VCS VERIFICATION REPORT OF THE REFORESTATION OF DEGRADED FOREST RESERVES IN GHANA

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Summary:

AENOR Internacional S.A.U (AENOR) has carried out the fifth VCS verification of The Reforestation of Degraded Forest Reserves in Ghana Project. The objective of the project is to carry out reforestation of 20,000 hectares in degraded forest reserves located in Ghana. The initial project commenced on 1st March 2008, and, as of 31 July 2023, has resulted in the reforestation of 1,373 hectares in the Asubima Forest Reserve (Akumadan). This constitutes the first project instance of the grouped project. The second instance of the grouped project started on 1st March 2011, resulting in the reforestation of 1,802 hectares in Afrensu Brohuma Forest Reserve (Akumadan). The third instance of the grouped project commenced on 1st March 2013, and 8,798 hectares have been planted in the Tain II Forest reserve (Berekum). No new project areas have been established. No new instances were added to the project in this monitoring period.

The project was developed to conform to the Verified Carbon Standard (VCS, Version 4.4).

During the monitoring period a total of 419,424 tCO2 GHG emission removals have been generated.

The project start date and implementation date is 1 March 2008 and will be operational until 1 March 2048 (40 years length). The emissions reduction for the current monitoring period (01-August-2021 - 31-July-2023) is 419,424 tCO2e. After NPRR discount, the amount of ERs to be allocated in the buffer pool is 41,942tCO2e. Therefore, the total VCUs to be issued in the current MR are: 377,481VCUs.

The purpose of the verification was to determine the conformance of the project with respect to the VCS Standard v4.4. Furthermore, the assessment of the ex-post monitored anthropogenic GHG emissions reductions and/or removals that have occurred because of the project's activities. The

scope of the verification was to assess the conformance of the validated project, once implemented, with the VCS requirements and requirements in the validated PD /133/.

The verification consisted of the following three phases to confirm that the monitoring report meets the stated requirements and identified criteria:

- A desk review of the project monitoring report (MR) /2/ and monitoring plan implementation
- Follow-up interviews with project stakeholders with an on-site visit as well as a review of project activities
- The resolution of outstanding issues and internal technical review, followed by the issuance of the final verification report and opinion.

This is the fifth verification event, corresponding to the monitoring period from 01 August 2021 to 31 July 2023.

During the verification event, 4 CL and 7 CAR were reported. All these issues raised during the verification process where appropriately closed by means of corrections, clearer explanations, and other supporting documents.

The purpose of the visit assessment (see Sections 2.3 and 2.4 of this verification report for more information) was to determine the conformance of the project with respect to the VCS Version 4.4 Standard; The field visit took place from the 4th of September 2023 to 7th of September of 2023, in which the auditor visited the project area, interviewed key stakeholders, staff and other related experts, and reviewed the VCS-MR /2/ and supporting documents. The scope of the verification was to assess the conformance of information in the project design document with the VCS standards.

Hence, once all issues detected were appropriately solved, AENOR carried out a final verification report and deemed with a reasonable level of assurance that the project complies with all of the verification criteria for VCS. The assessment team has no restrictions or uncertainties with respect to the compliance of the project with the verification criteria. Hence, the audit team concludes that the net GHG emissions reductions or removals for the lands included in the project boundary at the verification stage have been quantified under VCS rules.

The GHG emission reductions were calculated on the basis of The CDM consolidated methodology AR-ACM0003: Afforestation and reforestation of lands except wetlands --- Version 02.0, and the monitoring plan included in the validated PD /133/.

The AENOR verification team assessed the calculations and can confirm that the GHG emission reductions during the monitoring period amount 419,424 tCO2e (without discounting buffer emissions) for the whole crediting period. AENOR's verification team can confirm that the project is well managed and that results are well supported. Monitoring plans are effective, and the project proponent has developed enough procedures and tools to collect data. A buffer discount rate of 10% was applied, resulting 377,481 VCUs eligible for issuance.

1 Introduction 5

1.1 Objective ... 5

1.2 Scope and Criteria ... 5

1.3 Level of Assurance ... 5

1.4 Summary Description of the Project ... 6

2 Verification Process 7

2.1 Method and Criteria ... 7

2.2 Document Review ... 8

2.3 Interviews ... 9

2.4 Site Visits ... 15

2.5 Resolution of Findings ... 18

2.5.1 Forward Action Requests 18

2.6 Eligibility for Validation Activities ... 18

3 Validation Findings 19

3.1 Participation under Other GHG Programs ... 19

3.2 Methodology Deviations ... 19

3.3 Project Description Deviations ... 19

3.4 Grouped Project ... 19

4 Verification Findings 20

4.1 Project Implementation Status ... 20

4.2 Safeguards ... 23

4.2.1 No Net Harm 23

4.2.2 Local Stakeholder Consultation 23

4.3 AFOLU-Specific Safeguards ... 27

4.4 Accuracy of GHG Emission Reduction and Removal Calculations ... 28

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals ... 44

4.6 Non-Permanence Risk Analysis ... 46

5 Verification OPINION 50

APPENDIX 1: LIST OF EVIDENCE ASSESSED 52

APPENDiX 2: CORRECTIVE ACTION AND CLARIFICATION REQUESTS 56

APPENDIX 3: ATTENDANCE SHEET 84

1 INTRODUCTION

1.1 Objective

The objective of the verification audit was to conduct an independent assessment of the project to determine the following:

- The extent to which methods and procedures, including monitoring procedures, have been implemented in accordance with the validated project description (PD) /133/, including the monitoring plan.
- The extent to which GHG emission reductions and removals reported in the monitoring report is materially accurate.

1.2 Scope and Criteria

Verification Scope: The scope of the verification audit is to verify the emissions reductions and/or removals of the project against the Verified Carbon Standard, the identified methodology and the validated PD/133/ throughout the monitoring period from 01-August-2021 to 31-July-2023.

These audit's objectives included verifying the project's calculated reductions with the Verified Carbon Standard requirements and any additional requirements of VCS AFOLU projects. In addition, the audit assessed the project with respect to the validated baseline scenarios presented in the PD/133/.

The scope of the verification included the review of the GHG project and implementation; physical infrastructure, activities, technologies and processes of the GHG project; GHG sources, sinks and/or reservoirs; types of GHG's; and time periods covered.

Criteria: The verification assessment was performed in accordance with the requirements detailed in section 4 of the VCS standard, including the following documents:

- VCS Program Guide, v4.2
- VCS Standard, v4.4
- VCS Program Definitions, v4.2
- AFOLU Non-Permanence Risk Tool, v4.0

Unless otherwise indicated, the assessment was performed against the most recent version of the relevant VCS guidance document.

1.3 Level of Assurance

The assessment was conducted to provide a reasonable level of assurance of conformance against the defined audit criteria and materiality thresholds within the audit scope. Based on the audit findings, a positive evaluation statement reasonably assures that the project GHG assertion is materially correct and is a fair representation of the GHG data and information.

The threshold for materiality with respect to the aggregate of errors, omissions, and misrepresentations relative to the total reported GHG emission reductions/removals was five percent (5%), as established for projects by the VCS Standard.

All the revisions of the verification report before being submitted to the client were subjected to an independent internal technical review to confirm that all verification activities had been completed according to the pertinent AENOR instructions required. The technical review was performed by a technical reviewer(s) qualified in accordance with AENOR´s qualification scheme for VCS validation and verification.

1.4 Summary Description of the Project

The objective of the project is to carry out reforestation of 20,000 hectares in degraded forest reserves located in Ghana. Relevant implementations dates: The initial project commenced on 1st March 2008, and, as of 31 July 2023, has resulted in the reforestation of 1,373 hectares in the Asubima Forest Reserve (Akumadan). This constitutes the first project instance of the grouped project. The second instance of the grouped project started on 1st March 2011, resulting in the reforestation of 1,802 hectares in Afrensu Brohuma Forest Reserve (Akumadan). The third instance of the grouped project commenced on 1st March 2013, and 8,798 hectares have been planted in the Tain II Forest reserve (Berekum). No new project areas have been established. No new instances were added to the project in this monitoring period. The newly planted areas are part of the existing TAIN II instance and presented in Table 1: Summary of activities in the monitoring period.

During the monitoring period a total of 419,424t CO2 GHG emission removals have been generated.

Main changes compared to the previous monitoring period: During the current monitoring period, newly planted areas in the Asubima (Akumadan) and Tain II (Berekum) Reserves have been established. At the time of data collection (January to May 2023) for this monitoring report, the 2023 planting season had not been completed and hence the 2023 planted areas were not yet consolidated. Nonetheless, no new areas have been established in other regions of the project area. Routine management operations, such as pruning, thinning, and forest protection, have been performed while systematically monitoring the potential risks through the monitoring system as specified in the Project Description Document.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The project was assessed for conformance to the criteria described in Section 1.2 of this report. The verification was performed through a combination of document review, interviews and communications with relevant personnel and on-site inspections. As discussed in this report, findings were issued to ensure that the project fully met all VCS requirements.

AENOR carried out this verification report and deems with a reasonable level of assurance that the project complies with all of the verification criteria.

A project specific Verification and Sampling Plan was developed to guide the verification auditing process to ensure efficiency and effectiveness. The purpose of the Verification and Sampling Plan was to present a risk assessment for determining the nature and extent of verification procedures necessary to ensure the risk of auditing error was reduced to a reasonable level. The Verification & Sampling Plan methodology was derived from all items in our verification process stated above. Specifically, the sampling plan utilized the VCS guidance documents and ISO 14064-3. Any modifications applied to the Verification and Sampling plan were made based upon the conditions observed for monitoring in order to detect the processes with highest risk of material discrepancy.

The verification has been performed through an in-depth desk review, a site visit to the project, interviews with local stakeholders, and interviews with relevant personnel responsible for monitoring. The verification activities in which risks were assessed were the evaluations of the monitoring system (data flow, data control procedures, etc.) but mainly the quality of raw data as well as sources and the spreadsheet calculations.

AENOR reproduced and verified 100% of sheets in the spreadsheet of emission reduction calculations /38-40-63-73-74-75-76/, and the data calculations carried out in those sheets for the project area for the monitoring period 1 August 2021 to 31 July 2023. The project area was 100% checked using the GIS database and shape files /106-110//112-117/. The carbon calculations were also 100% verified and cross-checked with validated values and the raw data /73-76/

AENOR decided to carry out an in-depth and meticulous review of the sheets due to verify the correct application of the AR-ACM0003 methodology (formulae, equations.) and check that data required to calculate the GHG removals are appropriately provided. AENOR checked the calculations together with the methodology and applicable tools.

Based on the assessment carried out, AENOR confirms with a reasonable level of assurance that the claimed emission reductions are free from material errors, omissions or misstatements.

In addition, AENOR confirms that sufficient evidence was presented for the reported net anthropogenic GHG emission reductions and that there is a clear audit trail that contains the evidence and records that validate the stated figure in this verification report since:

- Sufficient evidence available: The project participant has provided the 100% of the data used in the calculations to achieve the final amount of GHG emission reductions reported.

- Nature of evidence: The raw data were collected from reliable sources. They are detailed in the project documents and have been provided to the verification team, and the most relevant ones are appropriately detailed in Appendix 1.

AENOR cross-checked the collected information through an on-site inspection of the project area and reproducing calculations (more information in Sections 2.3 and 2.4 of this verification report). Hence, AENOR confirms that the stated figures in the monitoring report are correct and can certify net anthropogenic GHG removals based on verifiable and reliable evidence.

2.2 Document Review

A detailed review of all project documentation was conducted to ensure consistency with, and identify any deviation from, VCS program requirements, the Methodology (The CDM consolidated methodology AR-ACM0003: Afforestation and reforestation of lands except wetlands --- Version 02.0), and the validated PD /133/.

Initial review focused on the Monitoring Report (MR) /2/ and included an examination of the project details, implementation status, data and parameters, and quantification of GHG emission reductions and removals. Documents reviewed included data from monitoring, carbon rights contracts, forest management plans /122-123/, maps and, monitoring and grievance SOPs /13/, biomass and carbon calculation spreadsheets /40/, and responses to Corrective Action Requests (CARs) and Clarifications (CLs).

Modifications to the Verification and Sampling plan were made based upon the conditions observed for monitoring in order to detect the processes with highest risk of material discrepancy.

The VCS AFOLU Non-Permanence Risk Tool was used by the Project Proponent to assess overall project risk. AENOR reviewed the Non-Permanence Risk Report /3/ provided with the verification supporting documentation and confirmed that the Project adheres to the requirements set out in the VCS AFOLU Non-Permanence Risk Tool. Each risk factor was thoroughly assessed for conformance. The final score was calculated to be 10%.

For a listing of all documents received from the client for this verification, please see Appendix 1.

2.3 Interviews

The AENOR verification team conducted on-site interviews to confirm selected information and resolve issues identified in the document review.

The interview and the identifying process are explained as follows. AENOR carried out a completed and accurate interview process on several dates.

Weeks before the start of the on-site audit visit in the project area, AENOR's audit team reached the Project Proponent team to let them know the audit team's preferences regarding the stakeholder groups to be interviewed to guarantee confidence, representativeness, and impartiality, based on the information collected from the Stakeholder Consultation Process and a requested list of community stakeholders.

The people interviewed by AENOR were the following:

NAME	ROLE/PROFFESSION	Date
William FOURIE	CEO FORM GHANA	04/09/2023
MATTHEW FSSUMAN	COMMERCIAL MANAGER FG	04/09/2023
Ciska TERBLANCHE	CMO-DOCUMENTATOR	04/09/2023
AMUALCO ALEXANDE	HARVESTING & TECHNICAL MANAGER	04/09/2023
ONTRANEYIN PAUL	ENVIRONMENTAL & SOCIAL MANAGER	04/09/2023
PHILIP A. GALLEY	MONITORING SUPERVISOR	04/09/2023
AUGUSTINE AFFUM	PLANTATION MANAGER	04/09/2023
FAUSTINA AOYEIWAA	MONITORING SUPERVISOR	04/09/2023
NANGWELLE PASCHAL	MONITORING WORKERS	04/09/2023
FORBER VERONICA	MONITORING WORKERS	04/09/2023
TANGKPAWA RANEONS	MONITORING WORKERS	04/09/2023
BAYAMPA SOLOMOR	MONITORING WORKERS	04/09/2023
NEEIRE VALENTINE	MONITORING WORKERS	04/09/2023
YAHAYA MOHAMMED	SECURITY MAN	04/09/2023
ERIC ANTUSI	SECURITY MAN	04/09/2023
MOHAMMED BUKARI	FARMING	05/09/2023
KOFI AMOAH	FARMING	05/09/2023
ADAM ALHASSAN	FARMING	05/09/2023
ABUBAKAR RAZAK	FARMING	05/09/2023
ZAGA JOHN	FARMING	05/09/2023
MOHAMMED ADONGO	FARMING	05/09/2023
MAHAMUDU DABARIGA	FARMING	05/09/2023
JOSEPH ADONGO	FARMING	05/09/2023
MEMUNATU DAARI	FARMING	05/09/2023
MEMUNA TAMPURI	FARMING /CHARCOAL BURNERS	05/09/2023
MARIAMA BAWA	FARMING /CHARCOAL BURNERS	05/09/2023

LUCY SEIDU	FARMING /CHARCOAL BURNERS	05/09/2023
SADINA NAABA	FARMING /CHARCOAL BURNERS	05/09/2023
BIMATA ABDUL-RAHMAN	FARMING /CHARCOAL BURNERS	05/09/2023
ZINATU NAKU	FARMING /CHARCOAL BURNERS	05/09/2023
AKOSUA ALI	FARMING /CHARCOAL BURNERS	05/09/2023
AYISHETU GIGIT	FARMING /CHARCOAL BURNERS	05/09/2023
ZENABU BAWA	FARMING /CHARCOAL BURNERS	05/09/2023
SAKINAFU AGUFU	FARMING /CHARCOAL BURNERS	05/09/2023
ALICE IBRAHIM	FARMING /CHARCOAL BURNERS	05/09/2023
SAMANA ADONGO	FARMING /CHARCOAL BURNERS	05/09/2023
ADARATU DRAMANI	APPRANTICE SEAMSTRESS	05/09/2023
SHERIFA ADAM	FARMING /CHARCOAL BURNERS	05/09/2023
SANATU FUSEINI	FARMING /CHARCOAL BURNERS	05/09/2023
ABUBAKARI EKIMATU	FARMING /CHARCOAL BURNERS	05/09/2023
ABUBAKARI HAMDIATU	FARMING /CHARCOAL BURNERS	05/09/2023
ASANA KARIMU	FARMING /CHARCOAL BURNERS	05/09/2023
MARIAMA KOJO	FARMING /CHARCOAL BURNERS	05/09/2023
AWABU ZAGBAN	FARMING /CHARCOAL BURNERS	05/09/2023
AMA MAJEWIM	FARMING /CHARCOAL BURNERS	05/09/2023
ADAM FATAWU	FARMING /CHARCOAL BURNERS	05/09/2023
ABU YALIMBIE	FARMING /CHARCOAL BURNERS	05/09/2023
ALHASSAN JOSEPH	FARMING /CHARCOAL BURNERS	05/09/2023
AMINA YAYA	FARMING /CHARCOAL BURNERS	05/09/2023
KARIM ADAM	FARMING /CHARCOAL BURNERS	05/09/2023
AKELIBONA JOSEPH	FARMING /CHARCOAL BURNERS	05/09/2023
OWUSU DANIEL	COORDINATING DIRECTOR DISTRICT ASSEMBLY GHANA	05/09/2023

ABDALLAH IBN ANASS	DEVELOPMENT PLANNING OFFICER DISTRICT ASSEMBLY	05/09/2023
ALBERT SEFA BURMPONG	DISTRICT CHIEF EXECUTIVE DISTRICT ASSEMBLY	05/09/2023
SOPHIA ANNORBAM-SARPEI	ASSISTANT DISTRICT MANAGER	05/09/2023
OLIVIA KUSI	ADMINISTRATIVE OFFICER	05/09/2023
SAMUEL AMEYAWO	FOREST RANGE MANAGER	05/09/2023
NAHA YABOAH-DARTAH 2	ACTING PRESIDENT,BEREKUM TRADITIONAL COUNCIL	05/09/2023
ALHASSAN AHMED SAAKAH	REGISTRAR OF THE TRADITIONAL COUNCIL	05/09/2023
AMOAKO ADAMS	HEAD OF ADMINISTRATION	05/09/2023
NANA BAAH BRENTU	KOFAA QUEENMOTHER	06/09/2023
NANA YAA FOWAAH	KOFAA CHIEF	06/09/2023
BAAH EMMANUEL	COMMITTEE SECRETARY	06/09/2023
KOJO MENSAH	COMMITTE MEMBER	06/09/2023
RICHARD OFORI	COMMITTE MEMBER	06/09/2023
ASARE EDWARD	COMMITTE MEMBER	06/09/2023
KWAME OKRAH	COMMITTE MEMBER	06/09/2023
OPPONG DAVID	COMMITTE MEMBER	06/09/2023
EVELYN AFFREH	ENVIROMENT & SOCIAL OFFICER	06/09/2023
THEOPHILUS NII L.AMARTEY	INTERCROPPING SUPERVISOR	06/09/2023
ZUOBAG EMMANUEL	INTERCROPPER	06/09/2023
ZAATOR BROH	INTERCROPPER	06/09/2023
GLADYS AGYEGIWE	INTERCROPPER	06/09/2023
JOSEPH ARODY ANSAH	CHIEF SECURITY OFFICER [FG]	06/09/2023
JOSEPH BOAMAH	SUPERVISOR SAMPLING	06/09/2023
AUGUSTINE .A. KYEREMEH	LEADER SAMPLING	06/09/2023
FRANK OFORI	MEMBER SAMPLING	06/09/2023

DOUGLAS OWUSU	MEMBER SAMPLING	06/09/2023
AUGUSTINA FRIMPOMA	MEMBER	06/09/2023
ZYNAIDA EFFAH	MEMBER	06/09/2023
OLIVER ASAMOAH BOTAY	G.I.S OFFICER	06/09/2023
OLIVER AGYEUIM BOATENG	G.I.S /OPS ROOM SUPERVISOR	06/09/2023

AENOR's audit team defined a preliminary questionnaire to complement and support the desk review process as a starting point to interview each one of the stakeholders on-site. This questionnaire considered Verified Carbon Standards (VCS) topics and Free, Prior and Informed Consent (FPIC) values based on the information compiled by AENOR's audit team about the project before the on-site visit, during the desk-review. A small sample of these questions has been included on the following page for clarification and transparency purposes. Moreover, and as stated below, AENOR's audit team used these questions for gathering purposes. Several new questions were sporadically and systematically included during on-site interviews, considering the direction in which discussions were directed and the topics that stakeholders wanted to discuss freely during the different moments of the interviews.

Some of the questions to the stakeholders, project employees and regional authorities were related to matters such as:

- How has the project area changed since the project start date?
- What activities were carried out in the project area before the project started? And now?
- Have there been any fires or pest outbreaks in the project area in the last years, during the monitoring period?
- Are you aware of illegal activity in the project area during the monitoring period?
- Have you participated in a participatory rural appraisal during the monitoring period? If so, could you describe it?
- Is there any reluctance or concern about the project implementation during the monitoring period?
- In your opinion, what are the main risks and benefits of the project during the monitoring period? Have the PP informed you of risks and benefits of the project during the monitoring period?
- Have you had any conflict, complaint or grievance related to the project during the monitoring period? Has it been solved? How? Are you aware of any grievance, conflict, or complaint from others due to the project?
- What are your channels of communication with the project staff?
- Do you have any suggestions for the project developer on how to improve the project?

- What do you know about the verification process and the audit team visit?
- How often do project personnel meet with the communities to discuss the project?
- Have you received any benefits from the project during the monitoring period? Have you been negatively affected by the project? Have you received any training?
- Have you noticed climate changes in the project area during the monitoring period? Does the project support you in adapting to climate change? Have you seen any native wild animals in the project area?
- What are your responsibilities as a project employee? Have you been provided with an employment contract? Were your employee rights and benefits explained? Do you think the hiring process treated and considered all people fairly, including women?
- Have you received any training as a project employee during the monitoring period?
- Does the project comply with local, regional and national laws and regulations? Do you know about any disputes over the boundaries of the project lands? Do you know if local communities freely consent to participate in the project?

However, during the process, some questions were updated based on the feedback acquired from local people to obtain as much information of the highest materiality and quality as possible. Some of these new related questions were strictly connected to the conversation the audit team had with each one of the interviewees.

Some of the questions directed to the Form Ghana staff were related to the following:

- Contracts,
- Ownership, project starting date,
- Activities carried out before the project started and the ones allowed nowadays inside the project area,
- Community involvement and their interconnections,
- Illegal activities,
- Fires, outbreaks, and forest diseases,
- Local stakeholder communication and meetings,
- Risks and benefits of the project,
- Others.

AENOR's audit team has attached the assistance sheets for all the on-site meetings in Appendix 3 of this report.

2.4 Site Visits

The objectives of the on-site inspections performed were mainly to cross check the description provided in the monitoring report /2/, related to the VCS requirement implemented by the proponent, including:

- Ensure that the geographic area of the project, as reported in the VCS-MR and the accompanying KML or SHP file /106-110/ /112-117/, is in conformance with Section 3.11.2 of the VCS Standard.
- Perform a risk-based review of the project area to ensure that the project conforms to all other requirements of the VCS rules and the methodology.
- Observe the Project Proponent's evidence and collect and record data in order to assess whether data collection techniques conform to the monitoring plan and related documentation and to evaluate data quality control systems.
- Select samples of data and information for verification in order to meet a reasonable level of assurance and to meet the materiality requirements of the project, as required by Section 4.1.8 of the VCS Standard.
- Perform a risk-based review of the project area to ensure that the project is in conformance with the eligibility requirements of the VCS rules and the applicability conditions of the methodology; and
- Interview local authorities to confirm that the project operates in accordance with current permits and authorizations and its relationship with local actors and communities.
- Interview the key personnel involved in each of the project activities, including local stakeholders and observe monitoring practices.

Additional to the site inspection, meetings via teleconferences were carried out with project representatives and personnel in charge of carrying out the calculations /40/, data processing /73/, and others.

The complete list of activities verified on-site, and the itinerary can be seen below.

	Location	Date
Arrival of the audit team to the country	Ghana	03-09-2023
Initial meeting: • Confirmation of activities during site visit • Presentation of PP members and audit team member to take part in the visit.	Project instances	04-09/2023
Comments and opinions about the project • Introduction about the project • Presentation of the area and the stakeholders • Property Rights • Status of project activities implementation • Monitoring activities on the field • Activities such as boreholes • Review of the procedures • SDGs achievement	Project instances	04-09-2023
Carbon calculation GIS Review	Project instances	04-09-2023
Field inventory monitoring and sampling: Akumadan • Teak -Akumadan – 1 • Indigenous – Akumadan -1	Project instances	05-09-2023
Stakeholder consultation: Akumadan • Dissemination of documentation • Meetings and stakeholder consultation. • Participation in consultation • Opinion from different stakeholders: Communities: • Akumadan: 3 individual interviews; 1 group interview Institutions: • Akumadan: 2 individual interviews	Project instances	05-09-2023

Other stakeholders: plantation security; FORM Ghana employees; others		
Field inventory monitoring and sampling: Berekum • Teak – Berekum – 6 • Gmelina -Berekum – 1 • Indigenous – Berekum – 6	Project instances	06-09-2023
Stakeholder consultation Berekum • Dissemination of documentation • Meetings and stakeholder consultation. • Participation in consultation • Opinion from different stakeholders: Communities: • Berekum: 4 individual interviews; 1 group interview Institutions: • Berekum: 2 individual interviews Other stakeholders: plantation security; FORM Ghana employees; others	Project instances	06-09-2023
Final meeting: Closure of the visit	Project instances	06-09-2023

2.5 Resolution of Findings

Findings established during the verification can be seen as a non-fulfilment of verification criteria or an identified risk to fulfilling the project objectives. The findings could take the form of a Corrective Action Request (CAR), Forward Action Request (FAR) or Clarification Request (CL).

A Corrective Action Request (CAR) shall be raised if one of the following situations occurs:

- Non-compliance with the program requirements or applied methodology is found in the project description and/or has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient.
- Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impact the number of emission reductions.

A Clarification Request (CL) shall be raised if the information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met.

A Forward Action Request (FAR) is issued for actions if the project implementation, monitoring and reporting require attention and/or adjustment for the following verification period.

As a result of this assessment, there 11 findings were found, four (4) Clarification Requests (CLs) and seven (7) Corrective Action Requests (CARs) in the verification process. CAR and CLs were closed based upon adequate responses from the project proponent, which meet the applicable requirements; findings were reassessed before their formal acceptance and closure. All results, including the issues raised, the responses from the project proponent and the conclusions, are contained in Appendix 2. All required changes are observable in the last MR Version /2/ and the relevant annexes.

Consequent to the resolution of findings, the AENOR auditor concluded that the MR /2/ is accurate and complete and provides an understanding of the nature of the project and the project's benefits on climate. In addition, the project proponent demonstrates how emission removals are reached, monitored and reported.

2.5.1 Forward Action Requests

No FARs were raised to the PP during the verification process. No FARs were raised during the previous verification process.

2.6 Eligibility for Validation Activities

AENOR has conducted the verification considering the paragraph 4.1.20 VCS standard. AENOR holds accreditation for validation and verification for the sectoral scope 14. Agriculture, Forestry, Land Use.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project was not validated under another GHG program; therefore, there are no Gap Validation findings to report. The Project Description was subject to validation under VCS Standard and was found to conform to the VCS requirements.

3.2 Methodology Deviations

No methodology deviations have been applied in the current monitoring report. The VVB has reviewed the Methodology and complementary tools and considers that they have been followed properly. Complementary, the VVB has reviewed the previous verification report approved by Verra.

After the assessment, the VVB considers that the information is correct and no methodology deviations were implemented,

3.3 Project Description Deviations

During the current Monitoring report, the project description deviation which was applied in the previous monitoring period is still being implemented. It was based in the method of calculating the AGB of indigenous trees and stands in the baseline calculations as well as the monitoring data was changed from the pantropical model to a model specific for tropical forest trees and stands in Ghana, as described by Aabeyir et al. (2020). The parameters in the Aabeyir et al (2020) model was estimated based on trees from stands with a similar species composition and similar climatic circumstances, they can be assumed to be more accurate to our data than the pantropical model used previously.

AENOR has reviewed the previous monitoring and verification report, both approved by Verra, and also reviewed the mentioned models to check the difference between them. The model used was contrasted with the spreadsheet and several technical meetings were used to better understand the differences between both models.

AENOR considers that the project description deviation, which was already validated and verified, is still being appropriate and justified. Therefore, the project and its project description deviation comply with the VCS rules. AENOR considers therefore that the deviation does not affect neither the applicability of the methodology, the additionality of the project nor the appropriateness of the baseline scenario.

3.4 Grouped Project

In the current monitoring period, no new instances were added to the project. Therefore, the most recent instances added to the project were validated in the previous verification event. These instances validated in the previous verification have been part of the newly planted areas.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

During the on-site visit, through observations of project activities and interviews with project personnel, the audit team confirmed that the project has been implemented throughout this monitoring period as it was described in the Monitoring Report /2/.

The monitoring report was cross-checked against the monitoring plan submitted in the PD /133/ to ensure compliance in terms of GHG emission reduction calculations as well as monitoring occurrences. AENOR also conducted on-site interviews to confirm that monitoring plans were implemented as described in the PD /133/ (see Sections 2.3 and 2.4 of this verification report for more information).

Section 1.11 of the MR describes the contribution to sustainable development of the project. The confirmation by AENOR's audit team was evaluated through the on-site visit and interviews with the project's technical team, relevant stakeholders and with the support of documents provided by PP (see Appendix 1 for more information about these documents). The project contributes to several nationally NDCs. The FORM Ghana project is committed to comply with the following SDGs:

SDG 13. Climate Action - Tonnes of greenhouse gas emissions avoided or removed, achieving 419,424 tCO2e emissions removals.

SDG 15. Life on Land - promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally by planting 338.15 hectares in the current MP.

Table 2. Sustainable Development Contributions, of the MR, describes the Net Impact on each SDG indicator, the current project contributions, and the contributions over project lifetime. The audit team visited the project area and interviewed several stakeholders, confirming not only through the reported evidence of the PP shared with the audit team, but by visual observation of each of other benefits.

Section 3.1 of the MR /2/ describes the implementation status of the project activity, referring to routine management activities, such as pruning, thinning, and forest preservation, have been performed as is the normal practice. The monitoring system defined in the PDD is utilized to systematically evaluate risks.

During this verification process, AENOR has not detected project changes with regards to the project title, its purposes, and objectives. As such, the project activity accurately reflects the proposed project which mainly consists of the removal of emissions from teak and other species in Ghana. Through on-site interviews with key staff, the auditor's team ratified the main objectives of the project activity.

Carbon pools addressed and emissions of non-CO2 GHGs are the same as those validated in the PD /133/. Leakage is considered and assessed, and the non-permanence risk report /3/ is also evaluated.

The audit team has clearly reviewed the spatial extent of the project, as the PP has facilitated AENOR an accurate monitoring, reporting and verification of GHG emission reductions and removals. As such, KML files with geodetic polygons has been shared to the audit team, including a precise delineation of project zones within the Form Ghana Project. These KML files has excluded non-eligible areas and areas not part of the project area, according to the methodology.

After the review of the MR /2/, spreadsheet calculations /40/, raw data /73/ and the other document to support calculations such as GIS information /106-110//112-117/, on-site interviews and others, AENOR deems that project status is in compliance with applicable methodologies and implementation is in support of the VCS principles of Conservativeness and Accuracy.

There is no evidence of double counting or that the Project has participated nor been rejected under any other GHG programs. GHG emission reductions or removals generated by the project are not included in an emission trading program or any other mechanism that includes GHG allowance trading. The project has not received or sought any other form of environmental credit.

AENOR checked the monitoring plan contained in the last validated PD /133/ and compared it with the monitoring report to verify whether there was any difference that would cause an increase in estimates of the GHG emission removals in the current monitoring period. AENOR has confirmed that there are no material discrepancies between the actual monitoring system, and the monitoring plan set out in the PD and the applied methodologies. Also, the project proponent effectively monitors the required parameters to determine the project's removals by sinks and emissions by sources as required by the monitoring plan and the applicable methodologies.

The parameters reported, including source, frequency and review criteria as indicated in the monitoring plan were verified to be correct and in line with the monitoring plan of the validated PD. Necessary management system procedures including responsibility and authority of monitoring activities have been verified to be consistent with the PD. Knowledge of personnel associated with the project activity was also found to be satisfactory.

Regarding leakage emission, they account 0. In this regard, AENOR has checked evidence provided which confirms the information included in the MR. Hence, after a complete review of the different documents provided and the interviews process, AENOR's audit team is able to confirm that the project implementation is in accordance with the updated version of the validated PD. There are no material discrepancies between project implementation and the project description.

Section 1.1 of the MR provides the following table regarding audit history:

Audit Type	Period	Program	VVB Name	Number of years
Validation	17-January-2013	VCS	SCS Global Services	N/A
Verification	01-March-2008- 01-August-2012	VCS	SCS Global Services	4 years 5 months

Verification	02-August-2012 - 01-April-2018	VCS	Rina Services SPA	5 years 8 months
Verification	02-April-2018 - 30-June-2019	VCS	Rina Services SPA	1 year 3 months
Verification	01-August-2019 - 31-July-2021	VCS	Rina Services SPA	2 years
Verification	01-August-2021 - 31-July-2023	VCS	AENOR	2 years
Total				**15 years 4 months**

AENOR reviewed the project in the Verra Registry: https://registry.verra.org/app/projectDetail/VCS/987 and also crosschecked previous MRs, Verification reports and PDDs to confirm that the length and duration of each period was correctly identified. Hence, AENOR confirms that the project has been implemented as described in the project description.

4.2 Safeguards

4.2.1 No Net Harm

Form Ghana confirms that there are no potential negative environmental and socio-economic impacts as a result of the project, considering the project activity, which are based on planting a new forest on a degraded land, as described under section 2.3 of the Monitoring report.

A comprehensive Socio-Economic Impact Assessment (SEIA) was undertaken for all project locations with the aim of integrating environmental and socio-economic components in management decisions at the earliest stages of the program. The SEIA has enabled the development of plans to mitigate negative effects and enhance positive effects on existing conditions. The SEIA has identified no major negative impacts of the proposed project. AENOR has reviewed the SEIA /130-132/ and crosschecked such information with onsite information and several testimonies.

Complementary, the project is certified under FSC /136/. The company's plantations in Asubima and Afrensu Brohuma Forest Reserves (Akumadan) have been certified by the Forest Stewardship Council (FSC) since January 2010, following the principles and criteria of their certification program. AENOR has reviewed the FSC certification and considers that the information is correct.

To ensure that they maintain their commitment to responsible management, Form Ghana has developed a management system of separate protocols that describe the process of environmental and social management. These protocols, along with the Management Plan, form the Environmental and Social Management Plan, which aims to mitigate any negative environmental and socio-economic impacts. The relationship between the various documents is illustrated in the figure below, providing a clear understanding of the systematic approach that Form Ghana takes to their forestry management practices. AENOR has also reviewed the ESMP during the onsite visit and commented with the stakeholders as well as the project staff and considers that the long-term objective is to prevent damage to the environment, biological diversity, and sensitive habitats, where present. Additionally, the ESMP seeks to consider the interests of all stakeholders in the project to promote sustainable development. AENOR has also reviewed the management protocols and confirms with interviews that the information provided is correct.

Thus, AENOR's audit team considers that the project generates net positive impacts on the social and economic well-being of the local communities who derive livelihoods from the project area.

4.2.2 Local Stakeholder Consultation

The stakeholder engagements continued in this monitoring period, building on the meetings and engagements held in the previous monitoring periods. In the current monitoring period, the PP has provided the list of interviews carried out between the PP and the stakeholders.

Date	Location	Activity	Document assessed by the VVB
11/06/2021	Berekum (Tain II)	Green Ghana Day	Green Ghana Day 2021.pdf /97/
13/08/2021	Berekum (Tain II)	First Stakeholders meeting in 2021	First Stakeholders meeting Berekum- 13082021.pdf /95/
04/03/2022	Berekum (Tain II)	First Stakeholders meeting in 2022	First Stakeholders meeting Berekum - 04032022 docx.pdf /94/
06/05/2022	Berekum (Tain II)	Integrated community fire management project	REPORT-ICFMP-2021 2022 FIRE SEASON (06 052022).pdf /102/
10/06/2022	Berekum (Tain II)	2nd Green Ghana Day Project on Friday, 10th June 2022.	GGD PROJECT 2022 31012023.pdf /96/
09/12/2022	Berekum (Tain II)	Second Stakeholders meeting in 2022	Second Stakeholders Meeting Berekum 09122022.pdf /104/
22/12/2022	Berekum (Tain II)	Commissioning of Mechanized Borehole Project at Asantekrom	Report-Commissioning of Mechanized Borehole to Asantekrom Community.pdf /100/
27/03/2023 – 29/03/2023	Berekum (Tain II)	Grading of kotaa-ampenkrom and domeabra-akrofro roads	REPORT - Ampenkrom Domeabra Road Maintenance.pdf /99/
25/01/2023 to 7/04/2023	Berekum (Tain II)	Footbridge construction at A santekrom	Report-Construction of Asantekrom Footbridge.pdf /101/
02/05/2023	Berekum (Tain II)	Integrated community fire management project	REPORT-ICFMP-2022 2023 FIRE SEASON.pdf /103/
19/05/2023	Freeman Methodist Church,	First biannual stakeholders meeting Berekum for 2023	First Stakeholders meeting Berekum -19052023.pdf /95/

	Berekum (Tain II)		
15th - 24th September, 2021	Akumadan	Stakeholder Engagement	Stakeholder Engament on Harvesting-Akumadan (002).pdf /93/
01/03/2022	Akumadan	First Stakeholders meeting in 2022	First Stakeholder meeting Akumadan 01032022.pdf /89/
06/12/2022	Akumadan	Second Stakeholders meeting in 2022	Second Stakeholders Meetings Akumadan 06122022.pdf /92/
16/05/2023	Akumadan	First biannual stakeholders meeting Akumadan for 2023	First Stakeholders Meeting Akumadan 16052023.pdf /85/

The previous meetings were crosschecked with the mentioned evidence provided by the PP and also it was confirmed through several interviews with stakeholders, who confirmed that the ongoing communication with the PP is being implemented as described in the MR and the PDD.

Regarding the VVB visit, it is stated that the CEO of Form Ghana informs the stakeholders of the VVB site visit and the verification process in advance and also arranges any meetings that the VVB requests. AENOR asked about this information to different stakeholders during the onsite visit and considers that all of the stakeholders were informed about the VVB visit as well as the process of verification.

AENOR has checked the evidence of each meeting with stakeholder and confirms that within each meeting evidence, the PP provides the results of project implementation as well as the results of the current monitoring.

During the monitoring period, there were no changes to risks, costs or benefits to the stakeholders. However, the VVB asked to the stakeholders about their knowledge in regard to costs, risks and benefits that the project brings to their communities. All the interviewees were aware of the possible costs, risks and benefits, and AENOR considers that this information has properly been shared between stakeholders.

No new laws or regulations were promulgated in Ghana since the conclusion of the previous monitoring period, and therefore, there was no information to share with stakeholder in this regard. AENOR has reviewed the appliable Laws and considers that the information regarding the updates of the Laws is correct, and there are not relevant modifications.

Some of the ways used by the PP to inform about several communication is the following:

- Notification letters
- Advert in newspaper

- Newsletters
- Information available on website
- Presentations and posters
- School visits

AENOR reviewed the registries of communication and crosschecked the information with the testimonies gathered during the onsite visit. AENOR considers that the methods for communication are properly described.

Regarding the policies and documentation for guiding the LSC process, the PP has several policies which have been assessed by AENOR.

For example, the Protocol 6, which is related to stakeholder management, has the objective to identify the various stakeholder groups as well as the interests and concerns of key stakeholders of Form Ghana. This allows to identify any risks to the project at an early stage. Further, the protocol aims to structure how stakeholders should be engaged effectively in the various phases of the forest plantation establishment and management.

Other protocol is the number 7, based on the complaint response mechanism. This Complaint Response Mechanism describes the way in which Form Ghana manages complaints and conflict situations. The policy is aimed at preventing conflicts by investing in employees and community sensitization and an open dialogue with all stakeholders. The process follows a sequence flow, and the complaint procedure consists of an informal and formal part of the process. The formal process is documented in the complaint's file/form. For all major incidents, the formal process is started immediately. Form Ghana employees can inform the company about complaints or concerns through any of the complaint channels either in person or anonymously. Employees can report complaints to their direct next level of supervision with the HR Officer in copy to keep track of resolution progress and escalate through the levels of management as the first point of entry in the complaints handling mechanism.

Finally, protocol 28 is referred to Community development, this protocol outlines Form Ghana's approach for the support of future community development activities, as well as the strategy to manage expectations arising from the surrounding communities. The role of Form Ghana in this process consists of actually paying the dues and communicating the amounts paid to the stakeholders, so they know what to expect and are able to follow-up on it. This information is shared in the stakeholder meetings, and also included on the company information brochure which is annually updated and distributed.

AENOR has reviewed such protocols and confirms that they are aligned with the information described in the MR and PD. AENOR confirms that all the stakeholders are aware of the protocols as well as the general complains mechanism. For example, over the previous monitoring period, they received feedback from stakeholders who wished to see more people from fringe communities included in worker and firefighter recruitment. They took this feedback seriously and subsequently implemented measures to increase the inclusion of individuals from these communities during our recruitment processes.

Hence AENOR verified during the on-site interviews that Form Ghana has continuous communication with the whole stakeholders' group and their inputs are taken into consideration. The stakeholders interviewed were aware of the current status of the project implementation, the grievances occurred, activities, next steps, etc.

4.3 AFOLU-Specific Safeguards

The project proponent has provided a table under section 2.3 of the MR which relates the different stakeholder groups, the subgroups and the risks to each stakeholder group. According to each table, none of the stakeholders have any type of risk in relation to the project. Therefore, the PP has not implemented any mitigation measure to alleviate such impacts. During previous verification events, the situation was the same, and AENOR has crosschecked the information from the current MR and the previous one (already accepted by Verra). The general information has been contrasted through onsite interviews, and hence the VVB considers that the impacts on the different stakeholders' groups have been properly assessed and no mitigation measures are needed.

A comprehensive Socio-Economic Impact Assessment (SEIA) was undertaken for all project locations /130-132/ with the aim of integrating environmental and socio-economic components in management decisions at the earliest stages of the program. The SEIA has enabled the development of plans to mitigate any possible negative effects and enhance positive effects on existing conditions. To ensure effective community participation, project proponents, private and government agencies have been invited to participate in the assessment and review of proposed actions. AENOR has reviewed the SEIA and confirmed that the stakeholders are aware of such documentation. AENOR has reviewed all SEIA for each plantation and considers that the SEIA for the proposed project was undertaken before the project implementation, so as to identify environmental and social impacts at an early stage and offer mitigation measures to the anticipated impacts. The SEIA was to achieve the following objectives:

- Obtain the public opinion about the plantation establishment project in order to capture major concerns and fears as well as appreciation with a view of developing appropriate interventions to create more acceptability and enhance awareness on potential values of the established forest plantation;
- Identify suitable alternatives with respect to ecological, social and economic suitability as well as political acceptability;
- Justify the proposed plantation establishment with respect to social development, economic growth (local and national) and conservation opportunities;
- Identify all potential significant adverse environmental and social impacts of the plantation establishment on resources utilization, agriculture, environmental conservation, health & safety and demographic patterns.
- Recommend relevant mitigation measures against any potential negative impacts identified.

Regarding the access to the forests and the products obtained within each forest, local communities have traditionally had access to non-timber forest products (NTFPs) in natural forests. In addition, communities could access timber for development work by obtaining permits from the Forestry Service Division (FSD). However, it should be noted that the FSD is unable to grant permits for timber extraction within a plantation that is under lease by another party. The findings of impact assessments reveal that people interviewed derive very little or no economic value from forest products. Additionally, none of the respondents reported depending on the collection of NTFPs as their primary occupation. AENOR interviewed local stakeholders and asked for the permissions or possibilities to access and gather products from the forests. The VVB considers that the information described above is reliable and correct.

As described above, Stakeholder meetings serve as a crucial mode of communication between Form Ghana and its stakeholders. As per the established plan, the company conducts at least one such meeting annually, wherein various stakeholder groups are represented. If deemed necessary, the company may organize additional meetings. All stakeholders on the list, for whom the meeting is deemed relevant, are invited prior to the meeting. AENOR has checked the procedures and the registries for the different communication events. Also, it was checked with onsite testimonies and considers that the information provided is reliable and correct.

In the section above, the VVB has described the grievance redress mechanism and the way in which it has been assessed based on review of the protocol 07, testimonies and other information.

During the on-site audit process, AENOR interviewed local community stakeholders and verified that the Project has a net positive impact from both the environmental and social side. With the latter and according to the Gold Level validation, AENOR deems that the PP has taken successfully reasonable steps to mitigate potential negative impacts.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

Procedures for quantifying emission reductions and removals were conducted in accordance with the AR-ACM0003: Afforestation and reforestation of lands except wetlands --- Version 02.0 and its related tools:

- Tool for the identification of degraded or degrading lands for consideration in implementing CDM A/R project activities (Version 01)
- Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities (Version 01)
- Estimation of the increase in GHG emissions attributable to displacement of pre-project agricultural activities in A/R CDM project activity (Version 02.0)
- Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities (Version 04.2)

- Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities (Version 01.1.0)
- VCS AFOLU Non-Permanence Risk Tool (Version 4.0)

The verification team performed an intensive review of all input data, parameters, formulas, calculations, conversions, statistics and resulting uncertainties and output data to ensure consistency with the VCS documentation, VCS methodology and associated tools, and the PD.

Furthermore, the verification team reproduced calculations for selected samples to ensure accuracy of the results. Conversion factors, formulas, and calculations were provided by PP in spreadsheet /40/ format to ensure all formulas were accessible for review. The verification team recalculated subsets of the analysis to confirm correctness. Also, the VVB reviewed the raw data for the inventory spreadsheets, and they were compared with the carbon calculations and the GIS evidence to ensure the correct matching between shapefiles and spreadsheets. Where applicable, references for analysis methods or default values were checked against relevant scientific literature for best practice. Where applicable, references for analysis methods or default values were checked against relevant scientific literature for best practice.

Baseline Emissions

Procedures for quantifying the baseline emissions were conducted in accordance with the methodology. the verification team reproduced the calculations to ensure accuracy of the results. Inventory data, formulas, and calculations were provided by project proponents in spreadsheet /40/ format to ensure all formulas were accessible for review. The verification team recalculated subsets of the analysis to confirm correctness. If needed, project proponent also provided a step-by-step overview of select calculations to ensure the verification team understood the approach and could confirm its consistency with the methodologies and the VCS-PD. Where applicable, references for analysis methods or default values were checked against relevant scientific literature for best practice. Some meetings with the PP were performed remotely and onsite during the audit in 2023.

As per the guidelines outlined in ACM0003, carbon stock changes found in dead wood and litter are not to be considered when determining carbon stock changes. Additionally, since shrub biomass is not commonly found in the area, it has been excluded from consideration.

The baseline net GHG removals are determined according to the equation 1 of the AR-ACM0003 methodology.

$$\Delta CBSL,t = \Delta CTREE\_BSL,t$$

C_{TREE_BSL} at the start of the project activities was determined for two different baseline carbon stock levels, because two clearly distinct strata have been identified with the use of satellite imagery and vegetation sampling.

Table 6 and table 7 of the MR show the carbon pools for Tain II and Akumadan plantations.

The VVB has reviewed the source of such values, which are mainly the *Annexure 1- VCS calculations and info-21122023.xlsx* /40/, in which in the different tabs that represent the baseline calculations for each plantation and stratum, the VVB has reproduced the values and crosschecked the source. AENOR confirms that such information is deemed correct.

As elaborated in the PDD (VCS Form Ghana Project Description 31-07-2021.pdf), the change in carbon stock in Remnant Indigenous Trees (RIT) is accounted as zero since the trees are protected and excluded from further estimation of project net GHG removals by sink. The same methodology was applied to the Akumadan plantations, where information on carbon stocks from RT and IT were based on felling data covering.

Therefore, $\Delta CTREE\_BSL\_t = 0$

The Remnant Teak (RT) and Invasive Trees (IT) are removed during land preparation, although areas where Remnant Teak plantings are conserved and managed by PP are excluded from the project. According to the Tain II (Berekum) and Akumadan plantations, no additional removal of invasive trees takes place in the Mixed Degraded Forest. Any alterations in carbon stock are assessed through standard forest monitoring methods. In this monitoring report, these baseline carbon stocks for stratum 1 and 2 have been applied for the 2019 and 2020 Tain II Indigenous and Teak planted areas that were monitored for the first time in 2023. Given that monitoring starts 3 years after planting as stated in the monitoring plan.

AKUMADAN plantations	Baseline carbon stock stratum	Relevant biomass pool	Value (ton CO_2e per ha)
	CTREE_BSL_1	Remnant Indigenous Trees (IT) (protected)	10.8
		Remnant Teak (RT) and Invasive Trees (IT) (felled in the project scenario)	6.8
		Total	**17.6**
	CTREE_BSL_2	Remnant Degraded Forest (MDF)	119.4
		Invasive Trees (IT)	3.9
		Total	**123.3**
Tain II plantations	**Baseline carbon stock stratum**	**Relevant biomass pool**	**Value (ton CO_2e per ha)**
	CTREE_BSL_1	Remnant Indigenous Trees (IT) (protected)	20.46
		Remnant Teak (RT) and Invasive Trees (IT) (felled in the project scenario)	0.52
		Total	**20.98**
	CTREE_BSL_2	Remnant Degraded Forest (MDF)	49.81
		Total	**70.80**

Therefore, based on the above assumptions the baseline GHG removals account to 0. The project is stratified based on planting year, and different reforestation type are in place. AENOR has reviewed such parameters and contrasted with the source /40/ and confirms that the information provided after processing is deemed correct. AENOR has checked the calculations provided and confirmed that this amount of baseline emissions is in conformance and have followed the methodology, the PDD, the current and previous Monitoring Reports.

Project Emissions

To further stratify the project, planting year has been considered, as presented in the table below. The project comprises of three distinct reforestation types, namely teak (monoculture, 20-year rotation), Gmelina (monoculture, 12-year rotation), and mixed indigenous trees (restoration, no rotation).

Within the current MR, the Gmelina stratum is not included in the VCUs calculation (which is conservatively excluded). Gmelina is only used to show the different stratum and the correct cross checking with the shapefiles and the raw data. Also, the VCUs calculations in the current MR exclude teak planted in 2008 since these plantations have reached their LTA /83/.

The PP has provided table 8, which shows the stratums and the number of hectares for each specie and year. These figures have been assessed one to one with the shapefiles /106-110//112-117/ and the block register /38/ (which is the data registry for each plantation). AENOR considers that all figures match between the original source and consider the information correct.

Regarding the methodology,

The estimated net GHG emission removals (t CO2-e) per year are calculated as:

$$\Delta C_{AR-VCS,t} = \Delta_{AR-VCS,t\_TEAK} + \Delta_{AR-VCS,t\_IND} + \Delta_{AR-VCS,t\_BUFFER} + \Delta_{AR-VCS,t\_GMELINA}$$

Where:

$\Delta C_{AR-VCS,t}$	t CO_2-e	Net anthropogenic removals by sink, in yea (ΔC_{AR-CDM} from AR-ACM0003 Equation 5)
$\Delta C_{AR-VCS,t\_TEAK}$	t CO_2-e	Teak plantation emission removals in year t
$\Delta C_{AR-VCS,t\_IND}$	t CO_2-e	Indigenous plantation emission removals in yea
$\Delta C_{AR-VCS,t\_BUFFER}$	t CO_2-e	Buffer zone emission removals in year t
$\Delta C_{AR-VCS,t\_GMELINA}$	t CO_2-e	Gmelina plantation emission removals in year t

<u>TEAK PLANTATION</u>

From ACM0003 Equation 2, the actual net GHG removals equal the carbon stock increase in the relevant carbon pools minus the GHG emissions within the project boundary.

$$\Delta C_{ACTUAL,t} = \Delta C_{P,t} - GHG_{E,t} \qquad \text{(Eq. 2 AR-ACM0003)}$$

In this case, the increase in non-CO2 emissions ($GHGE,t$) = 0, which means that ΔCACTUAL,t = ΔCP,t.

According to the PDD, litter and dead wood are conservatively excluded, therefore, the only relevant sources are AGB, BGB and SOC. Hence:

$$\Delta C_{P,t} = \Delta C_{TREE\_PROJ,t} + \Delta SOC_{AL,t}$$

To estimate the carbon stock in tree biomass at a given point in time, the AR-Tool 14 *"Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities", version 04.2* was used. the change in carbon stock in tree biomass for teak and indigenous, is calculated according to the methodological tool by estimating the biomass of each plant year during the period between two points of times. According to the monitoring protocol the monitoring starts 3 years after planting when trees have a size where a DBH can be measured; therefore, the planting years from 2021 to 2023 are not measured for the monitoring purpose. The total tree biomass is calculated based on field measurement in permanent sampling plots by summing the biomass of all individual tree measured in each sample plot. Therefore:

$$\Delta C_{TREE\_PROJ} = C_{TREE,t2} - C_{TREE,t1} \qquad \text{(Eq. 1 AR-TOOL14)}$$

The associated uncertainty in teak strata is less than 10% (table 9), therefore there is no need to apply an uncertainty discount; while the associated uncertainty in indigenous strata is 17.8%, according to the methodological tool the uncertainty discount of 50% is applied.

From $\Delta C_{TREE\_PROJ} = C_{TREE,t2} - C_{TREE,t1}$ (Eq. 1 AR-TOOL14)

$\Delta C_{TREE\_PROJ} = C_{TREE,t2} - (C_{TREE\_BSL\_1,2} + C_{TREE\_BSL\_1,3})$

The total tree biomass in teak at CTREE,t2 is estimated based on field measurements in Permanent Sample Plots as elaborated in the monitoring plan.

The tree volume is calculated as:

VTREE,teak = EXP b1 +b2ln(D)+b3ln(H)

The coefficients used (b1, b2 and b3) are gathered from the PDD and other sources, which have been assessed by the VVB /123/.

According to the methodological tool the amount of tree biomass is estimated using the following equations:

BTREE,l,teak,p,i = VTREE,teak × DTEAK × BEFTEAK × (1+R_mix) (Eq. 5 AR-TOOL14)

The total tree biomass in a sample plot is calculated by summing the biomass of all individual trees measured in each sample plot. The teak biomass equals the total tree biomass in the sample plot, since other tree species are not taken into consideration.

Tree biomass per hectare in the sample plots is calculated by:

$$b_{TREE,p,i} = \frac{B_{TREE,p,i}}{A_{PLOT,i}} \qquad \text{Eq. 1 AR-TOOL14 – Appendix 1}$$

According to the equations mentioned above, the change in tree biomass in teak strata is the following:

Plantations	Abbreviation	Plant year	$C_{TREE,t1}$	$C_{TREE,t2}$	ΔC_{TREE}
Akumadan	ASU	2008	24,651.7	15,655	-8,986.7
Akumadan	ASU	2009	55,739.8	70,641.1	14,901.3
Akumadan	ASU	2010	57,830.2	78,870.7	21,040.5
Akumadan	AFR	2011	95,704.4	106,805.6	11,101.2
Akumadan	AFR	2012	60,512.9	91,060.8	30,547.9
Tain II (Berekum)	TAIN	2013	74,441.9	94,892.1	20,450.2
Tain II (Berekum)	TAIN	2014	196,856.5	288,939.4	92,082.9
Tain II (Berekum)	TAIN	2015	79,008.5	135,612.1	56,603.6
Tain II (Berekum)	TAIN	2016	4,661.0	9,425.2	4,764.2
Tain II (Berekum)	TAIN	2017	19,161.5	44,139.8	24,978.3
Tain II (Berekum)	TAIN	2018	24,118.1	74,829.7	50,711.6
Tain II (Berekum)	TAIN	2019	448.8	20,126.6	19,677.8
Tain II (Berekum)	TAIN	2020	141.8	2,777.3	2,635.5
Total			**693,277.2**	**1,033,785.5**	**340,508**

These parameters have been crosschecked with the evidence Annexure 1- VCS calculations and info-21122023.xlsx /40/ and they have been crosschecked by the VVB and complementary followed until reach the raw data /73-76/. The VVB has reviewed the baseline 1 with the previous MR and previous and verified calculations.

CHANGE IN SOIL ORGANIC CARBON (ΔSOC)

The change in Soil Organic Carbon is estimated using the "Tool for estimation of change in soil organic carbon stock due to the implementation of A/R CDM project activities" (version 01.1.0).

The results are summarized in the table below. ΔSOCAL,t represents the fixed amount of annual carbon storage. The calculation can be found in the guiding excel document. Multiplying the number of years and hectares with the ΔSOCAL,t results in the amount soil organic carbon change within the teak strata.

Forest Reserve	Abbreviation	Year	ΔYears	A (ha)	ΔSOC
Asubima (Akumadan)	ASU	2008	2	143.8	730.7
Asubima (Akumadan)	ASU	2009	2	511.7	2,599.2
Asubima (Akumadan)	ASU	2010	2	619.5	3,147
Afrensu Brohuma (Akumadan)	AFR	2011	2	845.6	4,295.5
Afrensu Brohuma (Akumadan)	AFR	2012	2	691.1	3,510.7
Tain II (Berekum)	TAIN	2013	2	573.8	2,914.8
Tain II (Berekum)	TAIN	2014	2	1,849.9	9,397.5
Tain II (Berekum)	TAIN	2015	2	1,051.8	5,343.3
Tain II (Berekum)	TAIN	2016	2	87.6	445.1
Tain II (Berekum)	TAIN	2017	2	567	2,880.3
Tain II (Berekum)	TAIN	2018	2	1,612.1	8,189.5
Tain II (Berekum)	TAIN	2019	2	858.2	4,359.5
Tain II (Berekum)	TAIN	2020	2	272.7	1385.5
Total				**9,684.8**	**49,198**

AENOR has reviewed the values of the table above according to the evidence provided /40/ and figures have been reproduced until reach the final and the raw value.

Therefore, according to the equations above and the tables of teak and SOC:

340,508.4 (ΔCTREE) + 49,198.7 (ΔSOC) = 389,707.1 ton CO2e (ΔCP,t)

Since GHGE,t = 0, ΔCACTUAL,t = ΔCP,t = 389,707.1 ton CO2e

REFORESTATION TYPE II: INDIGENOUS PLANTATION

As elaborated in the PDD, GHGE,t = 0, which means that ΔCACTUAL,t = ΔCP,t. Since shrubs, litter and dead wood are conservatively excluded:

ΔCP,t = ΔCTREE_PROJ,t + ΔSOCAL,t

For estimating the change in carbon stock in tree biomass the change in tree biomass is calculated by estimating the biomass in each plant year. The tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities" is used to determine tree carbon stock changes. Because shrub biomass is very low, this pool is conservatively excluded. The change in tree biomass is estimated using the following equation:

$\Delta C_{TREE\_PROJ} = C_{TREE,t2} - C_{TREE,t1}$

The tree biomass in the first year is the same as the baseline biomass in trees (remnant indigenous trees, remnant teak and invasive trees) at the start of the project activity (CTREE_BSL_1). The tree biomass cleared (remnant teak and invasive trees) during land preparation (CTREE_BSL_1,2 + CTREE_BSL_1,3), is deducted from the baseline carbon stock and the increment of the planted indigenous trees (CTREE_IND) added.

$C_{TREE} = C_{TREE\_BSL\_1} - C_{TREE\_BSL\_1,2} - C_{TREE\_BSL\_1,3} + C_{TREE\_IND}$

The remnant indigenous trees is a constant figure. As discussed in the baseline, the amount of carbon in this pool is expected to decrease due to anthropogenic factors. These trees are protected in the project area and are therefore expected to grow. However, these trees are conservatively assumed to reach a steady state in year zero and are therefore not monitored for ex-post calculation but added as a constant to the total $CTREE$ of the relative stratum. Remnant indigenous trees will not be felled in the project scenario and there is no intention for harvesting after the crediting period. Silvicultural interventions such as thinning and pruning may take place.

The tree volume is calculated according to Aabeyir et al. (2020) as:

$$V_{TREE\_BSL\_2,1} = \frac{V_{TREE,indigenous} = (0{,}058 * ((DHB)^2 H)^{0{,}999})/1000}{A}$$

The Aabeyir volume calculation converts stem biomass to total above ground biomass and therefore only Rmix is used in the equation below.

$$B_{TREE\_BSL\_2,1} = V_{TREE\_BSL\_2,1} \times D_{IND} \times (1 + R_{mix})$$ (Eq.5 Appendix 1 AR-TOOL14)

$$b_{TREE\_BSL\_2,1} = \frac{B_{TREE\_BSL\_2,1}}{A}$$ (Eq.1 Appendix 1 AR-TOOL14)

$$C_{TREE\_BSL\_2,1} = \frac{44}{12} \times CF_{IND} \times b_{TREE\_BSL\_2,1}$$ (Eq. 12 AR-TOOL14)

The total tree biomass in a sample plot is calculated by summing the biomass of all individual trees measured in each sample plot. Tree biomass per hectare in the sample plots is calculated by dividing the total tree biomass in the sample plot by the size of the plot. The value of (1+Rmix) is 1.22.

The summary of change in tree biomass in the indigenous strata is shown in the table below:

Plantations	Plant year	$C_{TREE,t1}$	$C_{TREE,t2}$	ΔC_{TREE}
Akumadan	2010	5,304.9	3,099.6	-2,205.3
Akumadan	2011	23,005.6	13,904.3	-9,101.3
Akumadan	2012	1,352.4	1,379.3	26.9
Tain II (Berekum)	2013	1,948.3	3,558.4	1610.1
Tain II (Berekum)	2014	9,356.5	15,192.7	5,836.2
Tain II (Berekum)	2015	4,244.1	2,098.7	-2,145.4
Tain II (Berekum)	2017	3,675.3	4,892.5	1,217.2
Tain II (Berekum)	2018	14,553.0	28,285.5	13,732.5
Tain II (Berekum)	2019	188.8	11,186.4	10,997.6
Tain II (Berekum)	2020	157.2	14,557.9	14,400.6
Total		**63,786.1**	**98,155.1**	**34,369**

Since the uncertainty in CTREE is 17.8%, CTREE is made conservative according to the methodological tool by applying an uncertainty discount of 50%. After application of the discount ΔCTREE becomes 25,633.2-ton CO2e. AENOR has reviewed the spreadsheet /40/ and confirms that the table and the application of the uncertainty discount is considered correct.

CHANGE IN SOIL ORGANIC CARBON (ΔSOC)

The change in Soil Organic Carbon is estimated using the "Tool for estimation of change in soil organic carbon stock due to the implementation of A/R CDM project activities". The values are reported in table 13 of the MR. these values have been reviewed and assessed by AENOR and confirmed correct.

The total change in selected carbon pools in the indigenous strata is the change in tree biomass and soil organic carbon. Total ΔCP,t is therefore:

34,369 (ΔCTREE) + 7703.5 (ΔSOC) = 42,072.5 ton CO2e (ΔCP,t)

Since $GHGE,t$ = 0, ΔCACTUAL,t = ΔCP,t

Leakage

As demonstrated in the PDD leakage is deemed de minimis, and therefore set to zero.

$LK_t = LK_{AGRIC,} \rightarrow LK_t = 0$

NET GHG Emissions Reductions and Removals

According to the equation 5 of the AR-ACM0003: ΔCAR−VCS,t = ΔCACTUAL,t − ΔCBSL,t – LKt, which after considering ΔCBSL,t and LKt, as zero, therefore: ΔCAR−VCS,t = ΔCACTUAL,t

ΔCAR−VCS,t = ΔCAR−VCS,t_TEAK + ΔCAR−VCS,t_IND

Therefore, ΔCAR−VCS,t = 377,351 + 42,072 = 419,424 t CO2e which is the number of generated GHG credits.

The net anthropogenic GHG reductions due to the project activity for the monitoring period (01-August-2021 to 31-July-2023) were 419,424 tCO2e. The total number of buffer credits that need to be deposited into the AFOLU pooled buffer account are 41,942 and the VCUs eligible for issuance are 377,481 VCUs.

The total long-term average is currently 1,474,731.22 VCU's. The 2008, 2009, 2010, 2011 and 2013 were approaching 100% in the previous monitoring period (ranging from 86% to 99%). Those planting years have now surpassed the 100% of LTA in this monitoring period and the credits claimed from them are just the remainder to fill the LTA quota. They will not provide credits in the years to come.

AENOR reproduced the calculations to achieve the same results and deems they are depicted clearly and correctly in the provided sheets /40/. AENOR verification team was able to trace calculations directly from the data sources of inventory´s field measurements /73-76/. Formulae used are in compliance with MR, validated PD and methodology, like the default values used to determine the parameters, are appropriate. Thus, the net amount of VCUs to be issued is accurate and realistic.

AENOR verified for the parameters available at validation, the values reported or the references to the documents where they are used or explained by reviewing, reproducing, and crosschecking the evidence provided by the PP. AENOR checked the values of these parameters to be appropriate and correctly used in equations.

The following table presents the net change in carbon stocks, the non-permanence risk rating (as determined in the non-permanence risk report) and the calculated total number of buffer credits that need to be deposited into the AFOLU pooled buffer account.

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)	Buffer pool allocation	VCUs eligible for issuance
01-08-2021 – 31-12-2021	0	87,380	0	87,380	8,738	78,642
01-01-2022 – 31-12-2022	0	209,712	0	209,712	20,971	188,740
01-01-2023 – 31-07-2023	0	122,332	0	122,332	12,233	110,798
Total	**0**	**419,424**	**0**	**419,424**	**41,942**	**377,481**

Regarding the accuracy of spreadsheet /40/, formulae, conversions and aggregations and consistent use of data and parameters, the PP elaborated a complete procedure to assure the accuracy and appropriateness of data. During the verification process, AENOR not only verified the spreadsheet calculation, data and parameters but also the AENOR team could verify that the PP conducted a rigorous QC/QA procedure of its field measurements and an assessment of uncertainty. Thus, AENOR deems the PP performed good practices in this assessment and concludes that GHG reductions were quantified correctly in accordance with the project description and applied methodology.

AENOR verified the consistency and accuracy of each parameter detailed in it Section 4 of the MR by crosschecking the information in the MR with the information in PD as well as checking values and reproducing the calculations in the spreadsheet calculation package and did not find inconsistencies. Therefore, AENOR deems that values reported for the parameters are accurate and consistent.

The following tables summarize the data and parameters used by the PP to calculate the GHG emission reductions, their verified values and the assessment procedures implemented by AENOR and their results. The tables below represent the parameteres fixed in validation and those which are monitored in the current MR.

Data/Parameter available at validation	Value	Assessment procedure and result
$a_{i,IND}$ Allometric constant for aboveground biomass (AGB) and volume formula for indigenous trees	0.058	Value is consistent with validated PD and source provided. Correctly inputted in the calculation spreadsheets /40/.
$b_{i,IND}$	0.999	Value is consistent with validated PD and source provided. Correctly

Allometric exponent for aboveground biomass (AGB) and volume formula for indigenous trees		inputted in the calculation spreadsheets /40/.
D_{IND} Average wood density for Indigenous Forest	458	Value is consistent with validated PD and source provided. Correctly inputted in the calculation spreadsheets /40/.
R_{mix} Root to shoot ratio for mixed tropical broadleaf species	1.22	Value is consistent with validated PD and source provided. Correctly inputted in the calculation spreadsheets /40/.
CF_{IND} Carbon fraction indigenous trees	0.49	Value is consistent with validated PD and source provided. Correctly inputted in the calculation spreadsheets /40/.
Form factor remnant teak	0.36	Value is consistent with validated PD and source provided. Correctly inputted in the calculation spreadsheets /40/.
BEF_{TEAK} Biomass expansion factor teak	1.53	Value is consistent with validated PD and source provided. Correctly inputted in the calculation spreadsheets /40/.
D_{TEAK} Teak wood density	0.55	Value is consistent with validated PD and source provided. Correctly inputted in the calculation spreadsheets /40/.
CF_{TEAK} Carbon fraction Teak	0.495	Value is consistent with validated PD and source provided. Correctly inputted in the calculation spreadsheets /40/.
D_{YORK} Cassia wood density	506	Value is consistent with validated PD and source provided. Correctly inputted in the calculation spreadsheets /40/.
(D_{CASSIA})	640	Value is consistent with validated PD and source provided. Correctly

Cassia wood density		inputted in the calculation spreadsheets /40/.
$D_{GMELINA}$ *Gmelina* wood density	0.45	Value is consistent with validated PD and source provided. Correctly inputted in the calculation spreadsheets /40/.
$BEF_{GMELINA}$ Biomass expansion factor Gmelina	1.15	Value is consistent with validated PD and methodology. Correctly inputted in the calculation spreadsheets /40/.
$SOC_{REF,i}$ Reference soil organic carbon stock	41	Value is consistent with validated PD and methodology. Correctly inputted in the calculation spreadsheets /40/.
$f_{LU,i}$ Soil Organic Carbon (SOC) stock change factor for land use	0.70	Value is consistent with validated PD and methodology. Correctly inputted in the calculation spreadsheets /40/.
$f_{MG,i}$ Soil Organic Carbon (SOC) stock change factor for management regime	1.12	Value is consistent with validated PD and methodology. Correctly inputted in the calculation spreadsheets /40/.
$f_{IN,i}$ Soil Organic Carbon (SOC) stock change factor for input of organic matter	0.935	Value is consistent with validated PD and methodology. Correctly inputted in the calculation spreadsheets /40/.
$a50_{age,IND}$ Constant to convert biomass to age for mixed tropical trees	25	Value is consistent with validated PD and source provided. Correctly inputted in the calculation spreadsheets /40/.

Data/Parameter monitored	Value	Assessment procedure and result
$a_{age,IND}$ Constant to convert biomass to age for mixed tropical trees	26.114	The VVB checked the parameter from the source and confirmed the good citation in the spreadsheets.
f_{teak} Form factor teak	Value depends on DBH and Height	The VVB checked the parameter from the source and confirmed the good citation in the spreadsheets.

	according to equations obtained from specific source	
$A^{PLOT,i}$ Total area of sample plots	Asubima and Afrensu Brohuma Reserve (Akumadan) 33.4 ha Tain II Reserve (Berekum) 76 ha	The VVB checked the parameter from the source and confirmed the good citation in the spreadsheets.
H Total height of trees	Different values obtained in the current MR	The VVB checked the parameter from the source and confirmed the good citation in the spreadsheets.
DBH Diameter of the tree at 1,3m height	Different values obtained in the current MR	The VVB checked the parameter from the source and confirmed the good citation in the spreadsheets.

AENOR, through the fully assessment of the calculations and the parameters, as well as the comparison with the methodology and the previous MR, considers that the parameters has been stablished correctly and they are appropriate.

AENOR deems the parameters monitored and available at validation are correct, reliable, and consistent. Information in the monitoring report is in compliance with the PD, the calculations provided and the applicable methodology. Then, the results showed in the monitoring report are reliable, consistent, and accurate.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

The data and parameters used to determine GHG emission reductions and removals are listed in Section 4 of the MR and also mentioned in the section above of this report together with the assessment method.

During AENOR's verification, the evidence provided by the PP was enough in both quantity and quality to support the determination of GHG emission removals reported by the project.

Quality assurance and control is an essential part of company procedures in order to assure the accuracy of inventory data, modeling results, and carbon accounting. Quality assurance procedures are done in order to minimize and correct any potential data transcription, calculation, or formatting errors that may result in inaccurate carbon accounting results. To enhance the precision of monitoring data quality, quality assurance and quality control (QA/QC) procedures are established in accordance with the International Panel on Climate Change (IPCC) best practice guidelines for Land Use, Land-Use Change and Forestry (LULUCF) (IPCC, 2003).

The process of recording, storing, and aggregating data on parameters of field measurements procedure in Akumadan involves several methods. The PSPs are evaluated annually through a specific procedure.

- The basic shape of a PSP is circular, with a pole placed at the center.
- The site location is determined using GPS coordinates obtained from the GIS system.
- The PSP size is usually 800m2, and the plot radius required to achieve this area is 15.96m.
- The plot is laid out by measuring the radius with a tape in eight directions and marking the trees in the plot with paint.
- The plot size remains the same for all plantation ages and stem densities. In case the plot is on a slope, additional guidance should be followed as stated in PP's protocol 13.

In the case of Tain II (Berekum):

- The basic shape for PSPs is square plots with poles located at each of the four corners.
- Any decayed poles and tags are replaced prior to assessment.
- The plots are made up of 9x9 planting positions, with a planting density of 3x3m.
- Assuming equal spacing, this results in a PSP size of $729m^2$, with each side of the square measuring 27m in length.
- To mark the plot, five poles are placed, with four located on the corners and one to indicate the direction of the first line of trees to be monitored.
- The corner poles must be placed at a specific point in the center of a cross formed between four trees.

- The GPS point is taken from the corner post to position the plot on GIS and calculate the plot surface.
- Finally, the distance between the poles is measured once the corner posts have been placed. This will later help the GIS to test if the coordinates were correct. The trees on the edge of the plot must be marked with paint, so it is clear what is inside and outside of the plot.

AENOR has reviewed the SOPS and the procedures used for monitoring during the onsite visit. The auditor compared the procedures with the demonstration made on field by the staff. The VVB deems that the Form Ghana staff follows properly the procedures for monitoring.

All data submitted to the central database is subjected to quality control by appropriate staff. The PP has developed SOP and Field manuals which covers all aspects related to carbon inventory. Spot checks and internal audits are conducted to make sure all data collection is carried out following the standards.

In accordance with VCS, the PP is committed to storing all project data in a secure and retrievable manner for at least two years after the end of the project crediting period. In order to facilitate project management and long-term accounting, all primary data outputs supporting annual verification including the spatial database is stored and maintained.

Roles and responsibilities are clearly identified in the MR. QA/QC procedures were developed by the PP for maintaining consistency and quality of field inventories over time. Interviews with the PP and inspection of data and results demonstrated that the PP possess all the competencies required for reporting of GHG emissions removals in an accurate way.

Data presented to the audit team were clear and coherent and processing steps could be traced to the corresponding sections of the methodology and monitoring plan with transparency.

Regarding the 2023 internal audit, the VVB has gathered the following conclusions:

- There were no differences found regarding the number of trees per plot for Teak in either Akumadan or Tain II (Berekum).
- No further investigation into the quality of the measurements of the number of trees per plot was conducted.
- No differences were found for the indigenous plots in the Akumadan area or Tain II (Berekum) area.
- Two possible reasons for the perfect positive correlations on tree counts are that the monitoring teams were provided with an in-field workshop together with the monitoring manager on standardizing the determination of trees per plot, also, the leaders of the monitoring teams were trained on how to check for deviations after which they would consult with the monitoring manager for immediate rectification.

Above procedures to ensure this are described in Section 4.3 of the MR, in terms of general QA/QC of the monitoring plan and specific QA/QC procedures applied to data and parameters monitored.

AENOR deems that the PP performed good practices in this assessment and concludes that GHG reductions were quantified correctly in accordance with the PD and applied methodology, and that the that evidence is sufficient in quantity and appropriate in quality to determine the GHG reductions of the project.

4.6 Non-Permanence Risk Analysis

The project utilized the non-permanence risk analysis tool, AFOLU Non-Permanence Risk Tool 4.0, to assess risk according to internal risk, external risk, natural risk, and mitigation measures for minimizing them. The audit team reviewed the Non-Permanence Risk Report /3/, following VCS Standard v4.4 Section 3.2.10 and confirmed that the project adheres to the requirements set out in the VCS AFOLU Non-Permanence Risk Tool.

At all levels, the audit team evaluated the rationale, appropriateness, and justifications of risk ratings chosen by the PP. Each risk factor was thoroughly assessed for conformance. A brief review of each factor is shown in the table below.

Risk factor	Risk Rating	Assessment
Internal Risks		
Project Management: It is assessed using table 1 of the VCS AFOLU Risk Tool.	0 (total may be less than zero)	a) More than 25% of GHG credits were issued for stocks derived from Teak (Tectona grandis), which is not a native species, but has been proven to grow in the same agro-ecological zone(s). AENOR has reviewed the evidence named as "Form Ghana 2001 pilot plantation in Asubima FR (Keogh & Pentsil, 2001)" and also reviewed previous verification events and other projects in which Teak is used. Risk rating = 0 b) Form Ghana has implemented a continuous enforcement strategy to safeguard the entire project area against any external encroachment. A dedicated security team is deployed full-time to monitor the boundaries and interior of the project area. AENOR has reviewed such information during the onsite visit in 2023. Risk rating = 2 c) The management team is formed by staff with significant experience in their respective professional fields, which is mainly spread over the following key staff. AENOR has interviewed such people and reviewed the CVs onsite. Risk rating = 0 d) The Management Team is based in Sunyani, which is within one day's travel from the project area. The team is based in Ghana. Risk rating = 0 e) N/A f) there are several management plans, some of them certified under FSC /136/. AENOR has reviewed such plans and the FSC certificate. Mitigation = -2

Risk factor	Risk Rating	Assessment
Financial viability: It is assessed using table 2 of the VCS AFOLU Risk Tool.	0 (total may not be less than zero)	a)-c) N/A d) AENOR has reviewed the cashflow (which is confidential) and considers that the project cash flow breakeven point is expected to be in 2028. Cash inflows encompass commercial revenue streams related to the project, donor funds, and initial investments. e) – g) N/A h) AENOR has reviewed the cashflow (which is confidential) and considers that the project has secured 100% of the funding needed to cover the total cash out before the project reaches break even. Risk rating = 0 j) Callable financial resources have been secured for 100% of the cash out before the project reaches breakeven. Mitigation = -2
Opportunity Cost: It is assessed using table 3 of the VCS AFOLU Risk Tool.	-2 (total may be less than zero)	a)-c) N/A d) NPV from the most profitable alternative land use activity is expected to be between 20% more than and up to 20% less than from project activities; or where baseline activities are subsistence-driven, net positive community impacts are demonstrated. AENOR has reviewed the FSC certificates as well as the papers from Forestry Commission. Finally, the SEIA were also assessed and contrasted with the additionality section. Risk rating = 0 e) – g) N/A h) According to Forestry Commission's report in 2013, the project's credit period is established via a renewable land lease spanning 50 years. The lease agreement involves the government and traditional landowners. AENOR has reviewed the lease agreements for all farms /32-37/ and considers that the mitigation rating = -2 j) N/A
Project Longevity: It is assessed using table 4 of the VCS AFOLU Risk Tool.	15 (total may not be less than zero)	a) Not applicable b) According to the Forestry Commission (2013), the longevity of the project is established at 50 years, corresponding to the duration of the 50-year renewable land lease with the government and traditional landowners. This timeframe exceeds the project crediting period. The sustainable management of forests is evidenced by strict adherence to the principles and criteria of the FSC on the plantations. AENOR has reviewed the agreements and the FSC certificate /136//32-37/ Risk rating=5 is justified.
Total internal risk=3 (total may not be less than zero)		
External Risks		
Land Tenure and resources	0 (total may not be less than zero)	A) N/A

Risk factor	Risk Rating	Assessment
access/impact: It shall be assessed using table 6 of the Risk Tool.		b) According to the Forestry Commission (2013), the ownership of land in Ghana is vested in the traditional landowners. Nevertheless, the government of Ghana governs such lands and grants plantation lease to Form Ghana by the same authorities for a renewable period of 50 years. AENOR has reviewed the agreements /32-37/ and considers that the information is correct. Risk rating = 2 c)-e) N/A f) The project site is situated within a forest reserve that is designated as protected. AENOR has reviewed the agreements /32-37/ and confirms such information. Risk rating = -2 g) no disputes over land tenure rights. It is clear after assessing the agreements. Risk rating =0
Community engagement: It shall be assessed using table 7 of the Risk Tool.	-5 (total may be less than zero)	a)-b) = 0 the project activities were initiated in an area that was previously subjected to intensive farming. It is noteworthy that presently, there is no human habitation in the project area. It is noteworthy that the communities residing outside the project area are not dependent on or affected by the project area. AENOR interviewed local people during the onsite visit, and also compared previous verification reports to confirm such information. c) AENOR has reviewed the evidence Tollenaar and Wanders and confirms that the project generates net positive impacts in local communities. It has also crosschecked with onsite information. Mitigation = -5
Political Risks: It shall be assessed using table 8 of the Risk Tool.	0 (total may not be less than zero)	a)-b) N/A c) Governance score of -0.32 to less than 0.19. AENOR has reviewed the WB indicators and considers that the value used is correct. Risk rating = 2 d)-e) N/A f) Country is implementing REDD+ Readiness or other activities risk rating = -2
Total external risks=0 (Total may not be less than zero)		
Natural risks		
Fire Risk: It shall be assessed using table 10 of the Risk Tool.	LS*M=2*0.25=0.5	The likelihood of a natural fire is less than every 10 years. AENOR has reviewed the Diemont 2019 evidence. Also, AENOR asked about this risk to the local authorities, and they confirmed that the information in the NPRR assessment is properly done. Regarding the mitigation measures, Form Ghana has an extensive fire management plan, which has been reviewed by AENOR and confirmed with the staff during the onsite interviews. Form Ghana employs security guards to

Risk factor	Risk Rating	Assessment
		monitor all activities within and around the plantation. The plantation is equipped with rapid response fire teams stationed at strategic areas, as well as a backup rapid response team that patrols the plantation. Complementary, there are Firebreaks in the project area and the teams are properly trained to ensure that any unforeseen incidents are handled effectively. Complementary, AENOR has reviewed the fire prevention equipment. Thus, LS= 2 Mitigation (M)= 0.25
Pest and disease outbreaks: It shall be assessed using table 10 of the Risk tool.	LS*M=2*0.5=1	The primary tree species cultivated in the project area is teak, which is less susceptible to pests and diseases. However, some plantations were affected by diseases leading to die-back, amounting to less than 5% loss of carbon stocks. AENOR has reviewed the evidence provided from Wanders and Tollenaar, and also asked directly to the local authorities to knowhow the incidence of different pests in the country and specifically in these plantations. AENOR considers that the effects are insignificant (less than 5%), and the normal likelihood could be less than every 10 years as explained in the NPRR. Thus, LS =2 Preventive measures were implemented after identifying teak die-back, which suggests that strategies were put in place to prevent this issue from occurring again in the future. Mitigation (M)=0.5
Extreme weather: It shall be assessed using table 10 of the Risk tool.	LS*M=2*0.5=1	Less than of 5% of the carbon stock could be affected by extreme weather as heavy winds combined by heavy rainfall. The PP apply thinning regime which takes stability of the stands into accounts. Thus, LS score 2 is reasonable applied. Form Ghana's forest managers and professionals do monitor changes in weather patterns and if significant changes occur, will make informed decisions regarding forest management practices and procedures, such as thinning, harvesting cycles and other interventions to minimize their negative impacts caused during extreme weather conditions, should they occur. Mitigation (M)=0.5
Geological risks: It shall be assessed using table 10 of the Risk Tool.	LS*M=0	N/A
Total natural risks=2.5		
OVERALL RISK RATING=3+0+2.5=5.5. Then an overall risk rating of 10% is considered.		

5 VERIFICATION OPINION

After review of all project information, procedures, calculations, and supporting documentation and the interview process, AENOR confirms that the monitoring conducted by the Project Proponent, along with the supporting Monitoring Report, are accurate and consistent with all VCS Version 4.4, the validated PD, and the selected methodology (methodology AR-ACM0003: Afforestation and reforestation of lands except wetlands --- Version 02.0). AENOR confirms that the project Reforestation of degraded Forest Reserves in Ghana Monitoring Report has been implemented in accordance with the validated PD.

AENOR confirms all verification activities, including objectives, scope and criteria, level of assurance, monitoring and project documentation adherence to VCS Version 4 (and all associated updates), as documented in this report are complete. AENOR concludes without any qualifications or limiting conditions that the Reforestation of degraded Forest Reserves in Ghana meets the requirements of VCS Version 4 (and all associated updates) for the monitoring period (01-August-2021 to 31-July-2023).

The verification of the ex-post emissions of the Project has been conducted by AENOR in accordance with ISO 14064-3;2019.

The GHG assertion provided by the project proponent and verified by AENOR has resulted in a total net GHG Emission Removals of 419,424 tCO_2e by the project during the monitoring period (01-August-2021 to 31-July-2023). Considering 10% of buffer withholding based on the VCS Non-Permanence Risk Assessment Tool v4.0, which means a buffer allocation of 41,942 tCO_2e, the Verified Carbon Units (VCU) to be issued are 377,481VCUs.

It is opinion of AENOR, with a reasonable level of assurance, that the reasonableness of assumptions, the described limitations, the methods that supported each one of the claims about the outcome of future activities and the claimed ex-post emissions removals are free from major errors, omissions, or inaccuracies.

Verification/monitoring period: 01-August-2021 to 31-July-2023.

Verified GHG emission reductions and removals in the above verification period:

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)	Buffer pool allocation	VCUs eligible for issuance
01-08-2021 to 31-12-2021	0	87,380	0	87,380	8,738	78,642
01-01-2022 to 31-12-2022	0	209,712	0	209,712	20,971	188,740

01-01-2023 to 31-07-2023	0	122,332	0	122,332	12,233	110,798
Total	0	419,424	0	419,424	41,942	377,481

Overall non-permanence risk rating: 10%

VCUs buffer to be deposited: 41,942 tCO_2e.

Total VCUs to be issued: 377,481 tCO_2e.

Ex-ante emissions reductions (tCO2e)	Achieved emissions reductions (tCO2e)	Percent difference	Justification for the difference
389,884	419,424	7%	The latest Project Design (Table 1 of the VCS Form Ghana Project Description 31-07-2021.pdf) forecasted the following removals: 2021 – 148,320 (based on 5 months August to December) 2022 – 145,394 2023 – 96,170 (based on 7 months January to July) Total: 389,884 The difference between the forecasted figure and the actual removals achieved is because the ex-ante prediction is modelled and therefore a deviation between the model and the actual removals are expected. Form Ghana is aware that the performance of the well managed plantations are better than what the model is predicting and the plan for 2024 is to update the model to provide more accurate growth and removal figures.

Madrid, 29 December 2023

Javier Cócera

Lead auditor

APPENDIX 1: LIST OF EVIDENCE ASSESSED

N°	Documents reviewed or referenced
Monitoring report and NPRR	
1	987 Monitoring Report 13 08 2023.docx
2	VCS MR 987 01-August-2021 to 31-July-2023 track.docx
3	987_01 08 2023_Risk Rating Report.pdf
Trainings	
4	Copy of Ghana Att Reg nov 2022.xlsx
5	Form Ghana Basic Fire fighting Nov 2022.pdf
6	Form Ghana Initial Attack Fireboss Nov 22.pdf
7	Form Ghana Initial Attack Fireboss Refresher Nov 22.pdf
8	Form Ghana Prototeam Refresher Nov 22.pdf
HR documents (policies, SOPs, Procedures)	
9	CBA 2023-2024_.docx
10	Community Related Expenses 2017-2023.xlsx
11	Copy of Employee Strenght with Gender Status 2021.xlsx
12	Copy of Employees Concern and Feedback 2022 Update_.xlsx
13	CRM Signed Page.pdf
14	Gender Policy- Signed page.pdf
15	GENDER POLICY.docx
16	Harassment Policy.pdf
17	Healthcare Policy.pdf
18	Leave Policy.pdf
19	P 06 Stakeholder Management - July 2021 .docx
20	P 07 CRM.docx
21	P 08 AKU First Aid.pdf
22	P 08 BER First Aid.pdf
23	P 28 Community Development - 2019.pdf
24	Recriutment and Whistleblower Policy cover.pdf
25	Recruitment Policy and Procedure .docx
26	Reward and Recognition Policy.pdf
27	Section 9 - Internal Rules and Regulations FMGH.doc
28	Short Term Workers Policy- Signed page.pdf
29	SHORT TERM- Workers Policy .pdf
30	Training and Development Policy .pdf
31	Whistleblower Policy.docx
Agreements	

N°	Documents reviewed or referenced
32	Land Lease _ Benefit Sharing Agreement - Asubima.pdf
33	Land Lease _ Benefit Sharing Agreements - Afrensu.pdf
34	Afrensu Brohuma Landlease.pdf
35	Asubima Landlease.pdf
36	Land Lease Agreement.pdf
37	Landlease _ Benefit Sharing Tain II.pdf
Carbon calculations	
38	Block Registers 2023 - AKU + BER AREAS - 14 September 2023.xlsx
39	Annex I VCS calculations Form Ghana 2021 v.2.xlsm
40	Annexure 1- VCS calculations and info-21122023.xlsx
41	Annexure 1- VCS calculations and info-301123.xlsx
42	2001 PSP Data 2023 Area Akumadan.xlsx
43	2006-PSP Data 2023-Akumadan.xlsx
44	2008-PSP Data 2023-Akumadan.xlsx
45	2009-PSP Data 2023-Akumadan.xlsx
46	2010-PSP Data 2023- Akumadan.xlsx
47	2011-PSP Data 2023-Akumadan.xlsx
48	2012-PSP Data 2023.xlsx
49	PSP Data 2023-Indigenous.xlsx
50	2013 area PSP Data 2023.xlsx
51	2014 area PSP Data 2023.xlsx
52	2015 area PSP Data 2023.xlsx
53	2016 PSP area Data 2023.xlsx
54	2017 area PSP data 2023.xlsx
55	2018 area PSP Data 2023.xlsx
56	2019 area PSP Data 2023.xlsx
57	2020 area PSP Data 2023.xlsx
58	Gmelina PSP data 2023.xlsx
59	Indigenous PSP data 2023.xlsx
60	A42 Provenance trial Data (2016-2023).xlsx
61	A42 Provenance trial facts.docx
62	A42 Provenance trial map.jpg
63	BLOCK REGISTER (Akumadan + Berekum).xlsx
64	Blocks _ Provenance - Berekum.xlsx
65	CMO - Training Report.pdf
66	PSP report - Form Ghana 03 08 2023.docx
67	PSP report - Form Ghana 03 08 2023.pdf
68	Thinning History Akumadan.xlsx
69	Thinning History of Tain II Teak Blocks.xlsx
70	TAIN II BEREKUM- BLOCK REGISTER DATA - 22 June 21.xlsx

N°	Documents reviewed or referenced
71	QC and regular measurements correlation-deviations.xlsx
72	Quality control- Internal audit graphs.docx
73	Raw data - AGB and VCU summary analysis AFRENSU ASUBIMA- AKUMADAN-INDIGENOUS.xlsx
74	Raw data- AGB and VCU summary analysis TAIN II- BEREKUM-INDIGENOUS.xlsx
75	Raw data- volume and VCU summary analysis AFRENSU ASUBIMA- AKUMADAN-TEAK-.xlsx
76	Raw data-volume and VCU summary analysis TAIN II -BEREKUM -TEAK.xlsx
77	Annexure- VCS calculations and info-draft 26062023.xlsx
78	carbon summary analysis- akumadan indigenous.xlsx
79	carbon summary analysis akumadan-teak.xlsx
80	carbon summary analysis tain II- Gmelina.xlsx
81	carbon summary analysis tainII-teak.xlsx
82	carbon summary analysis-tain II indigenous .xlsx
83	LTA calculation.xlsx
Stakeholders meetings	
84	Stakeholders Database.xlsx 15082023.xlsx
85	First Stakeholders Meeting Akumadan 16052023.pdf
86	First Stakeholders meeting Berekum -19052023.pdf
87	Annual Social monitoring Report (Berekum and Akumadan)11112021.pdf
88	Annual social report (Akumadan Berekum) 2022.pdf
89	First Stakeholder meeting Akumadan 01032022.pdf
90	First Stakeholders meeting Akumadan -10082021.pdf
91	REPORT ON HANDING OVER SCHOOL BUILDING IN AKUMADAN (003).pdf
92	Second Stakeholders Meetings Akumadan 06122022.pdf
93	Stakeholder Engament on Harvesting-Akumadan (002).pdf
94	First Stakeholders meeting Berekum - 04032022 docx.pdf
95	First Stakeholders meeting Berekum- 13082021.pdf
96	GGD PROJECT 2022 31012023.pdf
97	Green Ghana Day 2021.pdf
98	Progress Report Intercroppers.pdf
99	REPORT - Ampenkrom Domeabra Road Maintenance.pdf
100	Report-Commissioning of Mechanized Borehole to Asantekrom Community.pdf
101	Report-Construction of Asantekrom Footbridge.pdf
102	REPORT-ICFMP-2021 2022 FIRE SEASON (09052022).pdf
103	REPORT-ICFMP-2022 2023 FIRE SEASON.pdf
104	Second Stakeholders Meeting Berekum 09122022.pdf
Maps and shapefiles	
105	AKUMADAN BLOCK REGISTER JULY 2023.xlsx
106	AKUMADAN_INDIGENOUS_2023_DEC.shp
107	AKUMADAN_PRODUCTIVE_TEAK_AND_GMELINA_2023.shp

N°	Documents reviewed or referenced
108	AKUMADAN_RIPARIAN_2023_DEC.shp
109	AKUMADAN_ROCKS_2023.shp
110	AKUMADAN_TEAK_AND_GMELINA_2023.shp
111	TAIN II BEREKUM - BLOCK REGISTER - 14 Sept 2023 UPDATED.xlsx
112	TAIN II OPEN.shp
113	TAIN_II_BLOCK_AREAS_2013-2023_DEC.shp
114	TAIN_II_PRODUCTIVE_AREAS_2013-2023_DEC.shp
115	TAIN_II_ROCKS_2013-2023_DEC.shp
116	TAIN_II_UNPRODUCTIVE_2013-2023_DEC.shp
117	TAIN_II_UNPRODUCTIVE_AND_ROCKS_2013-2023_DEC.shp
Previous MR	
118	1. MONIT_REP_987_01MAR2008_01AUG2012.pdf
119	2. MONIT_REP_987_02AUG2012_01APR2018.pdf
120	3. MONIT_REP_987_02APR2018_30JUN2019.pdf
121	4. MON_REP_987_28April2022.pdf
Other files	
122	7. Form Ghana model description V2.pdf
123	7. Form Ghana tree growth model description V2.pdf
124	987 Monitoring Report 12 12 2023.docx
125	987_26 12 2023_Risk Rating Report TRACK.docx
126	987_30 10 2023_Risk Rating Report.pdf
127	MG Form Scenarios - Summary Formv6 - 21 08 2023 AfDB.xlsx
128	RAP Compliance Audit Report_Form Ghana_CSIR-FORIG_06_04_2020.pdf
129	RAP Form Ghana - final report_27-11-2018.pdf
130	SEIA Afrensu Brohuma 15_11_2012.pdf
131	SEIA Asubima.pdf
132	SEIA TAIN II.pdf
133	VCS Form Ghana Project Description 19072019.pdf
134	VCS Form Ghana Project Description 31-07-2021.pdf
135	VCS Form Ghana Project Description 7-4-2022.docx
136	FSC 2023.pdf

APPENDIX 2: CORRECTIVE ACTION AND CLARIFICATION REQUESTS

Non Conformities (NCs)/Corrective Action Request (CARs)

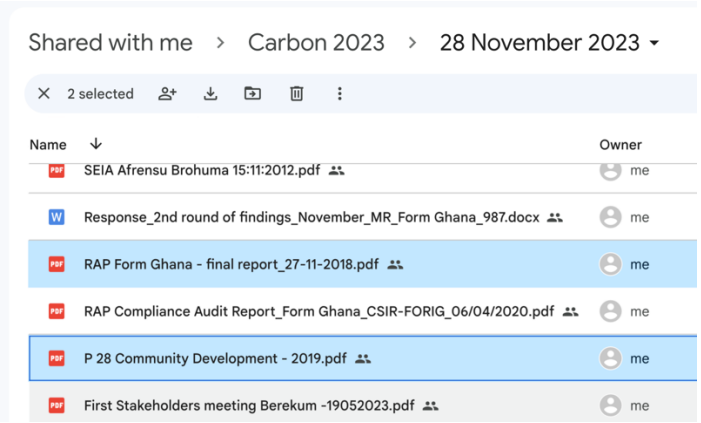
NC/CAR id.	01	Date: 20/09/2023
NC/CAR description		
The monitoring report template v.4.2 has some specific requirements: -Regarding format requirements: ● Within the initial table, the project does not comply with the monitoring period format date. Complementary, in section 1.1 and the table at the end of such section, the month is not reported properly according to the requirements. ● The numbers of the pages in the monitoring report version 1.0 are missing. ● The colour of the font needs to be black colour. However, in some sections the requirement is not met. ● In section 1.3 there are some errors with the font format according to the template ● In section 3.1 and 3.2.1, the PP does not comply with the format requirements of the template. -In section 1.1: 1. the template indicates that the section should not be more than one page, however, the project does not meet such requirement. Complementary, the project needs to include: a summary description of the implementation status of the technologies and measures, equipment, processes, etc. / the relevant implementation dates / the total GHG emission reductions during the MP.		
Project Proponent's Response		Date: 30/10/2023

The following formatting was done: ● Monitoring period date reformatted. All dates edited (months corrected to word form) in section 1.1 and the table at the end of such section. ● The numbers of the pages in the monitoring report added. ● The colour of the font changed to black colour. ● In section 1.3 errors with the font format corrected. ● In section 3.1 and 3.2.1, the format is edited in line with the requirements of the template. -In section 1.1: The section summarised in one page. The following information is included: 1. a summary description of the implementation status of the technologies and measures, 2. equipment, processes, etc. / 3. the relevant implementation dates / 4. the total GHG emission reductions during the MP.	
Documentation provided by the project proponent	
Revised Project Design, "987 Monitoring Report 30 10 2023.pdf"	
VVB's evaluation	**Date:** 03/11/2023
the issues regarding format: #1 the monitoring period format is corrected #2 the page numbers have been added. However, the page header is missing #3the colour has been adapted #4 the format has been adapted in section 1.3 #5 the format is adapted in both sections #6 the issues in section 1.1 have been solved. **New finding**: along the whole document, the PP has used different types of font style, different sizes and some sections have been highlighted in light blue. This is not correct according to the template requirements.	
Project Proponent's Response	**Date:** 12/12/2023
#2– the page header is added. New finding: The text and formats have been updated.	
VVB's evaluation	**Date:** 12/2/2023
Both items have been updated and deemed corrected. Therefore, CAR 01 is closed	

NC/CAR id.	02	Date: 20/09/2023
NC/CAR description		
The VVB has identified the following incongruences: 1. in section 1.6, there are incongruences with the end date of MR v.1.0 and the information of the PDD and previous MRs. 2. in section 2.2, some of the procedures described have a different name within the evidence´s folder shared with the VVB. 3. In section 2.2 there are incongruences with the date of the first meeting and the evidence provided. Also, the location of the meeting carried out in June 2022 is empty and the date of one of the meetings in Berekum is not correct. In other rows, only the year is reported. 4. In section 4.2, the VVB has identified incongruences with the value of the constant to convert biomass to age for mixed tropical trees in parameters monitored and the parameter on the spreadsheet (25.19682) 5. There are incongruences with the numeration of the tables and the references of the different sections along the whole text of the MR v.1.0		
Project Proponent's Response		**Date:** 30/10/2023
DRAFTING *The following edits were done in response to the comments:* 1. in section 1.6, End of Crediting period changed to 01 – March – 2048, in line with previous Monitoring Reports. 2. In section 2.2, the document names of the procedures are aligned with the evidence´s folder shared with the VVB. 3. In section 2.2 the dates of the meetings are aligned with evidence provided. Also, the location of the meeting carried out in June 2022 is provided and the date of one of the meetings in Berekum is corrected. A second table is inserted to highlight the reports published which contains information regarding stakeholder activities that were presented to the VVB during the site visit. 4. The figure (26.114) from the spreadsheet "987_Annexure 1- VCS calculations and info- Form Ghana 2023.xlsx", tab Ind &buffer biomass prognosis, Cell O2 has been updated in the MR. 5. Editing done to fix incongruencies.		
Documentation provided by the project proponent		
Revised Project Design, "987 Monitoring Report 30 10 2023.pdf"		
VVB's evaluation		**Date:** 06/11/2023

1. Section 1.6 has been updated 2. The names have been updated. However, in the evidence folder the VVB identified the following procedures: p06; P07 and P08. Complementary, the PP has created new headers which are not part of the template, such as 2.2.1 or 2.2.2. furthermore, according to the template, there is missing information in section 2.2 such as: *The procedures or methods used for engaging local stakeholders (e.g., dates of announcements or meetings, periods during which input was sought*). 3. There are still incongruences with the dates and the evidence provided in table 3 Formal stakeholder engagements during the monitoring period. The green Ghana Day date is incorrect. Please, also explain why the dates are not sorted by date. 4. The parameter has been updated 5. The tables´references have been updated	
Project Proponent's Response	**Date:** 12/12/2023

2. The following two documents are uploaded to the folder named "**HR Documentation**" in the shared drive.
   - "RAP Form Ghana – final report_27-11-2018.pdf" – this is the Resettlement Action Plan which describes the resettlement activities that Form Ghana undertakes for people because of Form Ghana activities.
   - "P28 Community Development – 2019.doc" - This plan describes the community development activities that Form Ghana undertakes.



3. The new headers 2.2.1 or 2.2.2. have been replaced by letters A to G.

   Section 2.2 has been elaborated to specifically refer to *the procedures or methods used for engaging locals*. The old table 4 is moved to this section. This table describes the types of engagement activities with stakeholders. Also, a paragraph is added under the table to describe the level of engagement with stakeholder. More paragraphs are inserted to provide more detail.

   The green Ghana Day date was changed from 2023 to 2021. The dates are sorted by date for the specific location. First, the activities are listed for Berekum according to dates and then for Akumadan.

VVB's evaluation	Date: 12/12/2023
2. the procedures and the text have been updated and now they are aligned. 3. section updated and deemed correct Therefore, CAR 02 is closed	

NC/CAR id.	03	Date: 20/09/2023
NC/CAR description		

The following incongruences have been identified in section 5.2:

1. In section 5.2, and according to the GIS evidence, there are incongruences with the surfaces of stratification of table 7. Also there are mistakes with the transposition of the values of annex 1 (spreadsheet) – Tatenda check shape files
2. In section 5.2 there are incongruences with the version of the AR-tool 14 among different sections of the MR v.1.0
3. In section 5.2 there are errors with the table 8 and the next table as well as with the spreadsheet (annex 1)
4. In section 5.2, and according to the methodology identified, the following formula is incorrect: BTREE_IND = fIND × Rmix (Eq. 4 AR-TOOL14 – Appendix 1)
5. The areas of table 12 are not correct according to the evidence provided in the Shapefiles.
6. The name of the methodology used is incorrect in section 5.1

Project Proponent's Response	**Date:** 30/10/2023

DRAFTING

The following edits were done in response to the comments raised by the VVB:

1. Response - the figures for 2020 - 2022 represent only planted areas and not the total area shown on the GIS files. The shape files give total polygon areas, but the compartment register shows the planted areas.

   The stratum areas in the monitoring report are representative of the total planted areas which are actual tree stand areas. These areas exclude roads and any other components of the blocks such as unplanted areas. The provided block register shows the planted and unplanted areas per block while the GIS shapefiles show the full spatial area of the blocks as this is necessary to show the cadastral extent of each block and of all instances. It is the actual planted areas which are applied when calculating tree growth and yield parameters. To provide more clarity, block area maps are submitted to the VVB.
2. In section 5.2 the version of the AR-tool 14 confirmed in all sections.
3. In section 5.2 errors in table 8 fixed
4. Removed reference to "Appendix 1" in the equation.
5. The areas used for calculating tree growth and yield parameters are actual planted areas. The block register which shows the planted and unplanted areas has been submitted. (TAIN II BEREKUM BLOCK REGISTER AND AKUMADAN BLOCK REGISTER)
6. The name of the methodology revised in section 5.1

Documentation provided by the project proponent

1. Block area maps are submitted to the VVB.
   a. BLOCK 1 AREA MAP (002).pdf
   b. CARBON MAP AKUMADAN (002).pdf
   c. CARBON MAP AKUMADAN 2023 (002).pdf
   d. CARBON MAP BEREKUM (002).pdf
   e. CARBON MAP BEREKUM 2023 (002).pdf
2. TAIN II BEREKUM BLOCK REGISTER AND AKUMADAN BLOCK REGISTER
3. Revised Project Design, "987 Monitoring Report 30 10 2023.pdf"

VVB's evaluation	Date: 17/11/2023

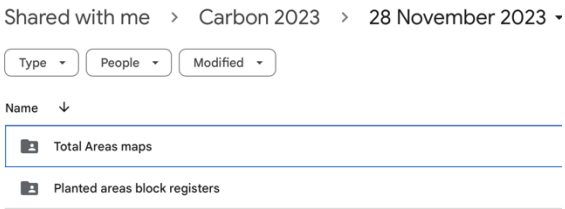
1. Please, provide such information about the difference between the plantation and the real cadastral surface in the MR. detailing what stratums or instances are bigger/smaller in comparison with the GIS. There are still incongruences with the values of the GIS and the values of the spreadsheet. Please, review all the areas. For example, there is a difference between the values of asubima 2008 between the GIS and the carbon calculations. Same for asubima 2010. Please, review all instances and compare with all values in excel.

A	B	C	D	E	F	G	H
Plantation	Forest reserve	Plant yea	Area	$CTREE,t$	$CTREE,t2$	$\Delta CTREE$	Soil carbon
Akumadan	ASUBIMA	2008	225	24651,7	26781,4	2129,7	1143,0
Akumadan	ASUBIMA	2009	511,66	55739,8	65705,8	9966,0	2599,2
Akumadan	ASUBIMA	2010	538,33	57830,2	83012,3	25182,1	2734,7
Akumadan	AFRENSU BROHUMA	2011	845,57	95704,4	122559,1	26854,7	4295,5
Akumadan	AFRENSU BROHUMA	2012	666,2	60512,9	81762,5	21249,6	3384,3
TAIN II	TAIN II	2013	573,78	74441,9	93428,8	18986,9	2914,8
TAIN II	TAIN II	2014	1849,91	196856,5	292964,0	96107,5	9397,5
TAIN II	TAIN II	2015	1098,14	79008,5	143623,2	64614,7	5578,6
TAIN II	TAIN II	2016	87,63	4661,0	9506,4	4845,4	445,2
TAIN II	TAIN II	2017	566,99	19161,5	44014,6	24853,1	2880,3
TAIN II	TAIN II	2018	1597,5	24118,1	79606,4	55488,3	8115,3
TAIN II	TAIN II	2019	863,2	448,8	20455,5	20006,7	4385,1
TAIN II	TAIN II	2020	142,4	141,8	3257,4	3115,6	723,4
Total			**9566,31**	**693277,2**	**1066677,3**	**373400,2**	**48596,9**

2. The version of the methodology has been unified
3. Please, explain why there is a difference between the At=73,690.9 of table 9 and the 373,400 from table 10
4. It is still incorrect. Equation (4) according to the methodology is not the equation reported in page 58 section 5.2
5. The VVB is not able to verify the correct area with the evidence provided (Blocks). Please, explain the origin of the difference, and provide new evidence with the shapefiles indicating the correct size of the areas or the differences between total area and plantation area.
6. The name of the methodology has been corrected.

Project Proponent's Response	Date: 12/12/2023

1. We provide the block registers which show the planted areas (the folder is uploaded under the "28 November 2023" folder contain the files indicating total area and planted areas).



The block registers indicating the planted areas correlate with the areas in the table below. We have updated four area figures in the Stratification table (Table 8, copied below) – these figures are all aligned with the figures in the block registers that show the planted areas. Shapefiles which account for all areas (planted and unplanted) have also been uploaded in the shared drive as indicated in point 5 below. All the calculations are now based on the updated areas.

Table 8

Table 8: Stratification

Forest Reserve	Abbreviation	Year	Teak (ha)	Indigenous (ha)	Buffer restoration (ha)
Asubima (Akumadan)	ASU	2008	143.8		
Asubima (Akumadan)	ASU	2009	511.7		0.5
Asubima (Akumadan)	ASU	2010	619.5	47.7	9.8
Afrensu Brohuma (Akumadan)	AFR	2011	845.6	181.5	3.9
Afrensu Brohuma (Akumadan)	AFR	2012	691.0	80.4	
Tain II (Berekum)	TAIN	2013	573.8	26.7	44.3
Tain II (Berekum)	TAIN	2014	1849.9	194.2	53.4
Tain II (Berekum)	TAIN	2015	1051.8	93.3	130.3
Tain II (Berekum)	TAIN	2016	87.6		33.1

3 This was a typing error. All the figures are now updated to reflect the correct totals.

Table 9

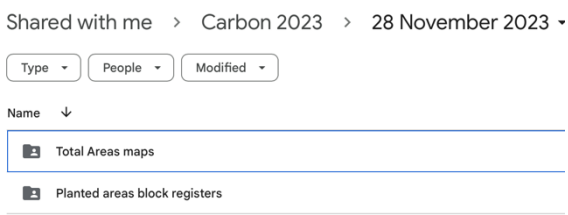
Table 9: Mean tree biomass and associated uncertainty in teak strata

Parameter	Unit	T1	T2	Δt
C_{tree}	tCO_2e	693,277[16]	1, 060,663[17]	367,386
u_c		2.3%	1.7%	3.9%

rounded down from 693,277.2

4 The equation is corrected.

5) Two folders are created on the shared drive:



These two folders uploaded under the "28 November 2023" folder contain the files indicating total area and planted areas. Shapefiles showing both the planted and the open areas/ unplanted areas have been uploaded on the shared drive.

Origin of the difference between the areas: The total area maps show the total area that are available for planting, and the planted areas block registers show the areas that are planted in practice. It is not possible to plant the entire area available (as is indicated on the total maps), because some areas are not practical (or available) to plant, such as rocky areas etc.

VVB's evaluation	Date: 12/12/2023

2, it has been clarified after technical meetings and explanations through the excel

3. it is deemed correct

4. it is deemed correct

5. it is deemed correct

Therefore CAR 03 is closed

NC/CAR id.	04	Date: 20/09/2023
NC/CAR description		

The monitoring report v.4.2 template has specific requirements : 1. In section 1.11 and according to the template, the section needs to be lower than 100 words. Complementary, the following information which is required by the template, is not provided: A summary description of project activities implemented during the monitoring period that result in SD contributions (i.e., technologies/measures implemented, activity location)., and an explanation of how project activities result in the SD contributions described in Table 1 of this report. 2. Section 1.11 indicates that the contribution needs to be quantifiable. However, in some of the contributions over project lifetime, the data provided is not quantifiable, therefore, the requirement is not met. 3. In section 1.11 the template indicates: Using Table 1 below, provide the project's quantifiable contributions to specific targets and indicators of the Sustainable Development Goals (SDGs) for the monitoring period. Use the official list of SDG Targets and Indicators (available here) to identify the SDG Targets to which the project has contributed. Evidence for each contribution shall be identified in accordance with Section 1.11. In the link provided, there is a full description of the contribution and the official list of SDG targets and indicators. However the PP does not report the indicators or the goals properly according to the official list (https://unstats.un.org/sdgs/indicators/indicators-list/) 4. In section 1.11 there is missing one row number in the table of SDG contributions	
Project Proponent's Response	**Date:** 30/10/2023
DRAFTING *The following edits were done in response to the comments raised by the VVB:* 1. Section 1.11 revised to less than 127 words. The following information is provided: a. A summary description of project activities implemented during the monitoring period that result in SD contributions (i.e., technologies/measures implemented, activity location)., b. and an explanation of how project activities result in the SD contributions described in Table 1 of this report. 2. Most of the indicators are removed from the table. Only the ones that are easily quantifiable remain. 3. Only the two relevant indicators remain. 4. Row numbers fixed.	
Documentation provided by the project proponent	
Revised Project Design, "987 Monitoring Report 30 10 2023.pdf"	
VVB's evaluation	**Date:** 17/11/2023

1. Please, explain the reason of the SDG´s number reduction in table 2. From 7 contributions to only 2 in the last version of the MR. complementary, in the current project contributions Row, according to the template: Brief description of the quantifiable impact of the project's activities related to the SDG indicator, during the monitoring period. Also, please review the document (https://unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework%20after%202023%20refinement_Eng.pdf) which is described in section 1.11 of the MR template, for indicating Number and text of SDG indicator or, if no official SDG indicator is applicable, user-defined indicator. 2. Still being not quantifiable in some indicators for the current MR 3. Still incorrect. Please, review the link provided in finding 1 for naming the SDG as the official way 4. It´s corrected.
Project Proponent's Response — **Date: 12/12/2023**
1. Form Ghana reports on only 2 of the SDGs. We don't have the framework to comprehensively quantify and report on the others and will consider this in the future. 2. For both indicators, the project contributions are quantified, one is the CO2 sequestered and the other is the hectares being planted. 3. From the linked document (https://unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework%20after%202023%20refinement_Eng.pdf), we believe that indicators 13.0 and 15.2 are the two relevant ones. These are inserted in the table and described.
VVB's evaluation — **Date:** 12/12/2023
1. the SDG table is considered correct. 2. section updated and deemed correct 3. section updated and deemed correct. Therefore CAR 04 is closed

NC/CAR id.	05	Date: 20/09/2023
NC/CAR description		

The monitoring report template has specific requirements which are not followed by the project proponent in the MR v.1.0: 1. In section 2.1, the template indicates: Summarize any potential negative environmental and socio-economic impacts and the steps taken to mitigate them. However, the requirement is not properly met. Provide further information. 2. In section 2.2, the template indicates: For AFOLU projects, also demonstrate how the project has communicated the following with local stakeholders: The results of project implementation, including the results of monitoring. Any changes, where relevant, to risks, costs and benefits the project may bring to local stakeholders. Any changes, where relevant, to relevant laws and regulations covering workers' right in the host country. The process of VCS Program verification and the validation/verification body's site visit; However the Monitoring Report V.1.0 does not comply with such requirements. 3. In section 2.3, the template has the following requirements for AFOLU projects: provide details about activities implemented to mitigate risks to local stakeholders due to project implementation; The processes used to communicate and consult with local stakeholders during the monitoring period, including any information about any conflicts that arose between the project proponent and local stakeholders and whether any such conflicts were resolved via the established grievance redress procedure. However, the PP does not meet those requirements	
Project Proponent's Response	**Date:** 30/10/2023
Drafting *The following edits were done in response to the comments raised by the VVB:* 1. In section 2.1, it is confirmed that there are no potential negative environmental and socio-economic impacts. 2. In section 2.2, the confirmation is provided that no changes occurred in the monitoring period and the interaction with the VVB is mentioned. 3. In section 2.3 a paragraph is added to describe the items.	
Documentation provided by the project proponent	
Revised Project Design, "987 Monitoring Report 30 10 2023.pdf"	
VVB's evaluation	**Date:** 06/12/2023

1. Section updated and deemed correct
2. please, provide the information in the current MR: For AFOLU projects, also demonstrate how the project has communicated the following with local stakeholders:
   A. • *The results of project implementation, including the results of monitoring.*
   B. • *Any changes, where relevant, to risks, costs and benefits the project may bring to local stakeholders.*
   C. • *Any changes, where relevant, to relevant laws and regulations covering workers' right in the host country.*
   D. *Also the process of VCS verification and the information to the stakeholders about the VVB sit visit*

3. there is still missing information regarding the template requirements. No paragraphs haven been added or marked under trackchanges. Please, provide the requested information about activities implemented to mitigate risks to local stakeholders due to project implementation; The processes used to communicate and consult with local stakeholders during the monitoring period, including any information about any conflicts that arose between the project proponent and local stakeholders and whether any such conflicts were resolved via the established grievance redress procedure.

Project Proponent's Response	Date: 12/12/2023

- Under Section 2.2, the following headings are included in bold and a description provide information for each of the headings.

• *The results of project implementation, including the results of monitoring.*

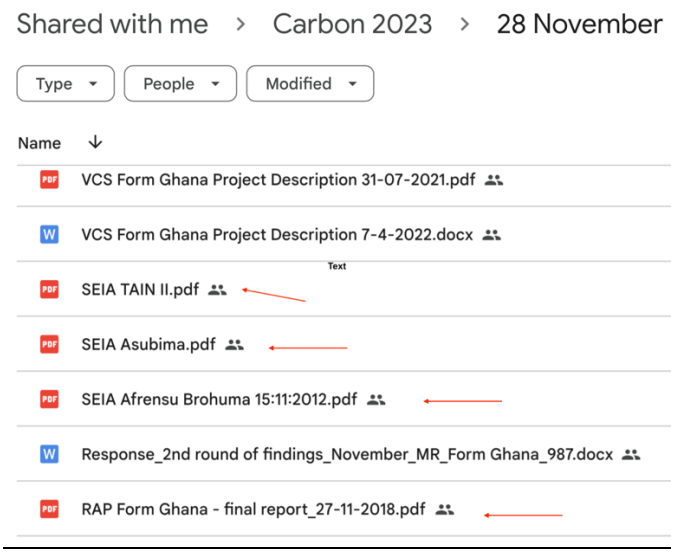
• *Any changes, where relevant, to risks, costs and benefits the project may bring to local stakeholders.*

• *Any changes, where relevant, to relevant laws and regulations covering workers' right in the host country.*

Also the process of VCS verification and the information to the stakeholders about the VVB sit visit

We also added the minutes of two stakeholder meetings that were not yet available during the site visit to the list of stakeholder engagements (Table 3).

- Response:
- The processes used to communicate and consult with local stakeholders during the monitoring period is described more extensively in Section 2.2.
- Mitigate risks to local stakeholders due to project implementation – In section 2.3 a table is added that lists the categories of stakeholders that were identified by Form Ghana at and after the project start. Also, the table summarises the risks associated with the stakeholders (if there are any) and provides a summary of the communication with the stakeholder.
- In Section 2.3, heading "**Stakeholder involvement – Risks to stakeholders",** more information and references to two documents is provided to give more insight into how risk to stakeholders were handled.
- The following documents are uploaded to the folder "**28 November 2023**" in the shared drive:
    - SEIA Tain II.pdf
    - RAP Form Ghana - final report_27-11-2018.pdf, representing This document represents the update of the Socio-Economic Impact Mitigation Action Plan (SEIMAP) for the Form Ghana reforestation project.
    - RAP Compliance Audit Report_Form Ghana_CSIR-FORIG_April 6 2020.pdf
    - SEIA Asubima.pdf
    - SEIA Afrensu Brohuma 15/11/2012.pdf



- The processes used to communicate and consult with local stakeholders during the monitoring period, conflict handling is under Section 2.2 F (**Management of Complaints/Conflicts**). A statement is made to confirm that no conflicts arose during the monitoring period.

VVB's evaluation	**Date:** 12/12/2023
2. section updated and deemed correct 3. section updated and deemed correct. Therefore CAR 05 is closed	

NC/CAR id.	**06**	**Date: 20/09/2023**
NC/CAR description		
In section 4.1 "Data and parameters available at validation", some of the parameters are not included in the validation (PDD) such as: allometric constat for AGB, allometric exponent for AGB, form factor remnant teak, Cassia wood density, BEF Gmelina, etc. Please, explain why these parameters are not fixed in the PDD and also explain why in spite of they are new incorporation into the fixed group, the PP has not created a project description deviation since these are PDD modifications.		
Project Proponent's Response		**Date:** 30/10/2023

1. A revised PDD "VCS Form Ghana Project Description 31-07-2021.pdf" was submitted to Verra during the previous verification round in 2021. The revised PDD is submitted to the VVB. 2. Please refer to Section 4.1 in the 2021 PDD version as referred to in bullet number 1. In Section 4.1, the following parameters are provided: a. Allometric constant for AGB and volume formula for indigenous trees. b. Allometric exponent for AGB and volume formula for indigenous trees (b:,DEF) c. Form factor for remnant teak d. Cassia wood density e. BEF Gmelina
Documentation provided by the project proponent
1. VCS Form Ghana Project Description 31-07-2022.pdf 2. Revised Project Design, "987 Monitoring Report 30 10 2023.pdf"

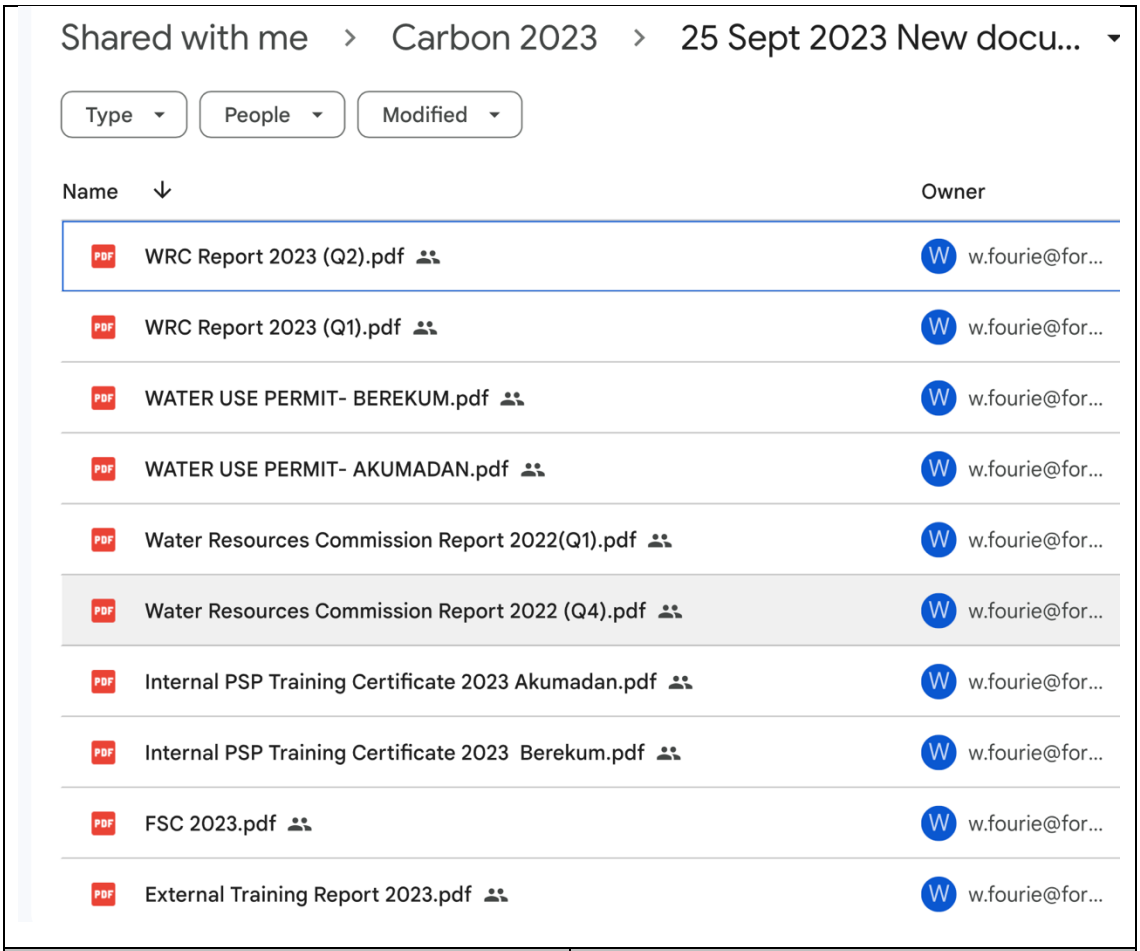
VVB's evaluation	**Date:** 20/11/2023
1. Section clear and deemed correct. Therefore, CAR 06 is closed	

NC/CAR id.	07	**Date: 20/09/2023**
NC/CAR description		
The template indicates: quantify project emissions providing sufficient information to allow the reader to reproduce calculations. However, the section 5, specifically 5.1 and 5.2 does not allow the reader to reproduce calculations. The VVB considers that the section is not clear at all. It is difficult to follow the calculations within the MR and the spreadsheet and the methodology. The section does not follow a proper order and some of the parameters are difficult to be referenced in the spreadsheet. Therefore, the VVB considers that the section does not have the information properly displayed to allow an external reader to understand and reproduce the calculations. Also, the VVB considers that the explanations of the different stratum and forest areas is not clear and could create misunderstandings for the external reader.		
Project Proponent's Response		**Date:** 30/10/2023

Sections in the Monitoring Report were elaborated to provide clarity. The order Section 5 follows the order of the 2021 Monitoring Report approved by Verra and should be read in conjunction with the 2021 PDD.	
Documentation provided by the project proponent	
Revised Project Design, "987 Monitoring Report 30 10 2023.pdf"	
VVB's evaluation	**Date:** 06/12/2023
Excel document has been updated after the technical call between AENOR and PP. However, the MR is not aligned in such sections with the spreadsheet. Please, provide also further details in the MR, such as the difference between plantations, the diagram or calculations flux in the spreadsheet.	
Project Proponent's Response	**Date:** 08/12/2023
The following paragraph, which explains the naming convention of the planted areas, is added under Section 1.7 (Project Location): **Explanation of the naming convention applied to the instances/areas in the project** Throughout the Monitoring Report and the supporting documentation, such as the stakeholder communication documents, we refer to Tain II as Berekum, because Tain II falls within the Berekum District. Similarly, the Afrenso Brohuma and Asubima plantations are referred to as Akumadan. Also, to provide more clarity in the MR, we added the alternative name in brackets.	
VVB's evaluation	**Date:** 12/12/2023
The updates are considered correct. The VVB has reviewed the calculations and the reproduction of such values within the spreadsheets. It is deemed correct. Therefore CAR 07 is closed	

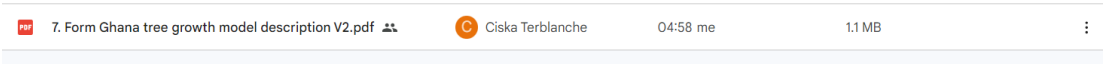
Clarifications (CLs)

CL ID	01	Date: 20/09/2023
CL description		
Please, provide the following evidences: 1. The FSC certificate 2. the assessment carried out by water resources commission. 3. the training of the monitoring team in section 4.3		
Project proponent's response		**Date:** 30/10/2023
Documentation was submitted to the VVB in response.		
Documentation provided by the project proponent		
The following documentation was submitted to the VVB in response: ● *Certificate 2023.pdf* ● *Water Resources Commission Report 2022 (Q4).pdf* ● *Water Resources Commission Report 2022(Q1).pdf* ● *WATER USE PERMIT- AKUMADAN.pdf* ● *WATER USE PERMIT- BEREKUM.pdf* ● *WRC Report 2023 (Q1).pdf* ● *WRC Report 2023 (Q2).pdf*		
VVB's evaluation		**Date:** 06/12/2023
1. The FSC certificate has not been provided yet 2. the water commission reports have been provided 3. the evidence has not been provided		
Project Proponent's Response	**Date:** 12/12/2023	
Please check on the Googledrive: Carbon 2023/25 Sept 2023 New documents. All the documents are there.		



VVB's evaluation	Date: 12/12/2023
All evidence have been provided. Therefore CL01 is closed	

CL ID	02	Date: 20/09/2023
CL description		
Please, provide further details or explanations about the following topics within MR. v.1.0: 1. in section 1.7, please provide further details on the map of the instances 'location. Also, is recommendable to include a GRID to properly identify the instances in the general map (2nd figure) 2. in section 1.11, please explain the relation between the indicator 2.3 about food security and improved nutrition and sustainable agriculture with the activities to increase fire resilience. 3. In section 1.11, please provide further clarification about the training programs stated in the contributions over project lifetime in SDG4 4. In section 1.11, please explain if there is any difference from the 4 additional wells and the 3 mechanized boreholes of SDG 5. Consider that contributions over project lifetime should be cumulative. Also, provide the evidence about the boreholes done in the current MP. 5. In section 2.2, please provide further explanations about the mechanism for on-going communication with local stakeholders. 6. In section 4.2, please provide better explanations about the Form Factor and the origin of this value 7. Specify the value for the parameter Aplot in section 4.2 8. Please, in section 4.3, provide further information about the internal audit carried out for this year or MP 9. In general, the monitoring plan (section 4.3) is confusing. Please follow the requirements and order of the template and when appropriate include line diagrams. Please, provide further explanations about the different forests, farms and plots to make the understanding clearer.		
Project proponent's response		**Date:** 30/10/2023
1. in section 1.7, two new maps are inserted. 2. in section 1.11, the indicator 2.3 has been removed. 3. In section 1.11, the indicator has been removed. 4. In section 1.11, the indicator has been removed. 5. Section 2.2 is elaborated and restructured to provide more background about the mechanism for on-going communication with local stakeholders. 6. In section 4.2, the form factor description in section 4.2 has been expanded on. 7. The value of the parameter Aplot has been specified in section 4.2 8. In section 4.3 (j), more text is added to describe the internal audit. 9. A table is provided with a description of the activities that take place in the different areas. This is to provide context to the monitoring procedures. We numbered the items, but we are not sure where the confusion is. We followed the same layout as was submitted in the previous MR and the latest PDD. The different areas are clearly shown with headings, so there should not be any confusion.		

Documentation provided by the project proponent	
VVB's evaluation	**Date:** 06/11/2023
1. section 1.7 updated and deemed correct 2. section 1.11 has been updated 3. idem 4. idem 5. section updated and deemed correct 6. please, explain where the PP has done the mentioned updates 7. please, provide the evidence of the number of plots stated in such parameter 8. section 5.3 updated for including information about internal auditing process 9. section updated and deemed correct	
Project proponent's response	**Date:** 07/12/2023
6.The growth model was updated in 2019 and submitted to Verra during the previous verification. The update of the growth model involves section measurements for which the volume equation is developed. Thinnings are carried out at three points in the cyclical production for Teak (ages 4, 12 and 16). The next growth model update is due in 2024 where section measurements will be done again. For this monitoring period, the 2019 model was applied. The model has been uploaded in the shared folder (see screenshot below).  7. Columns A and L in the Akumadan and Tain II raw data spreadsheets (see screenshots for the paths in the shared folder).	

Shared with me > ··· > Raw data > Akumadan

Type | People

Carbon 2023
28 November 2023
Raw data and preliminary per block analysis

Name		Last modified	File size
PSP Data 2023-Indigenous.xlsx	Tatenda	30 Nov 2023 Tatenda	100 KB
2012-PSP Data 2023.xlsx	Tatenda	30 Nov 2023 Tatenda	489 KB
2011-PSP Data 2023-Akumadan.xlsx	Tatenda	30 Nov 2023 Tatenda	497 KB
2010-PSP Data 2023- Akumadan.xlsx	Tatenda	30 Nov 2023 Tatenda	329 KB
2009-PSP Data 2023-Akumadan.xlsx	Tatenda	30 Nov 2023 Tatenda	414 KB
2008-PSP Data 2023-Akumadan.xlsx	Tatenda	30 Nov 2023 Tatenda	100 KB
2006-PSP Data 2023-Akumadan.xlsx	Tatenda	30 Nov 2023 Tatenda	64 KB
2001 PSP Data 2023 Area Akumadan.xlsx	Tatenda	30 Nov 2023 Tatenda	45 KB

Shared with me > ··· > Raw data > Berekum

Type | People

Carbon 2023
28 November 2023
Raw data and preliminary per block analysis

Name		Last modified	File size
TAIN II BEREKUM- BLOCK REGISTER DATA - 22 June 2...	Tatenda	30 Nov 2023 Tatenda	27 KB
Indigenous PSP data 2023.xlsx	Tatenda	30 Nov 2023 Tatenda	2 MB
Gmelina PSP data 2023.xlsx	Tatenda	30 Nov 2023 Tatenda	225 KB
2020 area PSP Data 2023.xlsx	Tatenda	30 Nov 2023 Tatenda	290 KB
2019 area PSP Data 2023.xlsx	Tatenda	30 Nov 2023 Tatenda	1.1 MB
2018 area PSP Data 2023.xlsx	Tatenda	30 Nov 2023 Tatenda	2 MB
2017 area PSP data 2023.xlsx	Tatenda	30 Nov 2023 Tatenda	715 KB
2016 PSP area Data 2023.xlsx	Tatenda	30 Nov 2023 Tatenda	402 KB
2015 area PSP Data 2023.xlsx	Tatenda	30 Nov 2023 Tatenda	1.1 MB
2014 area PSP Data 2023.xlsx	Tatenda	30 Nov 2023 Tatenda	2.2 MB
2013 area PSP Data 2023.xlsx	Tatenda	30 Nov 2023 Tatenda	715 KB

Count for number of plots in the raw data spreadsheets are then transferred to Columns Z and AD in the EP C TEAK tab and column L in the EP C INDIGENOUS tab in 987_Annexure 1-VCS calculations and info.

VVB's evaluation		Date: 12/12/2023
6. it is deemed correct 7. it is deemed correct		
CL ID	03	Date: 20/09/2023
CL description		
Please provide explanations of the following topics in section 5: 1. In section 5.1, provide explanations to demonstrate the origin of the values 0.41 and 0.52 within RIT, RT and IT 2. In section 5.1 is stated that the 2021 PDD provided the methods used to calculate the total AGB… however according to the Verra Registry, there is not any PDD in 2021. The project was validated before. 3. In several occasions, the PP talks about 2021 monitoring report. Please confirm if this is referred to the current MP. 4. According to the 'CDM AR-TOOL 14' a deduction rate of 37% means a relative margin of error greater than 100%, please clarify how this margin of error was obtained. 5. The parameters and values of the spreadsheet are fixed many times and it is not possible to check the origin of the cells. Please, provide a spreadsheet with the corresponding formula and linked figures between cells in the spreadsheet to allow the following of the traceability of the calculations. 6. Please, explain why in some tables, some parameters have been rounded (down) while other parameters have not.		
Project proponent's response		Date: 30/10/2023
1. In section 5.1, 0.52 tons Carbon per hectare was used for the new plantings in 2019 and 2020. The 0.52 originates from the previous monitoring report (refer to MON_REP_987_28April2022.pdf, Section 5.1). 2. The PDD that was submitted on 31 July 2021 is submitted to the VVB "VCS Form Ghana Project Description 31-07-2022.pdf". 3. Section 5.1 corrected to reflect the correct monitoring report, i.e. "MON_REP_987_28April2022.pdf" available on the Verra Registry. 4. According to the 'CDM AR-TOOL 14' a deduction rate of 37% means a relative margin of error greater than 100%, please clarify how this margin of error was obtained. The uncertainty for the Teak VCUs 0.02% while that for the indigenous VCUs is 17.8%. This is based on the t-value and the discount factors. 5. The parameters in the spreadsheet have been provided with corresponding formula. Where parameters are still fixed, they have been taken directly from the raw data spreadsheets which are also provided. 6. The final VCU claims have all been rounded down to ensure that there is no overestimation. This is the conservative approach.		
Documentation provided by the project proponent		

VVB's evaluation	Date: 07/12/2023

1. In the MR, the PP has stated that the values come from the VCS PDD 31/07/2022. Please, explain where is possible to find the origin of the values within the PDD. The VVB has not find such information regarding the 0.41 and 0.52.
2. In the document it is said that the 2021 PDD provided the methods used to calculate the .... [...]. However, the new PDD shared is 2022 PDD. Please explain the difference
3. There are still references to the 2021 MR along the document
4. According to the tool 14 v.04.2, if the uncertainty is within 15 and 20, the discount is 50%. Please, clarify the origin of the 37%.
5. The spreadsheet provided is deemed correct.
6. The PP has updated the values and it is deemed correct

Project proponent's response	Date: 12/12/2023

1. This figure (0.52) originates from Annex 1 (Annex I VCS calculations Form Ghana 2021 v.2.xlsm, Sheet "Parameters", Cell "B21") from the previous Monitoring Report ("MON_REP_987_28April2022.pdf, page 35) and in process is also described in the 2019 PDD (VCS Form Ghana Project Description 19072019.pdf), Section 3.1.1, page 37 where the distribution of carbon stocks for IT and RT in the forest reserves is illustrated and also the carbon stock estimation was calculated by felling a number of trees for the land preparation. The 2019 PDD is uploaded to the shared folder for your perusal (VCS Form Ghana Project Description 19072019.pdf).
    a. The 0.52 is applied (and approved) in calculations submitted in the previous verification. Refer to the spreadsheet that was submitted to Verra in the previous verification round: "Annex 1 VCS calculations Form Ghana 2021 v.2.xlsx", sheet "Parameters", Cell B21.
    b. 0.41 is excluded from the paragraph as it has historical relevance, but is not relevant for the purpose of the Monitoring Report.
2. This was a typing error. The PDD shared is the 2021 version. We corrected this in the MR.
3. References to the previous MR corrected (MON_REP_987_28April2022.pdf).
4. On page 52 of the MR, we delete the paragraph referencing the baseline stocks for Akumadan mixed degraded forest as there were no new plantings monitored for the purposes of carbon sequestration. The 37% discount is not relevant to this monitoring period and it originates from the previous monitoring period and the previous MR.

The discount applied for the indigenous strata is 50% as according to the Tool 14 v.04.2. See 987_Annexure 1-VCS calculations and info in the EP C INDIGENOUS tab, cell range B16 to B26.	
VVB's evaluation	**Date:** 12/12/2023
After technical meeting, and properly update of the documentation, the VVB considers that the information is correct. Therefore CL 03 is closed	

CL ID	04	Date: 20/09/2023
CL description		
Please provide the following regarding the Non Permanence Risk Report: 1. The Cashflow of the project 2. The total external risk is missing		
Project proponent's response		Date: 30/10/2023
The cashflow was provided separately to the VVB. The Risk Report was revised.		
Documentation provided by the project proponent		
The cashflow was provided separately to the VVB. Second version of the Risk Report is submitted: 987_30 10 2023_Risk Rating Report.pdf		
VVB's evaluation		Date: 06/11/2023
the NPRR (updated) has not been provided in the previous round of findings		

Compartido conmigo > Carbon 2023 > 30 October 2023

Tipo | Personas | Modificado

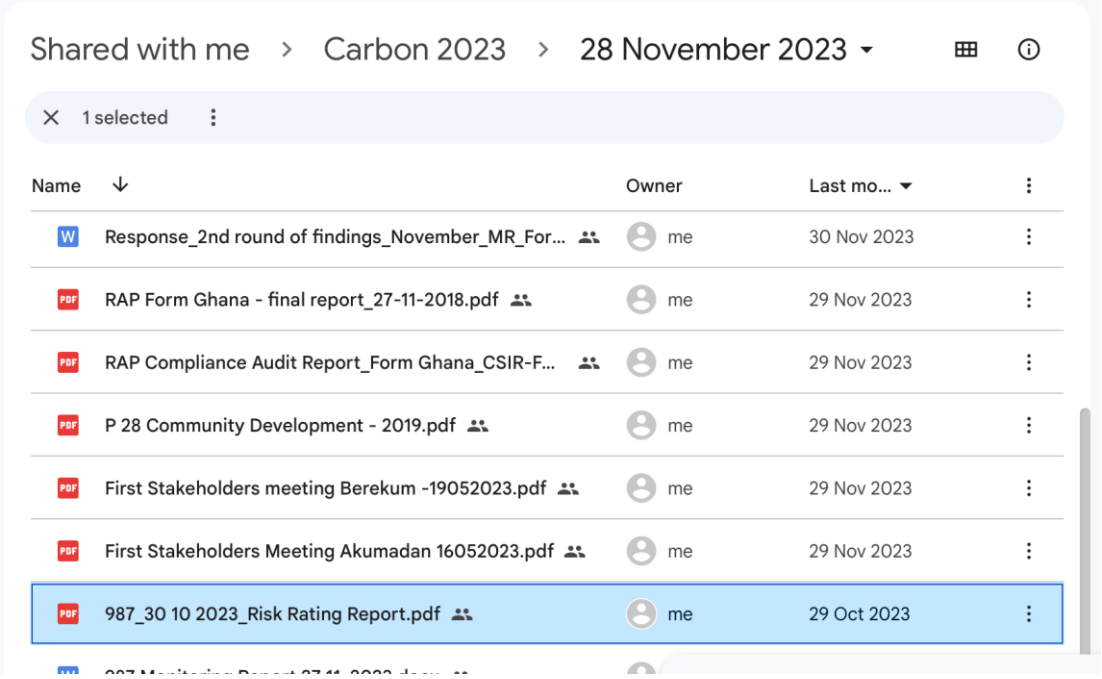
Nombre	Propietario	Última modificación	Tamaño de a
spreadsheets and pdf maps	Tatenda	24 oct 2023 Tatenda	—
VCS Form Ghana Project Description 31-07-2021.pdf	Ciska Terblanche	25 oct 2023 Ciska Terblanc...	7 MB
2023 10 30_1st Findings_MR_Form Ghana_987.docx	Ciska Terblanche	30 oct 2023 Ciska Terblanc...	550 kB
987 Monitoring Report 30 10 2023.docx	Ciska Terblanche	30 oct 2023 Ciska Terblanc...	3,3 MB

Compartido conmigo > Carbon 2023 > 30 October 2023 > spreadsheets and pdf m...

Tipo | Personas | Modificado

Nombre	Propietario	Última modificación	Tamaño de a
Quality control- Internal audit graphs.docx	Tatenda	30 oct 2023 Tatenda	58 kB
QC and regular measurements correlation-deviations.xlsx	Tatenda	25 jul 2023 Tatenda	26 kB
carbon summary analysis-tain II indigenous .xlsx	Tatenda	24 oct 2023 Tatenda	13 kB
carbon summary analysis- akumadan indigenous.xlsx	Tatenda	24 oct 2023 Tatenda	19 kB
carbon summary analysis tainII-teak.xlsx	Tatenda	24 oct 2023 Tatenda	54 kB
carbon summary analysis akumadan-teak.xlsx	Tatenda	24 oct 2023 Tatenda	32 kB
CARBON MAP BEREKUM 2023 (002).pdf	Tatenda	24 oct 2023 Tatenda	653 kB
CARBON MAP BEREKUM (002).pdf	Tatenda	24 oct 2023 Tatenda	607 kB
CARBON MAP AKUMADAN 2023 (002).pdf	Tatenda	24 oct 2023 Tatenda	357 kB
CARBON MAP AKUMADAN (002).pdf	Tatenda	24 oct 2023 Tatenda	348 kB
BLOCK 1 AREA MAP (002).pdf	Tatenda	24 oct 2023 Tatenda	244 kB
average deviations- QC-REG-all.sta	Tatenda	22 jun 2023 Tatenda	11 kB
Annexure 1- VCS calculations and info- Form Ghana September 2023.xlsx	Tatenda	26 oct 2023 Tatenda	424 kB

Project proponent's response	**Date:** 12/12/2023
Risk Report is uploaded under the folder 28 November 2023 on the shared drive.	



The cash flow is sent by email:

xxx

VVB's evaluation	Date: 06/11/2023
The evidence provided is deemed correct. Therefore CL04 is closed	

APPENDIX 3: ATTENDANCE SHEET

AENOR
Confía

ATTENDACE LIST

PROJECT: Form Ghana
LOCATION: Berekum site 4 Plantation.
MEETING TOPIC: Community engagement and Staff Interview
DATE: 6/9/23

No	NAME & SURNAME	ROLE/PROFESSION/STAKEHOLDER GROUP	COMMUNITY	SIGNATURE
1	Nana Bach Brentu	Kofaa Queen Mother	Kofaa	[signature]
2	Nana Yaa Fowaah	Kofaa Chief	Kofaa	[signature]
3.	Baah Emmanuel	Committe Secretary	Kofaa	[signature]
4	Kojo Mensah	Committe Member	Kofaa	[signature]
5	Richard Ofori	Committe Member	Kofaa	[signature]
6.	Assare Edward	Committe Member	Kofaa	[signature]
7	Kwame Obrah	Committe Member	Kofaa	[signature]
8	Oppong David	Committe Member	Kofaa	[signature]
9	Evelyn Affreh	Environment & Social Officer	Form Ghana Ltd.	[signature]
10	Theophilus Nii L. Amartey	Intercropping Supervisor	Form Ghana Ltd.	[signature]
		Farmers Intercropping		
1.	Zuobog Emmanuel	Intercropper	Kofaa	[signature]
2.	Zaafor Broh	Intercropper	Kofaa	[signature]
3	Gladys Agyegiwe	Intercropper	Arkokrom	[signature]
4	Joseph Adam Ansah	Chief Security Officer (FG)	Form Ghana Ltd	[signature]

AENOR
Confía

ATTENDACE LIST

PROJECT: Form Ghana
LOCATION: Akumadan and Berekum.
MEETING TOPIC: Stakeholders Meeting
DATE: 5/9/23.

No	NAME & SURNAME	ROLE/PROFESSION/STAKEHOLDER GROUP	COMMUNITY	SIGNATURE
	Owusu Daniel	Coordinating Director	District Assembly	[signature]
	Abdallah Ibn Anass	Development Planning Officer	District Assembly	[signature]
	ALBERT SEFA BOAMPONG	DISTRICT CHIEF EXECUTIVE	OFFINSO NORTH DISTRICT ASSEMBLY.	[signature]
	Sophia Annorbah-Sarpei	Assist. DIST. MANAGER	FORESTRY COMMISSION (FSD)	[signature]
	Olivia Kusi	Administrative Officer	Forestry Commision (FSD)	[signature]
	Samuel Ameyaw	Forest Range Manager	FORESTRY COMMISSION (FSD)	[signature]
	Nana Yaboah-Dartah II	Acting President, Berekum Trad. Area	Berekum Traditional Area	[signature]
	Alhassan Ahmed Saakah	Registrar	Berekum Traditional Council	[signature]
	Amoako Adams	Head of Administration	Berekum East Mun. Assembly	[signature]

PAGE OF

AENOR
Confía

ATTENDACE LIST

PROJECT: Form Ghana

LOCATION: Akumadan

MEETING TOPIC: Community Meeting

DATE: 5/9/23

No	NAME & SURNAME	ROLE/PROFESSION/STAKEHOLDER GROUP	COMMUNITY	SIGNATURE
	Sakinatu Agufu	Farming/charcoal burning	Konkomba	
	Alice Ibrahim	Farming		
	Samana Adongo	Farming/charcoal burning		
	Adaratu Dramani	Apprantice Seamstress		
	Sherifa Adam	Farming/charcoal burning		
	Sanatu Fuseini	Farming/charcoal burning		
	Abubakari Ekimofu	Student		
	Abubakari Hamdiatu	Student		
	Asana Karim	Farming/charcoal burning		
	Mariama Kojo	Farming/charcoal burning		
	Awabu Zagban	Farming/charcoal burning		
	Ama Mayewim	Farming/charcoal burning		
	Adam Fatawu	Farming		
	Abu Yalimbie	Farming		
	Alhassan Joseph			
	AMINA YAYA			
	Karim Adam			
	Akeribona Joseph			

PAGE OF

AENOR
Confía

ATTENDACE LIST

PROJECT: FORM GHANA

LOCATION: Akumadan.

MEETING TOPIC: Community Meeting

DATE: 5/9/23

No	NAME & SURNAME	ROLE/PROFESSION/STAKEHOLDER GROUP	COMMUNITY	SIGNATURE
	Mohammed Bukari	Farming	Konkomba	
	Kofi Amoah	Farming		
	Adam Alhassan	Farming		
	Abubakari Razak	Farming		
	Zaga John	Farming		
	Mohammed Adongo	Farming		
	Mahamudu Dabariga	Farming		
	Joseph Adongo	Farming		
	Maimunatu Daari	Farming		
	Memuna Tampuri	Farming/charcoal burning		
	Mariama Bawa	Farming/charcoal burning		
	Lucy Seidu	Charcoal burning		
	Sadina Naaba	Farming/charcoal burning		
	Bimata Abdul-Rahman	Charcoal burning		
	Zinatu Naku	Charcoal burning/Farming		
	Akosua Ali	Farming/charcoal burning		
	Ayisheta Gigit	Farming/charcoal burning		
	Zenabu Bawa	Farming/charcoal burning		

PAGE OF

AENOR
Confía

ATTENDACE LIST

PROJECT: Form Ghana
LOCATION: Akumadan.
MEETING TOPIC: Meeting the Monitoring team
DATE: 4/9/2023.

No	NAME & SURNAME	ROLE/PROFESSION/STAKEHOLDER GROUP	COMMUNITY	SIGNATURE
1	Faustina Agyewaa	Monitoring Supervisor	Form Ghana Limited	[signature]
2	Nangwelle Peschal	monitoring worker	Form Ghana Limited	[signature]
3	Forber Veronica	Monitoring worker	Form Ghana Limited	[signature]
4	Tangkpara Ramsons	Monitoring worker	Form Ghana Limited	[signature]
5	Bayampa Solomon	Monitoring Worker	Form Ghana Limited	[signature]
6	Neeire Valentine	Monitoring Worker	Form Ghana Limited	[signature]
	Yahaya Mohammed	Security man	Form Ghana Limited	[signature]
	Eric Antwi	Security man	Form Ghana Lim	[signature]

PAGE OF

AENOR
Confía

ATTENDACE LIST

PROJECT: FORM GHANA
LOCATION: AKUMADAN
MEETING TOPIC: OPENING MEETING
DATE: 4/9/2023 (12.30)

No	NAME & SURNAME	ROLE/PROFESSION/STAKEHOLDER GROUP	COMMUNITY	SIGNATURE
1	W Fourie	CEO	Form Ghana	[signature]
2.	Matthew Essuman	Commercial Manager	Form Ghana	[signature]
3.	C. Terblanche	CMO - documentation	CMO	[signature]
4.	Amoako Alexander	Harvesting & Technical Manager	Form Ghana	[signature]
5	Ontwaneym Paul	Enviral & Social Manager	FORM GHANA	[signature]
6.	Philip A. Galley	Monitoring Supervisor	FORM GHANA	[signature]
7	Augustine Affum	Plantation Manager	Form GHANA	[signature]

PAGE OF

AENOR
Confia

ATTENDACE LIST

PROJECT: Form Ghana

LOCATION: Form Ghana Limited Berekum.

MEETING TOPIC: Sampling team and Form Ghana Staff Interviews

DATE: 08-09-2023

No	NAME & SURNAME	ROLE/PROFESSION/STAKEHOLDER GROUP	COMMUNITY Berekum	SIGNATURE
1.	Joseph Boamah	Supervisor Sampling	Kato	
2.	Augustine A. Kyeremeh	Leader Sampling	Jamdede	
3.	Frank Ofori	member Sampling	Berekum	
4.	Douglas Owusu	member Sampling	Jamdede	
5.	Augustina Frimpong	member	Biadan	
6.	Cynanda Effah	member	Jamdede	
7	Oliver Asamoah Boateng	G.I.S. OFFICER	BEREKUM	
8.	Vincent Agyeman Boateng	GIS/Ops Room Supervisor	Berekum	
9.	Iffah Victoria	Operations Room Operator	Berekum	
11	Afia Yeboah Bediako	Plantation Manager	Berekum	

PAGE OF