by ER Program personnel in support of the ER-MR, were also reviewed by the assessment team for consistency, accuracy, and appropriateness with regard to the FCPF Methodological Framework and associated requirements:

Document	File Name (If Applicable)
ER Monitoring Report (ER-MR)	DRC fcpf_1st_ER-MR_template_v3.1.2_Track_FMT_HFLD_032125_clean
ER-PD	20161108 Revised ERPD_DRC; 20161108 Revised ERPD after CF-14_clean version_FR
Activity Data Calculation Workbooks	AD_calculationTool_MP_rev.xlsx AD_calculationTool_RP_rev.xlsx
Emission reductions Calculation Workbook	DRC_ER_Calculations rev3
Uncertainty Assessment Calculation workbooks	DRC ER MC Analysis Rev2.xlsx, DRC_ER_SensitivityAnalysisRev2.xlsx; Readme
Workbook on potential cultivated areas	DRC Household ShiftCult Rotation_AL
DIAF Emission Factor Scripts and Raw Data	[Various files]
Activity data spatial data	UMD-WB_final_2000_samples.kml; WB-UMD_strata_map.tif; UMD-WB_final_sampling_design.tif
University of Maryland Report on DRC Activity Data	UMD-WB_final_report_EN-last
DRC Forest Reference Emission Level (FREL)	FREL_rdc_documentnerf_soumissionfinale_29112018

Letter from Wildlife Works on Mai Ndombe REDD+ Project	WWC WorldBank Mai Ndombe Tonnes 2023 11 29
Country Progress Report	DRC FCPF Country Progress Report FY 16
Benefit Sharing Plan	Final-Benefit-Sharing-Plan-June-2022-DRC
Investment report for the DRC Forest Inventory Program	RAPPORT ANNUEL DU PIF-RDC 2022

3.5 REDD Country Visit

Due to safety concerns over traveling in the Democratic Republic of Congo as well as the risk assessment conducted by the assessment team, no site visit occurred during this assessment. In lieu of a site visit, the assessment team performed web-based meetings with program personnel and program partners and made email-based inquiries as needed. For additional information on this, please refer to section 2.1 and section 4 on the assessment and validation of the program design.

The following remote interviews listed in the table below were performed:

Date(s)	Attendees	Purpose
15 June 2023	World Bank Group, World Bank FMT, Program Participants	Kick-off call
8 September 2023	World Bank Group, World Bank FMT, Program Participants	Quantification & Data management

4. VALIDATION OF ER PROGRAM DESIGN

4.1 Completeness of Report

After an extensive review of the ER Program information, the Monitoring Report, calculation workbooks, procedures, and supporting documentation, SCS confirms that the ER Program includes in Annex IV of the Monitoring Report the necessary information required by this validation with extended scope engagement.

4.2 Start date of the crediting period

The assessment team reviewed and confirmed the justification and evidence provided by the ER Program for the selection of the start date of the crediting period:

- The start date of the Crediting Period has been set to 1 January 2019, which is after the ER Program began generating and measuring ERs. The auditors confirmed that the program began generating ERs through a review of project documentation on the FCPF website.
- The date was justified and confirmed by the FCPF TAP process and the World Bank due diligence and was independently assessed by SCS during this validation.
- The date is not earlier than January 1st, 2016.
- The date does not fall within the Reference period (2005-2014).

- It is demonstrated that the ER Program complies with requirements from the start date on implementation of safeguards, carbon accounting and double-counting as specified in the MF.
 - The auditors confirmed the implementation of the safeguards through a review of documentation of the World Bank website.
 - The auditors reviewed the double-counting compliance through review of documentation of the Mai Ndombe REDD+ project nested within this program, including a full accounting of the deduction of project scale emission reductions from the program.

Therefore, SCS confirms the start date of the crediting period is in compliance with the definition of the Start Date of the Crediting Period provided in the FCPF Glossary of Terms.

4.3 Sources and Sinks

The assessment team reviewed the ER Program Monitoring Report, calculation workbooks, the methods, datasets and assumptions and confirmed that the greenhouse gas (GHG) sources and sinks have been selected in accordance with the requirements (Criterion 3) as described below:

Sources/Sinks	Included?	Steps(s) Taken to Assess Compliance
Emissions from deforestation	Yes	<ul style="list-style-type: none"> ■ Checked against indicator 3.2 which states that the program must account for emissions from deforestation.
Emissions from forest degradation	Yes	<ul style="list-style-type: none"> ■ Checked against indicator 3.3 and confirmed that the program must account for emissions from degradation as through independent recalculation we confirmed that emissions from degradation (conversion or primary forest to secondary forest) are significant (> 10% of total forest related emissions during the specified periods). ■ Confirmed through review of Annex 4 that this is sufficiently justified.
Removals from enhancement of carbon stocks	Yes	<ul style="list-style-type: none"> ■ Checked against Criterion 3 and confirmed through review of available data and methods that the program accounts for, measures, and reports on GHG removals from the conversion of non-forest to forestland, a REDD+ project activity. ■ Confirmed through review of Annex 4 that this is sufficiently justified.
Emissions and removals from conservation of carbon stocks	No	<ul style="list-style-type: none"> ■ The auditors reviewed REDD+ documentation from the country and confirmed there is no specific REDD+ activity associated with this source/sink. ■ Confirmed through review of Annex 4 that this is sufficiently justified.
Emissions and removals from sustainable management of forest	No	<ul style="list-style-type: none"> ■ The auditors reviewed REDD+ documentation from the country and confirmed there is no specific REDD+ activity associated with this source/sink. ■ Confirmed through review of Annex 4 that this is sufficiently justified.

4.4 Carbon pools and GHG

The assessment team reviewed the ER Program Monitoring Report, calculation workbooks, the methods, datasets and assumptions and confirmed that the carbon pools and GHGs have been selected in accordance with the requirements (Criterion 4) as described below:

Carbon Pools/ GHGs	Selected?	Steps(s) Taken to Assess Compliance
Above Ground Biomass (AGB)	Yes	<ul style="list-style-type: none"> ■ Through independent review and recalculation of the carbon accounting as well as expert review of the program activities, the assessment team confirms that the emissions from AGB constitute the majority of emissions and emission reductions associated with the program, thus must be accounted for per indicator 4.1. ■ In reviewing Annex 4 of the ER-MR we conclude that the rationale for inclusion is well supported.
Below Ground Biomass (BGB)	Yes	<ul style="list-style-type: none"> ■ Through independent review and recalculation of the carbon accounting as well as expert review of the program activities, the assessment team confirms that the emissions and emissions reductions from BGB emissions are significant, thus must be accounted for per indicator 4.1. ■ The auditors reviewed the root-to-shoot ratios applied and conclude they are accurate and appropriate thus the accounting of this pool and inclusion is accurate. ■ In reviewing Annex 4 of the ER-MR we conclude that the rationale for inclusion is well supported.
Dead Wood	No	<ul style="list-style-type: none"> ■ Through expert review of the assumptions and the program activities, the auditors conclude that exclusion of the dead wood pool both conservative and insignificant relative the AGB and BGB pools, thus its exclusion is in accordance with Indicator 4.2. ■ In reviewing Annex 4 of the ER-MR we conclude that the rationale for exclusion is well supported.
Litter	No	<ul style="list-style-type: none"> ■ Through expert review of the assumptions and the program activities, the auditors conclude that exclusion of the litter pool is conservative and insignificant relative the AGB and BGB pools, thus its exclusion is in accordance with Indicator 4.2. ■ In reviewing Annex 4 of the ER-MR we conclude that the rationale for exclusion is well supported.
Soil Organic Carbon (SOC)	No	<ul style="list-style-type: none"> ■ Through expert review of the assumptions and the program activities, the auditors conclude that exclusion of the SOC pool is conservative and insignificant relative the AGB and BGB pools. ■ In reviewing Annex 4 of the ER-MR we conclude that the rationale for exclusion is well supported.

Carbon Pools/ GHGs	Selected?	Steps(s) Taken to Assess Compliance
CO2		<ul style="list-style-type: none"> Through review and recalculation of the carbon accounting, the assessment team confirmed that CO2 emissions are accounted for through the accounting of carbon stock changes in the above-ground and below-ground, which are the most significant carbon pools and therefore must be included.
CH4	No	<ul style="list-style-type: none"> The auditors confirmed through a review of ancillary peer-reviewed documentation as well as the countries' FREL and Biennial Update Report BUR, that emissions from CH4 associated with burning in forests are insignificant in the moist tropical forests of the DRC. Through expert review of the project activities which include mitigation strategies to reduce forest fires, the auditors conclude that exclusions of CH4 is considered conservative, as permitted through indicator 4.2ii.
N2O	No	<ul style="list-style-type: none"> The auditors confirmed through a review of ancillary peer-reviewed documentation as well as the countries' FREL and Biennial Update Report BUR, that emissions from N2O associated with burning in forests are insignificant in the moist tropical forests of the DRC. Through expert review of the project activities which include mitigation strategies to reduce forest fires, the auditors conclude that exclusions of N2O is considered conservative, as permitted through indicator 4.2ii.

4.5 Reference Period

The assessment team took the following steps to confirm that the start date and end dates of the Reference Period have been defined in accordance with criterion 11 of the Methodological Framework:

- The auditors confirmed through review of the available forest-cover data (provided as part of this analysis) as well as the date of the draft ER-PD that the end-date for the Reference Period is not most recent date prior to two years before the TAP starts the independent assessment of the draft ER Program Document and for which forest-cover data is available to enable IPCC Approach 3 (according to Indicator 11.1) but that a clear and convincing justification of the start and end of the reference period (January 1, 2005-December 31, 2014) has been provided.
- The auditors confirmed through review of the FREL submission to the UNFCCC that the reference period ending in 2014 aligns with the national FREL and thus allows consistency as permitted by Indicator 11.1.
- The start date is 10 years before the end date which is in accordance with Indicator 11.2.

Overall, the auditors conclude that the reference period meets the FCPF requirements and has been justified in accordance with the requirements.

4.6 Forest Definition

The assessment team took the following steps to confirm that the forest definition has been adequately justified following guidance from the UNFCCC and is in accordance with criterion 12 of the Methodology Framework:

- Reviewed section 8.1 of Annex 4 of the ER-MR to confirm that the definition of forest is specified.
- The assessment team confirmed that the definition described in the ER-MR is the same definition of forest as submitted to the UNFCCC under the Framework for the Clean Development Mechanism (CDM) and confirmed through visiting the CDM webpage.

4.7 Calculation of average annual historical emissions

The assessment team took the following steps to confirm that the calculation of the average annual historical emissions is in conformance with criterion 5 of the Methodological framework:

- Independently reviewed the ER Program Monitoring Report, calculation workbooks, the methods, datasets and assumptions, including the equations and selection of parameters, used to calculate the average annual historical emissions during the Reference Period and confirmed all are well supported by the literature, including the most recent IPCC guidance and guidelines (Criterion 5) and the datasets (e.g., spatial files) provided.
- Conducted an independent recalculation of the average annual historical emissions and removals associated with deforestation, degradation, and enhancements during the reference period to SCS confirm that the ER Program applied a systematic and step-by-step assessment of the methods, assumptions, and approaches used for the calculation of the average historical emissions during the Reference Period.
- The auditors crosschecked all equations, parameters, emission factors, and activity data values reported in the ER-MR with those in the calculation workbook to confirm the link between the equation parameters used and the activity data and emission factors parameters is clear and consistent as required by Criterion 6)
- Reviewed the ER-MR to ensure that the program clearly identifies the IPCC methods used for the reference level setting and the Measurement, Monitoring and reporting (Indicator 5.1).
- The auditors confirmed through independent checks on the FCPF website and the program Dropbox that the methodological steps, spatial data, maps, etc., have been made publicly available (Indicators 6.1 and 6.2).

Overall, the assessment team concludes that the calculation of the average annual historical emissions during the reference period and the datasets utilized to derive these calculations are in alignment with the IPCC, clearly and consistently described and free of material error.

4.8 Activity data and emission factors

4.8.1 Activity data

After reviewing the Monitoring Report, calculation workbooks, standard operating procedures and supporting documentation, SCS confirms that all data and parameters related to the activity data have been reported in conformance with the FCPF program requirements and the guidelines provided in the ER Monitoring Report template. The steps taken to conduct the assessment of the activity data are described as follows:

Parameter(s):	<p>Area of deforestation (forest to nonforest)</p> <p>Area of degradation (primary to secondary forest)</p> <p>Area of enhancement (nonforest to forest)</p>
Free of error and material misstatement:	Yes
Assessment:	<ul style="list-style-type: none"> ■ The assessment team conducted interviews with the ER program team to confirm the procedures and processes used to generate the activity data. ■ The assessment team performed independent data checks and recalculation of the following to assess the correctness of each step of monitoring from measurement to data transfer and calculation: the program area boundaries, the land-use and land-use change (LULUC) classification and transitions from forest to non-forest areas, the number of sample points within the program boundary, the stratum boundaries, and the area expansion factors. ■ A sample of the activity data sample points was independently selected and assessed with high resolutely remote sensing imagery to confirm the correct classification of the plot. ■ Moreover, a spatial analysis was conducted with ARCGIS to confirm the boundaries of the program area, the boundaries of the stratum and the number of plots per stratum. ■ Additionally, the <i>assessment</i> team performed a literature review of the methodology applied from Olofsson et al. (2014) for the quantification and estimation of the areas and corresponding uncertainties and therefore confirmed that methodological steps and data are publicly available in accordance with applicable criteria. ■ As part of the extended scope, we cross-checked the methodological approaches applied to generate the activity data with the IPCC Guidance and Guidelines to conform compliant with the methodological framework and consistency with the IPCC approach 3 for the use of spatially explicit activity data (Criterion 14) <p>The assessment teams confirms that the quantification of the activity data estimates of deforestation and forest degradation is correct and free of errors and material misstatements.</p>

SCS concludes that the amount of data and quality of the evidence provided about the identification and quantification of the activity data parameters is appropriate, sufficient, and free of error and misstatements to determine the GHG ERs. Moreover, SCS reviewed the Monitoring Report and the links provided within and confirms that the methodological steps and data are publicly available in accordance with Criterion 6 of the FCPF Methodological Framework.

4.8.2 Emission Factors

The assessment team reviewed the Monitoring Report, calculation workbooks, standard operating procedures and supporting documentation and confirms that the calculation of the emission factors is in conformance with the FCPF program requirements, and the guidelines provided in the ER Monitoring Report template. The steps taken to conduct the assessment of the emission factors are described as follows:

Parameter:	Total biomass before deforestation ($B_{\text{Before},j}$) Total biomass after deforestation ($B_{\text{After},i}$) Carbon fraction (CF)
Free of error and material misstatement:	Yes
Assessment:	<p>These parameters are all used in the calculation of the deforestation emission factor following the IPCC equation. The program utilized forest inventory data to derive the biomass associated with the three forest types (primary forest terra firme, dense humid wetland forest, and secondary forest, and cultivated land (nonforest)).</p> <ul style="list-style-type: none"> ■ SCS confirmed the biomass values for the various forest types and nonforest through review of the published biomass summaries reported in the FREL. ■ The auditors conducted technical interviews with the program team to better understand how the biomass values were derived from the inventory data. ■ SCS checked the root-to-shoot ratios (R:S) applied to derive the belowground biomass and cross-checked them with the IPCC default values. We confirmed that the R:S values are accurate, appropriate for the forest types and location. ■ SCS confirmed through independent recalculation the emission factors (using these biomass values) for deforestation. ■ The auditors confirmed that reported biomass values and subsequent deforestation emission factors reported in the ER-MR were utilized correctly for the calculation deforestation. ■ The auditors cross-checked against the IPCC methodology and confirmed that the deforestation emission factors are in compliance with the FCPF Methodological Framework and the IPCC guidelines. ■ The auditors confirmed that the monitored emission factors are identical to those used in the reference level, thus in conformance with Indicator 14.1 and 14.3 of the MF.

Parameter:	Emission factors for forest degradation
Free of error and material misstatement:	Yes
Assessment:	<p>The emission factors for degradation were calculated using the primary forest biomass and the secondary forest biomass as well as the carbon fraction to determine the change in carbon as a result of degradation (primary forest converted to secondary forest). The program utilized forest inventory data to derive the biomass associated with the two primary forest types (primary forest terra firme, dense humid wetland forest, and the secondary forest</p> <ul style="list-style-type: none"> ▪ SCS confirmed the biomass values for the various primary forest types and secondary through review of the published biomass summaries reported in the FREL. ▪ The auditors conducted technical interviews with the program team to better understand how the biomass values were derived from the inventory data. ▪ SCS checked the root-to-shoot ratios (R:S) applied to derive the belowground biomass and cross-checked them with the IPCC default values. We confirmed that the R:S values are accurate, appropriate for the forest types and location. ▪ SCS confirmed through independent recalculation that the emission factor for degradation that it is free from material error. ▪ The auditors confirmed that reported biomass values and subsequent degradation emission factor reported in the ER-MR were utilized correctly for the calculation degradation. ▪ The auditors cross-checked against the IPCC methodology and confirmed that the degradation emission factor is in compliance with the FCPF Methodological Framework and the IPCC guidelines. ▪ The auditors confirmed that the monitored emission factors are identical to those used in the reference level, thus in conformance with Indicator 14.1 and 14.3 of the MF.

Parameter:	Enhancement of carbon stocks in new forests
Free of error and material misstatement:	Yes
Assessment:	<p>The removal factors for enhancement (nonforest to forest) were calculated using the secondary forest biomass, the nonforest biomass, as well as the carbon fraction to determine the change in carbon as a result of degradation (primary forest converted to</p>

	<p>secondary forest). The program utilized forest inventory data to derive the biomass associated with the two primary forest types (primary forest terra firme, dense humid wetland forest, and the secondary forest</p> <ul style="list-style-type: none"> ■ SCS confirmed the biomass values for secondary forest and nonforest land use classes through review of the published biomass summaries reported in the FREL. ■ The auditors conducted technical interviews with the program team to better understand how the biomass values were derived from the inventory data. ■ SCS reviewed the allometric equations applied to confirm that they are appropriate and valid for the forest types and location. ■ SCS checked the root-to-shoot ratios (R:S) applied to derive the belowground biomass and cross-checked them with the IPCC default values. We confirmed that the R:S values are accurate, appropriate for the forest types and location. ■ SCS confirmed through independent recalculation that the removal factor for enhancement that it is free from material error. ■ The auditors confirmed that reported biomass values and subsequent enhancement removal factor reported in the ER-MR were utilized correctly for the calculation enhancement. This calculation entails the carbon pools building up over a 20-year period and considers the legacy effects from previous years of forest enhancement. ■ The auditors cross-checked against the IPCC methodology and confirmed that the removal factor for enhancement is in compliance with the FCPF Methodological Framework and the IPCC guidelines. ■ The auditors confirmed that the monitored emission factors are identical to those used in the reference level, thus in conformance with Indicator 14.1 and 14.3 of the MF.
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SCS concludes that the amount of data and quality of the evidence provided about the identification and quantification of the emission factors is appropriate, sufficient, and free of error and misstatements to determine the GHG ERs. Moreover, SCS reviewed the Monitoring Report and confirms that the methodological steps and data are publicly available in accordance with Criterion 6 of the FCPF Methodological Framework. The auditors confirmed that the monitored emission and removal factors are identical to those used in the reference level, thus in conformance with Indicator 14.1 and 14.3 of the MF. Through review of the FREL where these emission factors were published, we confirmed that they are national scale and thus meeting tier 2 of the IPCC guidelines. We also cross-checked the calculation of the biomass value and the emission factors against the IPCC guidance and confirmed the IPCC methodological steps and assumptions were correctly applied.

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

The reference period for the construction of the reference level is from 2005-2014. Average annual historical emissions over this reference period were derived from Activity data to quantify GHG emissions and removals from deforestation, forest degradation, and enhancement. To address concerns raised by the FMT, the ER program participant applied technical corrections to the average annual historical emissions over the reference level to improve the accuracy and reliability of the data, the methodology and the results. As a result of the technical corrections applied and validated during this engagement, the reference level has been updated and therefore deviates from the reference level reported in the original ERPD and the Validation Report.

The assessment team took the following steps to validate whether the calculations and methods used to construct the reference level are in line with the FCPF program requirements, the IPCC guidelines as established in Criterion 5 of the FCPF Methodological Framework, and best practice approaches:

- Reviewed the application of the methods and datasets, including assumptions and selection of parameters used to construct the reference level emissions to assess whether they are in line with FCPF program requirements.
- Independently assessed the land use land cover (LULC) classification for a sample of the interpretation points provided by the program team with the use of ancillary imagery sources (i.e., Google Earth, Planet), to determine whether the classification of interpretation points were accurate, as well as to confirm whether the training and QA/QC processes employed were appropriate to ensure high-quality data and minimize the impact of any classification errors.
- SCS independently recalculated emissions and removals by multiplying the validated emission factors for all land cover classes and carbon pools by the area of land use change (activity data) to quantify the resulting emissions and removals from deforestation, forest degradation and enhancements.
- Independently assessed the number of sample points within the program boundary by performing an intersection of the interpretation sample points within the boundary.
- Independently replicated the quantification of the reference level emissions and removals using a combination of the complete datasets (e.g., land use conversions) to ensure that the calculation of the reference level ERs is free of material discrepancies.

To evaluate the upward adjustment of the reference level (extended scope, Criterion 13), the assessment team took the following steps:

- independently evaluated the assumptions for an upward adjustment (e.g., population growth, characterization of DRC as high forest low deforestation country, historical trends of deforestation relative to more recent trends, projections of increased deforestation, economic output trends, etc.) by reviewing a range of ancillary resources including peer-reviewed studies and published data.
- The auditors confirmed that the upward adjustment of the reference level is justified and supported by evidence of documented circumstances relative to the end-date of the reference period, ultimately in alignment with Indicators 13.2 and 13.3
- Through independent recalculation the auditors confirmed that the adjustment of the Reference Level above the average annual historical emissions during the Reference Period does exceed 0.1%/year of carbon stocks in the program area (Indicator 13.4)

Therefore, the SCS assessment team concludes that:

- The methods, including assumptions and selection of parameters, used to construct the reference level emissions are correct and in line with the FCPF program requirements.
- The data used to construct the reference level emissions is correct and complete for the subcategories ultimately selected.
- The requirements pertaining to the reference level including its upward adjustment have been applied correctly and the reference level emissions estimates have been calculated correctly and are free of material discrepancies.

4.10 Estimated Reference Level

The reference period for the construction of the reference level is from 2005-2014. Average annual historical emissions over this reference period were derived from the forest inventory-based emission factors and from the remote-sensing based activity data to quantify GHG emissions and removals from deforestation, forest degradation, and enhancements.

The assessment team took the following steps to validate the correctness and completeness of the data, methods and procedures used on the estimation of the Reference Level:

- Independently reviewed the ER program's Forest Reference Level quantification to assess whether the data, methods, and assumptions used to quantify the GHG emissions and removals are in conformity and represent the best available data in the country.
- Selected a random sample of interpretation data points from the land cover change analysis and independently assessed the LULC classification with other sources of remote sensing data to ensure the accuracy of the classification.
- Independently recalculated and quantified the Reference Level emissions for deforestation, degradation and enhancement to check the absence of errors in the quantification of net emissions and removals per land class as well as the relative contribution to total GHG emissions and removals associated with land conversions.
- The replication of the quantification included recalculation of the following: activity data, the number of sample points within the program boundary, program area stratification, area calculated for each stratum, area of conversions within each stratum, and the quantification of GHG emissions and removals resulted from deforestation, forest degradation and carbon enhancements.

Based on the aforementioned assessment, SCS confirms that the Reference Level is accurate and free of material error.

The numbers in the table below correspond to the portion of the validated, adjusted Reference Level for the ER Program for the Crediting Period. The Crediting Period aligns with complete calendar years.

Crediting Period year t	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)
2019	24,038,150	4,879,243	-420,133	5,788,886	34,286,146

2020	24,038,150	4,879,243	-840,267	5,788,886	33,866,012
2021	24,038,150	4,879,243	-1,260,400	5,788,886	33,445,879
2022	24,038,150	4,879,243	-1,680,533	5,788,886	33,025,746
2023	24,038,150	4,879,243	-2,100,666	5,788,886	32,605,612
2024	24,038,150	4,879,243	-2,520,800	5,788,886	32,185,479
TOTAL	144,228,900	29,275,455	-8,822,799	34,733,318	199,414,874

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

The assessment team took the following steps to confirm the consistency of the Program's Reference level with the national FREL/FRL and GHG Inventory:

- Independently reviewed the country's national FREL to evaluate the source of the datasets such as the emission factors and activity data. We confirmed that the same emission factors are utilized in the national FREL for the land cover classes that are within the Mai Ndombe program area.
- We cross-checked the forest definition in the FREL and confirmed that the definition of forest is consistent between the FREL and FCPF program
- We confirmed that the program's reference level end date (2014) is consistent with the end date of the FREL. The FREL start date is earlier (2000) than the program's start date.

In conclusion, through the steps taken above, the assessment team has confirmed consistency between the Program's Reference Level and the FREL ensuring compliance with MF indicators 10.2 and 10.3.

4.12 Uncertainty of the Reference Level

4.12.1 Identification and assessment of sources of uncertainty

The assessment team took the following steps to validate whether a stepwise approach for uncertainty analysis has been applied correctly for the identification of sources of random and systematic errors related to the activity data and emission factors for the estimation of the Reference Level in conformance with Criterion 7 and 8 from the FCPF Methodological Framework:

- Reviewed the Monitoring Report, input data, calculation workbooks, and supporting documentation to validate that all potential sources of uncertainty from the activity data, the reference level, and emission factors have been identified and assessed in conformance with the FCPF program requirements.
- Applied expert judgement and best practices as outlined in the IPCC guidance to confirm that a comprehensive approach to mitigate and reduce key areas of uncertainty have been addressed to minimize systematic errors (bias) through the implementation of consistent and comprehensive Quality Assurance / Quality Control (QA/QC) procedures.
- Applied expert judgement to assess whether all assumptions and sources of uncertainty associated with activity data, emission factors, the equations and calculation methods that contribute to the uncertainty of the estimates of emissions and removals were assessed with a stepwise approach and are correct.

- Applied expert judgement to conclude that the assessment of sources of uncertainty in construction of the Reference Level Emissions is justifiable.

Based on the assessment described above, SCS confirms that a stepwise approach has been applied correctly for the identification of sources of random and systematic errors related to the activity data and emission factors for the estimation of the Reference Level, and is in compliance with the FCPF program requirements.

4.12.2 Uncertainty of the estimate of the Reference Level

The assessment team took the following steps to evaluate the application of Monte Carlo simulation for the quantification of Uncertainty of the Reference Level and to confirm its accuracy:

- Performed an independent review of the selection of sources of (residual) uncertainty included in the analysis, including the recalculation of their standard error and confidence intervals.
- Independently reviewed the steps, assumptions, and parameter values stated in the Monitoring Report and compared them to those in the calculation workbooks to ensure consistency and completeness.
- Conducted an independent run of the Monte Carlo analysis using the FCPF template to ensure that the simulation was carried out accurately and in accordance with the IPCC guidelines and the MF.
- Through replication of the Monte Carlo analysis, we confirmed that all underlying sources of error in data and methods for integrated measurements of deforestation, forest degradation and enhancements have been combined into a single combined uncertainty estimate and have been reported at the two-tailed 90% confidence level.

Based on the aforementioned review, SCS confirms that the Reference Level uncertainty estimation was done in conformance with the Methodological Framework Criterion 9 and the Guidelines on the application of the Methodological Framework Number 4 On Uncertainty Analysis of Emission Reductions. SCS concludes that the assessment of the application of the Monte Carlo simulation and the quantification of the Uncertainty of the Reference Level were performed correctly.

4.12.3 Sensitivity analysis and identification of areas for improvement of the MRV system

The assessment team took the following steps to assess the sensitive analysis conducted to estimate the relative contribution of each parameter to the overall uncertainty:

- Performed an independent review of the selection of sources of (residual) uncertainty included in the analysis, including the recalculation of their standard error and confidence intervals.
- Independently reviewed the steps, assumptions, and parameter values stated in the Monitoring Report and compared them to those in the calculation workbooks to ensure consistency and completeness.
- Conducted an independent run of the sensitivity analysis using the FCPF template to ensure that the simulation was carried out accurately and in accordance with the IPCC guidelines and the MF.
- Reviewed the sensitivity analysis outputs to ensure that the ER program has identified the highest sources of uncertainty (activity data associated with deforestation) and has reported so transparently and completely in the Monitoring Report and the calculation workbooks.

Based on the above steps, the assessment team concludes that the sensitivity analysis was conducted correctly and in alignment with Criterion 7 and 9 and the Methodological Framework Number 4 On Uncertainty Analysis of Emission Reductions.

4.13 Data quality and availability

The assessment team reviewed the quality and description of the data and methods used to construct the Reference Level following the steps described in the Monitoring Report and the calculation workbooks, to independently recalculate the estimates of the Reference Level. Based on this assessment, SCS confirms that the methodological steps and description of the data are detailed enough to enable the recalculation of the Reference Level estimates.

Moreover, the assessment team confirmed that the relevant information, maps, description of methods, procedures, and data sources, are publicly available on the program's Dropbox website and the referenced links available in the Monitoring Report.

5. NON-COMPLIANCES AND OBSERVATIONS

As part of the validation process, any potential or actual discrepancies and non-compliances with the FCPF program requirements were identified and resolved through the issuance of findings. Findings are the formal mechanism used by SCS to identify any actual or potential areas of risk or concern.

This validation was comprised of 2 main formal rounds of findings with three additional rounds to clarify and/or request corrective actions to the findings submitted. Note: This audit engagement – and thus findings presented herein – were combined with first verification. The findings were issued to the ER Program personnel using a proprietary approach tailored for this engagement, termed the Findings Presentation Document. This gave the ER Program personnel the opportunity to respond to the findings and allowed for efficient and transparent tracking of the current status of each finding. The following discusses the types of findings that were issued during the assessment process.

A Minor Corrective Action Request (mCAR) was issued when the assessment team determined that there was not enough information to make a decision regarding conformance:

- 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
- Non-material errors, omissions or misstatements have been made in applying assumptions, in data or calculations

A Major Corrective Action Request (MCAR) was issued when the assessment team has identified that:

- 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
- Underlying assumptions used to develop the reported estimates²⁶ are not supported by data
- Material errors, omissions or misstatements have been made in applying assumptions, in data or calculations
- Non-compliance with Validation and Verification criteria
- The REDD+ Country Participant has failed to implement or made inadequate progress with the mCARs from the previous verification

An observation (OBS) was issued when:

- There was no objective evidence to prove that there was a non-conformity, but the VVB observed practices and/or methods that could result in future MCAR and mCAR

- The VVB identified an area of the Forest Monitoring System that requires attention and/or adjustment in future monitoring and reporting
- An area where immaterial discrepancies exist between the observations, data testing results or professional judgment of the assessment team and the information reported or utilized (or the methods used to acquire such information) within the ER Monitoring Report.
- An area where the expert judgement of the assessment team suggests that there are opportunities for improvement in the areas falling within the assessment scope.

As part of the audit process, 35 MCARs, 2 mCARs and 2 OBS were issued. All MCAR findings issued by the audit team during the audit process were satisfactorily addressed by the ER Program personnel and were closed. One mCAR remains open (mCAR 39) that must be addressed at the next verification. All findings issued during the audit process, and the impetus for the closure of each such finding, are described in Appendix 1 of this report.

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

MCAR 1 – Land cover-based definition versus land USE – CLOSED

Dated 22 Sep 2023

Standard Reference: FCPF Carbon Fund Methodological Framework v3, 2006 IPCC Guidelines for National Greenhouse Gas

Document Reference: DRC_2st_ER-MR_GHG accounting_Jul 17-2023, DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Section 3.1 of the MF states, “The Emission Reduction Program (ER Program) strives to be consistent with evolving UNFCCC decisions on REDD+... Relevant principles include those on transparency, consistency, completeness, and accuracy.” The principle of transparency signifies to “disclose sufficient and appropriate ER Program-related information truthfully to allow intended users to make decisions with reasonable confidence.” Furthermore, Criterion 5 of the FCPF Framework states, “The ER Program uses the most recent Intergovernmental Panel on Climate Change (IPCC) guidance and guidelines, as adopted or encouraged by the Conference of the Parties as a basis for estimating forest-related greenhouse gas emissions by sources and removals by sinks.”

The 2006 IPCC Guidelines is based on the designation of land-use categories. Section 3.2 states “The definitions of land-use categories may incorporate land cover type, land use based, or a combination of the two. Care needs to be taken in inferring land use from the land cover characteristics and vice versa. For example, in some countries, significant areas of the Forest Land category may be grazed, and firewood may be collected from scattered trees in the Grassland category. These areas with different use may be significant enough for countries to consider them separately as additional sub-categories. Countries should ensure that land is not accounted for in more than one category or sub-category, in order to avoid double-counting of land areas.” It then provides the IPCC land USE based definitions. For instance, forest is defined as “all land with woody vegetation consistent with thresholds used to define Forest Land in the national greenhouse gas inventory. It also includes systems with a vegetation structure that currently fall below, but in situ could potentially reach the threshold values used by a country to define the Forest Land category.”

In contrast to land-use based definitions, the Mai Ndombe FCFP program has specified land COVER based definitions as described in section 8.2 of the ER-MR which considers land area, canopy cover, and tree height. *However, it remains unclear whether secondary forest land that is harvested for timber and goes below these forest land cover thresholds, but technically remains secondary forest, because the forest will regrow is quantified in the program’s methodology and whether these assumptions are conservative.* More specifically, it is not transparent whether secondary forest land that is harvested (but remains in a forest land use) is quantified as deforestation (permanent conversion of forest to other land uses) **or whether it is considered to be degradation**. In order to be in conformance with the transparency principle and to ensure that the program is not overestimating deforestation emissions, more information is required regarding the consideration of harvested secondary forest.

Project Personnel Response: The ERP defines secondary forests as open canopy forests or forest that have grown back from a non-forest condition during either the FREL period, the interim period, or the reporting period. The estimated carbon content is different for open canopy forest (based on NFI data). Timber extraction in DRC is selective. As such, it does not result in total cover loss as e.g. in the US Pacific Northwest and therefore, in deforestation under a Land Cover change definition as is the case here. As such, it is not reported as a land cover change (nor as land use change). However, if the case described by the auditors occurred, it would first be reported as deforestation and then the subsequent removals would be considered as to report the NET emissions estimates at the time of the reporting period. In the case secondary forests are cleared this results in deforestation and not on degradation. In the case secondary forest grow back, the removals are estimated following the MF guidance.

Auditor Response: Thank you for the response and clarification regarding the timber harvest regimes in the DRC. The auditors confirmed with ancillary information that the harvest regimes are generally low supply, informal, small-scale and much of which is illegal which aligns with this explanation. This finding has been closed.

Bearing on Material Misstatement or Conformance (M/C/NA): M/C

MCAR 2 – VCS Mai Ndombe ERs – CLOSED**Dated 22 Sep 2023****Standard Reference:** FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC_2st_ER-MR_GHG accounting_Jul 17-2023, DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Criterion 23 of the FCPF Methodology Framework states: “to prevent double-counting, ERs generated under the ER Program shall not be counted or compensated for more than once. Any reported and verified ERs generated under the ER Program and sold and/or transferred under an ERPA shall not be sold, offered or otherwise used or reported a second time by the ER Program Entity. Any reported and verified ERs generated under the ER Program that have been sold and/or transferred, offered or otherwise used or reported once by the ER Program Entity shall not be sold and transferred to the Carbon Fund.” Section 6.4 of the ER-MR states “The ER Program assigned 6,075,515 ERS to Wildlife Works (WWC) for the 2019-2020 vintages to be so old under a different GHG standard, in this case, VCS of Verra.” The calculation workbook DRC_ER_Calculations.xlsx, sheet ER-MR_Tables indicates that this deduction of ERs from the program was calculated assuming total VCUs from the Mai Ndombe VCS (WWC) project of 4,600,000 VCUs in 2019 and 2020 combined. However, in reviewing the Mai Ndombe VCS on the Verra Registry, from the published Monitoring Report, it indicates that in 2019 the project generated gross emissions reductions of 6,994,486 tCO₂e and in 2020 gross emission reductions of 7,760,663 tCO₂e. Given that the Program is not accurately deducting the emissions reductions generated by the Mai Ndombe VCS project within the FCPF program area, this represents a non-conformity with Criterion 23.

Project Personnel Response: The template indicates the ERs to be deducted are “ **ERs sold, assigned or otherwise used by any other entity for sale, public relations, compliance or any other purpose including ERs accounted separately under other GHG accounting schemes or ERs that have been set-aside to meet Reversal management requirements under other GHG accounting schemes**” This means only the ERS resulting in VCUs sold and used towards the VERRA buffer ought to be discounted. At the time of elaboration of this report the number of VCUs sold and the buffer ERs corresponded to the amount discounted in the MR. However, since The MR was presented, the project has issued an additional 3 million VCUs resulting in a new total VCUs and as such the discounted volumes need be updated. A detail the auditors need to be aware of is that the initial issuance of 4.6 million VCUs as in compliance of the BSP agreement of making use of a 3.8 million tCO₂eq baseline for the project as opposed to its VCS baseline as an agreed way forward with the nesting of the project. However, upon issuing and additional 3 million VCUs the project moved from using the 3.8 million as a baseline to using it as a CAP, hence the 7.6 (=3.8 x2) VCUs issued in total. This is a violation of the terms under the BSP.

Auditor Response: Thank you for the clarification. The auditors confirmed that all credits generated by the Mai Ndombe VCS project during the monitoring period have been capped by the VCS project and are accurately deducted from the program credits. This finding has been addressed. However, please see MCAR 40 related to this topic.

Bearing on Material Misstatement or Conformance (M/C/NA): M

MCAR 3 – Section 6.4 – CLOSED**Dated 22 Sep 2023****Standard Reference:** FCPF Carbon Fund Methodological Framework v3, FCPF ER Monitoring Report Template v2.5**Document Reference:** DRC_2st_ER-MR_GHG accounting_Jul 17-2023, DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Section 6.4 ‘ERs transferred to other entities or other schemes’ of the template states that “In the case the REDD Country is planning to separately account Emission Reductions from the ER Program under a different GHG Program or Standard, resulting in a percentage of units generated in the applicable Reporting Period not being issued as FCPF ERs, this shall be described in this section so that the FMT ensures that no FCPF ERs are generated to avoid double counting or claiming. The REDD Country shall provide enough information regarding the other GHG program: • Name of the GHG Program • Status of registration and validation under the GHG Program • Vintages that will be affected • Reference level used under the alternative GHG Program or Standard • Amount of Emission Reductions that are planned to be generated under the alternative GHG Program or Standard... Refer to Criterion 23 [prevention double counting] and Criterion 38 [ensure that any ERs from REDD+ activities under the ER Program are not generated more than once] of the Methodological Framework.” However, Section 6.4 of the ER-MR does not contain this required information. Furthermore, the link provided to an ‘implementation report’ takes one to the VCS page for ‘THE MAI NDOMBE REDD+ PROJECT’ which does not appear to contain a document with that title. The information provided does not meet the requirements of the template and MF and thus constitutes a nonconformity.

Project Personnel Response: The response to this request requires consultation with the project developer to reach a consensus and avoid double counting.

The following text has been added to section 6.4 for additional clarity. We expect it to also clarify the fact that that WWC project is The REDD+ MaiNdombe REDD+ Project. : “The MaiNdombe REDD+ project managed by Wildlife Works (WWC) is a VCS-VERRA registered project actively issuing VCUs. So far, the project has issued a total of 7,600,000 tCO₂eq VCUs under the VCS-VERRA Standard, out of a total ERs of 14 755 149 tCO₂eq ER reported for 2019-2021. From these, a buffer discount of 10% has been applied resulting in 1,475,515 tCO₂eq ER being applied to it. This makes it so The MaiNdombe REDD+ project has transferred a total of 9,075,515 tCO₂eq Vintage ER (7,600,000 tCO₂eq VCU + 1,475,515 tCO₂eq buffer ER) to the VCS-VERRA Scheme. This volume has been discounted from the ERP performance reported in the monitoring report (see section 8) in order to comply with requirements under Criteria 23 and 38 and avoid double counting and double issuance. The MaiNdombe REDD+ Project has, according to [the project description](#), a baseline of 8,524,210 tCO₂eq for 2019 and of 9,642,568 tCO₂eq for 2020. The verification for the period 2017-2020 was conducted in March 2022 and the implementation report is available in the VCS-VERRA project page [here, as well as all the project relevant information under that standard](#). The project reported 1,248,955 tCO₂eq for 2019 and 1,778,581 tCO₂eq 2020 emissions for a total of tCO₂ed 3,027,536 emissions for the reporting period 2019-2020.”

Auditor Response: The auditors confirmed that the level of detail provided in the ER-MR now meets the template reporting requirements. This finding has been closed.

Bearing on Material Misstatement or Conformance (M/C/NA): M/C

MCAR 4 – Spatial Information – CLOSED**Dated 22 Sep 2023****Standard Reference:** FCPF Carbon Fund Methodological Framework v3**Document Reference:** UMD-WB_final_2000_samples.kml; DRC_2st_ER-MR_GHG accounting_Jul 17-2023

Finding: Indicator 6.2 of the MF states, “For the following spatial information, maps and/or synthesized data are displayed publicly, and reasonable efforts are made to explain how these were derived from the underlying spatial and other data, and to make key data sets or analyses publicly available: – Accounting Area, – Activity data (e.g., forest-cover change or transitions between forest categories), – Emission factors, – Average annual emissions over the Reference Period, – Adjusted emissions, – Any spatial data used to adjust emissions, if applicable.” The spatial file provided (.kml) contains only point data and does not include any information regarding the stratification or the classification of each point. Spatial data (e.g., polygons) for the program area and its stratification during the relevant mapping periods used in the analyses (e.g., 2005-2009, 2010-2014, 2019-2020) need to be provided for conformity to the requirements.

Project Personnel Response: The Stratification map for 2005-2009 and 2010-2014 can be accessed at the following link:

https://www.dropbox.com/scl/fo/fnfqupbc5cvm07ksyoezp/h?dl=0&preview=UMD-WB_final_sampling_design.tif&rlkey=0cb794w54jout87exbraba8f8

Stratification map for 2019-2020 can be accessed at the following link:

https://www.dropbox.com/scl/fi/t2wllbveh3ln3m9hifbqa/WB-UMD_strata_map.tif?rlkey=ilon2vrkdo3dia5e7q614qwj6&dl=0

Auditor Response: The auditor team has confirmed that the two stratification maps have been provided in these links. This finding has been addressed and closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 5 – Monitoring period – CLOSED**Dated 22 Sep 2023****Standard Reference:** FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC_2st_ER-MR_GHG accounting_Jul 17-2023, UMD-WB_final_report, DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Section 3.1 of the MF states, “The Emission Reduction Program (ER Program) strives to be consistent with evolving UNFCCC decisions on REDD+... Relevant principles include those on transparency, consistency, completeness, and accuracy.” The principle of transparency signifies “disclose sufficient and appropriate ER Program-related information truthfully to allow intended users to make decisions with reasonable confidence.” Page 77 of the ER-MR references and provides a link to “the final report for Quantifying the forest Reference Level of the emissions reduction program of Mai-Ndombe Province, Democratic Republic of Congo - University of Maryland / GLAD Lab.” Table 8 in the Report UMD-WB_final_report.docx shows that the first monitoring period is from 2018 to 2019. However, multiple sections of the ER-MR (e.g., 4.1-4.3, 5.2, etc.) indicate that the monitoring period is from 2019 to 2020. The conflicting monitoring periods display a lack of transparency.

Project Personnel Response: Please note that the UMD report is only a preliminary estimate of emission reduction and should not be considered as the source of data for the monitoring period activity data estimate. However, the ER-MR document does reference the UMD report to provide additional information on the methods used for estimating Activity Data. A clarification has been added in the footnotes with links to access the UMD report in ER-MR section 3.2, as well as Annex 4 sections 8.3 and 12.

Please also note that only the MR is subject to auditing. In case of inconsistencies between referenced documents and the MR, the information contained in the MR is the one that needs to be assessed. Estimates in reference documents should be ignored. The ER-Program process is a lengthy one. Earlier decisions on data and time periods may be later revised and such revisions would not be reflected in referenced documents, as the latter do not get updated. In this particular case, the initial reporting period was set from 21.09.2018 to 31.07.2019 (see schedule 2 on page 15 of the ERPA: https://www.forestcarbonpartnership.org/system/files/documents/FCPF%20Carbon%20Fund%20Emission%20Reductions%20Payment%20Agreement%20-%20Tranche%20A%20and%20Tranche%20B%20DRC_Signed_1.pdf). The reporting period was later changed from 01.01.2019 to 31.12.2020 as is described in the MR.

Auditor Response: Please note that the onus is on the auditors to determine what documentation are relevant to assessment. Such relevant documentation often includes ancillary reports depending on how they are cited and used. For example, if a referenced report, link, map, or calculation file is referenced in the ER-MR to provide more information about the process applied for this program, these are also considered to be part of the audited documents. More specifically, if the UMD evaluated data for a different time period (e.g., 2018-2019), but the ER-MR uses those values for 2019-2020, it could indicate a discrepancy between the timeframes and an incorrect application of the values. Given the nature of how the UMD is referenced and used, and that the auditors are assessing against principles of transparency and consistency, such discrepancies between the UMD report and the ER-MR are considered to be relevant to this audit.

Thus, while the auditors have confirmed that additional information regarding this UMD report has been added to the footnotes with the UMD report links, there is no specific information provided about the discrepancy between the monitoring periods listed in the UMD report versus the ER-MR. As a result, this lack of transparency remains relevant, and this finding is open.

Project Personnel Response 2:

The following text has been added to footnotes in pages 28 to provide information about the discrepancy between the monitoring periods listed in the UMD report versus the ER-MR:

Please take note that the UMD report is not the official data source for monitoring period activity data estimate, and it's just a preliminary estimate of emission reduction for 2018-2019. The ER-Program process is a lengthy one, and earlier decisions on data and periods were later revised and approved by the FMT, but such revisions are not reflected in the referenced document. The initial reporting period was set from 21.09.2018 to 31.07.2019 (see schedule 2 on page 15 of the [ERPA](#)). However, the reporting period was later changed from 01.01.2019 to 31.12.2020, as described in the MR. The ER-MR document references the UMD report to provide additional information on the methods used to estimate Activity Data.

Auditor Response 2: The auditors confirmed that this information is contained in the ER-MR and that it resolves the lack of transparency. This finding has been closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 6 – Reference period – CLOSED

Dated 22 Sep 2023

Standard Reference: FCPF Carbon Fund Methodological Framework v3

Document Reference: DRC_2st_ER-MR_GHG accounting_Jul 17-2023, UMD-WB_final_report, DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Criterion 11 of the MF states, “A Reference Period is defined.” Further, Section 3.1 of the MF states, “The Emission Reduction Program (ER Program) strives to be consistent with evolving UNFCCC decisions on REDD+... Relevant principles include those on transparency, consistency, completeness, and accuracy.” The principle of consistency is to “enable meaningful comparisons in ER Program-related information.” Section 8.1 of the ER-MR refers to two different reference periods (i.e., 2004 – 2014 and 2000 – 2014). Section 8.3 of the ER-MR refers to a reference period of 2005 – 2014. The conflicting reference periods display a lack of consistency and result in a non-conformity to the requirements.

Project Personnel Response: The reference period indicated in section 8.1 of Annex 4 has been corrected to match the correct reference period in section 8.3 (2005-2014).

Auditor Response: The auditors could not confirm such updates were made. For instance section 8.1 of the ER-MR states “**Considering the above guidance and national / local circumstances, DRC will apply a reference period from 2004 to 2014 for its Mai-Ndombe ER-Program.**” And then later section 8.1 indicates “Consistent with this, DRC decided in April 2014 to use a historic reference period from 2004 to 2014 in order to align the end-date of the reference period with the national FREL/FRL.” As a result, this nonconformity has not been addressed.

Project Personnel Response 2: We have corrected the text on section 8.1 Annex 4 to reflect a unique reference period of 2005-2014.

Auditor Response 2: The auditors confirmed that section 8.1 has been updated to reflect the correct reference period which is consistent with the other sections of the ER-MR and the calculation workbook. However, after World Bank input, this finding was reopened via email (30 Sept 2024) for the Program to add the specific date, and not just the year for the start and end of reference period.

Project Personnel Response 3:

Auditor Response 3: This finding has been closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 7 – Citations absent – CLOSED**Dated 22 Sep 2023****Standard Reference:** FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC_2st_ER-MR_GHG accounting_Jul 17-2023, DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: As described in the MF the FCPF program is guided by general principles. The principle of transparency signifies to “disclose sufficient and appropriate ER Program-related information truthfully to allow intended users to make decisions with reasonable confidence.” Related to the justification for the upward adjustment of the reference level, Section 8.5 of the ER-MR states, “If one looks at the following results of two studies in the districts of Plateau and Mai-Ndombe (the latter involving 400 households alone), the link between population growth and deforestation becomes clear: The average household uses an area of 1 hectare for farming, applying a fallow-slash and burn system on forest land, whereas savanna lands are only marginally cultivated or not at all.” It is not clear what two studies are being referenced, and without providing the full citation (i.e., authors, title, journal, etc.), the cited work cannot be located and referenced. This lack of transparency results in a non-conformity.

Project Personnel Response: The references from which this paragraph is taken are given below:

- Program Document REDD+ (PIREDD Mai-Ndombe) page 8 first paragraph :
(https://www.cafi.org/sites/default/files/2021-02/DRC-WorldBank-Mai%20Ndombe-Prod%20Final_Novembre%202016.pdf)
- Mesure De L'évolution De L'indicateur Sur Les Revenus Monétaires Et Non Monétaires Des Ménages Dans La Zone D'intervention Du Piredd/Mai-Ndombe « Rapport Final De L'étude » page 50, last paragraph.
(http://www.ucpif.cd/images/medias/Etude_de_levolution_indicateur_RMNM_des%20menages.pdf).
- 2018_frel_submission_drc page 91 point 2.2. paragraph 7 :
(https://redd.unfccc.int/media/rdc_documentnerf_soumissionfinale_29112018.pdf)

Auditor Response: Thank you for providing more detailed information about the citations used in this section of the ER-MR. From our review of the citations, the audit team was able to extract the following language from each source:

In Program Document REDD+ (PIREDD Mai-Ndombe, page 8, paragraph 1), “Slash-and-burn agriculture is the main cause of deforestation and forest degradation. According to the survey carried out by the BioCFplus mission in Mai-Ndombe, each “median” family exploits **5 ha of forests**, knowing that the savannahs are only marginally cultivated, if at all. Of these 5 ha, each household cultivates some **0.6 ha annually**, before abandoning them to fallow for 5 years.”

In Mesure De L’évolution De L’indicateur Sur Les Revenus Monétaires Et Non Monétaires Des Ménages Dans La Zone D’intervention Du Piredd/Mai-Ndombe « Rapport Final De L’étude » page 50, last paragraph, “Usually, the areas planted by agricultural households across the Mai-Ndombe Province are around **0.5 ha per household**.”

In 2018_frel_submission_drc **page 109** point 2.2. paragraph 7, ‘The production (t) of cassava, corn and peanuts in the former province of Bandundu is respectively: 5,158,950 t, 234,919 t and 110,549 t (2002) (Ministry of Agriculture/Bandundu) [3]. The average household area of cassava, maize and peanuts is **0.8 ha, 0.5 ha and 0.2 ha** [Ministry of Agriculture/Bandundu]. The cultivation area per household per agricultural season is **0.5 to 1 ha**. The area of fields is approximately **2 ha per year** (Ministry of Agriculture/Bandundu)[3].”

Section 8.5 of the ER-MR states, “If one looks at the following results of two studies in the districts of Plateau and Mai-Ndombe (the latter involving 400 households alone), the link between population growth and deforestation becomes clear: The average household uses an area of **1 hectare for farming**, applying a fallow-slash and burn system on forest land, whereas savanna lands are only marginally cultivated or not at all^{33b}. This system requires an area of 5 hectares per household based on a 5-year rotation. With an annual population growth rate of 3%, every year means an additional 6,500 agricultural households, each needing 5 hectares of primary forest (or mature secondary forest) to achieve a stable agricultural production system, equivalent to 32,500 hectares per year.”

This paragraph cites the second citation listed, which lists the “areas planted by agricultural households across the Mai-Ndombe Province are around **0.5 ha per household**.” Please clarify as to how these citations are being used and provide a justification for which values are applied to this section. This finding remains open.

Project Personnel Response 2:

Calculation of the total area cleared per year, taking into account new clearings by households arriving each year and ongoing clearings by households that have not yet reached the end of their rotation period. Here is a structured presentation:

Number of new farm households per year: 6,500 (3% of 216,667, the total number of households).

Area cleared per household per year: 1 hectare.

Area required for cropping method: Fallow and slash-and-burn cropping on forest land requires an area of 5 hectares per household, based on a 5-year rotation.

Calculation of total area cleared by new households each year: 6,500 farming households per year * 1 hectare per household = 6,500 hectares.

Calculation of the area cleared by households already present, but not having reached the end of the rotation period: 6,500 households * 4 remaining years = 26,000 hectares.

Total number of households (new households + households already present but not having reached the end of the rotation cycle): 6,500 + 26,000 = 32,500 households.

Total area cleared per year: Total number of households * 1 hectare per household = 32500 hectares.

Thus, the total area cleared each year would be 32,500 hectares, taking into account both new clearings by households arriving each year and ongoing clearings by households present but not yet at the end of their rotation period.

The table below provides the details. ERPA year

	1	2	3	4	5
New household	6,500	6,500	6,500	6,500	6,500
Existing households		6,500	13,000	19,500	26,000
Total superficie planted (ha)	6,500	13,000	19,500	26,000	32,500

Auditor Response 2: Thank you for providing this demonstration and justification. The auditors can see that the assumption of 1 ha cultivated per household with a 3% increase in population per year is demonstrated in the text and results in this increase in deforestation rate overtime. While the selection of 1 ha versus 0.5 ha is less conservative, the increase in the number of ha planted would be demonstrated regardless. As a result, this finding has been closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 8 – Strata consistency– CLOSED**Dated 22 Sep 2023****Standard Reference:** FCPF Carbon Fund Methodological Framework v3**Document Reference:** AD_calculationTool_RP, AD_calculationTool_MP, UMD-WB_final_report, DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Section 3.1 of the MF states, “The Emission Reduction Program (ER Program) strives to be consistent with evolving UNFCCC decisions on REDD+... Relevant principles include those on transparency, consistency, completeness, and accuracy.” The principle of consistency is to “enable meaningful comparisons in ER Program-related information.” The principle of transparency signifies to “disclose sufficient and appropriate ER Program-related information truthfully to allow intended users to make decisions with reasonable confidence.” The Report UMD-WB_final_report.docx indicates that there are 9 strata, which are listed in Table 6 as 1 - Stable dense humid forest; 2 - Stable secondary forest; 3 - Stable non-forest; 4 - Dense humid forest to non-forest; 5 - Dense humid forest to loss/gain; 6 - Secondary forest to non-forest, 7 - Secondary forest to loss/gain; 8 - Non-forest to secondary forest; 9 - Buffered change (strata 4-8). These are also shown in legend of Figure 7 in that same report. However, in the calculation workbook ‘AD_calculationTool_RP’, sheet ‘Area calculation’ 9 strata are listed but with different transition/classifications. For instance, 3 – secondary forest to non-forest, 4 – secondary forest to forest loss/gain, 5 – non-forest to secondary forest, and so on. Second, in the Monitoring Period quantification workbook ‘AD_calculationTool_MP’, sheet ‘Area calculation’, cells K16-O25 show the stratum area for the MP, but there are only 8 stratum without labeling/descriptions. Third, the stratum FS (secondary forest) exists in the ‘AD_calculationTool_RP’ workbook, while the stratum FSEC appears in the ‘AD_calculationTool_RP’ workbook. Ultimately the lack of transparency and consistency in the stratum labels and numbering results in a nonconformity.

Project Personnel Response:

“AD_calculationTool_RP” workbook: There is a discrepancy between the sampling strata ID codes of the reference data dataset and UMD report Table 6. This discrepancy does not affect the AD calculation. Sample sizes are consistent despite the discrepancy. Please, see UMD Report table 7 and the table with sample size in the Area Calculation sheet - W17..AA26 of the revised version of the AD calculation tool is accessible at the following link

https://www.dropbox.com/scl/fi/019tahcl700u1ajkwcvly/AD_calculationTool_RP_rev.xlsx?rlkey=k8zfmex5zm24t6k50tqkkrkm&dl=0).

“AD_calculationTool_MP” workbook: The strata label has been added in the spreadsheets for the sake of transparency. The table in cells K16..O25 has been updated including Strata Labels. These are sampling strata to assign area proportions but by no means represent the reported strata as per sample interpretation, which is fully consistent between FREL and MR. The revised version of the AD calculation tool for MP can be accessed at the following link:

https://www.dropbox.com/scl/fi/h6615h2u925o8bnxccpqz/AD_calculationTool_MP_rev.xlsx?rlkey=upfaombllqng9eumnlt4p4j6i&dl=0

FS and FSEC: Both "FS" and "FSEC" refer to Secondary Forests. The reference to Secondary Forest in the RP activity data calculation tool has been corrected to use the code "FSEC" consistently in both workbooks.

Auditor Response: Thank you for the clarification. The auditors confirmed that the above updates have been made. This finding has been closed.

Bearing on Material Misstatement or Conformance (M/C/NA): NA

MCAR 9 – Dense humid wetland deforestation – CLOSED**Dated 22 Sep 2023****Standard Reference:** FCPF Carbon Fund Methodological Framework v3**Document Reference:** AD_CalculationTool_MP.xlsx

Finding: Criterion 3 of the MF states, "The ER Program can choose which sources and sinks associated with any of the REDD+ Activities will be accounted for, measured, and reported, and included in the ER Program Reference Level. At a minimum, ER Programs must account for emissions from deforestation. Emissions from forest degradation also shall be accounted for where such emissions are significant." The AD_CalculationTool_MP.xlsx, sheet 'AreaCalculation', cell M7 indicates that during the 2019-2020 monitoring period, 759 ha of deforestation occurred in the dense humid wetland forest strata. However, in the workbook DRC_ER_Calculations, sheet ER_Calculation this 759 ha of deforestation and its emissions are not accounted for in the monitoring period emissions from deforestation. Rather only the deforestation from the Dense humid terra firma are accounted for. This results in greater ERs in the Monitoring Period and is therefore not conservative nor in conformance with Criterion 3.

Project Personnel Response: Thank you for the observation. Effectively these hectares emissions had been omitted. The calculation for reducing emissions has been updated to include the deforestation of 759 hectares in the dense humid wetland forest layer. As a result, the estimated number of gross ERs has decreased from 7,585,37416,850,194 to 16,327,888 tCO₂e. You can access the updated version of the Emission Reductions calculation through the following link:

https://www.dropbox.com/scl/fo/fnfqubc5cvm07ksyoezp/h?dl=0&preview=DRC_ER_Calculations+rev.xlsx&rlkey=0cb794w54jout87exbraba8f8

Auditor Response: The auditors have confirmed that the 759 ha of deforestation in the dense humid wetland forest has now been included in the ER quantification. However, we have noted that the emission factor associated with deforestation from the Primary terra firme to nonforest was applied to this 759 ha and not the Emission factor for dense humid wetland forest to nonforest. This results in a conservative estimate of ERs. However, the emission factor for dense humid forest to nonforest is shown in the calculation workbook and the land cover class 'dense humid wetland forest' and its associated biomass value is listed throughout several sections in the ER-MR. However, the biomass value is ultimately not used, resulting in a lack of transparency and ultimately a nonconformity, thus while this finding has been addressed a new MCAR has been opened.

Bearing on Material Misstatement or Conformance (M/C/NA): M/C

MCAR 10 – Stratification versus land cover transitions – CLOSED**Dated 22 Sep 2023****Standard Reference:** FCPF Carbon Fund Methodological Framework v3**Document Reference:** AD_calculationTool_RP, UMD-WB_final_report, DRC_2st_ER-MR_GHG_accounting_Jul 17-2023, DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Section 3.1 of the MF states, “The Emission Reduction Program (ER Program) strives to be consistent with evolving UNFCCC decisions on REDD+... Relevant principles include those on transparency, consistency, completeness, and accuracy.” The principle of consistency is to “enable meaningful comparisons in ER Program-related information.” The principle of transparency signifies to “disclose sufficient and appropriate ER Program-related information truthfully to allow intended users to make decisions with reasonable confidence.” The strata and land cover transitions have very similar names in the AD workbook for the RP. However, Section 3.1 of the ER-MR cites the UMD report for details on AD quantification. The UMD report states that, “The land cover transitions of interest, or activity data, were defined by the ER-PD, and consisted of (1) dense humid forest to non-forest, (2) secondary forest to non-forest, (3) dense humid forest to secondary forest, and (4) non-forest to secondary forest.” However, there are 8 land cover transitions in the AD_calculationTool_RP.xlsx and 9 strata. The lack of clarity between stratification/strata and land cover transitions represents a nonconformity to the requirements.

Project Personnel Response: In the UMD report, AD refers to the Degradation and Deforestation relevant classes includes the 4 actual transition classes as well as 4 stable classes (1) dense humid forest to non-forest, (2) secondary forest to non-forest, (3) dense humid forest to secondary forest, and (4) non-forest to secondary forest. However, the LC analysis needs sampling strata depicting the areas potentially depicting such transitions as well as for the 4 stable classes also. MCAR 8 response explains the sampling strata used.

Auditor Response: Thank you for this additional explanation. However, it remains unclear why there are different number of sampling strata between the monitoring period (8 strata) and the reference level period (9 strata). It appears that strata ‘9 - Buffered change (strata 4-8)’ is not included in the “AD_calculationTool_MP” workbook. In reviewing the ER-MR, with the UMD report, and the calculation workbooks, the auditors cannot determine why such discrepancies between the stratification exist, suggesting a continued lack of clarity and transparency existing within the ER-MR.

Project Personnel Response 2:

The table in the "AreaCalculation" sheet (cells L27..P37) of the AD_calculationTool_MP_rev workbook shows the difference in the number of sampling strata between the monitoring and reference periods. The reference period includes buffered change (strata 4-8) to minimize the uncertainty associated with omission errors, as suggested by Olofsson et al. in 2020^[1]. However, for the monitoring period, including the buffered change strata was unnecessary because the uncertainty was already at the desired levels.

Label	Id Monitoring Period dataset	Id Reference Period dataset	2005-2015 (ha)	2019-2020 (ha0)
Dense humid forest to non-forest	1	1	181,658	56,099
Dense humid forest to forest loss/gain	2	2	190,596	60,652
Secondary forest to non-forest	3	3	246,865	841,483
Secondary forest to forest loss/gain	4	4	291,862	128,959
Non-forest to secondary forest	5	5	28,164	241,195
Buffered change (strata 4-8)		6	761,287	
Stable dense humid forest	6	7	7,886,443	8,114,314
Stable secondary forest	7	8	361,430	595,593
Stable non-forest	8	9	2,900,017	2,810,027
		Accounting Area	12,848,321	12,848,321

[1] Pontus Olofsson, Paulo Arévalo, Andres B. Espejo, Carly Green, Erik Lindquist, Ronald E. McRoberts, María J. Sanz. Mitigating the effects of omission errors on area and area change estimates. Remote Sensing of Environment. Volume 236. 2020. 111492. ISSN 0034-4257. <https://doi.org/10.1016/j.rse.2019.111492> .

Auditor Response 2: Thank you for this clarification. The auditors have confirmed via an additional review of Olofsson et al. that the exclusion of this strata is in alignment. This finding has been closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 11 – List of acronyms – CLOSED**Dated 22 Sep 2023****Standard Reference:** FCPF ER Monitoring Report Template v2.5**Document Reference:** DRC_2st_ER-MR_GHG accounting_Jul 17-2023, DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change**Finding:** The template requires the inclusion of a ‘List of Acronyms’ at the end of the ‘Table of Contents.’ This component is missing from the ER-MR and constitutes a nonconformity to the template requirements.**Project Personnel Response:** The list has been included in the report.**Auditor Response:** The audit team verified compliance with the requirement.**Bearing on Material Misstatement or Conformance (M/C/NA): C****MCAR 12 – Instructions – CLOSED****Dated 22 Sep 2023****Standard Reference:** FCPF ER Monitoring Report Template v2.5**Document Reference:** DRC_2st_ER-MR_GHG accounting_Jul 17-2023, DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change**Finding:** The template states, “All instructions, including this section, should be deleted when submitting the ER-MR to the Facility Management Team of the FCPF.” In the ER-MR, there are various points where the template instructions remain (e.g., page 3, Sections 4.1, 5.2, 8.3, 8.4, 9.2, 12.2, etc.). These constitute nonconformities to the template requirements.**Project Personnel Response:** The instructions have been removed from MR submission.**Auditor Response:** The instructions in section 12.2 have not been removed. This finding remains open.**Project Personnel Response 2:** The instructions in section 12.2 have been removed.**Auditor Response 2:** The auditors confirmed that the instructions in section 12.2 of the ERM have been removed and this finding is therefore closed.**Bearing on Material Misstatement or Conformance (M/C/NA): C**

MCAR 13 – Line diagram – CLOSED**Dated 22 Sep 2023****Standard Reference:** FCPF ER Monitoring Report Template v2.5**Document Reference:** DRC_2st_ER-MR_GHG accounting_Jul 17-2023, DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Regarding section 2.2, the template states: “Provide a systematic and step-by-step description of the measurement and monitoring approach applied for establishment of the Reference Level and estimating Emissions and Emissions reductions during the Monitoring / Reporting Period for estimating the emissions and removals from the Sources/Sinks, Carbon Pools and greenhouse gases selected in the ER-PD. Provide line diagrams showing all relevant monitoring points, parameters that are monitored and the integration of data until reporting in a schematic way.” The associated line diagram, Figure 2-2 of the ER-MR, contains data that are difficult to associate with ‘parameters that are monitored’ as required by the template. Furthermore, Equation 5 is found in Section 2.2.2 of the ER-MR and falls under the sub-heading ‘Reference Level (RLt)’ yet, it is shown in Figure 2-2 to be used to estimate ‘monitored emissions.’ In contrast, in Section 2.2.2 under the sub-heading ‘Monitored emissions (GHGt)’ is defined as ‘Annual gross GHG emissions over the monitoring period in the Accounting Area (GHGt)’ and a different Equation is used in its estimation. As another example, Figure 2-2 of the ER-MR shows Equation 14, which does not exist in Section 2.2.2. Please ensure accuracy and conformance of the line diagram to the ER-MR contents and to the template requirements.

Project Personnel Response: The line diagram has been updated to correct issues with equation numbers. Equation 11 is now used to estimate monitored emissions, and Equation 14 has been clearly identified in section 2.2.2. Additionally, calculation tools have been referenced to help identify monitored parameters when integrating data.

Auditor Response: The auditors have confirmed that these updates were made and that the diagram (in section 2.2.2 and in 9.1) is now consistent and clear. This finding has been closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 14 – Equation 11 – CLOSED**Dated 22 Sep 2023****Standard Reference:** FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC_2st_ER-MR_GHG accounting 17-2023, DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Criterion 6 of the Methodological Framework states: “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)...” In section 2.2 of the ER-MR, there are two equations labelled as ‘Equation 11.’ This prevents a meaningful reconstruction and thus represents a nonconformity to the requirements.

Project Personnel Response: See response to MCAR 13. The document has been modified to solve this matter.

Auditor Response: Auditors confirmed that there is now only one equation labelled as “Equation 11.” This finding has been resolved.

Bearing on Material Misstatement or Conformance (M/C/NA): C**MCAR 15 – Section 3.1, multiple parameters – CLOSED****Dated 22 Sep 2023****Standard Reference:** FCPF ER Monitoring Report Template v2.5, FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC_2st_ER-MR_GHG accounting_Jul 17-2023, DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Criterion 6 of the Methodological Framework states: “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)...” Additionally, Section 3.1 ‘Fixed Data and Parameters’ of the template states: “These parameters should link to the equations provided in section 2.2.2... Use the table provided and copy table for each parameter, not for each value (multiple values may be reported per parameter, for instance ... the estimates of the different forest types obtained with a same inventory)...” Under Section 3.1 of the ER-MR, one parameter box is provided for 4 parameters from 6 equations. Furthermore, the row labelled ‘Value applied’ does not correspond to the ‘Parameter’ row shown, nor to the ‘Data unit’ row shown. These issues constitute nonconformities to the ER-MR template and to the MF requirement of enabling reconstruction.

Project Personnel Response: Information in section 3.1 has been included in 3 tables: i. Initial and final total biomass, ii. Degradation emission factor and iii. Removal factor.

Auditor Response: The auditors confirmed that the table have been updated accordingly. This finding has been closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 16 – Section 3.1, missing parameter – CLOSED**Dated 22 Sep 2023****Standard Reference:** FCPF ER Monitoring Report Template v2.5, FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC_2st_ER-MR_GHG accounting_Jul 17-2023, DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change**Finding:** Criterion 6 of the Methodological Framework states: “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)...” Additionally, Section 3.1 ‘Fixed Data and Parameters’ of the template states: “These parameters should link to the equations provided in section 2.2.2.” Under Section 3.1 of the ER-MR, the parameter EF_j (Eq 9) is absent. This constitutes a nonconformity to the ER-MR template and to the MF requirement of enabling reconstruction.**Project Personnel Response:** The term EF_j has been corrected to EF_{DEG} in Equation 9, so there is no need to include the EF_j parameter in section 3.1.**Auditor Response:** The auditors confirmed that equation 9 now references the parameter EF_{deg}. However, there is still a discrepancy with section 3.1 which lists the parameter EF_j. The auditors do not agree that there is no need for inclusion the degradation emission factor in 3.1 as it’s inclusion is required by the template. Thus, this finding remains open.**Project Personnel Response 2:**EF_j parameter in Section 3.1 has been corrected to EF_{DEG} in Section 3.1 and the Emission Factor table in Section 8.3 of Annex 4.**Auditor Response 2:** The auditors confirmed that this parameter has been corrected in section 3.1 and section 8.3 of Annex 4 resolving the nonconformity. This finding is closed.**Bearing on Material Misstatement or Conformance (M/C/NA): C**

MCAR 17 – Section 3.2, specific to MP – CLOSED**Dated 22 Sep 2023****Standard Reference:** FCPF ER Monitoring Report Template v2.5**Document Reference:** UMD-WB_final_report, DRC_2st_ER-MR_GHG accounting_Jul 17-2023, DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Section 3.2 of the template states, ‘Please provide an overview of all data and parameters that are monitored during the Crediting Period and their values for this Monitoring/Reporting Period.’ Section 3.2 of the ER-MR contains a parameter table with a row labeled ‘Source of data and description of measurement/calculation methods and procedures applied¹⁴.’ The footnote cites the UMD Report, which does not contain information on the data ‘monitored during the Crediting Period and their values for this Monitoring/Reporting Period.’ Further, the parameter table in section 3.2 of the ER-MR contains information which appears to be specific to the reference period and not the monitoring period (e.g., “...16-day Landsat composite time-series data from 2000 through 2019, supplemented by Google Earth imagery...” and “2,000 sampling points”). Information specific to the monitoring period is required in Section 3.2 for conformance to the template requirements.

Project Personnel Response: The methods to estimate activity data are the same for the reference period and the 1st monitoring and reporting period. As already explained, these were elaborated following methods described in the UMD report. The UMD report is not the source of the data. As such, all information provided on methods used to estimate the activity data for the reference period are also applicable to the monitoring period. Information specific to the monitoring period has been included in Section 3.2, and the link to MP 1169 sampling point has been added.

Auditor Response: Thank you for this clarification. The auditors confirmed that section 3.2 now indicates that 1169 sample points were used for monitoring. However, we found the following related issues remain in this section:

- (1) Number of strata: Under the section ‘Source of data and description of measurement/calculation methods and procedures applied’ it states states “For a stratified random sample of pixels within nine strata...” but for the monitoring period, only 8 strata were used. Furthermore this section also lists out 10 strata “1) dense humid forest (terra firma), 2) dense humid forest (wetland), 3) secondary forest, 4) non-forest, 5) dense humid forest (terra firma) to secondary forest, 6) dense humid forest (wetland) to secondary forest, 7) dense humid forest (terra firma) to non-forest, 8) dense humid forest (wetland) to non-forest, 9) secondary forest to non-forest, 10) non-forest to secondary forest” despite only 8 strata being used for the monitoring period.
- (2) References to reference period uncertainty - Under the section “uncertainty for this parameter” it states “Our goal of <20% uncertainty at the 90th percentile confidence interval for activity data from 2005-2014 was achieved using 2,000 samples.” This information is not relevant to the Monitoring Period.
- (3) Continued reference to 2000 plots - Likewise, the Comment section of the table in section 3.2 of the ER-MR states “Initial FREL was estimated using *systematic grids* (37,184 samples) with variable spacing between sampling locations (5,000 to 1,600) depending on the stratum. Updated activity data are calculated using *pixel-based stratified random* sampling with 2,000 sampling points.”

As a result, this nonconformity has not been resolved.

Project Personnel Response 2:

The table in section 3.2's Monitored Data and Parameters has been updated to address outstanding issues. A clarification text has been added to explain and rectify the strata included in the reference period and monitoring period.

Auditor Response 2: The auditors confirmed that these updates were made to the ER-MR, thus resolving this finding.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 18 – Section 3.2, multiple parameters – CLOSED

Dated 22 Sep 2023

Standard Reference: FCPF ER Monitoring Report Template v2.5, FCPF Carbon Fund Methodological Framework v3

Document Reference: DRC_2st_ER-MR_GHG accounting_Jul 17-2023

Finding: Criterion 6 of the Methodological Framework states: “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)...” Additionally, Section 3.2 ‘Monitored Data and Parameters’ of the template states: “Please provide an overview of all data and parameters that are monitored during the Crediting Period and their values for this Monitoring/Reporting Period. Use the table provided and copy table for each parameter, not for each value (multiple values may be reported per parameter, for instance A(j,i) may include the estimates of the different forest types obtained with a same survey).” Under Section 3.2 of the ER-MR, one parameter box is provided for 2 parameters, while 3 parameters are described in the row ‘Description’. Furthermore, the row labelled ‘Value applied’ does not correspond to the ‘Parameter’ row shown. These issues constitute nonconformities to the ER-MR template and to the MF requirement of enabling reconstruction.

Project Personnel Response: The table in section 3.2 has been updated to ensure consistency between monitored parameters and values from 2019 to 2020.

Auditor Response: While multiple parameters are still listed for the area parameters, the auditors have concluded that separating them would result in considerable redundancy. This finding has been closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 19 – Community involvement – CLOSED**Dated 22 Sep 2023****Standard Reference:** FCPF ER Monitoring Report Template v2.5, FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC_2st_ER-MR_GHG accounting_Jul 17-2023, DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Criterion 16 of the MF states, “Community participation in Monitoring and reporting is encouraged and used where appropriate. Indicator 16.1: The ER Program demonstrates 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.” Section 2.1 and 2.2 of the template each instruct for the content of this section, “Refer to criterion...16 of the Methodological Framework.” However, the ER-MR does not address community participation in monitoring and reporting, constituting a nonconformity to the requirements.

Project Personnel Response: The information on community participation presented below has been included in the Report.

The participation of local communities in Mai Ndombe has been effective during all phases of development of the present program, notably through consultations launched the Environmental Civil Society (GTCR) under the operational lead of the NGO Ocean, which deployed its teams in the 8 territories of Mai Ndombe province in 2015

These consultations resulted in the appointment of three delegates per territory, made up of two members of local communities and/or indigenous peoples as well as a territory CARG coordinator.

In all, 24 people were designated to participate directly their representatives by the delegates.

Since then, these delegates have participated as stakeholders in ERP activities, including in the process of finalizing the Benefit Sharing Plan (BSP). To this end, consultations were held at all levels: national, provincial and local. Prior to the signing of the ERPA, there were several consultations, notably in the context of the BPP between 2014 and 2016, with a consultation workshop on the principles of the BPP in 2017. After the ERPA was signed, 13 consultation workshops with colos and PAs between September and November 2019 were conducted by REPALF, GTCR R and GTCR.

(See the report on the consultations held with indigenous peoples and local communities in the jurisdictional area of the emission reduction program in the Maindombe in the Democratic Republic of Congo on key aspects of the benefit-sharing plan as part of its finalization, April 2020).

The BSP was presented to the COPIL on April 21, 2022. It is also important to note that the ERP is part of the capitalization of the achievements of the PIREDD, which succeeded in setting up a CLD at the level of each terroir.

As far as the monitoring report itself is concerned, it is important to stress that local communities were not directly involved in the process of drawing it up. However, they did take part in the last meeting of the PIREDD Mai Ndombe Steering Committee (COPIL) held in Nioki, where the first draft was presented.

Auditor Response: The audit team confirms the addition of this material to the ER-MR. This finding is closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 20 – Section 3.1, additional missing parameters – CLOSED**Dated 22 Jan 2024****Standard Reference:** FCPF ER Monitoring Report Template v2.5, FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Criterion 6 of the Methodological Framework states: “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)...” Additionally, Section 3.1 ‘Fixed Data and Parameters’ of the template states: “These parameters should link to the equations provided in section 2.2.2.” Under Section 3.1 of the ER-MR, the following relevant parameters are missing:

- A(j,i)_RP (equation 6)
- A(a,b)_RP (equation 9)
- A(j,i)_RP (equation 10)
- CF (carbon fraction)

These omissions constitute a nonconformity to the ER-MR template and to the MF requirement of enabling reconstruction. To enable sufficient reconstruction, the related land cover transitions for the reference period must be listed in section 3.1 (and Annex 4 section 8.3) with the area parameters. Please note that some of the above area parameters are listed in Annex 4, section 8.3 of the ER-MR, though incompletely.

Project Personnel Response:

Section 3.1 now includes the Activity Data Table for the Reference Period. The tables in sections 3.1 and Annex 4 section 8.3 have been updated to include missing parameters.

Auditor Response: The audit team confirmed that the baseline tables in section 3.1 and section 8.3 of annex 4 of the ER-MR have been updated to include these missing parameters. However, table 8-4 in section 3.1 and in Annex 4 section 8.3, lists the stable nonforest area from 2005-2009 as Stable 3,543,68 ha which does not match the area in the calculation workbook AD_calculationTool_RP_rev, sheet AreaCalculation, cell Z5. This appears to be a typo and thus this finding remains open.

Project Personnel Response 2: Table 8-4 of section 3.1 and Annex 4 section 8.3 have been updated to reflect the corrected stable nonforest area from 2005-2009, which is 3,546,685 hectares.

Auditor Response 2: The auditors confirmed that the ER-MR has been updated accordingly. This finding has been resolved.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 21 – Emission factors – CLOSED**Dated 22 Jan 2024****Standard Reference:** FCPF ER Monitoring Report Template v2.5, FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Regarding section 2.2, the template states: “Provide a systematic and step-by-step description of the measurement and monitoring approach applied for establishment of the Reference Level and estimating Emissions and Emissions reductions during the Monitoring / Reporting Period for estimating the emissions and removals from the Sources/Sinks, Carbon Pools and greenhouse gases selected in the ER-PD.” The auditors have found that there is no indication of how the Emission Factors are actually calculation. For instance, in equation 9 and equation 13, one of the parameters in the equations is Emission factor for degradation of forest type a to forest type b, tones CO₂ ha⁻¹. Likewise, for equations 10 and 14, one key parameter is the ‘enhancement of carbon stocks in new forests [tCO₂*ha*year⁻¹’]. However, there is no demonstration (via equation) or details on how these emission factor and enhancement factor parameters are calculated, and whether there are additional conversion factors applied, etc.

Additionally, Section 3.1 ‘Fixed Data and Parameters’ of the template states: “These parameters should link to the equations provided in section 2.2.2.” For the parameter EF_j and parameter RFSREG there are no demonstrations regarding how these emission factors are actually calculated. In the FREL and the calculation workbooks, it is clear that additional calculation steps are conducted to arrive at the emission factors.

The exclusion of this information in section 2.2.2 and section 3.1 results in a nonconformity to the requirements.

Project Personnel Response: Equations 9.1, 10.1, 13.1 and 14.1 were included to demonstrate how the emission factors and enhancement factors parameters are calculated. Also, the Line Diagram in Figure 2-2 has been updated.

Auditor Response: The auditors confirmed that additional equations have been added to demonstrate how the emission factors and enhancement factors have been calculated. We also confirmed that the line diagram has been updated to reference these additional equations. The nonconformity has been resolved.

Bearing on Material Misstatement or Conformance (M/C/NA): C**MCAR 22 – Terminology & use of ‘primary swamp forest’ – CLOSED****Dated 22 Jan 2024****Standard Reference:** FCPF ER Monitoring Report Template v2.5, FCPF Glossary of Terms v2.2**Document Reference:** DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Section 3.1 of the MF states, “The Emission Reduction Program (ER Program) strives to be consistent with evolving UNFCCC decisions on REDD+... Relevant principles include those on transparency, consistency, completeness, and accuracy.” The principle of consistency is to “enable meaningful comparisons in ER Program-related information.” The principle of transparency signifies to “disclose sufficient and appropriate ER Program-related information truthfully to allow intended users to make decisions with reasonable confidence.” The auditors have found the following inconsistencies and lack of transparency pertaining to the primary swamp forest:

- (1) Terminology – Throughout the ER-MR multiple terms refer to this land use including ‘primary swamp forest’ or ‘FDHSH’ as listed in table 3-2 and ‘dense humid wetland forest’ or ‘FHS’ as listed in table 8-4. Overall, this results in confusion and a lack of consistency.
- (2) Use – As indicated above in the response to MCAR9, the emission factor for dense humid forest to nonforest is shown in the calculation workbook and the land cover class ‘dense humid wetland forest’ and its associated biomass value is listed throughout several sections in the ER-MR. However, the biomass value is ultimately not used in the calculation of emissions, resulting in a lack of transparency in the quantification of ERs. If the biomass value listed is not used, this is not justified or made clear in the ER-MR.

These identified inconsistencies and areas lacking transparency result in a nonconformity.

Project Personnel Response:

- (1) FDHSH, “dense humid wetland forest,” is the unique term used in the Monitoring Report and Activity Data and Integration Tools.
- (2) Emissions from deforestation of “dense humid wetland forest” have been included in the DRC ER Calculation tool
https://www.dropbox.com/scl/fi/c0rojo6uio26sbfua7jvd/DRC_ER_Calculations-rev2.xlsx?rlkey=sqhpnmj0thdxpyd4k6dpddbjd&dl=0).

Auditor Response: The auditors confirmed that the terminology for the forest type has been mostly corrected in the MR and calculation files resolving the inconsistency. However, the following references to swamp forest remain: (1) footnote #2 of table 4-1, (2) Table in section 5.2 references Primary Swamp Forest throughout, (3) the table in section 8.5 (on Cap Adjustment) references Swamp forest, and (4) The table in section 12.2 references swamp forest.

Project Personnel Response 2: The text has been modified to refer to Dense Humid Wetland Forest instead of Swamp Forest. The changes have been made in (1) footnote #2 of table 4-1, (2) Table in section 5.2 which now references Primary Swamp Forest throughout, (3) the table in section 8.5 (on Cap Adjustment), and (4) the table in section 12.2.

Auditor Response 2: The auditors confirmed that all references to swamp forest have been removed and replaced with Dense Humid Wetland Forest. This finding has been closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

OBS 23 – Root to shoot ratio – CLOSED**Dated 22 Jan 2024****Standard Reference:** NA**Document Reference:** DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Section 5.1 of the ER-MR as well as the first parameter table in section 3.1 (under ‘Source of data...’) states that “the RSR used is 0.3720, corresponding to the rainforest ecological zone (Mokany et al. cited in IPCC 2006).” In the IPCC 2006 table, a different citation for this value is listed, not Mokany et al.

Project Personnel Response:

The correct citation is Fittkau and Klinge (1973), as cited in IPCC (2006). Throughout the document, the reference has been updated accordingly.

Auditor Response: The auditors confirmed that this citation has been updated through the ER-MR.

Bearing on Material Misstatement or Conformance (M/C/NA): N/A

MCAR 24 – Start Date – CLOSED**Dated 22 Jan 2024****Standard Reference:** FCPF ER Monitoring Report Template v2.5, FCPF Glossary of Terms v2.2**Document Reference:** DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Annex 4 of the ER-MR template under section ‘Start Date of the Crediting Period’ states, “Please indicate the proposed Start of the Crediting Period together with a justification and evidence to demonstrate compliance with the definition of the Start Date of the Crediting Period provided in the FCPF Glossary of Terms.” The Glossary states that start date must comply with 5 conditions: “1. It is not earlier than the date the first ER Program Measure(s) (including any Sub-Project(s)) begins generating ERs, i.e. first implementation². 2. It is justified with objective evidence by the ER Program Entity and it is independently assessed by a Validation Verification Body during Validation. 3. It is not earlier than January 1st 2016³. 4. It does not fall within the Reference period. 5. It is demonstrated that the ER Program complies with requirements since the start date on safeguards⁴, carbon accounting and double-counting as specified in the MF.” Annex 4 of the ER-MR for section ‘Start Date of the Crediting Period’ there are 2 conditions provided. Please demonstrate compliance with the 5 conditions of the Glossary definition for the start date (with the understanding that validation and verification are ongoing).

Project Personnel Response:

The following text has been added to the section 'Start Date of the Crediting Period':

The start date of the crediting period is January 1st, 2019. This date corresponds to the definition of the start date of the crediting period provided in the FCPF Glossary, i.e. follows:

1. The Start Date of the Crediting Period is set after the first ER Program Measures begin generating ERs. The following ERP activities were implemented before 2019 (see Table 1 in Section 1):

- April 2015 – June 2020. Improved Forest Landscape Management Project (IFLMP, P128887), Component 1, Integrated Project REDD+ Plateau (PIREDD Plateau).
- May 2018 – Dec 2022. Improved Forest Landscape Management Project (IFLMP, P128887), Additional funding for Mai-Ndombe REDD+ project (P162837, PIREDD Mai-Ndombe).
- April 2016 – July 2021. DGM, Support to forest dependent communities (P149049).
- Since 2011. Wildlife Works Mai Ndombe project.

2. The Start Date is justified with evidence by the ER Program Entity (see items 1, 3, 4, and 5), and it is independently assessed by a Validation Verification Body during Validation.

3. The Start Date is not earlier than January 1st, 2016.

4. The Start Date does not fall under the reference period 2000-2015.

5a. The Start Date demonstrates that the ER Program complies with requirements since the start date on safeguards. DRC has conducted a Strategic Environmental and Social Assessment (SESA) of the national REDD+ strategy and has put in place the following six REDD+ safeguards instruments: ESMF, Indigenous Peoples Planning Framework, Resettlement Policy Framework (RPF), Pest and Pesticide Management Framework, Cultural Heritage Management Framework (CHMF), and Process Framework (PF). All six safeguards' instruments produced under the FCPF Readiness Project have been reviewed and cleared by the World Bank and found to meet its operational policy requirements.

5b. The Start Date is demonstrated that the ER Program complies with requirements since the start date on Carbon accounting and double counting as specified in the MF. In order to comply with requirements under Criteria 23 and 38 and avoid double counting and double issuance. The MaiNdombe REDD+ Project has, according to [the project description](#), a baseline of 8,524,210 tCO₂eq for 2019 and of 9,642,568 tCO₂eq for 2020. The verification for the period 2017-2020 was conducted in March 2022 and the implementation report is available [here](#), as well as [all the project relevant information under that standard](#). The project reported 1,248,955 tCO₂eq for 2019 and 1,778,581 tCO₂eq 2020 emissions for a total of tCO₂ed 3,027,536 emissions for the reporting period 2019-2020.

In addition the revision and operationalization of the Program's Data Management System will be carried out with the support of the OPERPA project. The revision of the registry system will demonstrate that Emission Reduction will be issued exclusively through the National REDD+ Registry. Registry accounts will be created for all authorized project holders and the government (with specific sub-accounts for regional/jurisdictional programs). Once the Emission Reductions have been reported and verified, the respective ERs will be issued directly to the relevant accounts, with a separate allowance paid to one or more relevant (government) buffer accounts (so as to account for uncertainties and reversals). The issuance of ERs is subject to verification of carbon and other relevant social and environmental thresholds, which are defined in national standards. Project owners are free to transfer their issued ERs through sales contracts, conversion (from national ERs to Verified Carbon Units (VCUs)) or any other means. Thus, the DRC government has decided to use a centralized registry of ER transactions (CATS) managed by the FCPF until the operationalization of its own registry.

Auditor Response: The auditors confirmed that the ER-MR has been updated to include a clear justification regarding how the start date meets the ER Program requirements. This finding has been closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 25 – Displacement – CLOSED**Dated 22 Jan 2024****Standard Reference:** FCPF ER Monitoring Report Template v2.5, FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change**Finding:** Indicator 17.3 of the FCPF Methodological Requirements states “By the time of verification, the ER Program has implemented its strategy to mitigate and/or minimize potential Displacement.” Also, section 1.1 of the ER-MR template states “Provide a short description of the implementation of the ER Program, including:...

Update on the strategy to mitigate and/or minimize potential Displacement.” Section 1.1.2 of the ER-MR states “All strategies described in the emissions reduction program are being implemented to avoid displacement of emissions. The risk of displacement is always assessed and classified as medium for slash-and-burn agriculture, medium for fuelwood production, high for artisanal logging and low for industrial logging. The emissions reduction program has made every effort to minimize displacement of emissions to an area outside the program boundaries and, if it exists, it will be minimal, as most of the measures proposed to address drivers of deforestation and forest degradation are primarily based on incentives and valuation of non-carbon benefits rather than coercive measures that will result in displacement of drivers of deforestation.” It remains unclear exactly what activities have been implemented to mitigate or minimize potential Displacement. In order to evaluate the conformance of this indicator, the auditors request more information including documentation and evidence demonstrating how exactly “the program has implemented its strategy to mitigate and/or minimize potential Displacement.”

Project Personnel Response: The emission reduction program sets out a strategy for preventing and limiting potential displacements. This approach is manifested through the description of a series of functionalities, sectoral activities and enabling activities, as outlined in the document entitled 20161108 Revised ERPD after CF-14_clean version_EN" (pages 183-186) (https://www.dropbox.com/scl/fi/9v8vklN0387zntdo1yaoa/20161108-Revised-ERPD-after-CF-14_clean-version_FR.pdf?rlkey=gw3cd9uouqozrjdbtim04zvjm&dl=0). Some of these elements have been implemented by projects under the Emissions Reduction Program (ERP), notably the Projet de Gestion Améliorée des Paysages Forestiers (PGAPF) and the Projet Intégré REDD+ dans le Mai-Ndombe, as detailed in the Rapport 2022 du Programme d'Investissement pour la Forêt de la RDC (pages 14-20) (<https://www.dropbox.com/scl/fi/xv5dzpkvyhshqx3ssf0b/RAPPORT-ANNUEL-DU-PIF-RDC-2022.pdf?rlkey=lyadb8byhjrg3z36k20woqg6d&dl=0>).**Auditor Response:** Thank you for providing these documents. The auditors confirmed that they provide clarity in the approach to prevent displacement and we have confirmed these are cited and linked in the ER-MR. This finding has been addressed.**Bearing on Material Misstatement or Conformance (M/C/NA): C**

MCAR 26 – Discrepancies in ER-MR monitoring sections – CLOSED**Dated 22 Jan 2024****Standard Reference:** FCPF ER Monitoring Report Template v2.5, FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Section 3.1 of the MF states, “The Emission Reduction Program (ER Program) strives to be consistent with evolving UNFCCC decisions on REDD+... Relevant principles include those on transparency, consistency, completeness, and accuracy.” The principle of consistency is to “enable meaningful comparisons in ER Program-related information.” Several sections in the ER-MR contain inconsistencies in the information presented. For example, the monitoring table presented in table 3.2 does not match the monitoring table presented in Annex 4 section 9.1. Likewise, an Activity Data table that is listed in Annex 4 section 8.3, is not listed in section 3.1. This activity data table in 8.3 only lists parameters A(j,l) and A(a,b) but then a description for 3 parameters is listed. Furthermore, equation 9 in section 2.2.2 references the parameter EFdeg, but section 3.1 and 8.3 reference the parameter EFj. Ultimately there are several discrepancies between the information and values presented throughout various sections in the ER-MR resulting in a lack of consistency.

Project Personnel Response:

- Table 3.2 does not match the monitoring table presented in Annex 4 section 9.1: The consistency between Table 3.2 and the Table included in Annex 4 section 9.1 has been ensured.
- Activity Data table that is listed in Annex 4 section 8.3, is not listed in section 3.1: Activity Data table for the Reference Period has been added in section 3.1.
- Equation 9 in section 2.2.2 references the parameter EFdeg, but section 3.1 and 8.3 reference the parameter EFj: Equation 9 in section 2.2.2, section 3.1 and Annex 4 section 8.3 all reference EFdeg.
- Discrepancies between the information and values presented throughout various sections in the ER-MR: Consistency has been ensured between sections and Activity data in the ER-MR report through revised values, Monte Carlo analysis, and Sensitivity analysis tools.

Auditor Response: The table in section 9.1 of Annex 4 (Table 9.3) is blank. There are no values presented in the table. Also see finding #36 below which details discrepancies in the numbering and naming of tables across the ER-MR.

Project Personnel Response 2: The activity data for the 2019-2020 Monitoring Period has been added to Table 9.3 in section 9.1 of Annex 4.

Auditor Response 2: Confirmed that the activity data values for the 2019-2020 MP have been added to section 9.1 of Annex 4, resolving this finding.

Bearing on Material Misstatement or Conformance (M/C/NA): C**MCAR 27 – Data Management System link – CLOSED****Dated 22 Jan 2024****Standard Reference:** FCPF ER Monitoring Report Template v2.5, FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Section 6.2 of the ER-MR template states, "Please describe the design and operation by the ER Program and/or the host country of an appropriate arrangement to avoid having multiple claims to an ER Title. Discuss the design and provide evidence of the implementation and operation of a Program and

Projects Data Management System in accordance with the requirements of the Methodological Framework... Refer to criterion 37 of the Methodological Framework." However, section 6.2 of the ER-MR states that "The current Ministry web platform is the most important tool used in the monitoring of field activities. The platform is publicly accessible [here](#) and includes the following systems..." However, the link destination does not appear to contain any information accessible by the public. Please demonstrate compliance with all components of FCPF MF Criterion 37 as per the template requirements.

Project Personnel Response: All data is currently available and accessible to the general public in the DIAF

Dropbox(<https://www.dropbox.com/scl/fo/fnfqubc5cvm07ksyoezp/h?rlkey=0cb794w54jout87exbraba8f8&dl=0>). However, please note that this information will be transferred to the new National Forest Monitoring System portal as soon as the hosting is renewed, and the portal domain name is changed. At that time, all data will be made available.

Auditor Response: The auditors confirmed that the ER-MR has been updated with a link to this publicly available dropbox containing the project data, partially resolving this finding. (Please see a related finding issued (OBS 38) regarding the inclusion of out of date data on this dropbox.) However, not all indicators of criterion 37 have been addressed: "Indicator 37.4: Administrative procedures are defined for the operations of a national or centralized REDD+ Programs and Projects Data Management System; and an audit of the operations is carried out by an independent third party periodically, as agreed with the Carbon Fund." In Section 6.2 of the ER-MR, compliance with the indicators of criterion 37 are not provided. Please demonstrate compliance with all indicators of criterion 37 in Section 6.2 as per the ER-MR template.

Project Personnel Response 2: Section 6.2 has been updated to include how Criterion 37 and its indicators will be taken into account through the operationalization of the National REDD+ Register, which is currently under development. The version under development can be accessed at <https://imags-group.com/rdc/>. All data from REDD+ projects and programs will be centralized there, including those from the Mai-Ndombe province emissions reduction program once it has been deployed on the National Forest Monitoring System server in around two weeks' time. Currently, the ERP data is stored in a Dropbox account accessible to the public at the following address:

[<https://www.dropbox.com/scl/fo/fnfqubc5cvm07ksyoezp/h?rlkey=0cb794w54jout87exbraba8f8&dl=0>]. The registry's connection to this data is currently being established. We expect connectivity to be established within the next 2 weeks.

Auditor Response 2: The auditors confirmed that section 6.2 of the ERMR has been revised to indicate compliance with Criterion 37. The auditors confirmed through discussion with the Carbon Fund that "an audit of the operations is carried out by an independent third party" has not been deemed necessary. However, the auditors found that this Data Management System is not fully operational and therefore we will be issuing a separate mCAR to require that the system be operational by the time of Verification.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 28 – GHG emission from burning – CLOSED**Dated 22 Jan 2024****Standard Reference:** FCPF ER Monitoring Report Template v2.5**Document Reference:** DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: The ER-MR template for Annex 4, Section 7 states that “Explain whether any Carbon Pools and greenhouse gases have been excluded, and if so, justify their exclusion by making conservative assumptions for example on the magnitude of the Carbon Pools and greenhouse gases omitted... Refer to criterion 4 of the Methodological Framework.” Table 7-0-3 of the ER-MR in Section 7 of Annex 4 states for CH₄ and N₂O that “The ER Program’s mitigation activities will result in a less areas burnt. The emissions related to burning are conservatively neglected.” Please provide additional justification/demonstration on the conservativeness of this exclusion in alignment with the FCPF requirements.

Project Personnel Response: The following text has been added in Annex 4 Table 7-0-3:

According to the DRC Biennial Update Report (BUR1)-National Inventory Report (NIR),¹ CH₄ and N₂O emissions represent 0.73% of Agriculture, Forestry, and other Land Uses (AFOLU) Sector total emissions (CH₄ 0.47% and N₂O 0.26%)^[1].

- *CH₄ emissions estimate includes the following sources:* 3A1 Livestock-Enteric Fermentation; 3A2 Livestock-Manure Management; 3C1 Biomass Burning and 3C7 Rice Cultivation.
- *N₂O emissions estimate includes the following sources:* 3A2 Livestock-Manure Management; 3C1 Biomass Burning; 3C4 Direct N₂O Emissions from Managed; 3C5 Indirect N₂O Emissions from Managed soils and 3C6 Indirect N₂O Emissions from Manure Management.

Furthermore, the ER Program’s mitigation activities will result in fewer areas burnt. The non-CO₂ emissions related to burning are conservatively neglected.

^[1] Calculation of the proportion of CH₄ and N₂O emissions are included in NonCO₂_gases sheet of DRC-ER_Calculitons rev2 worksheet. ER calculation tool can be accessed at the following link: https://www.dropbox.com/scl/fi/c0rojo6uio26sbfua7jvd/DRC_ER_Calculations-rev2.xlsx?rlkey=sqhpnmj0thdpxpyd4k6dpddbjd&dl=0

Auditor Response: The auditors confirmed that the exclusion of emissions due to burning is conservative given the assumption that burning under the project scenario would be lower than the baseline due to forest fire reduction activities and education, which is adequately explained. We confirmed that the ER-MR has been updated and closed this finding.

Bearing on Material Misstatement or Conformance (M/C/NA): M/C

¹ DRC-BUR National Inventory Report <https://unfccc.int/documents/629121>

MCAR 29 – Parameter values – CLOSED**Dated 22 Jan 2024****Standard Reference:** FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change, AD_calculationTool_MP_rev.xlsx, AD_calculationTool_RP_rev.xlsx, DRC ER MC Analysis Rev.xlsx

Finding: Criterion 6 of the Methodological Framework states: “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)...” There are parameter values provided in the ER-MR that do not align between sections (e.g., Section 3.1 and 3.2 versus Table 4.2 versus Section 5.2 versus Annex 4 content). As one example, ‘Secondary regeneration-2019-2020 [ha]’ is listed as 138,070 (CI 35,773) Section 3.2 and in Section 5.2 is listed as 138,055 ± 35,769. Additionally, parameter values often do not align with the calculation workbooks provided. These issues constitute nonconformities to the MF requirement of enabling reconstruction. Please ensure that parameters are reported correctly and consistently throughout the program documentation to enable reconstruction.

Project Personnel Response:

Consistency has been ensured between sections and Activity data, Monte Carlo analysis, and Sensitivity analysis tools in the ER-MR report through revised values.

Auditor Response: The auditors have reviewed the updated ER-MR and calculation workbooks and we continue to see differences in the reported values. For instance, DRC_ER_calculations rev2.xlsx, sheet ER_Calculation cell E4 lists a value of 112,734 ha (Secondary regeneration-2005-2009 [ha]) with a CI of 21,780. However, the table in section 5.2 of the ER-MR lists a value 112,723 ha with a CI of 21,770. While some of the values in section 5.2 of the ER-MR match the calculation workbook, others do not.

The auditors also found that the values presented in Table 4-2 (Activity data per transition, initial vs. updated FREL, do not always match the areas reported in the workbook AD_calculationTool_RP_rev.xlsx. For instance, the ER-MR lists area of enhancement as 23,921 ha per year, but the workbook shows 23,923 ha per year. Likewise, there are differences in the deforestation areas presented in table 4-2 versus those that can be calculated by the areas within the calculation workbook.

Project Personnel Response 2: To ensure consistency between the DRC_ER_calculations rev2.xlsx worksheet and the table in section 5.2, values and CI have been revised. Additionally, consistency between the initial and updated FREL activity data table and the AD_calculationTool_RP_rev.xlsx has been ensured by revising AD values.

Auditor Response 2: The auditors have confirmed the consistency between the values reported in the ER calculation workbook and the tables in the ERMR related to the area of activity data. This finding has been resolved.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 30 – Uncertainty values – CLOSED**Dated 22 Jan 2024****Standard Reference:** FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change, AD_calculationTool_MP_rev.xlsx, AD_calculationTool_RP_rev.xlsx, DRC ER MC Analysis Rev.xlsx

Finding: Criterion 6 of the Methodological Framework states: “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)...” In the workbook, DRC ER MC Analysis Rev.xlsx, sheet ‘Monte Carlo Analysis’, column F ‘Conf90’, values are pulled from sheets ‘AreaCalculation’ of the workbooks: AD_calculationTool_RP_rev.xlsx (columns AA and AE, named ‘Error Standard...’) and AD_calculationTool_MP_rev.xlsx (column O, named ‘Conf 19 -20’). Therefore, the standard error is being used in place of the confidence interval for the reporting period. Please explain this discrepancy to enable reconstruction of the calculations.

Project Personnel Response:

Updated tools for Monte Carlo and sensitivity analysis now consider confidence interval values for all variables. Access them at the following link:

Monte Carlo analysis:

<https://www.dropbox.com/scl/fi/myoh98k7y7z0o6z3bdc40/DRC-ER-MC-Analysis-Rev2.xlsx?rlkey=8ifprt508uaddrt0qo0pu9ih&dl=0>

Sensitivity analysis:

https://www.dropbox.com/scl/fi/4gkfjreza762wbqz45zth/DRC_ER_SensitivityAnalysisRev.xlsx?rlkey=4kkg006xofl7xckivcc26a5wf&dl=0

Auditor Response: The auditors confirmed that the Monte Carlo analysis workbooks now pulls in the confidence interval values instead of the standard error. However, in the ER_Calculation sheet of the Sensitivity Analysis WB, column F continues to show the standard error values and not the confidence interval values. This nonconformity has not been resolved.

Project Personnel Response 2: Sensitivity analysis has been rerun using Confidence Interval values instead of Standard Error. Section 5.3 has also been updated. The updated sensitivity analysis worksheet can be accessed at the following link:
[link:https://www.dropbox.com/scl/fi/4ty77mzopcm43nxhql309/DRC_ER_SensitivityAnalysisRev2.xlsx?rlkey=qbshol89ggyapbjf7bs7c8cn&dl=0](https://www.dropbox.com/scl/fi/4ty77mzopcm43nxhql309/DRC_ER_SensitivityAnalysisRev2.xlsx?rlkey=qbshol89ggyapbjf7bs7c8cn&dl=0)

Auditor Response 2: The auditors confirmed that the sensitivity analysis was updated to pull in the Cis and not the standard errors. We confirmed that the sensitivity analysis has been re-run and that the results have been updated in section 5.3 of the ERM. This finding has been closed.

Bearing on Material Misstatement or Conformance (M/C/NA): M/C

mCAR 31 – Section 5.2 – CLOSED**Dated 22 Jan 2024****Standard Reference:** FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change

Finding: Criterion 6 of the Methodological Framework states: “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)...” The table in Section 5.2 of the ER-MR lists ‘Secondary forest 2005-2009 [ha]’ twice, while the value for 2010 to 2014 is absent. Additionally, it is unclear what the ‘±’ values are within the table (e.g., standard error, 90% confidence interval, etc.). Please provide information that allows reconstruction of the calculations.

Project Personnel Response:

The label for the value of Secondary Forest from 2010-2014 has been fixed in the table located in Section 5.2 of ER-MR. Additionally, the column title of Parameter Value now states that the values contain the 90% Confidence Intervals.

Auditor Response: The auditors confirmed that the label has been corrected to 2010-2014 and that the column has been updated to indicate this is a confidence interval. This finding has been addressed.

Bearing on Material Misstatement or Conformance (M/C/NA): C**MCAR 32 – Technical corrections – CLOSED****Dated 22 Jan 2024****Standard Reference:** FCPF ER Monitoring Report Template v2.5, FCPF Guidelines to MF 2 Technical Corrections GHG Emissions Removals v2.0**Document Reference:** DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change, AD_calculationTool_MP_rev.xlsx, AD_calculationTool_RP_rev.xlsx, DRC ER MC Analysis Rev.xlsx

Finding: Annex 4 of the ER-MR Template under ‘Technical corrections’ states “Provide a summary of the technical corrections applied clearly indicating where parameters have changed compared to the original Reference Level. Please indicate the changes applied and whether these are included in paragraph 3 of Guideline on the application of the Methodological Framework Number 2 – Technical corrections.” Paragraph 3 of Guideline 2 includes four categories of technical correction (i.e., ‘Improvement of emission factors,’ ‘Improvement to activity data,’ ‘Corrections of material errors, omissions and misstatements,’ and ‘Corrections required or authorized by Carbon Fund Participants’). However, these categories are not applied to the 3 technical corrections listed in Annex 4 of the ER-MR which constitutes a non-conformity to the requirements.

Project Personnel Response: Technical Corrections section in Annex 4 has been edited to reflect that two categories of technical corrections have been applied: i. Improvement of emission factors and ii. Improvement of activity data.

Auditor Response: The auditors confirmed that the technical corrections now clarify the two categories of corrections applied, resolving this nonconformity.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 33 – Project activity acronyms – CLOSED**Dated 22 Jan 2024****Standard Reference:** FCPF ER Monitoring Report Template v2.5,**Document Reference:** DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change,

Finding: The ER-MR template requirements states “Provide definitions of key terms that are used and use these key terms, as well as variables etc, consistently using the same abbreviations, formats, subscripts, etc.”

The auditors found that project activities are referenced by a shorthand name in the ER-MR. For instance, section 7.3 states “(Please refer to activities ES1 , ES2 and EH1, Section 4.3)) while reinforcing governmental control on compliance with the national forest regulation.” And later it states “The mitigation activity FS4 aims at increasing timber supply on 6,000 ha over five years.” However, these acronyms are not described elsewhere in the ER-MR. Given that the key terms ES1, ES2, EH1, and FS4 have not been defined in the ER-MR it results in nonconformity with template requirements.

Project Personnel Response: Updates include :

ES1. (Assisted natural regeneration for charcoal production)

ES2 (Afforestation/Reforestation for charcoal production)

EH1 (Enabling Activity: Formalization and strengthening of the wood-energy sector)

FS4. (Afforestation / Reforestation activity for timber production)

Auditor Response: The auditors confirmed that section 7.3 has been updated to define the project activity acronyms resolving the non-conformity.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 34 – Intentionally Left Blank – CLOSED**Dated 22 Jan 2024****Standard Reference:** FCPF ER Monitoring Report Template v2.5,**Document Reference:** DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change,

Finding: The ER-MR template requirements states “All sections of the ER-MR shall be completed. If sections of the ER-MR are not applicable, explicitly state that the section is “Intentionally left blank” and provide an explanation why this section is not applicable.” Section 7.3 of the ER-MR states “Intentionally left blank” but there is relevant information provided in this section. The inclusion of the phrase “Intentionally left blank” results in a nonconformity with template the requirements.

Project Personnel Response:

Phrase “intentionally left blank” have deleted in section 7.3.

Auditor Response: Confirmed that this text has been delated. This finding is closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 35 – Parameter values – CLOSED**Dated 22 Jan 2024****Standard Reference:** FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC fcpf_1st_ER-MR_OCT 20-2023_FMT2.0_change; DRC_ER_Calculations rev.xlsx

Finding: Criterion 6 of the Methodological Framework states: “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)...” Similar to MCAR 29 above, there are values reported in the ER-MR that do not match the calculation workbooks provided, resulting in an inconsistency and inability to reconstruct reported emissions and removals. For instance, in Annex 4, Section 8.5 of the ER-MR it states “As specified in the Methodological Framework, the adjustment is limited to 0.1% of total forest carbon stocks in the program area. The calculation is presented in the table below and the total maximum adjustment is consequently determined at 5.789 million tCO₂ per annum.” Below it then shows a table of the maximum adjustment values. In the calculation workbook, DRC_ER_Calculations rev.xlsx, sheet ER_Calculation different values are reported. These issues constitute nonconformities to the MF requirement of enabling reconstruction. Please ensure that parameters are reported correctly and consistently throughout the program documentation to enable reconstruction.

Project Personnel Response:

The values reported in Annex 4, section 8.5 for Cap to adjustment have been corrected to match the ER calculation workbook.

Auditor Response: The auditors confirmed that the values in section 8.5 of Annex 4 now match the Cap to Adjustment calculation in the ER workbook. This finding has been addressed.

Bearing on Material Misstatement or Conformance (M/C/NA): C**MCAR 36 – Table numbering – CLOSED****Dated 25 April 2024****Standard Reference:** FCPF ER Monitoring Report Template v2.5, FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC fcpf_1st_ER-MR_04042024_clean

Finding: Section 3.1 of the MF states, “The Emission Reduction Program (ER Program) strives to be consistent with evolving UNFCCC decisions on REDD+... Relevant principles include those on transparency, consistency, completeness, and accuracy.” The principle of consistency is to “enable meaningful comparisons in ER Program-related information.” The table numbering throughout the ER-MR is inconsistent, not in order, and there are often multiple tables with the same table name. For example, in section 3.1 of the ER-MR Table 3-3 is titled as “Estimation of Degradation Emission Factor.” However, in section 3.2 of the ER-MR there is another Table 3-3 that is labelled as “Value monitored during 2019-2020 Monitoring Period.” In section 3.1 of the ER-MR there is a table listed as Table 8-4 which comes after Table 2-3 and before Table 3-1 indicating that there is not a logical order to the table numbers. Ultimately there are several discrepancies between the table labels, table numbers and table orders, throughout various sections in the ER-MR resulting in a lack of consistency.

Project Personnel Response: Table numbering in ER-MR and Annex 4 is now consecutive.

Auditor Response: The auditors confirmed the table numbering has been updated and is not consistent and consecutive. This finding has been closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 37 – Calculation file naming conventions – CLOSED

Dated 25 April 2024

Standard Reference: FCPF ER Monitoring Report Template v2.5, FCPF Carbon Fund Methodological Framework v3

Document Reference: DRC fcpf_1st_ER-MR_04042024_clean

Finding: Section 3.1 of the MF states, “The Emission Reduction Program (ER Program) strives to be consistent with evolving UNFCCC decisions on REDD+... Relevant principles include those on transparency, consistency, completeness, and accuracy.” The principle of consistency is to “enable meaningful comparisons in ER Program-related information.” Table 2-3 of the section 2.2 of the ER-MR lists the calculation workbooks by filename. However, several of the filenames appear to be out of date. For instance, the table lists “DRC_ER_Calculation.xlsx” but the file provided to the auditors and available on the Dropbox is “DRC_ER_Calculations rev2.xlsx.” Likewise, the table lists the activity data workbooks as “AD_calculationTool_RP.xlsx” and “AD_calculationTool_MP.xlsx.” However, the new file names are “AD_calculationTool_RP_rev.xlsx” and “AD_calculationTool_MP_rev.xlsx.” There are several other discrepancies between the file names listed and the names of the actual files in this table and throughout the ER-MR resulting in a lack of consistency.

Project Personnel Response: Calculation file names have been updated to the final version in ER-MR and Annex 4.

Auditor Response: The auditors confirmed that the file names have been updated to the latest versions. This finding has been resolved.

Bearing on Material Misstatement or Conformance (M/C/NA): C

OBS 38 – Data Management System link – OPENED**Dated 25 April 2024****Standard Reference:** FCPF ER Monitoring Report Template v2.5, FCPF Carbon Fund Methodological Framework v3**Document Reference:** DRC fcpf_1st_ER-MR_04042024_clean**Finding: Indicator 6.1 of the MF states** “The following methodological steps are made publicly available:

- Forest definition;
- Definition of classes of forests, (e.g., degraded forest; natural forest; plantation), if applicable;
- Choice of activity data, and pre-processing and processing methods;
- Choice of emission factors and description of their development;
- Estimation of emissions and removals, including accounting approach;
- Disaggregation of emissions by sources and removal by sinks;
- Estimation of accuracy, precision, and/or confidence level, as applicable;
- Discussion of key uncertainties;
- Rationale for adjusting emissions, if applicable;
- Methods and assumptions associated with adjusting emissions, if applicable.” The auditors confirmed that the data and methodological steps have been made publicly available via Dropbox(<https://www.dropbox.com/scl/fo/fnfqupbc5cvm07ksyoezp/h?rlkey=0cb794w54jout87exbraba8f8&dl=0>). However, the link still contains outdated files which could be confusing for viewers.

Project Personnel Response: Obsolete files that could lead to confusion have been removed from dropbox.**Auditor Response:** Despite what the finding response states, the auditors could not confirm that outdated files have been removed from the dropbox. However, is an observational finding and need not be addressed.**Bearing on Material Misstatement or Conformance (M/C/NA): NA****mCAR 39 – Criterion 37 - OPENED****Dated 28 May 2024****Standard Reference:** FCPF Carbon Fund Methodological Framework v3;
https://www.forestcarbonpartnership.org/system/files/documents/indicator_37.4_aug_2021.pdf**Document Reference:** DRC fcpf_1st_ER-MR_04282024_clean_round3**Finding:** This finding relates to MCAR 27. Criterion 37 states “Based on national needs and circumstances, the ER Program works with the host country to select an appropriate arrangement to avoid having multiple claims to an ER Title.” This criterion contains 4 indicators with specific requirements of this data management system such as what attributes the system must contain about projects and programs (Indicator 37.2), that the system be publicly available (indicator 37.3) and that the system define operational procedures (Indicator 37.4), among other details.Section 6.2 of the ER-MR “However, this information will be transferred to the new National Forest Monitoring System portal as soon as hosting is renewed, and to the National REDD+ Register once it has been deployed. The developing version of the register can be accessed at <https://imagis-group.com/rdc/>. At that point, all data will be made transparently available.” The auditors were able to confirm that this draft Data Management System has been established. However, given that it is not fully functional, we have been unable to confirm that it meets the requirements of Criterion 37, particularly: (1) the data and

attributes served on this website, (2) the REDD activities and carbon pools selected, (3) the administrative procedures for the operations of the Data Management System. The auditors are issuing this mCAR to require that the project he Program have a fully functional Data Management System in place (including all the details required by the MF) during the next verification event.

Project Personnel Response: [To be addressed at the next Verification]

Bearing on Material Misstatement or Conformance (M/C/NA): C

MCAR 40 – VCS Mai Ndombe ERs – CLOSED**Dated 22 Sep 2023**

Standard Reference: FCPF Carbon Fund Methodological Framework v3;
FCPF_emission_reductions_monitoring_report_template_v3.1.docx

Document Reference: DRC fcpf_1st_ER-
MR_04282024_round3_template_v3.1_VERRA_Fixed_clean.docx

Finding: Section 3.1 of the MF states, “The Emission Reduction Program (ER Program) strives to be consistent with evolving UNFCCC decisions on REDD+... Relevant principles include those on transparency, consistency, completeness, and accuracy.” Section 6.4 of the ER-MR template indicates to, “Please identify the quantity and use of any ERs from the ER Program sold, assigned or otherwise used by any other entity for sale, public relations, compliance or any other purpose including ERs that have been set-aside to meet Reversal management requirements under other GHG accounting schemes.” As indicated in the ‘Project Personnel Response’ to MCAR 2, “This means only the ERS resulting in VCU sold and used towards the VERRA buffer ought to be discounted.” Underlining added for emphasis. However, edits have been made to Section 6.4 of the ER-MR which appear to calculate a downward adjustment to the ‘ERs that have been set-aside to meet Reversal management requirements under other GHG accounting schemes’ (i.e., the buffer allocated via the Verra program and project). Therefore the buffer adjustments are not in conformance to the template requirements, and do not meet the FCPF principles of ‘accuracy’ and ‘transparency’ as the edits made to this section include incorrect grammar and unclear math. As examples:

- It is stated that, ‘...out of a total ERs of [] tCO₂eq ER reported for 2019-2021.’ The value for this time period is missing.
- Given incorrect grammar, it is not easy to follow this sentence: “These, are the net ER after applying a buffer discount of 10% has been applied resulting in 844,444 tCO₂eq* ER being applied to it.”
- The math in the following sentence does not add up: “This makes it so The MaiNdombe REDD+ project has transferred a total of 8,444,444 tCO₂eq Vintage ER (7,600,000 tCO₂eq VCU + 8,444,444 tCO₂eq buffer ER) to the VCS-VERRA Scheme.”
- The math demonstration in the following sentences is not clear or correct: “*This number had to be estimated using: $VCU = grossER(1 - \%)$. In this case $grossER = 3800 / (1 - 10\%)$ ” It is unclear where the value 3800 comes from. When subtracting a percent, it is likely that a decimal is intended for this math to work (i.e., 10% = 0.10).

Project Personnel Response:

We corrected the language in the formula. The estimated value is the *bufferdiscount* and not the *grossERs*. The *grossER* are estimated on the sequence by adding the estimated ER buffers as described in the text.

The value in the VERRA registry is not the correct value. The VERRA agreed with the FMT that the correct buffer value is 844.444. They indicated that the registry will be corrected accordingly. Therefore, the report incorporates the value given and not the value commonly reported in the VERRA register. We are copying the members of the FMT team to inform you about this.

We added language to this in the report to inform this agreement.

We clarified that we are talking about “The MaiNdombe REDD+ project”

The following language has been added:

« As part of the [benefit sharing plan](#), TheMaiNdombe REDD+ project the government of DRC and the FCPF have agreed to apply to The MaiNdombe REDD+ project, a baseline of 3,800,000 tCO₂eq for the project for the duration of the ERPA.”

Auditor Response: Thank you for the clarification. The auditors confirmed that all credits generated by the Mai Ndombe VCS project during the monitoring period have been capped by the VCS project and are accurately deducted from the program credits. This finding has been addressed.

Bearing on Material Misstatement or Conformance (M/C/NA): M