



# Verification Report

**Version 1.3**

**March, 2024**

Document Prepared by Vanessa Mascorro



## Forest Carbon Partnership Facility (FCPF)

### Carbon Fund

## Verification Report (VER)

<b>ER Program Name and Country</b>	Ghana Cocoa Forest REDD+ Programme (GCFRP), Ghana
<b>Reporting Period Covered In this Report</b>	01-01-2020 to 31-12-2021
<b>Number of FCPF ERs</b>	3,379,161
<b>Number of ERs allocated to the Uncertainty Buffer</b>	529,648
<b>Number of ERs allocated to the Reversal Buffer</b>	310,728
<b>Number of ERs allocated to the Pooled Reversal Buffer</b>	194,204
<b>Name of the VVB</b>	Scientific Certification Systems Global Services (SCS)
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<b>Report Version</b>	V1-0
<b>Date of the Verification Report</b>	01-03-2024
<b>Report Approved by</b>	Christie Pollet-Young

## 1. VERIFICATION STATEMENT

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The review and cross-check of explanations and justifications included in the Monitoring Report dated 29-02-2024 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 reported information with the FCPF Methodological Framework, the Validation and Verification Guidelines and other applicable normative documents.

The scope covered by the verification includes the ER Program's crediting period 11-06-2019 to 31-12-2024, the reporting period 01-01-2020 to 31-12-2021, the accounting area 5,914,425 hectares, the REDD Country Participant's Forest Monitoring System, the national REDD+ Programs and Projects Data Management System and the following GHG sources, sinks, and carbon pools:

- The following GHG sources, sinks and/or reservoirs:
  - Emissions from deforestation
  - Emissions from forest degradation
  - Removals from carbon stock enhancements
- The following Carbon pools:
  - Above Ground Biomass (AGB)
  - Below Ground Biomass (BGB)
  - Dead Wood
  - Litter
  - Soil Organic Carbon (SOC)
- The following types of GHGs:
  - CO<sub>2</sub>

A total of 36 MCAR, and 1 Observation findings were raised as part of the Verification process. A total of 36 MCAR and 1 Observation were successfully addressed by the ER Program and closed by the SCS assessment team, and 0 Observations remain open. These findings are described in Appendix 1 of this report.

SCS is able to verify with a reasonable level of assurance that the Emission Reductions (ERs) generated by the Ghana Cocoa Forest REDD+ Programme (GCFRP) ER Program, were quantified in accordance with the FCPF verification criteria, amount to 4,413,741 tCO<sub>2</sub>e. SCS verified that the uncertainty buffer ERs amount to 529,648 tCO<sub>2</sub>e, that the quantity of ERs allocated to the reversal buffer amount to 310,728 tCO<sub>2</sub>e, and the quantity of ERs allocated to the pooled reversal buffer amount to 194,204 tCO<sub>2</sub>e. The amount of FCPF Units to be issued would be 3,379,161 tCO<sub>2</sub>e. There are no uncertainties associated with the verification conclusion.

Statement Issuing Date: 01 March 2024

Intended User: World Bank Group, FCPF Carbon Fund Participants



TEAM LEADER: Vanessa Mascorro



LEGAL REPRESENTATIVE: Christie Pollet-Young



## 2. AGREEMENT

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### 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 verification 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 emissions and removals for the verification period conforms to the FCPF verification criteria.
- Assess and select samples of data and information from the program area and program activities in order to confirm they meet a reasonable level of assurance and the materiality requirements of the program, as required by the FCPF.
- Independent recalculation of the quantification of GHG emissions and removals and the recalculation of the ER program estimates for the reporting period (01-01-2020 to 31-12-2021).
- Assessment of the data collection, the selection of categories, the measuring, monitoring and reporting methods, standard operating procedures, the Monitoring Report, 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 and supporting documents.

### 2.2 Objectives

The assessment team conducted a verification of the Ghana Cocoa Forest REDD+ Program (GCFRP) Emissions Reductions Program (ER Program) based on the following objectives:

- Review of the ER Monitoring Report and supporting information to confirm the correctness and completeness of the presented information.
- Verify if the methodological steps and data are publicly available in accordance with applicable criteria.
- Assess the extent to which the ERs have been reported with a transparent and coherent step-by-step process that enables reconstruction, have met the requirements of applicable criteria, are free of material errors and misstatements and materially accurate.
- Identify source(s) of uncertainty due to both random and systematic errors that can impact the estimate of the Total ERs, and determine whether the ER Program has conducted the uncertainty analysis in compliance applicable criteria.
- Assess the Forest Monitoring System of the ER Program and ensure that they include control measures in place to address areas of risk of future non-compliance
- Verify that the data, methods and methodologies used to estimate GHG emissions and removals are consistent with the Reference Level and with the Monitoring Plan.
- Ensure that the Monitoring Report is accurate and complete with regard to the strategies undertaken to mitigate significant risks and/or minimize potential displacements and the changes in major drivers in the ER Accounting Area.

- Verify that the Monitoring Report contains a complete and accurate report on the mitigation of significant risks of reversals and the strategies implemented to address the sustainability of ERs.
- Verify that the ERs allocated to the Uncertainty, Reversal, and Pooled Reversal Buffer are estimated in compliance with the MF and other applicable criteria.
- Confirm the extent to which the ERs generated under the ER Program have not been counted or compensated for more than once.
- Assess the national or centralized REDD+ Program Data and Management System and verify that it is implemented and operated in compliance with the MF and other applicable criteria.

## 2.3 Criteria

The criteria applicable for the verification included:

- FCPF Process Guidelines, Version 5.3
- FCPF Validation and Verification Guidelines, Version 2.5
- FCPF Methodological Framework (MF), Version 3
- FCPF Glossary of Terms, Version 2.2
- FCPF Buffer Guidelines, Version 3.1
- 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
- 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
- FCPF Guidelines on the application of the MF Number 3, On the definition of reporting periods of Emission Reduction Programs, Version 1
- FCPF Guidelines on the application of the MF Number 4, On Uncertainty Analysis of Emission Reductions, Version 1
- Process Guidelines:
  - ISO 14064-3:2006
  - ISO 14065:2013
  - ISO 14066: 2011
  - IAF MD 6:2014

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

- 2006 IPCC Guidelines
- 2013 IPCC Wetlands Supplement
- 2019 Refinement to the 2006 IPCC Guidelines
- GFOI 2020 Methods and Guidance Document
- FCPF Guidance note on accounting of legacy emissions and removals
- FCPF Guidance note on estimating uncertainty of ERs using Monte Carlo simulation, Version 1.0
- ER Monitoring Report Template, Version 2.5

## 2.4 Scope

The scope of the verification of the Ghana Cocoa Forest REDD+ Program (GCFRP), which was the subject of the audit engagement described above, included the following:

- The GCFRP ER Program Area includes an ecological zone covering 5,914,425 hectares of five forest ecosystem types: wet evergreen, moist evergreen, moist semi-deciduous northwest sub-type, moist semi-deciduous south-east sub-type and upland evergreen
- The GCFRP ER program and its reference level, briefly summarized as follows:
  - The GCFRP has been designed to adapt a Community Resource Management Area model for landscape governance of cocoa farming areas that envisages a multi-tiered, governance structure including the cocoa farmers, communities, landowners, and traditional leaders.
  - Reference Level: The reference period for the construction of the reference level is from 2005-2014.
  - Four main drivers of deforestation were identified:
    - Uncontrolled agricultural expansion at the expense of forests;
    - Overharvesting and illegal harvesting of wood;
    - Population and development pressure;
    - Mining and mineral exploitation
- The following GHG sources, sinks and/or reservoirs:
  - Emissions from deforestation
  - Emissions from forest degradation
  - Removals from carbon stock enhancements
- The following Carbon pools:
  - Above Ground Biomass (AGB)
  - Below Ground Biomass (BGB)
  - Dead Wood
  - Litter
  - Soil Organic Carbon (SOC)
- The following types of GHGs:
  - CO<sub>2</sub>
- The following time periods:
  - Crediting period: 11-June-2019 to 31-December-2024
  - Reporting period: 01-January-2020 to 31-December-2021
- The GCFRP's National Forest Monitoring System comprises the following data collection components:
  - Satellite land monitoring system (SLMS) (providing AD on deforestation and forest degradation).
  - Field inventory data from the Forest Preservation Programme (providing EF for deforestation and forest degradation through a field inventory with data collected in 2012).
  - National Forest Plantation Development Programme (NFPDP) (providing statistics on planted areas, including details on species and whether planting was in- or outside

reserve areas. Removals factors for enhancement through the conversion of non-forest land into forest land through plantation establishment are obtained from IPCC).

- The national REDD+ Programs and Projects Data Management System as described in the Monitoring Report.

The scope of the assessment entailed reviews emphasizing the following areas. In some cases, consideration of the areas indicated below extended the scope of the assessment beyond a strict assessment for conformance to the assessment criteria.

Aspect	Expected Scope of the Assessment
Monitoring approach	<p>Review of the ER Monitoring Report and supporting information to confirm the correctness of the presented information.</p> <p>Assess whether the data and methods used for monitoring are consistent enough with the data and methods used in the Reference Level to allow for meaningful comparison and calculation of the ERs.</p> <p>Assess whether the proposed monitoring methods and arrangements are in place as described in the Monitoring Report.</p>
GHG emissions and removals	<p>Assess the extent to which the methodologies and methods used to estimate GHG emissions and removals during the Reporting Period are consistent with the Reference Level and with the Monitoring Plan as described in the ER Monitoring Report.</p> <p>Assess the extent to which reported ERs have been reported with a transparent and coherent step-by-step process that enables reconstruction and have met the requirements of the program requirements and are materially accurate (i.e. free of material misstatements, errors or omissions).</p> <p>Assess whether the ER Program has quantified ERs allocated to the Uncertainty, Reversal, and Pooled Reversal Buffer during the reporting period in compliance with the Methodological Framework and other applicable criteria.</p>
Risk for displacement	<p>Assess the extent to which the ER Monitoring Report includes a complete and accurate report, to the extent possible, on the implemented strategies to mitigate and/or minimize potential Displacement and on any on changes in major drivers in the ER accounting area.</p>
Participation under other GHG initiatives	<p>Assess the extent to which systems to avoid that ERs generated under the ER Program have not been counted or compensated for more than once have been adequately implemented and confirm that issuance has not occurred in other known registries.</p>
Data management systems	<p>Expert judgement to determine whether the national or centralized REDD+ Programs and Projects Data Management System are implemented and operated in compliance with the Methodological Framework.</p>
Reversals	<p>Assess the extent to which the ER Monitoring Report contains a complete and accurate report on the mitigation, to the extent possible, of significant risks of Reversals identified in the assessment, and addresses the sustainability of ER.</p>
Uncertainty	<p>Assess the correctness and completeness of the data and assumptions used in the assessment of the uncertainty of the estimates of Emission Reductions.</p> <p>Assess whether the ER Program has conducted the Uncertainty analysis in compliance with IPCC good practice guidelines, the GFOI guidelines and applicable criteria.</p>



## 2.5 Materiality

The verification process based on the desk review and the country visit found that there are not quantitative and/or qualitative material discrepancies affecting the GHG assertion or leading to overestimations of the reported GHG emissions and removals. The process for estimating the threshold of materiality is described below:

Where one or more discrepancies were identified during the course of assessment activities, the following criteria was applied in order to determine whether said discrepancies were material:

The term “discrepancy”, as implicitly defined in Section 2.30 of ISO 14064-3:2006, encompasses the terms “error”, “omission” and “misrepresentation” (i.e., these three types of distortion are different categories of discrepancies). Any discrepancies which also presented clear divergence from stated requirements of the assessment criteria were treated as non-conformities in the assessment process. Any other discrepancies identified during the course of the assessment were subject to the following materiality assessment.

- Qualitative and quantitative materiality refers to “errors”, “omission” and “misrepresentation” that either individually or in the aggregate form affect the GHG assertion.
- Where the methodology used in production of the ER Monitoring Report (ER-MR) does not follow the FCPF Methodological Framework and applicable guidelines assessed by the verification team, a discrepancy between the output produced by the assessment team and the information reported in the ER-MR resulted, and in that case such discrepancies were evaluated for materiality according to the following criteria:
  - The threshold for quantitative materiality concerning the aggregate of misstatements, errors or omissions relative to the total reported GHG emissions and removals or emission reductions shall be 1%.
  - Qualitative issues related to management system and controls, poorly managed documentation, and non-compliance with the applicable requirements of the Methodological Framework and other applicable criteria.
  - Any errors in the reporting of factual information in the ER Monitoring Report were considered material if the incorrectly reported information was directly or indirectly required to be reported by the FCPF Methodological Framework.
  - A 1% materiality threshold applied to any over-estimation of Reference Level and ER.<sup>1</sup> Under-estimation of the Reference Level or Emission Reductions were not considered a material discrepancy.

Any discrepancies identified as material through the application of the above criteria were treated as non-conformities in the assessment process. Any discrepancies not identified as material through the application of the above criteria were inherently considered immaterial. In the event that discrepancies were identified that do not required immediate correction but that required corrective action or mitigation later in time were stated as Observation.

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<sup>1</sup> The materiality analysis will be carried out by first calculating the difference between the reported ERs and the assessment team’s calculation of the same quantity, and then dividing by the reported ERs. If the resulting quantity is greater than 1.00%, the discrepancy is considered material. Otherwise, the discrepancy is not considered material. Under-estimation of the ERs will not be considered a material discrepancy.



### 3. METHODOLOGY AND PLANNING

#### 3.1 Verification team

The verification team was conformed as follows:

Name	Role	Activities				
		Desk review	Site visit	Reporting	Supervision	Technical review
Vanessa Mascorro	<ul style="list-style-type: none"> <li>Lead auditor; Verification Forester</li> </ul>	X	X	X	X	
Dr. Raleigh Ricart	<ul style="list-style-type: none"> <li>Auditor; Verification Scientist</li> </ul>	X				
Dr. Erynn Maynard-Bean	<ul style="list-style-type: none"> <li>Auditor; Verification Scientist</li> </ul>	X				
Alexa Dugan	<ul style="list-style-type: none"> <li>Technical reviewer; Technical Manager, GHG Verification Program</li> </ul>					X
Kenneth Zame	<ul style="list-style-type: none"> <li>Technical Expert</li> </ul>	X	X			

#### 3.2 Verification schedule

An indicative schedule developed for the assessment of the milestones and activities planned, is included below. The table includes details of the start and end date of each of the milestones undertaken for the assessment.

Milestone	Start Date	End Date
Kick Off Call	Tuesday, July 25, 2023	Tuesday, July 25, 2023
SCS Risk Assessment & Sampling Plan	Tuesday, August 01, 2023	Tuesday, August 15, 2023
SCS Shares Audit Plan	Wednesday, August 23, 2023	Wednesday, August 23, 2023
SCS Data, Document Review & Site Visit Prep	Thursday, August 24, 2023	Friday, September 22, 2023
Site Visit	Tuesday, September 26, 2023	Friday, September 29, 2023
SCS Data Review and Preparation of Findings	Monday, October 02, 2023	Monday, October 30, 2023
SCS Issuance of Findings R1	Tuesday, October 31, 2023	Tuesday, October 31, 2023
Client Response to Findings R1	Wednesday, November 01, 2023	Wednesday, December 06, 2023
SCS Review of Responses to Findings R1	Thursday, December 07, 2023	Tuesday, January 09, 2024

Client Response to Findings R2	Wednesday, January 10, 2024	Friday, January 26, 2024
SCS Review of Responses to Findings R2	Friday, January 26, 2024	Tuesday, February 06, 2024
Client Response to Findings R3	Tuesday, February 06, 2024	Tuesday, February 20, 2024
SCS Review & Closure of All Findings	Tuesday, February 20, 2024	Wednesday, February 21, 2024
SCS Report Writing	Wednesday, February 21, 2024	Friday, March 01, 2024
SCS Technical Review	Monday, March 11, 2024	Monday, March 25, 2024
SCS Issuance of Draft Report	Monday, March 25, 2024	Monday, March 25, 2024
Client Response to Draft Report	Monday, March 25, 2024	Friday, March 29, 2024
SCS Issuance of Final Report	Monday, April 01, 2024	Monday, April 01, 2024

### 3.3 Methodology description

The assessment was performed through a combination of document review and interviews with relevant personnel, as discussed in Section 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 discussed in Section 4, any actual or potential areas of risk or concern identified were issued as findings.

A risk assessment was conducted, and a sampling plan developed, 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. Taking the sampling plan into account, a verification audit plan was created and updated as necessary throughout the audit.

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 methodologies employed by the program.
- Independently reviewed available literature regarding the availability of datasets pertaining to forest inventory, land use change, and forest plantation program in Ghana to confirm that the best available data sets have been utilized by the program.
- Independently reviewed and recalculated the estimates of the GHG emissions and removals during the reported period and assessed 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 Monitoring Report, version 2.4 dated February 29<sup>th</sup> of 2024, was carefully reviewed for conformance to the FCPF assessment criteria. The following additional documents, provided by ER Program personnel in support of the 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)
Ghana ERPD	FCPF_V3_GCFRP_REVIEW_sixth_RESPONSE_CLEAN_VERSION_29_02_2024.docx, version 2.4, dated 29 Feb, 2024
Spatial land use change data derived from Collect Earth	FCPF_GHA_V2.0_ADxEF-MR2-clean-harmonized_2322024.xlsx, sheet CE_Data
Collect Earth Data Collection Manual	CEO_Manual_DataCollector_EN_20220421.pdf
Spatial datasets for the program area including the program area boundary and stratums	forest_mask_2000_2015_cocoa_area_VEGZONES.tif forest_mask_2000_2015.tif area_mask.tif VegetationZones_cocoa_area_utm30n.shp Landuse_2000.tif Landuse_2010.tif Landuse_2012.tif Landuse_2015.tif Ahafo_Ano_HIA.shp, Asutifi_Asunfo_HIA.shp, Atewa_HIA.shp, Juaboso_Bia_HIA.shp, Kakum_HIA.shp, Sefwi_Wiawso_Bibiani_HIA.shp, VegetationZones.shp
GCFRP grid of sample points	FCPF_GHA_V2.0_ADxEF-MR2-clean-harmonized_2322024.xlsx, sheet CE_Data
Good practices for estimating area and assessing accuracy of land change	Olofsson et al. 2014 pdf
Critical analysis of root: shoot ratios in terrestrial biomes	Mokany et al. 2005 pdf
Forestry Commission Official Reports	Forestry Commission Annual Report – 2020 Clean Version_Report On Upfront Advance Payment Activities For 2020 And 2021-Rfa-Csd.docx Clean - Progress Update On Gcfrp Implementation - Dec Wb Is Mission1.docx Cocoa-Forests-Initiative-Ghana-2021-Annual-Report.pdf Upfront Advance Payment Activities For 2020 And 2021.docx

Calculation workbooks for reference level and GHG ER estimation	FCPF_GHA_V2.0_ADxEF-MR2-clean-harmonized_2322024.xlsx
Uncertainty calculation workbook and MonteCarlo simulation	FCPF_V2_Ghana MC 2020-2021_04122023_Combined_FIXED_VALUES_20_21_v2.xlsx FCPF_V2_Ghana MC 190522_FIXED_VALUES.xlsx
Ghana's Mapping of Forest Cover and Carbon Stock Report	Ghana_FPP_Manual.pdf, Ghana_Final_Report_Main.pdf
Calculation workbook for estimating AD-Carbon Enhancements	FCPF_GHA_V2.0_Calculation tool for Enhancement 2020-2021_5122023.xlsx
Ghana's Forest Plantation Reports	FCPF_v1_raw plantation figures_JAN TO DECEMBER-2021.xlsx FCPF_v1_raw plantation figures_JAN TO DEC 2020_5122023.xlsx Annual Report - Ghana Plantation Strategy 2020.pdf Annual Report - Ghana Plantation Strategy 2021.pdf
ERPA Agreement to Transfer Title	Appendix 3 of the MR
Stakeholder engagement agreement	Appendix 4 of the MR
Ghana's Second Biennial Update Report	gh_bur2_rev-2.pdf
Standard Operation Procedures	Various files

### 3.5 REDD Country Visit

Following the desk review and the development of an audit plan (Appendix 2 of this report), SCS conducted a field tour to gather additional evidence necessary to reach a conclusion on the accuracy of the results reported by program personnel in the ER-MR and to investigate some issues or questions identified during the assessment of the documentation related to the reported monitored data and parameters, program activities, interventions and risk management.

In pursuance of the above objectives, the audit team conducted the field tour in Ghana on the dates between 26 September 2023 and 29 September 2023. The main activities carried out by the audit team were as follows:

- Perform a risk-based review of the project area and project activities to ensure that the program, methods and methodologies for the monitoring and quantification of

GHG emission reductions and removals for the verification period, conforms with the FCPF Methodological framework requirements.

- Interviewed program personnel to gather information regarding the monitoring procedures, the project activities, stakeholder engagement, implementation, and risks.
- Interviewed program personnel and government officials to confirm the validity of the presented information in the ER-MR.
- Interviewed government officials and assessed official documentation to verify claims about land use and land cover change assessment done with the Collect Earth tool.
- Interviewed local stakeholders and community leaders involved in the program activities to confirm the claims of the project proponents with respect to the extent of community engagement and the program activities undertaken during this reporting period in the six HIAs to confirm the information provided in the ER-MR.
- In the field, confirmed mapping of sampling plots, land use, landscape conditions, evidence of threats, and landowner characteristics.
- Carried out an on-site assessment of the program's inventory, which included the audit team observing the Ghana team and forestry crew locate the center of the plot, take measurements of the trees, soil parameters, trace the transects, weight and collect litter and dead organic matter data.
- Took GPS measurements to document plot locations and path taken through the program area, took pictures and collected observational evidence during the site visit.

## 4. SUMMARY OF FINDINGS

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

The SCS assessment team reviewed the ER Monitoring Report, calculation workbooks, standard operating procedures and supporting documentation provided by the REDD Country Participant (detailed above in section 3.4) and concludes that sufficient information has been included to explain any changes in major drivers in the ER Accounting Area and the status of the implementation of the strategy to mitigate and/or minimize potential displacement .

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

#### 4.2.1 Forest Monitoring System

The assessment team performed a comprehensive assessment of the Monitoring System in place of the ER Program, their satellite land monitoring system to track deforestation and forest degradation, the available field inventory data, their National Forest Plantation Development Programme, controls, calculations and supporting documentation, and concludes and confirms that the Forest Monitoring System is accurate and conforms with the FCPF program requirements. Furthermore, the assessment team confirms that the Forest Monitoring System of the ER Program is functioning and is able to produce high quality data because it has in place the necessary controls to identify and address relevant sources of potential errors, omissions, and misstatements in place.

During this assessment, the audit team issued an observation to the program team to raise awareness of one deviation in the quantification of the final estimates of the projected deforestation emissions due to the soil organic carbon legacy emissions quantification (see OBS30 in Appendix 1). The auditors confirmed through independent recalculation that the deviation results in a more conservative estimate of the emission removals (i.e., nonmaterial), which is ultimately in conformance with the FCPF requirements.

#### 4.2.2 Measurement, monitoring and reporting approach

After the independent assessment of the ER Monitoring Report, calculation workbooks, procedures and supporting documentation, SCS confirms that the equations and methods used for the quantification and monitoring are correct and are consistent with the Reference Level. Additionally, the SCS assessment team confirms that the link between the equation parameters, the parameters under fixed data, the monitored parameters and data used for the measurement, monitoring and reporting are correct and free of errors and misstatements.

### 4.3 Fixed Data and Parameters

The assessment team reviewed the ER Monitoring Report, procedures, quantification workbooks and supporting documentation. After the assessment of the data and parameters used in the measuring, monitoring and reporting of the estimates, the assessment team confirmed that all fixed data and parameters have been reported, and are consistent with the guidelines provided by the FCPF



Methodological Framework requirements and the IPCC best practice guideline as stated in Criterion 5. Additionally, SCS confirms that the data and information are available publicly in the Ghana REDD+ Data Hub (<http://www.ghanaredddatahub.org/>) in accordance to Criterion 6 of the FCPF Methodological Framework requirements.

#### 4.4 Monitored Data and Parameters

<b>Monitored Data and Parameter:</b>	Areas of Deforestation & Forest Degradation
<b>Free of error and material misstatement:</b>	Yes
<b>Assessment:</b>	<ul style="list-style-type: none"> <li>■ This parameter corresponds to the Activity data estimates of deforestation and forest degradation derived from a spatially explicit sample-point interpretation.</li> <li>■ For the assessment of this monitoring period, 7711 spatial points were assessed by the GCFRP technical team. These set of points are systematically located across the GCFRP program area on a nested, multi-scale grid with random gaps.</li> <li>■ The assessment team interviewed experts in forestry and remote sensing with knowledge of the landscape who were engaged to collect the sample data with a software named Collect Earth, that was used to generate the activity data.</li> <li>■ Reviewed QA/QC measures that were built into the response design, to avoid mistakes or inconsistencies in data collection.</li> <li>■ The assessment team conducted interviews with the ER program team to confirm the reliability and justification of the application of the Collect Earth program and sample point dataset for monitoring this parameter.</li> <li>■ 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:             <ul style="list-style-type: none"> <li>- Conducted a spatial analysis with ARCGIS to confirm the boundaries of the program area, and verify the total program area hectares.</li> <li>- Randomly selected a sample of Collect Earth points and independently checked the classifications/transitions using ancillary satellite imagery of high spatial resolution to confirm that the land-use and land-use change (LULUC)</li> </ul> </li> </ul>

	<p>classification (i.e., activity data) is free of material errors.</p> <ul style="list-style-type: none"> <li>- Independently recalculated the number of sample points within the program boundary to confirm alignment with the number reported by the technical team.</li> <li>- Recalculated and confirmed the stratum areas for all the vegetation zones in the landscape.</li> <li>- Recalculated the number of sampling points per stratum to confirm and verify the areas applied for the expansion factors.</li> </ul> <ul style="list-style-type: none"> <li>■ Conducted 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 the data, methodological steps and calculations are in accordance with applicable criteria.</li> <li>■ 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.</li> </ul>
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<b>Monitored Data and Parameter:</b>	Areas of on- and off-reserve planting
<b>Free of error and material misstatement:</b>	Yes
<b>Assessment:</b>	<ul style="list-style-type: none"> <li>■ This parameter corresponds to the Activity data estimates of carbon removals derived from areas of non-forest converted to forest area. The data was obtained from the national census data of Ghana, reported by the National Forest Plantation Development Programme. The Plantation's Department of Forestry Commission undertakes an annual survival survey of all planted sites to derive survival rates.</li> <li>■ The assessment team took the following steps to assess whether the monitored data and parameter is sufficient, correct and free of errors and material misstatements.             <ul style="list-style-type: none"> <li>- Independently reviewed the Monitoring Report and the National Forest Plantation Development Programme Annual Reports, the Ghana Forest Plantation Strategy (GFPS) Biennial Report, the National Forest Plantation Development Programme report and supporting documentation to confirm the on and off-reserve planted areas,</li> </ul> </li> </ul>

	<p>survival rates, the removal factors, the root to shoot ratio and other parameters</p> <ul style="list-style-type: none"> <li>- On the field tour, the assessment team interviewed members of the Plantation's Department of Forestry Commission and visited a sample of planted sites to confirm the trees had been planted and verify the monitoring procedures to estimate annual survival rates.</li> <li>- To assess the correctness of each step of monitoring from measurement to data transfer and calculation the assessment team independently checked and recalculated the total areas planted by year on and off reserve.</li> <li>- The assessment team independently recalculated and verified the estimates of removals enhancements and the quantification of ERs for the reporting period.</li> <li>- Through review of these official published reports, the assessment team verified the reliability of the source and nature of the reported evidence and confirm that these sources are the best available table supporting the monitoring of this parameter and confirmed that methodological steps and data are publicly available.</li> </ul> <ul style="list-style-type: none"> <li>■ The assessment team confirms that the quantification of the activity data estimates of carbon removals is correct and free of errors and material misstatements.</li> </ul>
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Based on the aforementioned assessment activities, the audit team concludes the reliability, correctness and appropriateness of the data is sufficient in quantity and quality and provides enough evidence used to determine the GHG emissions and removals.

## 5. VERIFICATION OF GHG ASSERTION

### 5.1 ER Program Reference level for the Reporting 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 and forest degradation. To address concerns raised by the FMT, the ER program participant applied technical corrections to the reference level to improve the accuracy and reliability of the data, the methodology and the results. This technical correction also included an updated accuracy assessment of change detection for deforestation and uncertainty analysis of the activity data for deforestation and forest degradation. A complete description of the technical corrections applied is provided in Annex 4 and Section 8.3 of the ER-MR from the first verification period. During this reporting period, the assessment team verified that the reference level, is consistent with the MR and the Validation Report.

Year of monitoring/ reporting period <i>t</i>	Average annual historical emissions from deforestation over the Reference Period (tCO <sub>2</sub> - e/yr)	If applicable, average annual historical emissions from forest degradation over the Reference Period (tCO <sub>2</sub> - e/yr)	If applicable, average annual historical removals by sinks over the Reference Period (tCO <sub>2</sub> - e/yr)	Adjustment, if applicable (tCO <sub>2</sub> -e/yr)	Reference level (tCO <sub>2</sub> - e/yr)
2020	3,737,815	867,069	-49,041		4,555,843
2021	3,758,091	867,069	-73,561		4,551,598
<b>Total</b>	<b>7,495,906</b>	<b>1,734,138</b>	<b>-122,602</b>		<b>9,107,441</b>

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

The assessment team confirms that the data, methods, and equations used for the quantification, monitoring and reporting of the ERs are correct and have been reported with a transparent and coherent step-by-step process that enabled the reconstruction of the estimates, and are consistent with the Reference Level. After an extensive review of the ER estimation process, the Monitoring Report, calculation spreadsheets, SOPs, and supporting documentation, SCS was able to independently replicate the calculation of the estimated ERs and verify that the quantification of the reported ERs is free of material misstatements, errors, and omissions. SCS confirms that the reported ERs are materially accurate and comply with the requirements of the FCPF program.

Year of reporting period <i>t</i>	Emissions from deforestation (tCO <sub>2</sub> -e/yr)	If applicable, emissions from forest	If applicable, removals by sinks (tCO <sub>2</sub> - e/yr)	Net emissions and removals (tCO <sub>2</sub> -e/yr)
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		degradation (tCO <sub>2-e</sub> /yr)*		
2020	1,526,956	533,350	-251,883	1,808,423
2021	1,967,315	1,497,898	-579,936	2,885,277
<b>Total</b>	3,494,271	2,031,248	-831,819	<b>4,693,700</b>

## 5.3 Uncertainty of Emission Reductions

### 5.3.1 Uncertainty analysis

The assessment team took the following steps to assess whether the uncertainty in the quantification of GHG emissions and removals has been correctly identified and assessed in conformance with Criterion 7, 8 and 9 from the FCPF Methodological Framework:

- Independently reviewed the Monitoring Report, data, calculation workbooks and standard operating procedures (SOPs) to verify that all potential sources of uncertainty arising in the reference level and the GHG ERs measurement, monitoring and reporting have been identified and assessed in conformance with the FCPF program requirements.
- Applied expert judgement to assess whether a comprehensive approach to mitigate and reduce key areas of uncertainty have been addressed to minimize systematic errors (bias) through the implementation of a consistent and comprehensive set of SOPs and Quality Assurance / Quality Control (QA/QC) procedures.
- Assessed 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 step-wise approach and are correct.
- Independently assessed and recalculated the estimation of the quantity of total net emission reductions allocated to the Uncertainty Buffer for the monitoring period.
- Applied expert judgement to conclude that the assessment of sources of uncertainty in construction of the Reference Level Emissions is justifiable.

Based on the aforementioned assessment, SCS confirms that a step-wise 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 total ERs and is in compliance with the FCPF program requirements.

### 5.3.2 Uncertainty of the estimate of Emission Reductions

The verification team assessed the uncertainty analysis performed by the ER program to identify the sources of uncertainty and assess the relative contribution of each source to the overall uncertainty of Emission Reductions. The assessment team performed an independent review of the selection of sources of (residual) uncertainty included in the analysis, the calculation of their standard error, as well as the review of the steps and assumptions stated in the Monitoring Report, the inclusion of the assessment parameters in the calculation workbooks and supporting documentation.

For the quantification of the ERs uncertainty analysis a Monte Carlo simulation analysis was generated following the IPCC Guidelines (2006) Chapter 3 and the Guidelines on the application of the Methodological Framework Number 4 On Uncertainty Analysis of Emission Reductions, using Excel. Probability density functions were generated for all the modelled parameters, followed by a goodness-of-fit test to identify if the parameters follow a normal or non-normal distribution. To improve the accuracy of the estimates coming out from different runs, a total of 16,000 random values for each parameter were generated instead of 10,000.

Based on the aforementioned independent review, SCS confirms that the ERs uncertainty estimation was done in conformance with the Methodological Framework Criterion 7, 8 and 9 and the Guidelines on the application of the Methodological Framework Number 4 On Uncertainty Analysis of Emission Reductions. SCS confirms that the reported uncertainty discount of 12% of Total Emissions Reductions is accurate and free of errors and misstatements.

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

The sensitivity analysis was done selecting from a list of different scenarios set up in the calculation workbook prepared by the ER program to run the Monte Carlo simulation, turning on and off the sources of uncertainty one at the time. The assessment team independently ran the simulation analysis to identify the relative contribution of each parameter to the overall uncertainty of Emission Reductions of the activity data and emission factors.

While every time there are updates in the calculation workbook or the data has been refreshed, the simulation results will change and generate new values due to the stochasticity of the data, the assessment team was able to verify and confirm the reported results by the ER program in the Monitoring Report (see table below). The main sources of uncertainty identified are those associated with the activity data.

Moreover, the assessment team reviewed the methods and actions to address sources of high uncertainty proposed in the Monitoring Report and confirms that they are aligned with the sensitivity analysis results:

Scenario	ER Uncertainty 90%	Difference to ER Uncertainty 90% of all parameters
All parameters	71.6%	0.0%
No Deforestation	21.4%	50.2%
No Forest degradation	64.7%	6.9%
No Enhancement	71.6%	0.0%
No EF	62.7%	8.9%
No AD	25.0%	46.6%
No Deforestation AD	21.4%	50.2%
No Deforestation EF	61.7%	9.9%
No Forest degradation AD	64.8%	6.8%
No Forest degradation EF	67.7%	3.9%
No Enhancement AD	71.6%	0.0%
No Enhancement EF	68.2%	3.4%

## 5.4 Transfer of Title to ERs

### 5.4.1 Ability to transfer title

As stated in the Monitoring Report, the ER Program has signed an agreement as proof of its legal status to transfer Title to ERs through their Benefit Sharing Plan, and no other party is contesting to that effect. The ER Program has not expressed its interest in increasing its ability to transfer the title over ERs covered in the current monitoring report in the short term.

The percentage of ERs for which the ability to transfer Title to ERs is clear or uncontested is 100%.

### 5.4.2 Program and Projects Data Management System

SCS confirms that the ER program proponent has developed a fully documented Data Management System allocated in a publicly available data hub named Ghana REDD+ Data Hub ([www.ghanaredddatahub.org](http://www.ghanaredddatahub.org)). This data hub includes information on the program including details on the geographical boundaries of the ER program, scope of the REDD+ activities, the carbon pools, the reference level, the amount of ERs produced, including links to the Monitoring Report and standard operation procedures, to ensure transparency and avoid multiple claims of ER Title. Moreover, SCS confirms that the developed standard operation procedures of the Data Management System comply with the FCPF Methodological Framework criteria.

### 5.4.3 Double counted ERs

The assessment team performed a due diligence and independent search in numerous registries and confirms that the ERs accounted under the GCFRP program have not been issued in any other known registries, or have been compensated for more than once. The assessment team confirmed through a finding (see MCAR22 in Appendix 1) and interviews with the project personnel the presence of two VCS projects that are closer to the program area. Through the assessment of the documentation provided and supporting evidence, the audit team confirmed that these two projects are not inside the boundaries of the program area, and as of now, within the program area, there are no existing carbon projects that are generating carbon credits. Moreover, the assessment team confirmed through interviews with the program personnel and supporting documentation that an interoperable registry to track all forest sector transactions in the country is under development. Specifically, the Registry will be interoperable with Ghana's Nationally Determined Contributions (NDCs) registry which tracks all projects in both inside and outside the NDCs.

The number of ERs that have been double counted is zero.

## 5.5 Reversals

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

Through the review of the ER-MR, the program documentation, field visit, in-site interviews with farmers and stakeholders, and supporting evidence provided the assessment team concludes that there have not been any natural or human-induced reported events or changes in ER program circumstances that have led to reversals during this Reporting Period.

The assessment team confirms that no reversals have been previously transferred to the Carbon Fund, nor have occurred during this Reporting Period.

### 5.5.2 Quantification of Reversals during the Reporting Period

This section is intentionally left blank.

### 5.5.3 Reversal Risk Assessment and Buffer ERs

Through the review of the ER-MR, the program documentation, field visit, in-site interviews with farmers and stakeholders and supported evidence provided the assessment team concludes that the Buffer Guidelines have been correctly followed and used to determine the total reversal risk set-aside percentage of 13% (see table below), that comprises a total of 310,728 tCO<sub>2</sub>e (see table in Section 5.6, option L).

Risk Factor	Risk indicators – Assessment by VVB	Resulting reversal risk set-aside percentage



Default risk	N/A	10%
<b>Lack of broad and sustained stakeholder support</b>	The assessment team evaluated the stakeholder support of the ER Program. The assessment team determined that a low risk rating was appropriate through a complete review of the ER Program documentation and supporting evidence provided on the implementation of safeguards, the benefit sharing plan, grievance redress mechanisms, the consultation and engagements shown with cocoa farmers in the site visit, the rural communities, the private sector, and other stakeholders.	0%
<b>Lack of institutional capacities and/or ineffective vertical/cross sectorial coordination</b>	The assessment team evaluated the risk associated with institutional capacity and cross sectorial coordination of the ER Program. The assessment team found that institutional capacities have been strengthened through the implementation of the actions and interventions of the program. Thanks to the GCFRP, Ghana has been able to boost and showcase their institutional arrangements, broadening engagement and creating governance structures for 5 of the 6 HIAs, strengthening their interagency collaborations and capacity building.  Given the scale and complexity of the GCFRP program the assessment team concluded through the review of the ER Program documentation, interviews with farmers and stakeholders, the supporting evidence provided, and arrangements set in place to improve coordination and mitigate this risk, that a change from medium to low risk rating is found adequate.	0%
<b>Lack of long term effectiveness in addressing underlying drivers</b>	The assessment team evaluated the program interventions and actions taken to reduce the risks from the main drivers and agents of deforestation and degradation, cocoa farming, illegal mining and unsustainable logging. The assessment team reviewed the ER program documentation, performed on-site interviews with farmers and stakeholders, and reviewed supporting evidence confirming the implementation of Hotspot Intervention-Areas, Management Boards, framework agreements and other mechanisms to mitigate this risk. The assessment team concludes that a medium rating risk has been correctly used to mitigate this risk.	3%
<b>Exposure and vulnerability to natural disturbances</b>	The assessment team evaluated the documentation and supporting evidence that the ER Program presented to mitigate the risk of forest fires, which are the main natural risk associated with natural disturbances over the program area. Interviews with the local communities, farmers and other stakeholders confirmed that the exposure and vulnerability to natural disturbances are mainly due to forest fires and that the GCFRP program actions and	0%

	interventions are helping minimize this risk, since the communities and farmers are more aware of the relevance of the program and they help protect the forest and the yields. Hence, the assessment team concludes that a low rating risk has been adequately used to mitigate this risk.	
	<b>Total reversal risk set-aside percentage</b>	13%
	<b>Total reversal risk set-aside percentage from ER-PD or previous monitoring report (whichever is more recent)</b>	13%

## 5.6 Calculation of emission reductions

Through the review of the ER-MR, the program documentation, field visit, in-site interviews with farmers and stakeholders, the recalculation of the quantification and estimation of the GHG ERs, the review of SOPs and supported evidence provided, the assessment team concludes that the ER Program has quantified the ERs in compliance with the Methodological Framework, the ER Monitoring Report template and other applicable criteria.

		2020	2021	Total
<b>A</b>	<b>Reference Level (tCO<sub>2</sub>-e) (Section 5.1)</b>	4,555,843	4,551,598	9,107,441
<b>B</b>	<b>Net emissions and removals under the ER Program (tCO<sub>2</sub>-e) (Section 5.2)</b>	1,808,423	2,885,277	4,693,700
<b>C</b>	<b>Emission Reductions during Reporting Period (tCO<sub>2</sub>-e) (A-B)</b>	2,747,420	1,666,321	4,413,741
<b>D</b>	<b>If applicable, number of Emission Reductions from reducing forest degradation that have been estimated using proxy-based estimation approaches (use zero if not applicable)</b>	0	0	0
<b>E</b>	<b>Number of Emission Reductions estimated using measurement approaches (C-D)</b>	2,747,420	1,666,321	4,413,741
<b>F</b>	<b>Percentage of ERs (A) for which the ability to transfer Title to ERs is</b>	100%	100%	100%

		2020	2021	Total
	clear or uncontested (Section 5.4.1)			
<b>G</b>	ERs for which the ability to transfer Title to ERs is unclear or contested because they are sold, assigned or otherwise used by any other entity for sale, public relations, compliance or any other purpose (Section 5.4.3)	-	-	-
<b>H</b>	Total ERs (D+E)*F-G	2,747,420	1,666,321	4,413,741
<b>I</b>	Conservativeness Factor to reflect the level of uncertainty from non-proxy based approaches associated with the estimation of ERs during the Crediting Period (Section 5.3.2)	12%	12%	12%
<b>J</b>	Emission Reductions allocated to the Uncertainty Buffer $(0.15 * D / C * H) + (I * E / C * H)$	329,690	199,958	529,648
<b>K</b>	Total reversal risk set-aside percentage applied to the ER program (Section 5.5)	13%	13%	13%
<b>L</b>	Emission Reductions allocated to the Reversal Buffer $(H - J) * (K - 5\%)$	193,419.00	117,309.04	310,728
<b>M</b>	Emission Reductions allocated to the Pooled Reversal Buffer $(H - J) * 5\%$	120,886	73,318	194,204
<b>N</b>	Number of FCPF ERs (H-J-L-M)	2,103,425	1,275,736	3,379,161

## 6. NON-COMPLIANCES AND OBSERVATIONS

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As part of the verification 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 verification was comprised of four main formal rounds of findings and three additional rounds to clarify and/or request corrective actions to the findings submitted. The findings were issued to the ER Program personnel using a proprietary workbook-based approach, termed the Findings Presentation Workbook. 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 estimates 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, 36 MCARs, and 1 OBS were issued. All findings issued by the audit team during the audit process were satisfactorily addressed by the ER Program personnel and were closed. All findings issued during the audit process, and the impetus for the closure of each such finding, are described below in Appendix 1 of this report.

## **Appendix 1: List of Findings**

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OVERVIEW OF NON-COMPLIANCES & OBSERVATIONS ISSUED DURING THE VERIFICATION BY THE VERIFICATION TEAM

**MCAR 1 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF ER Monitoring Report Template v2.5

**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_review\_clean.docx

**Finding:** Section 1.1 of the ER-MR template states: “Provide a short description of the implementation of the ER Program, including:

- Progress on the actions and interventions under the ER Program (including key dates and milestones);
- Update on the strategy to mitigate and/or minimize potential Displacement.
- Effectiveness of the organizational arrangements and involvement of partner agencies
- Updates on the assumptions in the financial plan and any changes in circumstances that positively or negatively affect the financial plan and the implementation of the ER Program.

Highlight any changes compared to the description that was provided in the ER-PD.”

The audit team found that Section 1.1 is missing the following information and hence, is not in conformance with the requirements:

- 1) Effectiveness of the organizational arrangements and involvement of partner agencies
- 2) Updates on the assumptions in the financial plan and any changes in circumstances that positively or negatively affect the financial plan and the implementation of the ER Program. Please update accordingly

**Project Personnel Response:**

Effectiveness of Organizational arrangements and involvement of Partner agencies

Ghana views effective organizational arrangements and the involvement of Partner Organizations as a pillar for ensuring the Program's success. The key milestones achieved during the monitoring period are as follows

The development of the HIA management Boards (HMB) for four HIAs, which are the Asunafo/Asutifi, Sefwi Wiawso/Bibiani, Kakum and Ahafo Ano/ Atwima HIAs. The development of community governance structures where the CREMA concept has been adapted is keys to bringing community members on board the Program implementation.

Signing of Framework Agreement amongst the communities represented by the HMBs, and the Government represented by both the Forestry Commission and Ghana Cocoa Board;

<https://reddsis.fcghana.org/dmeeting.php>

Engagement of stakeholders on the Benefit Sharing Plan in anticipation for the Carbon payment;  
<https://reddsis.fcghana.org/admin/controller/publications/REPORT%20ON%20NATIONAL%20TAKEHOLDER%20%20ENGAGEMENT%20MEETINGS%20ON%20BSP%20AND%20REDD+%20UPDATE%20FOR%20THE%20GCFRP.pdf>

A memorandum of understanding was signed with the World Cocoa Foundation to jointly implement the activities of the Program ; <https://www.worldcocoafoundation.org/press-release/ghana-and-cocoa-chocolate-companies-forge-partnership-to-protect-and-restore-forests/>

The National REDD+ secretariat recruited Safeguards and Governance Officers to support the program's implementation.

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

In page 85 of the ERPD submitted to the Carbon Fund (copy attached), Ghana indicated that the funding for the Program will be from REDD+ Funding (Carbon Payments), Private Sector, Grants and Government. This assumption has not changed over the Monitoring period. This is evident from the ability of the Program to report Emission reductions for two successive monitoring Periods, which are even more than the target in the ERPA with the World Bank.

**Auditor Response:**

Thank you for your response. The audit team couldn't confirm that Section 1.1 was updated with the description of the following:

- Effectiveness of the organizational arrangements and involvement of partner agencies
- Updates on the assumptions in the financial plan and any changes in circumstances that positively or negatively affect the financial plan and the implementation of the ER Program.

Please update Section 1.1 with the affirmed information requested.

**Project Personnel Response2:**

Section 1.1 has been updated with the following:

Effectiveness of the organizational arrangements and involvement of partner agencies

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

**Auditor Response2:**

The audit team confirmed the changes provided are now in conformance. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 2 Dated 31 Oct 2023: CLOSED****Standard Reference:** FCPF ER Monitoring Report Template v2.5**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_review\_clean.docx

**Finding:** Under section 2.1 “Forest Monitoring System”, the ER-MR template states “Describe the Forest Monitoring System including: ...Systems and processes that support the Forest Monitoring System, including Standard Operating Procedures and QA/QC procedures”. Moreover Section 3.1, the Methodological Framework states that ““Overarching Accounting and Programmatic Element: Consistency with UNFCCC principles ...Relevant principles include those on transparency, consistency, completeness, and accuracy.”

Section 2.1 of the ER-MR 2, states “Ghana produced Standard Operating Procedures (SOPs) in 2014 to guide the production of Emission Factors, Activity Data, Quality Control and Quality Assurance. However to reflect the amendment in the Reference Level as proposed, updated SOPs were also developed in 2019/2020, (details of the first and updated SOPs are found here: <http://www.ghanaredddatahub.org/doclibrary/sops/>

(<https://drive.google.com/drive/u/4/my-drive>). The first link shows SOP 1, 2, 3 and 4, another file “SOPs for sub-national reference level.pdf”, another file named “SP Sub-national.pdf”, another file named “Standard operating procedure”. This constitutes a nonconformance with the program requirements regarding consistency and accuracy. Please provide only 1 link that contains the most updated versions of the SOPs, and remove any redundant files in the web link.

**Project Personnel Response:** This has been corrected. Ghana wanted to give the trajectory of the SOPs that have been developed. However, the references to the other SOPs have been removed. What is left now is the SOPs that reflect the amendment made.

**Auditor Response:**

The audit team confirmed the changes provided. This finding is closed.

Bearing on Material Misstatement or Conformance: C



**MCAR 3 Dated 31 Oct 2023: CLOSED****Standard Reference:** FCPF ER Monitoring Report Template v2.5**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_review\_clean.docx

**Finding:** Section 1.2 of the ER-MR template states “Provide an update on the major drivers of deforestation and forest degradation in the ER Accounting Area. Discuss changes in major drivers and how these might affect the Displacement risks associated with the ER Program and any lessons from the ER Program’s efforts to mitigate potential Displacement”.

Section 1.2 of the ER-MR states “The drivers of deforestation and forest degradation are believed to remain the same comparing the reference period to the monitoring period.” During the site visit, the GCFRP team mentioned that the rates of deforestation and forest degradation were improving and there was an increase of awareness in the communities not to cut down the forest due to the implementation of the actions and interventions of the program. In the ER-MR of the first monitoring period, section 1.2 states “The sample-based assessment was used to quantify change for the period 2004-2015 as well as the monitoring period 2019. For deforestation plots, the landuse replacing the forest was recorded, which can therefore provide information on the drivers of deforestation. The largest driver of deforestation is agriculture expansion as 82% of the forest land deforested over the reference period was converted into cropland, with 48% converted into perennial cropland (mostly cocoa) and 34% converted into annual cropland.” This section is not in conformance with the template requirements. Please provide an update of the state of the major drivers of deforestation as provided in the last monitoring report and any lessons from the ER Program’s efforts to mitigate potential Displacement.

**Project Personnel Response:** This section has been updated accordingly.

**Auditor Response:**

The audit team confirmed the changes provided. This finding is closed

Bearing on Material Misstatement or Conformance: C

**MCAR 4 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_review\_clean.docx

**Finding:** Section 3.1 of the FCPF Methodological Framework states “Overarching Accounting and Programmatic Element: Consistency with UNFCCC principles ...Relevant principles include those on transparency, consistency, completeness, and accuracy.”

Section 2.1 of the ER-MR2 shows “Figure 4: Organizational structure for Activity Data for annual reference level (2020/2021) ”. However, the years established for the Reference level in the first Monitoring Report are from 2005-2014 not 2021/2022. Moreover, below Figure 4 the ER-MR states “For the estimation of activity data, 7,702 spatial plots have been assessed in 2022”. This is in nonconformance with the program requirements regarding consistency and accuracy. The auditors require the following:

- 1) Correct figure 4 accordingly
- 2) Confirm that the year of assessment of the AD plots was indeed 2022
- 3) Clarify if all the plots from both years of the monitoring period (2020 and 2021) were assessed in 2022 and/or some were assessed before and why
- 4) Please see finding 8 regarding the number of plots (7,702)

**Project Personnel Response:**

1. Figure 4 has been corrected in the MR and it now reads : ‘Figure 1: Organizational structure for Activity Data for monitoring period’
2. This should read ‘For the estimation of activity data, 7,711 spatial plots have been assessed in 2022.
3. All were assessed in 2022. Ghana could not have assessed the 2021 images in 2022. First monitoring period was just a year, we needed to assess the two years (2020/2021) to really confirm the effect of the measures being put in place. They were all assessed in 2022 except for change plots to avoid possible double-counting of deforestation.

**Auditor Response:**

The audit team confirmed the changes provided. This finding is closed

Bearing on Material Misstatement or Conformance: C

**MCAR 5 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF ER Monitoring Report Template v2.5

**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_review\_clean.docx

**Finding:** Section 2.2 of the ER-MR 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. ... These equations shall show all steps from the input of measured and default parameters to the aggregation into final reported values.”

Section 2.2.2 of the ER-MR 2, equation 9 states “Removal factor teak, mean annual increment of non-teak plantations (tCO<sub>2</sub>/ha/year)” and repeats the parameter “RFteak” twice, while not providing a description of the parameter “RFnteak”. Please correct accordingly

**Project Personnel Response:** Equation 9 has been corrected. ‘RFteak should not appear twice, the second should be ‘RFnteak’ = removal factor non-teak, mean annual increment of non-teak plantations (tCO<sub>2</sub>/ha/year)

**Auditor Response:**

The audit team confirmed the changes provided. This finding is closed

Bearing on Material Misstatement or Conformance: C

**MCAR 6 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF ER Monitoring Report Template v2.5

**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_review\_clean.docx

**Finding:** Under section 2.1 “Forest Monitoring System”, the ER-MR template states “Describe the Forest Monitoring System including: ... Highlight any changes compared to the description that was provided in the ER-PD”

During the site visit on October 2023, the GCFRP team mentioned that they implemented some changes in the monitoring methods “Sample plot size changed to from 0.5 to 1ha”. However, the audit team couldn’t find this change, its considerations and impact been documented in this section. This is in non conformance with the program requirements. Please update accordingly

**Project Personnel Response:** This is well noted. The rationale and impact have been documented in section 2.1. Kindly see the MR attached

**Auditor Response:**

The audit team confirmed the changes provided. This finding is closed

Bearing on Material Misstatement or Conformance: C

**MCAR 7 Dated 31 Oct 2023: CLOSED****Standard Reference:** FCPF ER Monitoring Report Template v2.5**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_review\_clean.docx**Finding:** Section 1.1 of the ER-MR template states:

“Provide a short description of the implementation of the ER Program, including:

- Progress on the actions and interventions under the ER Program (including key dates and milestones);
- Update on the strategy to mitigate and/or minimize potential Displacement.
- Effectiveness of the organizational arrangements and involvement of partner agencies
- Updates on the assumptions in the financial plan and any changes in circumstances that positively or negatively affect the financial plan and the implementation of the ER Program.”

Section 1.1 of the MR, Table 1, summary of actions and interventions, states that for Juaboso HIA “Additional livelihood options have been provided for 30 beneficiaries in the HIA”, However, in the link provided to the report with additional information (<https://www.reddsis.fcghana.org/admin/controller/publications/MAY%20-%202023%20-%20PROGRESS%20UPDATE%20ON%20GCFRP%20IMPLEMENTATION.pdf>) it shows that there were 28 beneficiaries. Also in the MR report is named as Juabeso, and in the report is named Juaboso, with an “o”. For Kakum the MR report states “22 beneficiaries” vs 40 shown in the link. For Asutifi/Asunafo, Ahafo-Ano and Atewa HIAs, the information of additional livelihoods is not provided, but is included in the link report. For Sefwi the MR report states “Provision of additional livelihood schemes for 23 beneficiaries” vs 31 vs shown in the link report. Also, the Progress Update Report on the GCFRP Implementation states that “This report highlights the progress update of activities from December 2022 – April 2023”, dates that are outside of the scope of this reporting period: 01-01-2020 to 31-12-2021. These inconsistencies constitute a nonconformance with the requirements. Please update the information provided accordingly.

**Project Personnel Response:** 1. We maintain the one in the referenced report, which is 28. This has, therefore, been corrected in the MR. For the spelling of Jueboso and Juabeso, the spelling is normally interchanged in literature; however, for consistency, we will use Juaboso. Therefore, we have corrected the spelling in the MR

For Kakum, the figure has been updated to 40 in the report.

All the others in the MR have been updated in line with the report provided.

**Auditor Response:**

Thank you for your response. The audit team confirmed the changes provided in the MR report. However, according to the evidence provided in the report <https://www.reddsis.fcghana.org/admin/controller/publications/MAY%20-%202023%20-%20PROGRESS%20UPDATE%20ON%20GCFRP%20IMPLEMENTATION.pdf>, “This report highlights the progress update of activities from December 2022 – April 2023”. The date of the implementation of these actions and interventions is out of the scope of this reporting period: 01-01-2020 to 31-12-2021, and hence this section is still in non-conformance with the program requirements. Please provide a report of the actions and intervention activities that were undertaken as part of the program over the monitoring period under assessment: 01-01-2020 to 31-12-2021.

**Project Personnel Response2:**

Thanks for the feedback. The right report for only 2020 and 2021 has been uploaded.

**Auditor Response2:**

The audit team confirmed the changes provided. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 8 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_review\_clean.docx

**Finding:** Criterion 6 from the FCPF Methodological Framework states that “Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online. In cases where the country’s or ER Program’s policies exempt sources of information from being publicly disclosed or shared, the information shall be made available to the third party validation and verification body and a rationale is provided for not making these data publicly available. In these cases, reasonable efforts shall be made to make summary data publicly available to enable reconstruction. ”

Section 3.2 “Monitored data and parameters” states in Table 6 that the total number of plots in the GCFRP is 7,702. Likewise, section 2.1 makes reference to this same number “For the estimation of activity data, 7,702 spatial plots have been assessed in 2022”. However, the audit team has not been able to replicate and confirm this. In the total number of plots used in the calculation workbook ADxEF-MR2-clean-harmonized.xlsx, sheet “strata”, cell F13 has 7711 plots reported. This is a nonconformity with the program requirements

**Project Personnel Response:** This was a mistake and inadvertently left in the text. All analyses use the ‘7711’. All references to 7,702 in the text have been corrected as 7711.

**Auditor Response:**

The audit team confirmed the changes provided. This finding is closed

Bearing on Material Misstatement or Conformance: C

**MCAR 9 Dated 31 Oct 2023: CLOSED****Standard Reference:** FCPF ER Monitoring Report Template v2.5**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_review\_clean.docx**Finding:** Section 1.1 of the ER-MR template states:

“Provide a short description of the implementation of the ER Program, including:

- Progress on the actions and interventions under the ER Program (including key dates and milestones);
- Update on the strategy to mitigate and/or minimize potential Displacement.
- Effectiveness of the organizational arrangements and involvement of partner agencies
- Updates on the assumptions in the financial plan and any changes in circumstances that positively or negatively affect the financial plan and the implementation of the ER Program.”

The audit team couldn't confirm the data presented in Section 1.1 Table 1 about the number of hectares and seedlings planted as part of the actions and interventions over the reporting period in the link provided to the report with additional information (<https://www.reddsis.fcghana.org/admin/controller/publications/MAY%20-%202023%20-%20PROGRESS%20UPDATE%20ON%20GCFRP%20IMPLEMENTATION.pdf>). This is in nonconformance with the program requirements. Please update accordingly.

**Project Personnel Response:** We admit to the observation made. We have added the link to the report that contains the number of hectares. The report has ever been shared with the Bank.**Auditor Response:**

The audit team confirmed the changes provided. This finding is closed

Bearing on Material Misstatement or Conformance: C

**MCAR 10 Dated 31 Oct 2023: CLOSED****Standard Reference:** FCPF ER Monitoring Report Template v2.5**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_review\_clean.docx

**Finding:** Under section 3.1 “Fixed Data and Parameters”, the ER-MR template states: “Please provide an overview of all data and parameters that remain fixed throughout the Crediting Period. These parameters should link to the equations provided in section 2.2.2 This shall include parameters that have been measured or estimated but will not be updated during the Crediting Period, such as: ... Biomass and carbon densities (e.g.  $[[AGB]]_{(Before,j)}$ ,  $[[AGB]]_{(After,i), C_j}$ ) that were measured at the time of the ERPD and that will remain fixed during the Crediting period. Activity Data estimated during the Reference Period.” The parameter boxes in section 3.1 of the ER-MR do not contain the parameters of the EFs break down by AGB, BGB, etc, also they do not contain the data and parameters used for activity data of the reference period, which represents a nonconformity to the ER-MR template.

**Project Personnel Response:** The parameters used for the activity data has been included. Kindly see the reviewed MR2 attached. A breakdown of the EFs has been provided into its AGB, BGB, DW, L and SOC components. We also added the average weighted post-deforestation carbon contents per vegetation zone. Kindly note that the annual SOC emissions are fixed but following the 2021 FCPF Guidance note: [https://www.forestcarbonpartnership.org/sites/fcp/files/FCPF%20Guidance%20Note%20on%20Accounting%20of%20Legacy%20Emissions%20and%20Removals%202021\\_0.pdf](https://www.forestcarbonpartnership.org/sites/fcp/files/FCPF%20Guidance%20Note%20on%20Accounting%20of%20Legacy%20Emissions%20and%20Removals%202021_0.pdf)

legacies are added so the year 2020 includes the 2019 legacy and the year 2021 includes the 2019 and 2020 legacy.

The values used to generate the AGB has also been included.

**Auditor Response:**

The audit team confirmed the changes provided. This finding is closed

Bearing on Material Misstatement or Conformance: C

**MCAR 11 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_review\_clean.docx

**Finding:** Section 3.3 of the FCPF Methodological Framework states “ERs from an ER Program should be conservatively measured and reported relative to a transparently presented and clearly documented Forest Reference Emission Level or Forest Reference Level for the ER Program Measures Area, following the guidance of the Carbon Fund Methodological Framework and informed by the emerging national Forest Reference Emission Level or Forest Reference Level. ...When developing Reference Levels, ER Programs shall ensure that consistent methods and Accounting Area are to be maintained between estimation of emissions in the Reference Period and during the Crediting Period.”

Section 3.1 “Fixed Data and Parameters”, parameter “post-deforestation C”, the values applied for “in tCO<sub>2</sub>/ha” (92.9 vs 48.7, 41.3 vs 26.2, 33 vs 23.1, 30.6 vs 19.5, 47.3 vs 25.1) & CI have changed from the first verification period. This is in non conformance with the program requirements. Please explain why these fixed parameters changed.

**Project Personnel Response:** there is an error in the table, which has been corrected accordingly.

1. First of all the source of the figures is the worksheet ‘FCPF\_GHA\_V1.0\_ADxEF-MR2-clean-harmonized\_20230831’; sheet ‘postDefCarbon Content’; cells B2:F4,

2. From the above (1) the post deforestation carbon figures in tCO<sub>2</sub>/ha are 55.7, 62.2, 64.6, 50.7 and 29 for Wet Evergreen, Moist Evergreen, Moist Semideciduous NW, Moist Semideciduous SE, Upland Evergreen respectively.

3. The figures in (2) above have been fixed as prescribed in 3.1” fixed data and parameters” for both monitoring reports.
4. However admittedly, the units were not put in MR1 and MR2. This has now been corrected in the MR2. Again the figures (92.9 vs 48.7, 41.3 vs 26.2, 33 vs 23.1, 30.6 vs 19.5, 47.3 vs 25.1) as identified by the auditor are C<sub>in</sub> figures in absolute terms and not the actual postDEF Carbon Content.
5. For the purpose of this, we have attached the work sheet (ADxEF-19MAY2022) for the first monitoring period. You may kindly crosscheck the consistency in the post DEF Carbon Content

**Auditor Response:**

The audit team confirmed the information provided. This finding is closed

Bearing on Material Misstatement or Conformance: C



**MCAR 12 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF Methodological Framework, Guideline on the application of the Methodological Framework Number 2

**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_review\_clean.docx

**Finding:** Section 3.3 of the FCPF Methodological Framework states “ERs from an ER Program should be conservatively measured and reported relative to a transparently presented and clearly documented Forest Reference Emission Level or Forest Reference Level for the ER Program Measures Area, following the guidance of the Carbon Fund Methodological Framework and informed by the emerging national Forest Reference Emission Level or Forest Reference Level. ...When developing Reference Levels, ER Programs shall ensure that consistent methods and Accounting Area are to be maintained between estimation of emissions in the Reference Period and during the Crediting Period.” Moreover, the Guideline on the application of the Methodological Framework Number 2 states that “When developing Reference Levels, ER Programs shall ensure that consistent methods and Accounting Area are to be maintained between estimation of emissions in the Reference Period and during the Crediting Period.”

In recalculating the estimates of emissions and removals for this monitoring period, the audit team was not able to verify the Reference Level reported in the file ADxEF-MR2-clean-harmonized.xlsx, sheet “reference level”, cell C4 (3,737,815) and I4(3,758,091). Can you explain why the historical emissions for the reference level changed from the first verification (3,712,472)? This is in nonconformance with the program requirements.

**Project Personnel Response:** Thanks for the feedback

1. The historical emissions have been adjusted by the emissions from the SOC as prescribed by the FCPF guide note for accounting for legacy emission and removals\_2021; copy attached.
2. We have attached the worksheet ((ADxEF-19MAY2022) for MR1; please refer to sheet ‘SOCreclacsimple’. The adjustment has been made there in cell ‘P3’.
3. The figure in cell P is subsequently adjusted by the Project Soc emission for the monitoring Years. Therefore for monitoring years 2020 and 2021, the reference emissions have been adjusted accordingly
4. For clarity in the adjustment for 2020 and 2021, kindly refer to sheet ‘SOCreclac simple’ of worksheet ‘FCPF\_GHA\_V1.0\_ADxEF-MR2-clean-harmonized\_20230831’. Specifically cells ‘u13’, ‘v9’ and ‘w9’.

**Auditor Response:**

Thank you for your detailed response. The audit team reviewed and confirmed the evidence provided. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 13 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_review\_clean.docx

**Finding:** Criterion 6 from the FCPF Methodological Framework states that “Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online. In cases where the country’s or ER Program’s policies exempt sources of information from being publicly disclosed or shared, the information shall be made available to the third party validation and verification body and a rationale is provided for not making these data publicly available. In these cases, reasonable efforts shall be made to make summary data publicly available to enable reconstruction.”

This finding is related with the one above. In Section 3.2 of the ERDP, in Table 6 is reported: # plots 2070 for “outside forest mask”, 5239 plots for “on forest mask” and 393 in upland, with an area of 2,555,905ha, 3,295,919ha and 62,601 respectively. In the recalculation of the deforested areas the audit team hasn’t been able to confirm the source of these numbers. This is in non conformance with the requirements. Please provide evidence of the calculation of these estimates

**Project Personnel Response:** Table six indicates the area per stratum over the Program Area.

1. 2 indicates the 2x2 stratum, 4 indicates the 4x4 stratum and 1 indicates the 1x1 stratum
2. Kindly refer to sheet ‘Strata’ , cell ‘A20’ labelled Area. That is the source of the figures
3. However, this has been calculated as indicated in cell ‘H33:I37’ for ease of reference

**Auditor Response:**

Thank you for your explanation. The differences the audit team identified are mainly due to the changes in expansion factors. The audit team has been able to recalculate your deforestation areas. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 14 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** FCPF\_GHA\_V1.0\_Calculation tool for Enhancement 2020-2021\_20230831.xlsx, Annual Report - Ghana Plantation Strategy 2020.pdf

**Finding:** Criterion 6 from the FCPF Methodological Framework states that “Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online. In cases where the country’s or ER Program’s policies exempt sources of information from being publicly disclosed or shared, the information shall be made available to the third party validation and verification body and a rationale is provided for not making these data publicly available. In these cases, reasonable efforts shall be made to make summary data publicly available to enable reconstruction.”

In Section 3.2, is reported the “Teak and broadleaf areas for the reference level and monitoring period with failure rate” for the years of the monitoring period. In the recalculation of the AD enhancement areas, the audit team couldn’t confirm the source of these values reported in the MR and the file FCPF\_GHA\_V1.0\_Calculation tool for Enhancement 2020-2021\_20230831.xlsx, sheet AD – Enhancements, cells B20, D20. For the year of 2020, there is an area of off/on reserve of: 12,696ha + 6,566ha = 19,262ha vs 19,171.4ha reported in the “Annual Report - Ghana Plantation Strategy 2020.pdf”, page viii, the “Achievements at a Glance”, table “plantation establishment on & off reserve”.

**Project Personnel Response:** The overall achievement in the annual report is an aggregation/collation of subnational (political/forest district reforestation figures). We have attached a copy of the worksheet indicating the annual report's data sources. We generate only the figures for the GCFRP area from these data sources. We admit that there is an error in summing up the figures. This has now been corrected as follows: ON Reserve: 3,460 ha and off reserve: 7,383 ha. The total is 10,843. This has also been effected in the file FCPF\_GHA\_V1.0\_Calculation tool for Enhancement 2020-2021\_20230831.xlsx. Another cause of the change in the figure is the removal of programs such as woodlots and watersheds, which had been included.

**Auditor Response:**

Thank you for the updates provided. While the audit team could not verify the 7,383 ha, nor the 10,843 totals mentioned in the response, we were able to verify and confirm the updated areas 487ha off reserve, 10,585ha on reserve and subsequent changes in the estimates of C enhancements and removals. This finding is closed

Bearing on Material Misstatement or Conformance: C

**MCAR 15 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** FCPF\_GHA\_V1.0\_Calculation tool for Enhancement 2020-2021\_20230831.xlsx, Annual Report - Ghana Plantation Strategy 2021.pdf

**Finding:** Criterion 6 from the FCPF Methodological Framework states that “Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online. In cases where the country’s or ER Program’s policies exempt sources of information from being publicly disclosed or shared, the information shall be made available to the third party validation and verification body and a rationale is provided for not making these data publicly available. In these cases, reasonable efforts shall be made to make summary data publicly available to enable reconstruction.”

This finding is related to the finding above. Section 3.2, reports the “Teak and broadleaf areas for the reference level and monitoring period with failure rate” planted over the monitoring period. In the recalculation of the AD enhancement areas, the audit team couldn’t confirm the source of these values reported in the MR and the file FCPF\_GHA\_V1.0\_Calculation tool for Enhancement 2020-2021\_20230831.xlsx, sheet AD – Enhancements, cells B21 & D21. For the year of 2021, there is an area of off/on reserve reported in the MR of: 43,635ha + 12,282ha = 55,917ha vs 18,494.7ha reported in the “Annual Report - Ghana Plantation Strategy 2021.pdf”, section “Achievements at a Glance”, table “plantation establishment on & off reserve”. This is a nonconformance with the program requirements. Please provide the evidence of these estimates, indicating, the name of the file source, page, section, etc. where the auditors can verify this information.

**Project Personnel Response:** The same reason applies to 2020 above. However, for 2021, we have included the Trees on Farm Component of the reforestation Reserve. Reforestation off reserve is at the heart of the Program where farmers are encouraged to plant trees on their farms.

We have attached the data source for the Plantation annual report (2021) for your review as well. All data are in reference to ONLY the GCFRP area. Therefore, for 2021, the achievement for on and off reserve are 7,434 ha and 44,601 ha, respectively. Kindly note that the Off reserve includes the Trees on Farm

**Auditor Response:**

The audit team confirmed the new values in the excel workbook provided that matches the government annual report. However, in section 3.2, the reported area for the On-reserve corresponding to 2021 has a typo error (10,8264). Please correct so we can close this finding.

**Project Personnel Response2:** Thank you. This has been corrected

**Auditor Response2:**

The audit team confirmed the changes provided. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 16 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** FCPF\_GHA\_V1.0\_Calculation tool for Enhancement 2020-2021\_20230831.xlsx

**Finding:** Criterion 6 from the FCPF Methodological Framework states that “Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online. In cases where the country’s or ER Program’s policies exempt sources of information from being publicly disclosed or shared, the information shall be made available to the third party validation and verification body and a rationale is provided for not making these data publicly available. In these cases, reasonable efforts shall be made to make summary data publicly available to enable reconstruction.”

File FCPF\_GHA\_V1.0\_Calculation tool for Enhancement 2020-2021\_20230831.xlsx, sheet AD – Enhancements, cells C20, E20, C21 & E21 show the survival rate of 55% estimated for the plantation areas for both years reported over this monitoring period. However, the audit team couldn’t confirm the source of these values in the reports “Annual Report - Ghana Plantation Strategy 2020.pdf” and “Annual Report - Ghana Plantation Strategy 2021.pdf”. This is a non-conformance with the program requirements. Please provide the evidence of how these rates were estimated, or the official source, pointing out, the page, section, etc where this information can be found.

**Project Personnel Response:** We were only conservative in the approach. This is an expert opinion (Plantation Department of the Forest Services Division, Forestry Commission) on the national average for 2019. We, therefore, conservatively applied the same for 2020 and 2021. Table 2 of the 2020 annual report indicates an average survival rate of 86 % for the 2019 establishment. We will like to apply this figure but will await your comments on it first.

**Auditor Response:**

Thank you for your explanation. The audit team finds this response to be conservative. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 17 Dated 31 Oct 2023: CLOSED****Standard Reference:** FCPF Methodological Framework**Document Reference:** ADxEF-MR2-clean-harmonized.xlsx

**Finding:** Section 3.3 of the FCPF Methodological Framework states “ERs from an ER Program should be conservatively measured and reported relative to a transparently presented and clearly documented Forest Reference Emission Level or Forest Reference Level for the ER Program Measures Area, following the guidance of the Carbon Fund Methodological Framework and informed by the emerging national Forest Reference Emission Level or Forest Reference Level. ...When developing Reference Levels, ER Programs shall ensure that consistent methods and Accounting Area are to be maintained between estimation of emissions in the Reference Period and during the Crediting Period.” Moreover, the Guideline on the application of the Methodological Framework Number 2 states that “When developing Reference Levels, ER Programs shall ensure that consistent methods and Accounting Area are to be maintained between estimation of emissions in the Reference Period and during the Crediting Period.”

In recalculating the estimates of the Reference Level ERs, the audit team couldn’t confirm the number of plots used to derive the estimates of the expansion factors for the Reference Level estimates (2005-2014) used in file ADxEF-MR2-clean-harmonized.xlsx, sheet “strata”, cells O3 to O11, P3 to P11. These estimates don’t match those used in the Reference Level form the first MR period. This constitutes a non-conformity with the program requirements.

**Project Personnel Response:** Thanks for the feedback.

During the monitoring period, the same plots interpreted during the reference period were interpreted. You will realise that in sheet “strata” cells E4 to E12, some blank plots were observed, mainly attributable to no images observed. This inherent feature led to slight changes in the number of plots interpreted during the monitoring period and, hence, a slight change (s) in the expansion factor.

**Auditor Response:**

Thank you for your explanation. The audit team was able to confirm these differences. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 18 Dated 31 Oct 2023: CLOSED****Standard Reference:** FCPF Methodological Framework**Document Reference:** ADxEF-MR2-clean-harmonized.xlsx

**Finding:** Criterion 6 from the FCPF Methodological Framework states that “Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online. In cases where the country’s or ER Program’s policies exempt sources of information from being publicly disclosed or shared, the information shall be made available to the third party validation and verification body and a rationale is provided for not making these data publicly available. In these cases, reasonable efforts shall be made to make summary data publicly available to enable reconstruction.”

In recalculating the estimates of the ERs for the Monitoring Period (2020-2021), the audit team couldn’t replicate the estimates of the areas of deforestation reported in file ADxEF-MR2-clean-harmonized.xlsx, sheet “deforestation by Veg” I5 to M5, I6 to M6 of hectares reported for Open forest and cells I10 to M10 and I11 to M11 of hectares reported for Closed forest and corresponding uncertainties. The auditors have the following requests:

- 1) Please review the deforestation hectares derived for each vegetation type per monitoring year.
- 2) Please explain the rationale to change the data source of the pivot table in sheet “deforestation by Veg” columns AG to BJ, used to derive the areas of deforestation for the monitoring period. In the formula used, instead of referencing sheet CE\_data, “Column P” (land\_use\_subcategory\_year\_of\_change) as done in the first MR, you are using CE\_data “Column Q” (land\_use\_subcategory\_year\_of\_change\_label).

**Project Personnel Response:** 1. We have reviewed the deforestation figures and have obtained the same numbers. Kindly point out the weaknesses in the approach for further analysis. The plot counts are found in columns AH:BE, while the expansion factors are found in columns BL:BN. Perhaps the auditors can be more specific in where they encounter difficulties/inconsistencies? With the plot counts or with the expansion factors?

2. Thanks for the observation, Though the columns are shifted one column to the right, the labels for column P and Column Q for the first MR and second MR do not change; land\_use\_subcategory\_year\_of\_change\_label. The key thing considered was the source of the data with the right labelling to endure consistency. Regardless, the information in column P and column Q is identical so they are interchangeable.

**Auditor Response:**

Thank you for your explanation. The differences the audit team identified were due to the changes in the number of plots and expansion factors. The audit team has been able to verify this. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 19 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** ADxEF-MR2-clean-harmonized.xlsx

**Finding:** Criterion 6 from the FCPF Methodological Framework states that “Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online. In cases where the country’s or ER Program’s policies exempt sources of information from being publicly disclosed or shared, the information shall be made available to the third party validation and verification body and a rationale is provided for not making these data publicly available. In these cases, reasonable efforts shall be made to make summary data publicly available to enable reconstruction.”

In recalculating the estimates of the ERs for the Monitoring Period (2020-2021), the audit team couldn’t replicate the estimates of the areas of degradation reported in file ADxEF-MR2-clean-harmonized.xlsx, sheet “degradation by Veg” I5 to M5, I6 to M6 of hectares reported for Open forest and cells I10 to M10 and I11 to M11 of hectares reported for Closed forest and corresponding uncertainties. The auditors have the following requests. Please review the number of plots with degradation, the expansion factors, and the deforestation hectares estimated for each vegetation type per monitoring year.

**Project Personnel Response:** Thanks for the finding. We have reviewed the degradation figures and have obtained the same numbers. Kindly point out the weaknesses in the approach for further analysis. The plot counts and expansion factors are found in the columns listed under response 19.

**Auditor Response:**

Thank you for your explanation. The differences the audit team identified were due to the changes in the number of plots and expansion factors. The audit team has been able to verify this. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 20 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** ADxEF-MR2-clean-harmonized.xlsx

**Finding:** Criterion 6 from the FCPF Methodological Framework states that “Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online. In cases where the country’s or ER Program’s policies exempt sources of information from being publicly disclosed or shared, the information shall be made available to the third party validation and verification body and a rationale is provided for not making these data publicly available. In these cases, reasonable efforts shall be made to make summary data publicly available to enable reconstruction.”

In recalculating the total estimates of the ERs for the Monitoring Period (2020-2021), the audit team couldn’t replicate the estimates reported in file ADxEF-MR2-clean-harmonized.xlsx, sheet “reference level”, cells C18 to C28 and I18 to I28 and subsequent values reported in Column N. This is in nonconformance with the program requirements.

**Project Personnel Response:** ‘I18’ represents the total emission due to deforestation for the monitoring year 2020.



The following indicates the steps that led to the figure in I20;

- i. The activity data for deforestation for the year 2020 is indicated in sheet “AD for def”. For open forest the values are found in “B3:F3”.
- ii. For closed forest, its “B8:F8”
- iii. The EFs are fixed parameters and remain the same for both reference and monitoring periods. kindly check “sheet EF for def”, cells B3:F3. THE EFs are according to the various vegetation zones.
- iv. In the sheet “emissions deforestation”, the EFs for the respective forest zones are multiplied by the deforestation (ha) within that particular vegetation zone and for the respective forest types (closed or open). Kindly check cells B3:F3 for open and cells B8:F8 for closed forest for the year 2020.
- v. The emissions for both forest types are then summed up to get the total emission. Kindly refer to “sheet emission deforestation” cell I13 for the total for 2020 emissions.
- vi. The emissions figure is adjusted by adding legacy emissions, thus SOC in this instance, the SOC for 2019 was used. This is found in sheet “SOC Recalc Simple” cell ‘J9’ (Converted to CO2)
- vii. The resultant figure is recorded in “sheet Reference level” cell “C18”.
- viii. To generate C25, the monitored emissions was then deducted from the Reference Emissions; this then generated the figure 2,210,860 as the ER for deforestation.
- ix. A similar approach was used to generate the ER for monitoring year 2021 However it should be noted that, the monitored emissions for 2021 ( “sheet reference level cell I18”) was adjusted by legacy emissions in both 2019 and 2020 ( sheet “SOC Recalc Simple” cell ‘j9” and ‘M9’.

For Degradation

- i. The activity data for degradation for the year 2020 is indicated in sheet “AD for degr”. For open forest, the values are found in “B3:F3”.
- ii. For closed forest, its “B8:F8”
- iii. The EFs are fixed parameters and remain the same for both reference and monitoring periods. kindly check “sheet EF for degradation”, cells B3:F3. THE EFs are according to the various vegetation zones. The EF for the degradation is adjusted by the factor in “sheet EF for degradation”, cell X2 for open forest and X3 for closed forest. These are the averages for the pre and post-deforestation canopy covers for the open and closed forests, respectively.
- iv. In the sheet “emissions degradation”, the EFs for the respective forest zones are multiplied by the deforestation (ha) within that particular vegetation zone and for the respective forest types (closed or open). Kindly check cells B3:F3 for open and cells B8:F8 for closed forest for the year 2020.
- v. The emissions for both forest types are then summed up to get the total emission. Kindly refer to “sheet emission deforestation” cell I13 for the total 2020 emissions.
- vi. The resultant figure is recorded in “sheet Reference level” cell “C19”.
- vii. To generate C26, the monitored emissions (533,350) were then deducted from the Reference Emissions (867,069); this then generated the figure (333,719) as the ER for degradation.
- viii. A similar approach was used to generate the ER for monitoring the year 2021.

**Auditor Response:**

Thank you for your thorough explanation. The audit team was able to confirm the differences due to the emissions factors and area changes. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 21 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** FCPF\_GHA\_V2.0 Ghana \_Combined\_FIXED\_VALUES\_20\_21\_2\_OCTOBER\_2023.xlsx

**Finding:** Section 3.3 of the FCPF Methodological Framework states “ERs from an ER Program should be conservatively measured and reported relative to a transparently presented and clearly documented Forest Reference Emission Level or Forest Reference Level for the ER Program Measures Area, following the guidance of the Carbon Fund Methodological Framework and informed by the emerging national Forest Reference Emission Level or Forest Reference Level. ...When developing Reference Levels, ER Programs shall ensure that consistent methods and Accounting Area are to be maintained between estimation of emissions in the Reference Period and during the Crediting Period.”

In verifying the sources of uncertainty used for the Monte Carlo simulations, the audit team found that the values of the planted areas for teak and non teak for the years 2010,2011 and 2012 in the file FCPF\_GHA\_V2.0 Ghana \_Combined\_FIXED\_VALUES\_20\_21\_2\_OCTOBER\_2023 (1).xlsx, sheet Sources\_Uncertainty, have changed from the first monitoring period. This is in nonconformance with the program requirements

**Project Personnel Response:** We thank the auditors for spotting this oversight. The areas should have been the same as in MR1, due to a copy-paste error the off-reserve planted areas were not included in the Monte Carlo. We corrected this and re-ran the MC resulting in an overall uncertainty of 68% (i.e. the overall uncertainty is not affected). As such, the deduction associated with the MC uncertainty remains 12%. We also like to point out that the copy-paste error only affected the uncertainty calculation of the MC, the correct areas were considered in the removal calculation included in the ER calculation as can be verified in the FCPF\_GHA\_V1.0\_Calculation tool for Enhancement 2020-2021\_20230831.xlsx

**Auditor Response:**

Thank you for the changes provided. The audit team was able to confirm the new values. However, we were not able to verify the values reported for the areas planted during the monitoring period, in cells B101, B102, B104, and B105. This finding remains open. Please modify accordingly.

**Project Personnel Response2:** Thanks for the feedback. The values in cells B101,B102, B104 and B105 were generated as follows:

1.The values can be verified in worksheet ‘FCPF\_GHA\_V1.0\_Calculation tool for Enhancement 2020-2021\_20230831.xlsx “ ‘sheet new reference level’; cells O20:O25

2. The Sheet ‘Metadata’ gives a description of how the values were generated.

**Auditor Response2:**

Thank you for your clarification. The audit team confirmed the information provided. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 22 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF ER Monitoring Report Template v2.5

**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_review\_clean.docx

**Finding:** Section 6.3 of the ER-MR template states “Please describe the design and implementation by the host country of an appropriate arrangement to ensure that any ERs from REDD+ activities under the ER Program are not generated more than once; and that any ERs from REDD+ activities under the ER Program sold and transferred to the Carbon Fund are not used again by any entity for sale, public relations, compliance or any other purpose. Discuss the design and provide evidence of the implementation and operation of an ER transaction registry in accordance with the requirements of the Methodological Framework. If applicable, highlight any changes compared to what was anticipated in the ER-PD and explain why these changes were made.” The auditors have the following questions:

- (1) Can you please confirm how the program will verify that any ERs from planned actions and interventions under the ER Program are not accounted for/registered more than once or that all ERs are accounted for?
- (2) The auditors realized there are multiple VCS projects registered in Ghana. How is the program monitoring and managing for overlapping ER claims and/or double counting associated with other ER projects within the GCFRP?
- (3) How are you currently ensuring none of those projects are overlapping the program area?

- **Project Personnel Response:** We are aware of the VCS Projects that are on going in the Program Area. For the purposes of emphasis, the following VCS projects are active in the Program area. These are afforestation/reforestation projects generating emission removals. For its reporting to the Program on removals associated with establishing new forests, the Seller only includes government-planted areas and excludes areas planted under VCS projects. As a result, double counting is excluded.

2410	<a href="#">Reforestation of Degraded forest reserve areas in Ghana, West Africa</a>	Ashanti	46,229	24/03/2016	23/03/2046
987	<a href="#">Reforestation of Degraded forest reserves in Ghana</a>	Kumasi, Ashanti Region	8,815	01/03/2008	29/02/2048

**Auditor Response:**

Thank you for your explanation. However, the audit team finds that this section is still in non conformance with the program requirements “Please describe the design and implementation by the host country of an appropriate arrangement to ensure that any ERs from REDD+ activities under the ER Program are not generated more than once; and that any ERs from REDD+ activities under the ER Program sold and transferred to the Carbon Fund are not used again by any entity for sale, public relations, compliance or any other purpose. Discuss the design and provide evidence of the implementation and operation of an ER transaction registry in accordance with the requirements of the Methodological Framework.” Moreover, criterion 23 of the FCPF MF 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.”

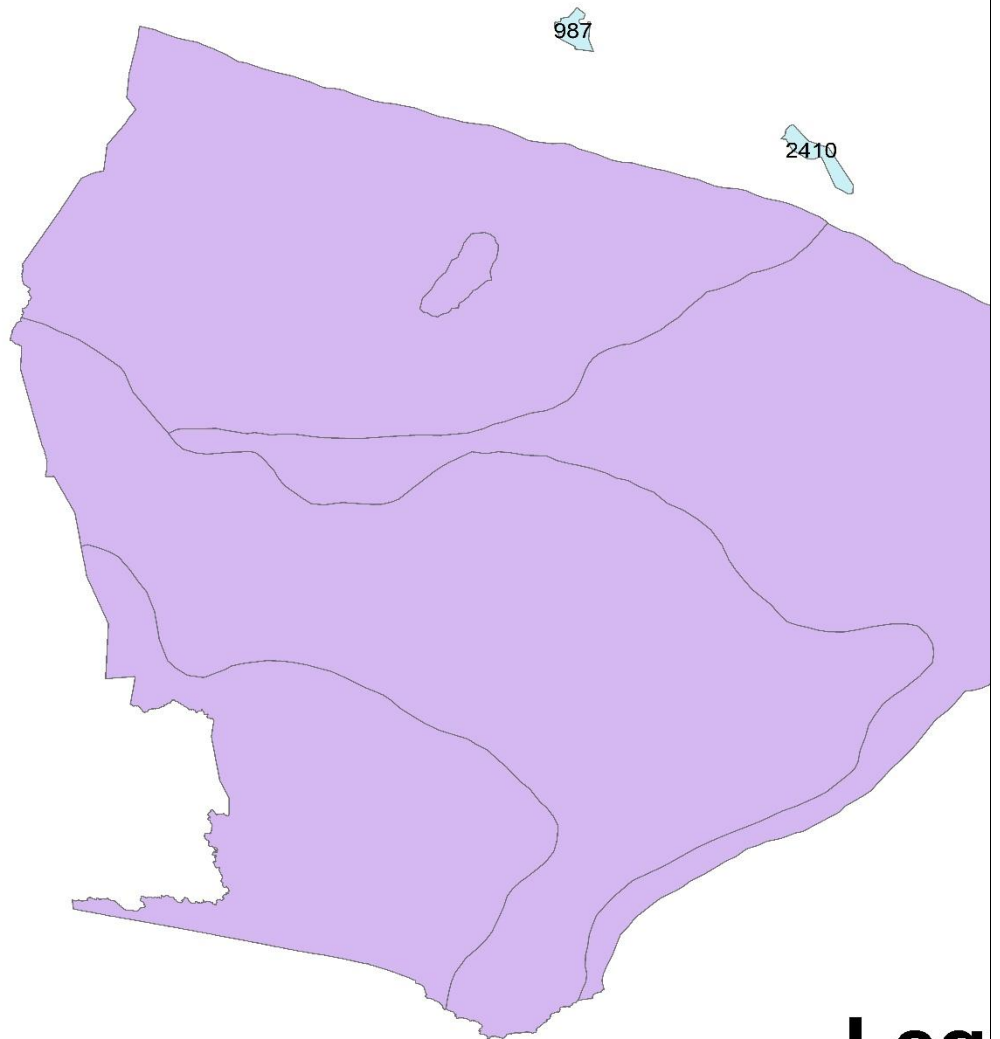
Please provide the information that this section requires, along with the evidence (maps of the areas, records of the excluded planted areas, etc) of how these and/or other projects that are registered meet the program requirements. This finding remains open.

**Project Personnel Response2:**

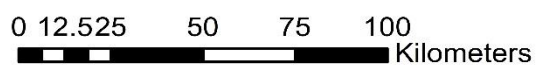
Thank you for the feedback. We have confirmed that the ongoing VCS projects are outside the program area (as indicated in the map below). Therefore, no double counting of emissions has been done in including reported and verified emissions under these VCS projects.



## Location of Verra VCS Projects in Ghana in relation



**Leg**



A copy of the map is included in the list of documents that have been made available.

**Auditor Response2:**

Thank you for the information and demonstration provided. The audit team was able to verify that, specifically, these two areas do not fall inside the GCFRP area. However, the audit team found that no information of the holistic approach or the arrangement in place has been provided in section 6.3 to ensure that any ERs from REDD+ activities under the ER Program are not generated more than once as required by the ISFL requirements.

“Please describe the design and implementation by the host country of an appropriate arrangement to ensure that any ERs from REDD+ activities under the ER Program are not generated more than once; and that any ERs from REDD+ activities under the ER Program sold and transferred to the Carbon Fund are not used again by any entity for sale, public relations, compliance or any other purpose. Discuss the design and provide evidence of the implementation and operation of an ER transaction registry in accordance with the requirements of the Methodological Framework.”

Please update Section 6.3 accordingly.

**Project Personnel Response3:**

Response.

Section 6.3 has been updated

**Auditor Response3:**

Thank you for response. The audit team reviewed the updates provided and have the following requests:

In the ER-MR is stated that “as part of efforts to avoid double counting, Ghana will in the near future develop an interoperable registry to track all forest sector transactions in the country and will duly recognize only the ones issued by the registry. Lessons from the FCPF registry will be used to guide the development of such the registry.”

- 1) Please provide additional information in the ER MR to describe the **current process** you follow to identify and keep record of other projects that might overlap the GCFRP area, to ensure that any ERs from REDD+ activities under the ER Program are not generated more than once.
  - How often do you check the registries, which registries sites are reviewed?
  - An explicit description of the steps and/or analysis you undertake to confirm that these projects do not fall inside the program area (i.e. VCS projects 987 and 2410).
  - Do you keep records of the reviewed projects (i.e. VCS projects 987 and 2410)? Are these stored in excel spreadsheets, online system? (if so, please provide evidence of this).
- 2) Please provide additional information in the ER-MR about the future interoperable registry that is planned to be developed to track all forest sector transactions.
  - Is this part of a national initiative to be developed in conjunction with other agencies of the government?
  - What other institutions will be involved in this process, only the Forestry Commission?
  - When is the planning process starting, has is started yet?

**Project Personnel Response4:**

Section 6.3 has been updated

**Auditor Response:**

The audit team confirmed the information provided is now in conformance with the program requirements. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 23 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_review\_clean.docx

**Finding:** Section 3.1, the Methodological Framework states that ““Overarching Accounting and Programmatic Element: Consistency with UNFCCC principles ...Relevant principles include those on transparency, consistency, completeness, and accuracy.”

Section 7.3 of the ER-MR, table 10, risk factor “Lack of long term effectiveness in addressing underlying drivers” states “...Through this process, there is a legal assurance for timber production and utilization in Ghana. Ghana looks forward to issuing the first FLEGT License by end of first quarter 2022.”. This information is outdated and in non conformance with the program requirements. Please provide an update of the status of this FLEGT policy

**Project Personnel Response:** Thank you. This has been updated accordingly.

**Auditor Response:**

The audit team confirmed the changes provided. This finding is closed.

Bearing on Material Misstatement or Conformance: C



**MCAR 24 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_review\_clean.docx

**Finding:** Indicator 18.2 of the Methodological Framework states “ The ER Program demonstrates how effective ER Program design and implementation will mitigate significant risks of Reversals identified in the assessment to the extent possible, and will address the sustainability of ERs, both during the Crediting Period, and beyond the Crediting Period.”.

In section 7.3 of the ER-MR from the first monitoring period it was stated that “The complexity of the institutional and implementation arrangements for coordinating, verifying, receiving and disbursing ER payments at a programmatic scale of this size is a challenge for the GCFRP. This is being mitigated with the procurement of the consultancy to develop fund flow mechanism in line with the Benefit Sharing Plan (ToR of consultancy in Annex 6 of BSP). By the consultancy end date, the HIA accounts will have been set up for at least four HIAs (Juabeso/Bia, Kakum, Asutifi-Asunafo, Sefwi-Wiawso) with significant progress on Governance structures also completed within same timeframe. Again, as indicated in the BSP, by the end of year 2021, Hotspot Implementation Committees would have been formed in at least four HIAs mentioned. This would enhance implementation at the HIA level.

Moreover, it states that overall, the coordination across natural resource-related agencies, ...and the complexity of orchestrating hundreds of thousands of land-users to act toward common goals of forest conservation and climate-smart cocoa agriculture is acknowledged to be a medium risk.”

Section 7.3 of the second ER-MR does not mention or provide an update of the results of this consultancy.

The auditors have the following requests:

- (1) Please provide an update of the results of the aforementioned consultancy, and confirm if the Hotspot Implementation Committees were created or not.
- (2) In the statement “Capacity building of functional governance structures to prepare them adequately for the administration and disbursement of Carbon Payments”, the footnote included in this, has no information provided. Please update accordingly.
- (3) Footnotes 25 and 27 wont open, please review or provide documents for verification in another link.

**Project Personnel Response:** The update on the consultancy is provided in the text (MR2).

There is no footnote associated with the statement, have provided all the same.

footnote 25 has been reshared. The link is the Presidential’s website

**Auditor Response:**

Thank you for the updates provided. However, the auditors still have the following observations regarding this section:

1. The statement of "The Consultant Procured to develop the Fund Flow Mechanism has completed the work" does not provide a background information to the reader as to which Consultant this corresponds.
2. The statement of "Set up of RDA Steering Committee to provide transparency for the transfer of funds to all beneficiaries. Minutes of first meeting can be found here", does not provide a link or a footnote associated to the word "here".
3. In the statement "Good institutional arrangements for the development of Second MR", please elaborate more as to which institutional arrangements this refers to, and provide the supporting evidence to support this claim.

**Project Personnel Response2:**

Thank you for the above, the needed elaborations have been done.

**Auditor Response2:**

Thank you for your response. The audit team was able to confirm the information provided for point number 1 and point number 3. Regarding point number 2, the link provided didn't work until we removed the first part "chrome-extension://efaidnbnmnnibpcajpcglcfindmkaj/" and started from the "https:" part.

However, the audit team found that the link provided to the first RDA meeting presents the minutes from a meeting held on "FRIDAY, AUGUST 5TH 2022", which is outside of the scope of this verification period assessment. Please provide a reference to the correct document or remove this statement from the ER-MR.

**Project Personnel Response 3:**

Thank you for the feedback. Indeed point 2 will best be presented in the next Monitoring Report (2022/2023) under the ERPA. We have removed point 2 out.

**Auditor Response3:**

The audit team was able to confirm the changes provided. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 25 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** Ghana MC 2020-2021\_04122023\_Combined\_FIXED\_VALUES\_20\_21\_v2

**Finding:** Criterion 6 from the FCPF Methodological Framework states that “Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online.”

In verifying the sources of uncertainty used in the file Ghana MC 2020-2021\_04122023\_Combined\_FIXED\_VALUES\_20\_21\_v2 for post-Def LU, the audit team couldn't confirm the values used in cells B37 to B42. It is unclear where these values come from. Please explain accordingly.

**Project Personnel Response:**

1. Kindly refer to the analysis for first monitoring report; 'ADxEF-19<sup>th</sup> May 2022'.
2. Kindly refer to sheet PostDefC-contents; cells B2:F2. They indicate the figures for post DeforestationC-Content in (tCO<sub>2</sub>/ha). Therefore, to get the Carbon (tC/ha), the factor (12/44) was used to convert from (tCO<sub>2</sub>/ha) to (tC/ha).
3. For example: that of wet evergreen in cell B2 of 'sheet PostDefC-contents; is 55.7tCO<sub>2</sub>/ha, therefore when converted to tC/ha, it is calculated as 55.7 x (12/44), which is equal to 15.19 ≈ 15.2 as presented in the MC; the same approach was used for the other ecological zones except for open forest where the resultant figures for the other ecological zones were averaged out.
4. The figures generated have been used for the 2020/2021 MC.
5. ADxEF-19<sup>th</sup> May 2022' is attached for ease of reference

**Auditor Response:** Thank you for your response. The audit team was able to confirm the values with the described approach. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 26 Dated 31 Oct 2023: CLOSED**

**Standard Reference:** FCPF ER Monitoring Report Template v2.5

**Document Reference:** Ghana ER Program Second MR\_FMT\_Ghana\_auditorcomments\_clean\_5122023.docx

**Finding:** Section Annex 4 from the ER-MR template states "All sections in Annex 4 shall be completed by all ER Programs so as to update information on the ER-PD based on:

- 1) Technical corrections applied to the reference level;
  - 2) Updates of the monitoring plan based on the latest available information;
  - 3) Updates of any other aspect with latest information (policy and design decisions shall not be updated)."
- The audit team realized that the updated version of the ER-MR does not contain Annex 4. Since as this program did carry out technicals corrections, it is necessary to include annex 4 as required by the MF requirements.

**Project Personnel Response:** There were no 'technical corrections' applied since MR1, and no updates to the monitoring plan or other aspects. The MR1 has the technical corrections ( pages 192 downwards) and hence we added the annex 4. The MR1 is therefore included in the list of documents submitted for your perusal.

**Auditor Response:**

Thank you for your response. The audit team confirmed the information provided. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 27 Dated 24 Ene 2024: CLOSED**

**Standard Reference:** FCPF Methodological Framework, FCPF Guidance Note Accounting of Legacy Emissions/Removals

**Document Reference:** Ghana ER-MR FCPF\_GHA\_V2.0\_ADxEF-MR2-clean-harmonized\_5122023.xlsx

**Finding:** Criterion 6 from the FCPF Methodological Framework states that "Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online."

In the file FCPF\_GHA\_V2.0\_ADxEF-MR2-clean-harmonized\_5122023.xlsx, sheet "SOC recalc simple", cell U13, the audit team couldn't confirm the projected legacy emissions. Please explain the rationale why do you subtract from cell U13 the emissions from cell Q9 from the Reference Level emissions.

**Project Personnel Response:**

When Ghana built the first ADxEF spreadsheet, the only year to account for was 2019. At that time, SOC emissions were included in the "EF for def" tab. However, when updating this file to include 2020 and 2021, Ghana realized that the EF would change each year due to the legacy SOC emissions (which are different each subsequent year in the crediting period due to the legacy). The fixed values in tab 'EF for def' included one legacy year (2019 only), but for 2020, it should include the 2019+2020 legacy, and for 2021, the 2019+2020+2021 legacy conforms to the

FCPF informative note. We didn't want to change the structure of the ADxEF file, so we kept the same values in the 'EF for def' tab (which includes one year of legacy emissions for 2019). We wanted to apply a consistent calculation to calculate the annual reference level values in the tab 'reference level' cells N2:N6. Therefore, the reference level emissions without SOC are calculated (in 'SOC recalc simple' cell U13) so we could consistently add the SOC reference level emissions for individual years in tab 'reference level' cells N2:N6.

**Auditor Response:**

Thank you for your thorough explanation. While this deviation in the approach is not fully in line with the guidance note to account legacy emissions/removals, we accept it as it results in a conservative estimate of the final ERs. We will issue an observation about this (see OBS 30), that does not need any follow up. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 28 Dated 5 Feb 2024: CLOSED**

**Standard Reference:** FCPF ER Monitoring Report Template v2.5

**Document Reference:** Ghana ER-MR FCPF\_V2\_GCFRP\_REVIEW\_SECOND RESPONSE\_CLEAN VERSION\_12\_01\_84.docx

**Finding:** Criterion 6 from the FCPF Methodological Framework states that "Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online."

Section 8 of the ER-MR, the audit team couldn't confirm the values reported the calculation of emission reductions. Please update to the include the correct values.

**Project Personnel Response:** Section 8 has been updated in the MR to reflect the calculation of the ERs

**Auditor Response:**

The audit team confirmed the updates in the ER-Mr. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 29 Dated 5 Feb 2024: CLOSED**

**Standard Reference:** FCPF ER Monitoring Report Template v2.5

**Document Reference:** Ghana ER-MR FCPF\_V2\_GCFRP\_REVIEW\_SECOND RESPONSE\_CLEAN VERSION\_12\_01\_84.docx

**Finding:** Criterion 6 from the FCPF Methodological Framework states that “Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online.”

Section 4.3 of the ER-MR, “Length of the Reporting period” shows 731 days. Please explain the rationale to include 1 more day in the account (365 + 365 = 730).

**Project Personnel Response:** The year 2020 was a leap year, therefore had 366 days. Accordingly, for the reporting years 2020 and 2021, we added 366 to 365 (for 2021) making 731.

**Auditor Response:** The audit team confirmed the information provided. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**OBS 30 Dated 5 Feb 2024: CLOSED**

**Standard Reference:** FCPF Methodological Framework, FCPF Guidance Note Accounting of Legacy Emissions/Removals

**Document Reference:** Ghana ER-MR FCPF\_GHA\_V2.0\_ADxEF-MR2-clean-harmonized\_5122023.xlsx

**Finding:** Criterion 6 from the FCPF Methodological Framework states that “Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online.”

This observation refers to finding MCAR27.

“In the file FCPF\_GHA\_V2.0\_ADxEF-MR2-clean-harmonized\_5122023.xlsx, sheet “SOC recalc simple”, cell U13, the audit team couldn’t confirm the projected legacy emissions derived. We asked the GCFRP team to explain the rationale why do they subtract from cell U13 (the Reference Level emissions 3,712,472 tCO<sub>2</sub>/year) the emissions from cell Q9 (that correspond to SOC RL emissions – SOC 2019 actual emissions). “

The audit team found that this deviation in the approach is not fully in line with the guidance note to account legacy emissions/removals. However, we accepted the application of this approach as it results in a conservative estimate of the final ERs.

Bearing on Material Misstatement or Conformance: C

**MCAR 31 Dated 22 Feb 2024: CLOSED**

**Standard Reference:** FCPF ER Monitoring Report Template v2.5

**Document Reference:** FCPF\_V3\_GCFRP\_REVIEW\_FOURTH\_RESPONSE\_CLEAN VERSION\_20\_02\_2024.docx

**Finding:** Criterion 6 from the FCPF Methodological Framework states that “Key data and methods that are sufficiently detailed to enable the reconstruction of the Reference Level, and the reported emissions and removals (e.g., data, methods and assumptions), are documented and made publicly available online.”. Section 2.1 of the ER-MR provides a list of SOPs that do not match the list of the SOPs updated in the link referenced <http://www.ghanaredddatahub.org/doclibrary/sops/>. While there is a file with a list of the 2014 SOPs provided in this link, these don't match the SOPs used by the program team, they seem to be outdated or wrong (e.g. SOP001 shows parameters that the GCFRP is not currently measuring (e.g. SOP 008 “Estimation of ERs from Timber Harvests”, SOP 009 “Estimation of ERS from wood for fuel”, SOP 010 “Emissions from Fire”, LFellings, LFuelwood, LFire). Please review this thoroughly and update accordingly in the ER-MR and in the link provided.

**Project Personnel Response:** Section 2.1 has been updated and the SOPs corrected.

**Auditor Response:** The audit team confirmed the information provided. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 32 Dated 18 Mar 2024: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** FCPF\_V3\_GCFRP\_REVIEW\_sixth\_RESPONSE\_CLEAN VERSION\_29\_02\_2024

**Finding:** Section 3.1 of the Methodological Framework states that Overarching Accounting and Programmatic Element shall be in: “Consistency with UNFCCC principles ...Relevant principles include those on transparency, consistency, completeness, and accuracy.” The ER-MR was initially dated as 12/16/2022. However as a result of the audit process, the final ER-MR was updated on 2/29/2024. The date of the report on the ER-MR title page is not consistent with the latest version of the ER-MR created. Please update accordingly.

**Project Personnel Response:** This finding was resolved through email.

**Auditor Response:** The audit team confirmed the information provided. This finding is closed.

Bearing on Material Misstatement or Conformance: C

**MCAR 33 Dated 18 Mar 2024: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** FCPF\_V3\_GCFRP\_REVIEW\_sixth\_RESPONSE\_CLEAN VERSION\_29\_02\_2024

**Finding:** Section 3.1 of the Methodological Framework states that Overarching Accounting and Programmatic Elements shall be in: “Consistency with UNFCCC principles ...Relevant principles include those on transparency, consistency, completeness, and accuracy.” In Section 3 of the ER-MR, some names of the parameters included do not match the name of the parameters presented as part of the equations included in section 2.2.2 or annex 4. For

instance, equation 2 in section 2.2 references the parameter 'EFdef,e,s(rp)' but section 3.1 references 'EF\_deforestation e,s'. Furthermore, equation 8 references the parameter 'EF degradation e,s' but equations 2 it is 'EFdegr e, s(rp)' and in equation 3 it is 'EFdegr e, s(mp)'. The terms 'rp' and 'mp' are not defined anywhere in section 2.2 and these parameters do not match section 3.1 and 3.2. These are just a few examples. There are several inconsistencies like this and they are very minor but it was identified previously by the WB FMT team in the checklist document and it has not been fully addressed. Please review thoroughly and update accordingly.

**Project Personnel Response:** This finding was resolved through email.

**Auditor Response:** The audit team confirmed the information provided. This finding is closed.

Bearing on Material Misstatement or Conformance: C

#### **MCAR 34 Dated 18 Mar 2024: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** FCPF\_V3\_GCFRP\_REVIEW\_sixth\_RESPONSE\_CLEAN VERSION\_29\_02\_2024

**Finding:** Section 3.1 of the Methodological Framework states that Overarching Accounting and Programmatic Element shall be in: "Consistency with UNFCCC principles ...Relevant principles include those on transparency, consistency, completeness, and accuracy." Section 3.1 of the Monitoring Report template requires that all fixed data and parameters used in the equations in section 2.2 be listed and described according to the template requirements. Equation 9 references the parameter ARL,teak, on/off (Average net annual area teak planted (ha/year) on- and off-reserve during the reference period, where net means the area has been discounted with the assessed survival rate) and the parameter ARL,nteak,on/off (Average net annual area non-teak planted (ha/year) on- and off-reserve during the reference period, where net means the area has been discounted with the assessed survival rate). There are 2 issues here:

1. Under equation 9 in section 2.2 the parameter ARteak,on/off is listed twice and the parameter AR,nteak,on/off is not listed.
2. In section 3.1, the parameters ARteak,on/off and AR,nteak,on/off are not listed or described

**Project Personnel Response:** This finding was resolved through email.

**Auditor Response:** The audit team confirmed the information provided. This finding is closed.

Bearing on Material Misstatement or Conformance: C

#### **MCAR 35 Dated 19 Mar 2024: CLOSED**

**Standard Reference:** FCPF Methodological Framework

**Document Reference:** FCPF\_V3\_GCFRP\_REVIEW\_sixth\_RESPONSE\_CLEAN VERSION\_29\_02\_2024

**Finding:** Section 3.1 of the Methodological Framework states that Overarching Accounting and Programmatic Element shall be in: "Consistency with UNFCCC principles ...Relevant principles include those on transparency, consistency, completeness, and accuracy." There are some inconsistencies across the report regarding the Figures numbering and their references. For example: Figure 5 appears twice with different content.



Figure 9 exists twice in Section 2.2.

Figure 11 is referenced on page 29 of the ER-MR but no Figure 11 exists in the document.

Figure 3 is referenced on page 51, "There are no gaps in the 4 x 4 km grid (see Figure 3)", but Figure 3 corresponds to the "Organizational structure for RL".

Moreover, the ER-MR, presents the following reference "Sendecor and Cochran 1989", but there are no citation details provided for this reference.

This represents a nonconformity. Please review the Figure numbering and their references throughout the report and update accordingly.

**Project Personnel Response:** This finding was resolved through email.

**Auditor Response:** The audit team confirmed the information provided. This finding is closed.

Bearing on Material Misstatement or Conformance: C

#### **MCAR 36 Dated 19 Mar 2024: CLOSED**

**Standard Reference:** FCPF ER Monitoring Report Template v2.5

**Document Reference:** FCPF\_V3\_GCFRP\_REVIEW\_sixth\_RESPONSE\_CLEAN VERSION\_29\_02\_2024

**Finding:** The ER-MR template states "Font of the body text shall be Calibri 10 black font." Some of the text in the ER-MR (e.g. pg 62 of the ER-MR) is not Calibri 10 and therefore represents a nonconformity. Please update accordingly.

**Project Personnel Response:** This finding was resolved through email.

**Auditor Response:** The audit team confirmed the information provided. This finding is closed.

Bearing on Material Misstatement or Conformance: C

#### **MCAR 37 Dated 19 Mar 2024: CLOSED**

**Standard Reference:** FCPF ER Monitoring Report Template v2.5

**Document Reference:** FCPF\_V3\_GCFRP\_REVIEW\_sixth\_RESPONSE\_CLEAN VERSION\_29\_02\_2024


**Finding:** Section 3.1 of the ER-MR template requires to indicate the "spatial level of the data (local, regional, national, international)". However, this information is not provided for each of the parameters and therefore represents a nonconformity with the requirements. Please update accordingly.

**Project Personnel Response:** This finding was resolved through email.

**Auditor Response:** The audit team confirmed the information provided. This finding is closed.

Bearing on Material Misstatement or Conformance: C

## Appendix 2: Audit Plan

<b>Name</b>	Ghana Cocoa Forest REDD+ Program (GCFRP)
<b>Monitoring/Reporting Period for Verification</b>	01-January-2020 to 31-December-2021
<b>Signature as Evidence of Lead Auditor Approval</b>	

### Audit Objectives

The audit team shall conduct a verification of the Ghana Cocoa Forest REDD+ Program (GCFRP) as follows from the FCPF Validation and Verification Guidelines v2.4:

- Review of the ER Monitoring Report (MR) and supporting information to confirm the accessibility and correctness of presented information as well as conformance to template requirements.
- Assess the extent to which reported ERs have been reported with a transparent and coherent step-by-step process that enables reconstruction and meets the requirements of applicable criteria.
- Assess the source(s) of Uncertainty due to both random and systematic errors and any sources of bias that can impact the estimate of the Total ERs.
- Determine whether the ER Program has conducted the Uncertainty analysis in compliance applicable criteria.
- Ensure, according to the applicable level of assurance (see Section ‘Level of Assurance’, below),<sup>2F</sup> that the information provided in the MR is correct and complete (i.e., not leaving out information that might affect the opinion of the reader).
- Assess the extent to which the methodologies and methods used to estimate GHG emissions and removals during the Reporting Period are consistent with the Reference Level and with the Monitoring Plan as described in the ER Monitoring Report.
- Assess the extent to which the ER Monitoring Report includes a complete and accurate report, to the extent possible, on the implementation of its strategy to mitigate and/or minimize potential Displacement and on any on changes in major drivers in the ER Accounting Area.
- Assess the extent to which the ER Monitoring Report contains a complete and accurate report on the mitigation, to the extent possible, of significant risks of Reversals identified in the assessment, and addresses the sustainability of ERs.
- Determine whether the ER Program has quantified ERs allocated to the Uncertainty, Reversal, and Pooled Reversal Buffer during the Reporting Period in compliance with the Methodological Framework and other applicable criteria.
- Assess the extent to which systems to avoid that ERs generated under the ER Program have not been counted or compensated for more than once have been adequately implemented and confirm that issuance has not occurred in other known registries.

- Determine whether the national or centralized REDD+ Programs and Projects Data Management System are implemented and operated in compliance with the Methodological Framework and other applicable criteria.
- Conduct an independent assessment of the conformance against the approved ER Program Requirements and associated guidelines.
- Issue a verification report that includes the VVB’s opinion addressed to the FCPF Carbon Fund, on the GHG assertion whether representing a positive or negative opinion.

## Scope of Verification

The scope of the assessment entails reviews as required to achieve the above objectives; the following areas will be particularly emphasized. In some cases, consideration of the areas indicated below extends the scope of the assessment beyond a strict assessment for conformance to the assessment criteria.

Aspect	Expected Scope of the Assessment
Monitoring approach	<p>Review of the ER Monitoring Report and supporting information to confirm the correctness of the presented information.</p> <p>Assess whether the data and methods used for monitoring are consistent enough with the data and methods used in the Reference Level to allow for meaningful comparison and calculation of the ERs.</p> <p>Assess whether the proposed monitoring methods and arrangements are in place as described in the Monitoring Report.</p>
GHG emissions and removals	<p>Assess the extent to which the methodologies and methods used to estimate GHG emissions and removals during the Reporting Period are consistent with the Reference Level and with the Monitoring Plan as described in the ER Monitoring Report.</p> <p>Assess the extent to which reported ERs have been reported with a transparent and coherent step-by-step process that enables reconstruction and have met the requirements of the program requirements and are materially accurate (i.e. free of material misstatements, errors or omissions).</p> <p>Assess whether the ER Program has quantified ERs allocated to the Uncertainty, Reversal, and Pooled Reversal Buffer during the reporting period in compliance with the Methodological Framework and other applicable criteria.</p>
Risk for displacement	<p>Assess the extent to which the ER Monitoring Report includes a complete and accurate report, to the extent possible, on the implemented strategies to mitigate and/or minimize potential Displacement and on any on changes in major drivers in the ER accounting area.</p>
Participation under other GHG initiatives	<p>Assess the extent to which systems to avoid that ERs generated under the ER Program have not been counted or compensated for more than once have been adequately implemented and confirm that issuance has not occurred in other known registries.</p>
Data management systems	<p>Expert judgement to determine whether the national or centralized REDD+ Programs and Projects Data Management System are implemented and operated in compliance with the Methodological Framework.</p>
Reversals	<p>Assess the extent to which the ER Monitoring Report contains a complete and accurate report on the mitigation, to the extent possible, of significant risks of Reversals identified in the assessment, and addresses the sustainability of ER.</p>

Uncertainty	Assess the correctness and completeness of the data and assumptions used in the assessment of the uncertainty of the estimates of Emission Reductions. Assess whether the ER Program has conducted the Uncertainty analysis in compliance with IPCC good practice guidelines, the GFOI guidelines and applicable criteria.
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## Boundaries of the Ghana Cocoa Forest REDD+ Program

As understood by the audit team, the boundaries of the Ghana Cocoa Forest REDD+ Program (GCFRP), which is the subject of the audit engagement described above, are as follows:

- The GCFRP ER Program includes an ecological zone covering 5.92 million hectares of five forest ecosystem types: wet evergreen, moist evergreen, moist semi-deciduous north-west sub-type, moist semi-deciduous south-east sub-type and upland evergreen
- The GCFRP ER program and its reference level, briefly summarized as follows:
  - The GCFRP has been designed to adapt a Community Resource Management Area model for landscape governance of cocoa farming areas that envisages a multi-tiered, governance structure including the cocoa farmers, communities, landowners, and traditional leaders.
  - Reference Level: The reference period for the construction of the reference level is from 2005-2014.
  - Four main drivers of deforestation were identified:
    - Uncontrolled agricultural expansion at the expense of forests;
    - Overharvesting and illegal harvesting of wood;
    - Population and development pressure;
    - Mining and mineral exploitation
- The following GHG sources, sinks and/or reservoirs:
  - Emissions from deforestation
  - Emissions from forest degradation
  - Removals from carbon stock enhancements
- The following Carbon pools:
  - Above Ground Biomass (AGB)
  - Below Ground Biomass (BGB)
  - Dead Wood
  - Litter
  - Soil Organic Carbon (SOC)
- The following types of GHGs:
  - CO<sub>2</sub>
- The following time period:
  - Reporting period: 01-January-2020 to 31-December-2021

## Audit Criteria

The criteria for the assessment are as follows:

- FCPF Process Guidelines, Version 5.3

- FCPF Validation and Verification Guidelines, Version 2.5
- FCPF Methodological Framework (MF), Version 3
- FCPF Glossary of Terms, Version 2.2
- FCPF Buffer Guidelines, Version 3.1
- 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
- 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
- FCPF Guidelines on the application of the MF Number 3, On the definition of reporting periods of Emission Reduction Programs, Version 1
- FCPF Guidelines on the application of the MF Number 4, On Uncertainty Analysis of Emission Reductions, Version 1
- Process Guidelines:
  - ISO 14064-3:2006
  - ISO 14065:2013
  - ISO 14066: 2011
  - IAF MD 6:2014

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

- 2006 IPCC Guidelines
- 2013 IPCC Wetlands Supplement
- 2019 Refinement to the 2006 IPCC Guidelines
- GFOI 2020 Methods and Guidance Document
- FCPF Guidance note on accounting of legacy emissions and removals
- FCPF Guidance note on estimating uncertainty of ERs using Monte Carlo simulation, Version 1.0
- ER Monitoring Report Template, Version 2.5

## Level of Assurance

A reasonable level of assurance will be used for the assessment of the work described in this plan with respect to material misstatements, omissions, or errors.

## Treatment of Materiality

Where one or more discrepancies are identified during the course of assessment activities, the following criteria will be used to determine whether said discrepancies are material:

- Qualitative and quantitative materiality refers to “errors”, “omission” and “misrepresentation” that either individually or in the aggregate form affect the GHG assertion.
- Where the methodology used in production of the ER Monitoring Report (ER-MR) does not follow the FCPF Methodological Framework and applicable guidelines assessed by the audit team, a discrepancy between the output produced by the audit team and the information reported in the ER-MR will likely result, and any such discrepancies will be evaluated for materiality according to the following criteria:

- The threshold for quantitative materiality concerning the aggregate of misstatements, errors or omissions relative to the total reported GHG emissions and removals or emission reductions shall be 1%.
- Qualitative issues related to management system and controls, poorly managed documentation, and non-compliance with the applicable requirements of the Methodological Framework and other applicable criteria.
- Any errors in the reporting of factual information in the ER Monitoring Report will be considered material if the incorrectly reported information is directly or indirectly required to be reported by the FCPF Methodological Framework.
- A 1% materiality threshold applies to any over-estimation of Reference Level and ER.<sup>2</sup> Under-estimation of the Reference Level or Emission Reductions will not be considered a material discrepancy.

Any discrepancies identified as material through application of the above criteria will be treated as non-conformities in the assessment process. Any discrepancies not identified as material through application of the above criteria will inherently be considered immaterial. It is possible that discrepancies may be identified that do not need to be corrected immediately but that will require corrective action or mitigation at some later time. Under this situation, a special type of finding, termed an Observation, will be issued by SCS (see “Description of SCS’ Findings Process,” below, for more information).

## Proposed Types of Document and Data Reviews

The planned assessment services will be performed through a combination of data and document review, interviews with relevant personnel, and on-site inspections.

### Project Kickoff

The assessment process began with a “kickoff call” or conference call. This meeting is an opportunity for introductions as well as a chance to ensure that all parties involved are fully informed regarding the basic parameters of the assessment engagement (e.g., scope, criteria, materiality threshold, level of assurance) and to clarify expectations regarding the assessment timeline.

## Document Review and Desk Review Findings

Upon receipt of relevant project documentation, including the ER Monitoring Report, a document review will take place. During this phase of the assessment, the audit team will likely request additional documentation and information to support this review. The objectives of the document review are as follows:

- Assess conformance for any requirements against which it is possible to check conformance as a desk-based exercise, and:
  - Where conformance is confirmed, document such in the assessment checklist
  - Where clear evidence of nonconformance is identified, document such in the assessment findings (see below)

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<sup>2</sup> The materiality analysis will be carried out by first calculating the difference between the reported Reference Level Emissions and the assessment team’s calculation of the same quantity, and then dividing by the reported Reference Level Emissions. If the resulting quantity is greater than 1.00%, the discrepancy is considered material. Otherwise, the discrepancy is not considered material. Under-estimation of the Reference Level Emissions will not be considered a material discrepancy.

- Where more information is needed to clarify whether conformance has been attained, the following options may be taken:
  - Issue a finding (see below)
  - Follow up with a more in-depth investigation during subsequent meeting(s) and/or the site visit
- Identify any circumstances that would threaten the integrity of the planned site visit

The outcomes of the document review are the following:

- A round or more of “desk review findings,” highlighting any clearly identified areas of nonconformance or formally identifying any areas in which additional information is required in order to assess conformance.
- It is important to note that one possible outcome of the document review is that the assessment team determines that the ER Program is not yet ready for the site visit. In such cases, the assessment team would have identified “red flags” which would lead them to determine that the site visit would be premature. Should this situation arise, the assessment team would promptly alert the FMT team in the World Bank Group of the “red flag” issues and work with them to develop an appropriate course of action. Examples of issues that could preclude a site visit are as follows:
  - Documents submitted by ER Program personnel contain non-conformances of a nature that indicate potential ER Program-wide deficiencies or areas of significant risk.
  - Documents submitted by ER Program personnel contain significant areas of incomplete information.
  - Documents submitted by ER Program personnel fail to meet professional standards (e.g., poor/unclear organization, writing or translation).

## Office Meetings

The office meeting(s) will consist of program personnel being invited to explain various elements of the ER Monitoring Report and to demonstrate to the assessment team the way in which the assessment criteria have been met. The assessment team will work with personnel being interviewed to identify means of independent confirmation of important assertions (in a manner that does not jeopardize the independence of the assessment engagement).<sup>3F3</sup> This process will proceed most smoothly when personnel being interviewed are ready to actively engage with the assessment team to provide the requested information. In this sense, personnel being interviewed are invited to work collaboratively with the assessment team to demonstrate, based upon the agreed upon level of assurance, that the criteria requirements have been complied with and that the ER Monitoring Report is free from material discrepancy.

## Site Visit

The planning of a site visit is to be determined. Activities are likely to include: interviews, reviewing records, viewing data/model demonstrations, visiting areas of interest, and witnessing data collection procedures at random inventory locations.

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<sup>3</sup> For example, if it is asserted that certain emissions data originated from a certain government agency, the assessment team may request assistance in making independent contact with said agency.

In planning for the site visit, the assessment team may require different types of assistance as part of this process, including the following:

- Logistical assistance (e.g., transportation, locating safe food and drinking water, and securing safe lodging).
- The Ghana team is expected to play an active role in carrying out all preparations and providing all necessary assistance to ensure (to the extent possible) the success of interviews with the program personnel and corresponding stakeholders.
- The Ghana designated staff is expected to be available to guide the audit team to locations of interest and to introduce community members and/or other stakeholders, as directed by the audit team, and to provide other appropriate assistance in a cooperative manner.
- The Ghana staff, at the request of the audit team, are expected to kindly provide the audit team with privacy when interviews are conducted.
- The audit team will not discuss the content of any specific interview with the project personnel. The project team members must be respectful and understanding about this.
- The proposed schedule may be modified, with the consent of the project team personnel and the audit team, during the audit, depending on weather conditions, travel logistics, important issues identified on site, etc. The timetable may also be modified at the request of the audit team, if necessary.
- The audit team will be accompanied by the Ghana staff who have in-depth knowledge of the program, and the different components of the FCPF verification assessment. Support can be in the office or in the field.

## Site Visit Findings

A round of findings, termed the “site visit findings” will be issued after the site visit. In conjunction with the desk review findings, the site visit findings constitute the comprehensive listing of all outstanding issues that have been identified as part of the assessment process. It is anticipated that site visit findings will be issued within approximately one to two weeks after the end of the site visit.

## Report Writing

In the Verification report, the assessment team will document how conformance with the criteria has been assessed. The report will be supported with the assessment checklist.

## Technical Review

An independent technical review will be carried out. This technical review is not intended to be a second iteration of the assessment process, but emphasizes review of the assessment team’s activities, findings, conclusions, as well as a review of the Verification report. While the review is targeted more at review of the assessment documentation than the ER Monitoring Report, it is always possible that additional discrepancies could come to light during the technical review, which may result in issuance of new findings.

## Release of Report

Once the technical reviewer has signed off on the Verification report, the draft reports will be submitted to the FMT in the World Bank Group. SCS will modify the draft reports based on feedback from the FMT and will then submit final report. A videoconference with FMT to discuss the assessment findings will also take place at this time.



## Description of SCS' Findings Process

### Findings Overview

Findings are the formal mechanism used by SCS to either (a) require corrective action, (b) request additional information, analysis or justification or (c) identify areas of risk or concern. Findings will be issued against the relevant text of the assessment criteria (not necessarily against the specific language of the applicable indicator in the assessment checklist); any additional good practice guidance will also be cited.

The findings will be issued to the ER Program personnel in an editable word document, termed the Findings Presentation Document. This gives the ER Program personnel the opportunity to respond to the findings and allows for efficient and transparent tracking of the current status of each finding. With each round of findings, the assessment team will typically go over the findings via conference call or webinar with the entity being assessed to ensure that the findings are understood, if needed.

Throughout the engagement, SCS strives to keep the ER Program personnel informed of the findings and potential findings as soon as any issue arises. This can be done by phone, e-mail, or virtual communication (e.g. Microsoft Teams, Skype, Zoom), but should be documented by sending an updated version of the Findings Presentation Workbook. The assessment team will also communicate the potential impact of material findings to the ER Program personnel. The ER Program personnel will be given a deadline, based on the agreed upon Gantt chart, for providing a written response. After the response is received, the assessment team will evaluate the submission and determine if adequate information has been provided to correct the non-conformity or if additional findings should be issued.

In special cases, findings may be withdrawn if the assessment team finds that the finding itself is no longer relevant.

Certain circumstances may arise under which the steps set out below (report writing, technical review and release of the Verification report) will be completed even though open findings persist.

Potential triggers for issuance of the Verification report while findings are open are as follows:

- The assessment team receives communication from the World Bank Group and/or the Program Entity indicating a decision not to respond (or respond further, in the case that a response has already been provided) to one or more open findings.
- It is the judgment of the assessment team, in consultation with other parties to the process, that closure of one or more findings would be infeasible, given the time and resources available to the ER Program personnel.
- One or more findings remain open and the time required for issuance and review of responses to findings exceeds the number of days set out in SCS' financial proposal.

Should this situation arise, SCS will consult with the World Bank Group and the Program Entity regarding whether to proceed with issuance of the report.<sup>4</sup>

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<sup>4</sup> However, SCS reserves the right to proceed with issuance of the Verification report while findings are open at its sole discretion.

When the Verification report is issued while findings are open, any outstanding issues will be detailed in a designated section entitled “Potential or Actual Areas of Risk or Concern.” Here, the assessment team will document conclusions as they relate to any unresolved findings. This section can be considered a summary description of areas of potential opportunity for improvement as well as areas of current non-conformance or potential risk of non-conformance in the future.

## **Categorization of Assessment Findings**

The following discusses the types of findings that may arise from the assessment process.

### **MINOR Corrective Action Request (mCARs)**

A MINOR Corrective Action Request (mCAR) will be issued when the assessment team determines that they have not been furnished with sufficient 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

After the response is received, the assessment team will evaluate the submission and determine if adequate information has been provided or if additional findings (MCAR, mCAR, OBS) should be issued.

### **MAJOR Corrective Action Request (MCARs)**

A MAJOR Corrective Action Request (MCAR) will be issued when the assessment team has identified:

- 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 estimates<sup>26</sup> are not supported by data
- Material errors, omissions or misstatements have been made in applying assumptions, in data or calculations
- Non-compliance with Verification criteria
- The REDD+ Country Participant has failed to implement or made inadequate progress with the mCARs from the previous verification

Closure of an MCAR requires that the assessment team be provided with evidence that the underlying issue resulting in issuance of the MCAR has been duly addressed. While SCS' Auditor Code of Conduct precludes consulting as to how to address non-conformities, the assessment team is encouraged to provide a thorough explanation of the basis of any non-conformities or material discrepancies observed, including a detailed explanation regarding (1) the nature of any discrepancies observed and/or (2) how applicable requirements have not been complied with.

### **Observations (OBSs)**

An observation (OBS) will be issued when:

- There is no objective evidence to prove that there is a non-conformity, but the VVB observes practices and/or methods that could result in future MCAR and mCAR
- The VVB wishes to identify 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.

## Audit Team

The following audit team has been assembled to provide the audit services described in this plan:

- Lead Auditor: Vanessa S. Mascorro
- Auditor: Raleigh Ricart
- Auditor: Erynn Maynard-Bean
- Technical Expert: Kenneth Zame
- Internal Technical Reviewer: Alexa Dugan

## Dates of Substantive Meetings, Interviews and/or Site Visits

The planned meetings, interviews and/or site visits are listed in the table below. Meetings and interviews to be conducted remotely (via information and communication technology, ICT) during this assessment are considered sufficiently effective in achieving the applicable audit/assessment objectives.

Date(s)	Attendees	Purpose	Location
25 Jul 2023	World Bank Group, World Bank FMT, Ghana Program Participants, SCS team	Kick-off call	Microsoft Teams
TBD	World Bank Group, World Bank FMT, Ghana Program Participants, SCS team	Site Visit preparation call	Microsoft Teams
25-29 Sep	World Bank Group, World Bank FMT, Ghana Program Participants, SCS team	Site Visit	On-site
29 Sep 2023	World Bank Group, World Bank FMT, Ghana Program Participants, SCS team	Uncertainty call	Mixed mode, on-site & Microsoft Teams

## Meeting and/or Site Visit Agendas

Note: The timing of the activities described below may be adjusted, as necessary and/or convenient and subject to the mutual consent of program personnel and the audit team, so long as it is possible to accomplish all activities during the site visit. Access arrangements shall be confirmed by the client.

### Monitoring Period No 2 – Site Visit Agenda

<p style="text-align: center;">Site Visit from 26 Sep – 29 Sep                      Venue: Ghana’s Forestry Commission Office (Accra)                      Reporting Period: (01-01-2020 to 31-12-2021)</p>	
<p>Tuesday Sep 26 8 am</p> <p>10:30</p> <p>1 -2 pm</p> <p>4pm</p>	<p>Site Visit commencement</p> <ul style="list-style-type: none"> <li>■ Opening Meeting @ the main offices in Accra                             <ul style="list-style-type: none"> <li>▪ Introductions</li> <li>▪ Overview of the site visit objectives</li> <li>▪ Review safety protocols</li> </ul> </li> <li>■ Ghana team to provide overview about the main actions and interventions undertaken on the GCFRP during this monitoring period.</li> <li>■ Ghana team to provide an overview about the monitoring methods and arrangements in place to ensure consistency with the RL.</li> <li>■ 15 min break</li> <li>■ Ghana team to provide overview about implemented strategies to mitigate and/or minimize potential Displacement over the monitoring period.</li> <li>■ Ghana team to provide overview about implemented actions and strategies to mitigate, the risks of Reversals identified in the assessment</li> <li>■ Ghana team to discuss their registry system in place and how they avoid multiple claims of ERs.</li> <li>■ Ghana team to provide overview about their Satellite land monitoring system (SLMS) and their quantification process of deforestation &amp; degradation for this monitoring period.</li> <li>■ Lunch</li> <li>■ Ghana team to demonstrate the process of visual interpretation of selected plots on Collect Earth (the plots selected will be provided during the site visit). Review location, the classification</li> <li>■ Demonstrate the software used for the data collection and how to ensure the data management and storage</li> <li>■ Demonstrate quality management &amp; quality control practices</li> <li>■ Ghana team to walk us through the ERs quantification process of the MR on the excel spreadsheets.</li> <li>■ Interview with COCOBOD stakeholder about relevant data on activities being undertaken in cocoa farms</li> <li>■ End of day debrief</li> <li>■ Review plan for day 2 and coordinate logistics – food, water, transportation</li> <li>■ Return to hotel</li> </ul>
<p>Sep 27 7am</p>	<ul style="list-style-type: none"> <li>■ Field Site Tour</li> <li>■ Travel to Kakum HIA Plantation areas</li> <li>■ Interview with delegates from the Forestry Commission that have participated in the MR implementation.                             <ul style="list-style-type: none"> <li>▪ Interviews with the Ghana team on route</li> </ul> </li> <li>■ Ghana team to demonstrate plantation areas and actions implemented over the monitoring period over the Kakum HIA                             <ul style="list-style-type: none"> <li>▪ Provide evidence of planted species, survival rate, number of plants (contracts, agreements, etc)</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>■ Interview farmers participating in the implementation activities of the program (2 men, 2 women)</li> <li>■ Sleep over in Kakum (Ghana team to provide recommendations regarding accommodation in Kakum)</li> </ul>
Sep 28 7am	<ul style="list-style-type: none"> <li>■ Field Site Tour Travel to plot (staff who actually performed the inventory to be present for this part)</li> <li>■ Site reconnaissance</li> <li>■ Ghana team to demonstrate their field inventory process (field crew)                             <ul style="list-style-type: none"> <li>▪ Find plot center</li> <li>▪ Establish plot margins</li> <li>▪ Wrap tres</li> <li>▪ Measure heights, DBHs, deadwood, etc</li> </ul> </li> <li>■ Travel to another Plantation site</li> <li>■ Ghana team to demonstrate plantation areas and actions implemented over the monitoring period                             <ul style="list-style-type: none"> <li>▪ Provide evidence of planted species, survival rate, number of plants (contracts, agreements, etc)</li> </ul> </li> <li>■ Resume day</li> <li>■ Return to Kakum accomodations</li> </ul>
Sep 29 7am	<ul style="list-style-type: none"> <li>■ Day 4 will be flexible. If we decide we need to see more in the field we will review any outstanding items.</li> <li>■ Visit to confirm a land cover point that was suggested</li> <li>■ Return to Accra</li> <li>■ Uncertainty zoom call</li> <li>■ Closing meeting</li> </ul>

### Client/Responsible Party Contact

<b>Name of Client or Responsible Party</b>	Ghana Cocoa Forest REDD+ Program (GCFRP)
<b>Responsible Party</b>	Thomas Y. Gyambrah, Manager, Programs & MRV Forestry Commission of Ghana
<b>Contact Information</b>	<a href="mailto:nanayaw239@yahoo.com">nanayaw239@yahoo.com</a>

### Audit Schedule

An indicative schedule for the audit, based on the best knowledge currently available to the audit team, is included below. This timetable is subject to updates during the audit process, and such updates will be provided directly to project personnel via email.

Milestone	Start Date	End Date
Kick Off Call	Tuesday, July 25, 2023	Tuesday, July 25, 2023



SCS Risk Assessment & Sampling Plan	Tuesday, August 01, 2023	Tuesday, August 15, 2023
SCS Shares Audit Plan	Wednesday, August 23, 2023	Wednesday, August 23, 2023
SCS Data, Document Review & Site Visit Prep	Thursday, August 24, 2023	Friday, September 22, 2023
Site Visit	Tuesday, September 26, 2023	Friday, September 29, 2023
SCS Data Review and Preparation of Findings	Monday, October 02, 2023	Monday, October 30, 2023
SCS Issuance of Findings R1	Tuesday, October 31, 2023	Tuesday, October 31, 2023
Client Response to Findings R1	Wednesday, November 01, 2023	Wednesday, December 06, 2023
SCS Review of Responses to Findings R1	Thursday, December 07, 2023	Tuesday, January 09, 2024
Client Response to Findings R2	Wednesday, January 10, 2024	Friday, January 26, 2024
SCS Review of Responses to Findings R2	Friday, January 26, 2024	Tuesday, February 06, 2024
Client Response to Findings R3	Tuesday, February 06, 2024	Tuesday, February 20, 2024
SCS Review & Closure of All Findings	Tuesday, February 20, 2024	Wednesday, February 21, 2024
SCS Report Writing	Wednesday, February 21, 2024	Friday, March 01, 2024
SCS Technical Review	Monday, March 11, 2024	Monday, March 25, 2024
SCS Issuance of Draft Report	Monday, March 25, 2024	Monday, March 25, 2024
Client Response to Draft Report	Monday, March 25, 2024	Friday, March 29, 2024
SCS Issuance of Final Report	Monday, April 01, 2024	Monday, April 01, 2024
Closing Meeting	Friday, April 05, 2024	Friday, April 05, 2024

# Verification Report Template

