COMBINED PRODUCTION FACILITY & OUTPUT AUDIT REPORT

KEY PROJECT INFORMATION		
REPORT ID	PE.JVV.25.011(5)	
REPORT TITLE	Truecoco Ghana Ltd Biochar Facility combined facility and Output Audit Report	
REPORT DATE	25/09/2025	
VERSION NO	1.0	
CO_2 REMOVAL SUPPLIER	Truecoco Ghana Ltd	
PRODUCTION FACILITY NAME	Truecoco Ghana Ltd's Biochar Facility	
PRODUCTION FACILITY ADDRESSES	Badyloon Street, Tikobo No.1, Jomoro District, Western Region, Ghana	
PRODUCTION FACILITY ID	816220	
PRODUCTION FACILITY COORDINATES	Latitude: 5.0423491 Longitude: -2.701473	
REPROTING PERIOD	01/04/2025 – 04/08/2025	
CO_2 SINK SECTOR	Biochar	
APPLIED METHODOLOGY	Biochar Methodology Edition 2022, v3.0	
PURO.EARTH STANDARD VERSION	Puro Standard General Rules Version 4.1.	
NET VOLUME OF CO_2 REMOVAL	870.80 CORCs	
CLIENT	Puro. earth	
PREPARED BY	Earthood Services Limited	
APPROVED BY	 Dr. Kaviraj Singh	
WORK CARRIED OUT BY	Team Leader & Methodology Expert Assessor (TA Expert 13.1) Technical Reviewer & Methodology Expert	Mohd Aamir Khan Saranya Balu Anjali Chaudhary

Earthood

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1. INTRODUCTION

Earthood Services Limited (formerly known as Earthood Services Private Limited) was contracted by Puro. Earth to undertake a production facility and output audit for the project facility "Truecoco Ghana Ltd Biochar Facility" to verify the CO2 removal claims for the period spanning from 01/04/2025 to 04/08/2025. The purpose of the audit was to check the requirements of a Production facility and Output audit and the eligibility of the activity type as per Puro earth certification process. This report summarizes the findings and conclusions of the production facility and output audit, conducted as a formal part of the Puro. Earth certification process. Earthood affirms that it is an impartial auditor, free from any conflicts of interest, capable and qualified to complete this audit in accordance with the Puro Standard and the associated Validation and Verification Body Requirements.

Truecoco Ghana Ltd Biochar Facility is operated by Truecoco Ghana Ltd as per the Environmental Permit/11/ issued by the Environmental Protection Agency (EPA) of the Sekondi region of Western Ghana. The Biochar facility utilizes coconut husks as the agricultural waste feedstock to produce biochar sourced from suppliers who are co-operatives across the Takarodi - Sekondi region. These cooperatives are formed by different small-scale farmers across the Takarodi region of Western Ghana/15/. The supply of biomass feedstock from the cooperatives to the Biochar facility has been verified through the agreements with the cooperatives and through the waybill delivery slips during the reporting period 1st April 2025 to 4th August 2025/56/57/.

Agricultural organic waste defined as harvest residues by EBC under ID 05/63/, such as coconut husks undergoes pyrolysis to produce biochar which is sold separately and also as a fertilizer blend with compost to be sold as a fertilizer. Truecoco Ghana operates a continuous biomass carbonization system with a processing capacity of 2 metric tonnes (MT) per hour as verified through the technical specifications and purchasing contract of the pyrolysis equipment by Truecoco Ghana Ltd/8/. Due to set-up of the chipper as the pre-processing step in the process, the average processing capacity is 1.5-2 MT/hr. The average daily production of biochar is 36 – 40 tonnes which was verified through the biochar production records/34/. The biochar production capacity is 0.5 to 0.8 tonnes of dry weight biochar per hour. This was validated through production equipment questionnaire/49/ and the mass and energy balance of the production process/62/.

1.1 OBJECTIVES

The objective of this audit is to conduct a third-party assessment of the operational and administrative processes of the production facility and output generated along with the CORCs produced during the reporting period from 1st April 2025 to 4th August 2025. The assessment is a

joint validation and verification of Truecoco biochar facility and verifies compliance of all project documentation and supporting materials with the rules and requirements of the Puro Standard General Rules Version 4.1. In particular:

- Project conformance to the Puro Standard General Rules v.4.1
- Project conformance to the applied biochar methodology Edition 2022 v3.0.'
- Life Cycle Assessment (LCA) Model and Report
- CORC Report Summary
- Uncertainty and Reversal risk estimation
- Monitoring and Reporting Plan
- Additionality Assessment Report
- Stakeholder Consultation
- Environmental and Social Safeguards.
- Project Description

1.2 LEVEL OF ASSURANCE

☒ Reasonable Level of assurance

☐ Limited Level of assurance

Earthood's verification approach is based on understanding the risks associated with reporting GHG emissions data and assessing the controls in place to mitigate these risks. The production facility review involved obtaining sufficient evidence, information, and explanations to provide a reasonable level of assurance. The assessment team reviewed adequate evidence to verify the project implementation, data and parameters and emission removal calculations for this reporting period. Any discrepancies identified during the production facility review and verification assessment were raised as audit findings and successfully resolved. All audit findings are documented in Appendix 2 of this report.

During the production facility and output audit review, the assessment team conducted an on-site inspection of the project activity, as detailed in Section 2, and observed no substantial changes, thereby meeting the requirements for a reasonable level of assurance.

1.3 AUDIT TEAM

The audit involved a desk review of the relevant documentation, on-site visit(s), and technical review. The personnel employed and their roles in this assessment were as follows. The assessment team's qualifications are attached as Appendix 3.

Roles allocated to the assessment team						
Role	Name	Nature of involvement				
		Desk Review	On Site Visit	Reporting	Supervision	Technical Review
Team Leader & Methodology Expert	Mohd Aamir Khan	Y	N	Y	Y	-
Validator (Assessor)	Saranya Balu	Y	Y	Y	Y	-
Technical Reviewer & Methodology Expert	Anjali Chaudhary	-	-	-	-	Y

2 AUDIT PROCESS

A structured series of audit activities was executed during the on-site audit to independently validate and verify facility operations, installed equipment and measuring devices, production and output data and CORC claims. From the biomass feedstock entering the facility to different operational steps involved in the conversion of coconut husks to biochar to the Environmental and social safeguards, the production records of biochar, by-product waste disposal mechanisms were also verified during the on-site visit. The audit activities were conducted in accordance with the *Puro Standard General Rules* (Version 4.1)/01/ and the *Puro Biochar Methodology* (Edition 2022, Version 3)/06/. Specific audit activities conducted are summarized below. A completed Puro Biochar Methodology Compliance Checklist used during the audit is attached to this report as Appendix 1.

1. **Opening meeting:**
    a. Conducted an initial meeting to outline the audit objectives, scope, and methodology.
    b. Reviewed key operational measurement points and instrumentation used in the facility.
    c. Review of ownership details, roles and responsibilities of the removal suppliers.
2. **System Inputs and Outputs Review:**
    a. Examined the inputs (biomass feedstock) and outputs (biochar) of the production system.
    b. Verified the accuracy and consistency of input and output data.
    c. Reviewed the process flow from agricultural waste biomass to end product-biochar.
    d. Checked the mechanisms in place for waste disposal, syngas treatment & water recycling.

e. Examined and the efficacy of Environmental and social safeguards at the facility

3. **Records Examination**:
    a. Inspected feedstock receipt records, including delivery slips and inventory logs, to verify the accuracy and traceability of input materials
    b. Reviewed production logs documenting daily pyrolysis operations and production outputs to ensure consistency with reported data
    c. Assessed equipment utilization and maintenance records to confirm proper operational management and adherence to maintenance schedules.
4. **Data Collection and Material Handling Procedures:**
    a. Evaluated data collection methods and tools to ensure accurate tracking of production metrics.
    b. Observed material handling procedures to ensure compliance with operational standards and efficiency.
5. **Equipment and Calibration Review:**
    a. Checked the calibration records for all measurement instruments and equipment used in the production process.
    b. Ensured that all equipment was properly maintained and functioning correctly.
6. **Safety and Social Security Arrangements:**
    a. Assessed the safety measures implemented at the production facility, including worker safety protocols, spill response plan, waste disposal policy and emergency response procedures.
    b. Reviewed employee social security arrangements, grievance mechanisms to ensure compliance with applicable local regulations and standards.
    c. Conducted interview with local stakeholder to verify the stakeholder engagement process and the existence of ongoing grievance mechanisms.
7. **Compliance Checklist:**
    a. Used the Puro Biochar Methodology Compliance Checklist to systematically verify adherence to the specified standards.
    b. Documented findings and ensured all criteria were met, with any discrepancies noted and addressed.
8. **CORC Claims Verification**
    a. Independently validated and verified the facility's CO2 Removal Certificates (CORCs) claims.
    b. Cross-checked CORC claims against the production and output data to ensure accuracy and legitimacy.

These activities collectively ensured a comprehensive audit of the biochar production plant, validating its operations, data integrity, and compliance with the Puro Biochar Methodology version

3.0/06/. The completed Puro Biochar Methodology Compliance Checklist is attached to this report as Appendix 1.

List of Interview conducted during on-site audit are as follows.

S. No.	Interviewee			Date	Team member(s)
	Last Name	First Name	Affiliation		
1.	Lynford	Freddy	Founder, Truecoco Ghana Ltd's Biochar facility	11th September 2025	Saranya Balu
2.	Orr	William	Project Manager, Truecoco Ghana Ltd's Biochar facility		
3.	Kagey	Daniel	Head of Supply, Truecoco Ghana Ltd's Biochar facility		

S. No	Stakeholders Interviewee			Date	Team member(s)
	Last Name	First Name	Affiliation		
1.	Awloe	Kanro	Stakeholder (Biomass Supplier)	11th September 2025	Saranya Balu
2.	Boadl	Owush	Stakeholder and Farmer (End user of Biochar)		
3.	Anyimah	Charles	Stakeholder and Farmer (End user of Biochar)		
4.	Boadl	Awusu	Stakeholder and Farmer (Coconut husk supplier & End User)		

5.	Kwateng	Kwasi	Stakeholder and Farmer (Coconut husk supplier & End User)		

Questions asked to the Stakeholders:

1. Did you attend the stakeholder consultation meeting?
2. When was the stakeholder consultation meeting conducted?
3. When did you receive the invitation to the meeting?
4. What were topics discussed during the meeting?
5. Do you know how to provide feedback, concern or grievance about the project and how?

The information provided by the stakeholders has been found to be consistent with the Puro Stakeholder Engagement Report/12/. The Stakeholders who majorly include biomass feedstock suppliers, and the biochar end-users were interviewed during the on-site visit.

Grievances during Stakeholder Meeting Held in November 2024

Grievances during the Stakeholder meeting held on November 2024 were discussed during the on-site audit. The questions provided below were raised to the stakeholders during the on-site audit held on 11th September 2025,

1.How did you receive payments?

Currently, the suppliers, who are farmers from different cooperatives, receive payments in cash, which are directly provided by the head of supply (supervisor). Meanwhile, Truecoco management is in discussions with Terraspect regarding the implementation of a transparent digital payment system. This was verified through email communication between the Truecoco team and Terraspect, a start-up specializing in transparent financial infrastructure/60/.

2.*Did you get training on biochar application?*

The biochar end-users, who also supply feedstock biomass (coconut husks), undergo periodic training sessions conducted by Daniel, the Head of Supply at Truecoco Ghana Ltd's biochar facility.

3.*Have there been round tables discussing the application of biochar?*

In the Takoradi- Sekondi region of Western Ghana, the suppliers of biomass feedstock are also biochar end-users. The suppliers of biomass feedstock (coconut husks) are farmers from different cooperatives. These farmers from the cooperatives have regular discussions regarding the usage of biochar and the application of biochar in different crops such as cocoa, papaya and other crop varieties.

4.*How do you contact Truecoco?*

The biomass suppliers and biochar end-users communicate with Truecoco through Daniel, the Head of Supply. As a local resident of the Takoradi-Sekondi region, Daniel serves as the primary point of contact for stakeholders regarding queries or grievances.

5.*Are you aware of the Project and the timeline?*

The stakeholders are aware of the biochar project and its production process from coconut husks. They are also informed about Truecoco's carbon removal goals set for 2030.

6.*Content regarding success stories about the project discussed?*

During the on-site visit to the facility and discussions with stakeholders, the biomass feedstock suppliers and biochar end-users emphasized the increased use of biochar, noting that its application has resulted in improved crop growth and yields compared to prior practices. The biochar end-users also requested additional quantities from William Orr, the Project Manager, as the biochar is currently being provided free of cost.

7.*Are programs being held to improve local farming practices?*

Currently, no programs are being conducted to improve local farming practices. However, during discussions, William Orr highlighted that Truecoco management has planned programs for the coming months to provide guidance on the use of biochar in selected crops, along with trainings and workshops on local farming practices that promote the cultivation of regionally suitable crops.

8.*Are farmers aware of the rate of feedstock? Is there transparency in the feedstock payment?*

Since the biomass suppliers are farmers organized under cooperatives, they are aware of the feedstock rates, which are approximately 100 GHS per metric tonne. As the cooperatives are based in the Takoradi-Sekondi region of Western Ghana, the farmers are familiar with the prevailing local market rates for coconut husks. Additionally, an arrangement between Terraspect and Truecoco for implementing a transparent digital payment system is under consideration/60/. However, the transition to digital payments is expected to be gradual, as most farmers emphasized the convenience of cash transactions.

9.*Are you aware of CO_2 removal plans of Truecoco by 2030 and Truecoco's plan for CO_2 removal?*

Most stakeholders were aware of Truecoco's objective to become a leading player in carbon removal technology in West Africa and its target of removing more than 250,000 MT of CO_2 from the atmosphere by 2030 through biochar production.

Questions specifically asked to the End-user of Biochar:

1.What materials were applied to the soil in the project scenario?

2.When was the most recent application of biochar to the soil conducted?

3.What type of soil amendment was used before the implementation of the project?

4.What soil amendment methods are being used in the project scenario?

5.Which soil-amendment combination is considered most beneficial for microbial activity?

6.What has been the response or feedback from users regarding the use of biochar?

7. What happens to the vegetables grown in soil where biochar has been applied?

Positive feedback has been received from biochar end-users regarding its application in soil for crop cultivation. The combination of biochar and fertilizer was found to be most effective, particularly in enhancing moisture retention, which promotes improved microbial activity and results in higher crop yields. Overall, the end-users expressed satisfaction with the performance of biochar. However, they also indicated a desire to receive larger quantities from the carbon removal supplier. This information was compiled during the on-site assessment/26/.

3 RESOLUTION OF FINDINGS

The process for raising the findings (corrective actions, non-conformities, or other findings) by the assessment team was carried out during the desk review phase and from the site visit observations and discussions. As an outcome of the audit process, the assessment team can raise different types of findings according to the following understanding:

1. A clarification request (CL) is raised where information is insufficient or not clear enough to determine whether the applicable requirements of the registry have been met.
2. When a non-conformance arises, the team leader raises a Corrective Action Request (CAR). CAR is issued, where:
    a. The project participant made mistakes that would influence the ability of the project activity to achieve real, measurable, and additional emissions reduction.
    b. The standard and methodology requirements have not been met; there is a risk that emissions reductions cannot be monitored or calculated.
    c. The auditing process may be halted until this information is made available to the team leader's satisfaction. Information or clarification provided as a result of CL may also lead to CAR.
3. A Forward Action Request (FAR) will be raised when certain issues related to project implementation are reviewed during the following validation/verification assessment.

During the Production Facility & Output Audit, a total of 10 CLs and 3CARs were raised and resolved satisfactorily. The list of CARs/CLs/FARs raised, and the responses provided, means of verification,

reasons for their closure, and references to corrections in the relevant documents are provided in Appendix 2 of this report. No FAR was raised during this assessment.

4 PRODUCTION STANDING DATA & PROJECT DESCRIPTION

GENERAL INFORMATION	
Production Facility Name	Truecoco Ghana Ltd's Biochar Facility
Facility ID	816220
CO_2 Removal Supplier registering the production facility	Truecoco Ghana Limited
Location	Badyloon Street, Tikobo No.1, Jomoro District, Western Region, Ghana
Verified CORC Factor	2.18* CORCs per ton Biochar
Dry mass of Biochar used (for which CORCs are claimed)	399.42 dry metric tonnes
Verified CORCs for the reporting period from 1st April 2025 to 4th August 2025	870.80 ton CO_2 eq CORCs
Removal Methodology for which the plant is eligible to receive CORCs	Biochar Methodology Edition 2022 V3
Production facility has benefitted from public funding	No
Removal method specific information as may be specified in the relevant removal method methodology	Biochar, Pyrolysis Process

**The calculated value of CORC factor is 2.180170052. The value presented in the table is rounded down to two decimal places. The dry mass of biochar (399.42 dry metric tonnes) on multiplication with CORC factor (2.180170052) equals to 870.80 CORCs.*

Technical and Non-Technical Description of the Project:

The biochar production process begins with the preprocessing of coconut husks, which are mechanically chipped in an industrial chipper. This preprocessing step ensures uniform particle size and bulk density, which are essential for maintaining consistent heat transfer and residence time within the pyrolysis chamber. The prepared particles serve as feedstock for the carbonization furnace.

Using diesel-fuelled wood powder burners, the rotary kiln of the carbonization furnace is pre-heated to approximately 550 °C. Thermal decomposition of the coconut husks takes place in the absence of oxygen, with the feedstock continuously fed into a rotating inner tube of the anaerobic pyrolysis furnace.

Here, it is carbonized, releasing pyrolysis gas (syngas). The syngas is directed to a cyclone dust separator, followed by a sprayer tower and cooling tower. After preliminary treatment, the syngas is recirculated to sustain the carbonization process. By-products such as wood vinegar and tar are removed at periodic intervals by the waste supervisor. Waste from the carbonization furnace is disposed of in accordance with local regulations, verified through the service contract between Truecoco Ghana Ltd. and Heaven Helps Ltd./17/, and further cross-checked against the Waste Disposal Policy and Spill Plan /16.a/16.b/.

The resulting biochar is cooled using a water-based cooling system and discharged at ambient temperature for metering and sealed packaging. Sampling and dry mass determination of the biochar are carried out in line with Truecoco's relevant SOPs/52/, with guidance documents provided to suppliers on procedures for determining dry mass/53/. Depending on application needs, the biochar may be applied directly to soil as an additive or blended with other materials for use as fertilizer.

The equipment list and technical specifications were verified using the technical specification documents /39/. The production process was confirmed through the pyrolysis equipment contract/08/, process diagrams, and cross-checked during the physical site visit to the production facility. Internal calibration measures are followed by the project owner and were verified through internal calibration documents, calibration certificates, and on-site cross-checks/40/46/. The conversion ratio of biomass feedstock to biochar was found to be approximately 3.5:1, verified through production logs/34/ and incoming biomass feedstock capacity. The biochar produced undergoes EBC (European Biochar Certificate) testing to ensure its suitability for soil application and agricultural practices /33/. Biochar samples were systematically collected once per continuous production period, excluding the first and last day of production, which typically occurred once a week. Consecutive samples of the same biochar type produced under identical operating conditions were consolidated and stored under a common sample ID/52/. The frequency of the laboratory tests for biochar analysis is performed every monitoring period (between two output audits) where the analysis is scheduled to be completed within the last quarter of the monitoring period as verified through the Biochar sampling plan/52.b/. The biochar samples submitted for analysis were representative of the batch produced and reflected the seasonality and variability in biomass feedstock and production conditions, thereby complying with para 5.3.6 of Puro Biochar Methodology/06/. Based on the on-site audit /28/, review of sample records/65/, batch production records/34/, photographic evidence of sampled biochar/66/, and discussions with facility personnel, it was confirmed that the biochar monitoring and sampling plan was effectively implemented.. The supplier has further ensured that additional analyses will be undertaken and transparently reported whenever significant deviations are observed in feedstock or production conditions, such as changes in production temperature, residence time, or feedstock composition.

Baseline Scenario and Additionality:

In the baseline scenario of the project activity, the biomass feedstock – coconut husks were found to be incinerated or left to decay in the project area. Through independent research, it was found that it is evident for most regions in Takorado-Sekondi region of Western Ghana to lack formalised organic waste management systems/43/. Open burning and uncontrolled decomposition of biomass waste are prevalent disposal practices in Ghana.

The CO_2 removal supplier has demonstrated financial additionality in accordance with the CDM Tool 27: Investment Analysis/36/. The step wise demonstration of additionality in line with the Puro Additionality Assessment Requirements/3/ is provided below:

Step 0: Is common practice analysis needed: Is the methodology TRL 8 or 9

The Puro Additionality Assessment Requirements, Version 2.0 defines technology readiness level (TRL) of Biochar methodology as 6-7. Since, common practice analysis is required for the technologies with TRL 8 OR 9, the demonstration of common practice analysis is not required for current project activity. Therefore, Step 1: Common Practice Analysis is not demonstrated.

Step 2: Financial analysis options: Does the project have other income besides carbon finance? Or is capex large element in costs?

The project activity has not received any subsidies from the government initiatives but plans to sell the produced biochar at below market prices. Therefore, project activity will have income sources other carbon finance also. Accordingly, the carbon removal supplier has demonstrated the financial additionality through investment analysis/61/.

As the project is planning to sell biochar at a price lower than market rates and thereby will generate the income beyond the carbon revenue related income, a simple cost analysis offers a per ton biochar sold comparison but fails to capture the full financial viability of a biochar project. Therefore, a detailed investment analysis is essential for a comprehensive financial assessment.

Net Present Value (NPV) has been chosen as the financial indicator for the demonstration of financial unviability for project activity. All the input financial parameters considered for NPV are provided by the carbon removal supplier with investment decision on 15th May 2024, after association with investment partner. The fair value of the project activity assets at the end of the assessment period are included as a cash inflow in the final year. All project costs have been determined prior to the start date of the project and verified by the assessment team from invoices provided by the carbon removal supplier.

The para 19 under section 6 of CDM Tool 27/36/ states *"If there is only one possible project developer, either internal company benchmarks/expected returns may be applied, or the benchmark based on standard conditions in the market may be used"*. The tool further guides to demonstrate the applicability of benchmark with respect to similar projects in the same sector in the country/region. The

Truecoco financial model has set a project IRR of 20% as per the standard range for the Biochar projects and for the similar project regions as supported by the UNDP Africa Investment study/67/ and the peer reviewed research on technoeconomic feasibility of biochar projects/68/. Therefore, the IRR benchmark selected for demonstration of additionality, along with NPV is appropriately selected in line with the CDM Tool 27/36/. The financial model projects a NPV value of 2.18 million USD with revenues from CORCs and biochar when sold at the price of 160 USD and 20 USD respectively, with a total of 117% project returns. However, in absence of revenues from CORCs, but selling biochar at 20 USD/tonne, the NPV of the project reached to – 3.38 million USD, with 0% project returns as demonstrated below:

Situation1: Financial performance of the project with Carbon finance

Price per CORC (USD)	160
Biochar per MT (USD)	20
Project returns	117%
IRR	20%
NPV (USD)	2.18 million USD

Situation2: Financial performance of the project without Carbon finance

Price per CORC (USD)	0
Biochar per MT (USD)	20
Project returns	0%
IRR	20%
NPV (USD)	-3.38mn

The impact of CORC revenue on project NPV was evaluated under four different price scenarios, demonstrating that variations in CORC prices have a significant influence on project NPV. A sensitivity analysis has also been demonstrated with key variables in the project activity which are cost of feedstock, CORC price and biochar price. None of the assessed combinations yield a financially feasible or attractive scenario. Therefore, it is concluded that the proposed carbon project activity is neither the most financially or economically attractive option nor financially or economically viable without carbon revenue, a negative NPV is achieved. Therefore, the project activity is deemed additional in line with the Puro Additionality Assessment Requirements, Version 2.0/3/.

5 QUANTIFICATION OF CO_2 REMOVAL

Quantification of net carbon dioxide removal

The net carbon dioxide removal is calculated using carbon stored in Biochar, emissions from biomass processing, emissions from biochar production, and emissions from biochar application.

The formula that is used for calculating CORCs is

CORCS = E_{stored} -- $E_{biomass}$ -- $E_{Production}$ -- E_{use}

The CORCs are calculated for the reporting period from 01st April 2025 to 04th August 2025.

INPUT	VERIFIED RATE	UNIT	NOTES (Specifications, source, etc)
Biomass supply inputs (collection, handling, transportation emissions), ($E_{biomass}$)	**2.35**	tonne CO_2-eq	The emissions from Ebiomass include emissions from transportation – specifically the transportation from the suppliers to the Biochar facility. The verified average transport distance is within 3 kms, as confirmed from the route map depicting the start point and end point. The same has been verified during on site audit/26/. Emission factors were sourced from reputable database: transportation from Ecoinvent.3.1 as mentioned in the LCA sheet/27/. All emission factor values are detailed in the "Database" sheet of the LCA model. A total of 1479.45 MT of biomass feedstock was accounted in the calculation of Ebiomass which is 80% of the incoming feedstock delivered to the Truecoco plant as verified through the delivery slips from the suppliers/15/. An allocation factor of 0.96 has been applied based on the "total wet biochar applied' and the "total dry biochar applied" as detailed in the 'Production summary sheet' of the True_CORC_Report summary datasheet/27.b/. The total emissions associated with biomass processing for the reporting period amount to **2.35 tCO_2e.** All the sources used in the calculation of biomass processing include the emissions from the transportation and are found acceptable by the assessment team/38/. The calculations used for the determination of $E_{biomass}$ has been provide in $E_{biomass}$ datasheet of the *Truecoco_CORC_Report_Summary* datasheet has been found appropriate by assessment team/27.b/.
Production and operation emissions output ($E_{production}$)	**57.48**	tonne CO_2-eq	The emissions from biochar production include those associated with the use of capital goods, and the consumption of electricity, water, diesel, packaging materials, transportation and construction during the production process as verified through the LCA report/25/. Emission factors and activity data for each source are documented in the corresponding sheets of the LCA model as per reputed

			databased Ecovent.3.1. An allocation factor of 0.96 has been applied based on the "total wet biochar applied' and the "total dry biochar applied" as detailed in the 'Production summary sheet' of the *Truecoco_CORC_Report summary* datasheet/27.b/. Based on these inputs, the total emissions from the biochar production stage are calculated to be **57.48 tCO_2e**. The assessment team verified the sources such as costs related to construction, packaging, invoices of diesel, electricity bills, fuel logs/38/ used in the calculation of emissions related to production and were found acceptable.
Product distribution emissions output (E_{use})	**1.32**	tonne CO_2-eq	The emissions from the usage of biochar account for two primary application pathways: (1) direct sale and application of biochar to soil by buyers, and (2) production of biochar-fertiliser blend, where biochar is mixed with soil before sale. Emissions under this category include transportation of biochar from the production facility to end users. Based on the activity data and emission factors included in the LCA model, total emissions from the use phase are calculated to be **1.32 tCO_2e.** The sources such as transportation details have been reviewed and verified through the Biochar use records/29/, end user agreements/32/ and evidence against input LCA values/38/.
E_{stored}	**-931.96**	tonne CO_2-eq	The project produced and applied a total of 399.42 metric tons of biochar as verified through the production records/29/. Laboratory analysis determined that the organic carbon content of the biochar was 80.3%, with a hydrogen content of 1.8%/33/. The average soil temperature for the project location was determined to be 27°C, based on global datasets for annual mean soil temperature at a depth of 5–15 cm which was verified through the Statement on Soil Temperature data sources/44/. The Estored is **-931.96 tCO_2e**. The assessment team verified the calculations in the LCA Model and were found acceptable/27.a/.
Biochar used for which CORCs are claimed	**399.42**	Dry metric tonnes	The biochar for which the CORCs are claimed has been verified through delivery slips to end-users, end-user agreements with farmers and agri-

			offtakers, and the LCA model/27.a/. The application of biochar was also assessed during on site audit/26/.
CORCs issued	**870.80**	CORCs	The value is correctly calculated based on the total production of biochar during the reporting period, and cross checked with the LCA calculation sheet/27.a/ and biochar logs/29/.

Formula CORCS = $E_{stored} - E_{biomass} - E_{Production} - E_{use}$		
$E_{biomass}$	2.35/399.42	0.01 tonne CO_2-eq/tonne biochar
$E_{production}$	57.48/399.42	0.14 tonne CO_2-eq/tonne biochar
E_{use}	1.32/399.42	0.0033 tonne CO_2-eq/tonne biochar
E_{stored}	-931.96/399.42	-2.33 tonne CO_2-eq/tonne biochar
CORC Factor	870.80/399.42	2.18 CORCs/tonne biochar

6 FINAL OPINION

Based on the assessment team's comprehensive review of the project documentation, thorough site inspection, and subsequent follow-up actions, Earthood Services Limited has gathered sufficient evidence to conclude that the production facility "Truecoco Ghana Ltd's Biochar Facility" meets the requirements outlined in the Puro Standard General Rules Version 4.1 for a production facility and output audit. We confirm that the Puro Biochar Methodology Edition 2022 version 3 has been correctly applied for output and CO_2 removal calculation.

The project implementation aligns closely with the information provided in the project documentation, and monitoring procedures adhere to the prescribed methodology. Furthermore, the removals achieved during the current monitoring period have been accurately calculated without significant discrepancies.

Our verification approach in facility and output audit for the reporting period 1st April 2025 to 4th August 2025 is grounded in a deep understanding of the risks associated with reporting GHG emission data and the implementation of controls to mitigate these risks effectively. Based on the evaluated information, we affirm that the emission removals for the reporting period from 1st April 2025 to 4th August 2025, amount to 870.80 CORCs.

Therefore, Earthood Services Limited confirms the production facility's capability to effectively remove CO_2 and the requirements of the Production facility audit are met as per the Puro Standard General Rules version 4.1 and Biochar Methodology Edition version 3. Thus, Earthood requests the issuance of CORCs for the first reporting period.

APPENDIX 1: METHODOLOGY COMPLIANCE CHECKLIST

Methodology Compliance Checklist			
Section 1.1 Eligible activity type			
1.1 Requirements for activities to be eligible under the methodology			Requirement met?
	Verification Method	Verification remarks	
1.1.1 Biochar must be used in applications that preserve its carbon storage property (e.g. greenhouse substrates, surface water barrier, animal feed additive, wastewater treatment, insulation material, landfill/mine absorber, soil additive). Biochar must not be used in applications that destroy its carbon storage, e.g. fuel or reductant uses.	1. The amount of biochar applied is verified through the biochar delivery slips/58/. The biochar delivery slips and usage records for the period April 2025 to August 2025 have been provided by the removal supplier. The LCA model has been developed using data from the same time period. 2. Soil application pictures and videos- Geotagged and time stamped/31/. 3. End-user agreements demonstrating the intended application of biochar by the end-user as a soil amendment/32/. 4. Physical site visit to the site of application. The biochar is applied to	The time stamped and geotagged photographs of soil application of biochar/31/ confirm that the biochar is used in application that preserves its carbon storage property. The soil application of biochar was also observed during onsite audit and interviews with end user farmers/26/ which confirms that the biochar is used as soil additive in the farms. Therefore, the assessment team confirms that the biochar is being used in application that preserve its carbon storage properties.	Y

	the farms and interviews were held with the end users of the farms/26/.		
1.1.2 Biochar must be produced from sustainable biomass: sustainably sourced biomass, or waste biomass such as agricultural waste, biodegradable waste, urban wood waste or food waste.	1. Waste Biomass such as coconut husks are used as feedstock for the biochar production. Supplier declarations from Truecoco's suppliers confirming that the biomass feedstock, namely coconut husks, originates from the agricultural regions of Jomoro District, Western Region of Ghana/57/, along with waybill records issued during the delivery of coconut husks to the biochar facility/56/. 2. A physical site visit to verify the existence of agricultural waste incoming to the facility where the coconut husks were processed in the biochar facility/26/.	The biomass feedstock is sourced from Truecoco's suppliers, consisting of farming cooperatives located in the Jomoro District, Takoradi. This is verified through supplier agreements/57/ indicating the origin of the feedstock and the list of cooperatives provided by the carbon removal supplier. Furthermore, the leaders of these cooperatives were engaged during stakeholder discussions conducted as part of the physical on-site visit. Therefore, the assessment team confirms that the biochar is produced from sustainably sourced biomass. The agricultural waste biomass including harvest residues such as husks are included under EBC's positive list of biomass feedstock/63/. The biomass sustainability criteria adhere to the Puro Earth	Y

		Biomass Sourcing Criteria version 1.0/5/ in terms of the soil quality and carbon stock.	
1.1.3. The producer must demonstrate net negativity with results from a life cycle assessment (LCA) or carbon footprint of the biomass production and supply, the biochar production process, and of the biochar use, including disaggregated information on the emissions arising at different stages and from different greenhouse gases. The LCA shall follow the general principles defined in ISO 14040/44 and the scope defined in this methodology (sections 3 and 4).	1. Life Cycle Assessment report of Biochar/25/ from agricultural waste by Truecoco Ghana Ltd's Biochar facility in line with • ISO 14040:2006 (Environmental management — Life cycle assessment — Principles and framework, 2006) • ISO 14044:2006 (Environmental management — Life cycle assessment — Requirements and guidelines, 2006) • Puro. Earth biochar methodology version 3 (Puro. Earth, 2022) 2. LCA calculation sheet /27.a/	The supplier has submitted a Life Cycle Assessment (LCA) report for Truecoco Ghana Ltd.'s biochar production and application, providing information on emissions arising at different stages and from various greenhouse gases. The report covers emissions data for each stage of production and application over the period April 2025 to August 2025, with data collected during the same reporting period. The assessment team has cross-verified the input values in the calculation sheet against the supporting evidence provided by the project developer/38/ and confirms that the net-negative emissions are accurately represented. The reporting is consistent with the requirements of ISO 14040 and the applied methodology /6/, as explicitly stated in	Y

		Section 1 of the report. Accordingly, the requirement is deemed to be met.	
1.1.4. In the biochar production process, the use of fossil fuels (coal, oil, natural gas) for ignition, pre-heating, or heating of the pyrolysis reactor is permitted. However, the co-firing of fossil fuels and biomass in the same reaction chamber is not permitted, as fossil carbon may be mixed with the biochar product. The greenhouse gas emissions associated with use of these fuels must be included in the LCA (i.e. supply of fuel, combustion of fuel, fugitive emissions), as for any other energy and material input used during the production process	1. No cofiring is observed in the retorts at the plant site during the on-site visit /26/ and also through the process diagram of the production process/30/. 2. The syngas generated from the carbonization furnace is first collected through a cyclone dust collector and subsequently directed into a syngas purifier, followed by passage through a sprayer tower and a cooling tower. The processed syngas from the cooling tower is then reintroduced into the carbonization furnace/30/. 3. The LCA calculation sheet accounts for the combustion of diesel fuel /27.a/.	The gasifier produces flue gas which is used for self-sustaining heating process. During the on-site visit, it was confirmed that there is no co-firing of fossil fuels and biomass in the same reaction chamber. There are different chambers for the heating up the furnace and the biomass. There is a syngas purifier, cyclone dust collector to collect the flue gas to avoid its emissions through the atmosphere. This was verified during the on-site visit/26/, process flow diagram of production process/30/ and Puro Environmental Evaluation report/14/. The greenhouse gas emissions associated with the fuels are accounted in the LCA sheet/27/. Thus, the requirement is met.	Y

1.1.5. In the biochar production process, the pyrolysis gases must be combusted or recovered through an engineered process that either negates or makes negligible any methane emissions to the atmosphere. Bio-oil and pyrolysis gases can be stored for later use as renewable energy or materials.	1.The syngas generated from the carbonization furnace is first collected through a cyclone dust collector and subsequently directed into a syngas purifier, followed by passage through a sprayer tower and a cooling tower. The processed syngas from the cooling tower is then reintroduced into the carbonization furnace which was verified through the process flow diagram/30/ and the on-site visit/26/. 2.Preliminary report on Air emissions conducted at Truecoco Plant at Tikobo 1 in the Western region by SGS/59/.	The retort is designed to redirect syngas for combustion, thereby preventing its release into the atmosphere. Through the on-site audit /26/, it was verified that a syngas purifier and a cyclone dust collector have been installed to capture flue gas and prevent its emission to the air. The collected flue gas is redirected into a separate chamber of the carbonization furnace, where it undergoes combustion and is subsequently passed through a cyclone dust collector. The level of emissions from treated flue gas was cross-verified through the Preliminary report on Air emissions conducted at Truecoco Plant by SGS/59/. Accordingly, the requirement is deemed to be met.	Y
1.1.6. The biochar produced must have a molar H/C_{org} ratio lower than 0.7. The $HC_{org}/$ ratio is an indicator of the degree of carbonization and therefore of the biochar	Biochar Analysis Report issued by Eurofins Umwelt confirms that the molar Hydrogen-to-Organic carbon ratio is 0.26 for the analysed sample dated 4th August 2025/33/.	The molar H/C_{org} ratio was lower than 0.7, therefore the biochar produced is considered of suitable quality as per the qualitative analysis report provided by Eurofins Umwelt for	Y

stability. Values exceeding 0.7 are an indication of non-pyrolytic chars or pyrolysis deficiencies		Biochar/33/. Thus, the requirement is met.	
1.1.7. The biochar produced must meet any product quality requirements existing in the jurisdiction where biochar is used and for the specific applications considered. In other words, the biochar produced must be legal to use in the manner proposed.	The Biochar Analysis Report from Eurofins Umwelts for Biochar certifies that the biochar from Truecoco Ghana Ltd's Biochar facility is compliant with the standard requirements and the testing standards applicable to use in the jurisdiction/33/.	The report of biochar analysis from third-party, nationally accredited lab/33/ confirms the sample meets the European Biochar Certification (EBC) criteria thereby the biochar quality is found to meet the requirements applicable for agricultural usage.	Y
1.1.8. Measures must be taken to ensure a safe working environment, cleaner production principles (see section 5.3.6), and safe handling and transport of biochar, e.g. to prevent fire, dust and health hazards. Such safety measures include, but are not limited to, providing a Material Safety Data Sheet, post-production quenching and cooling of biochar, and appropriate flue gas treatment systems	1.On-site observations/26/ 2. Fire certificate/22/ 3.Puro Environmental Evaluation report/14/ 4.Puro Environmental and Social Safeguards Questionnaire/13/ 5. Material Safety Datasheet/50/ 6.Truecoco's Health & Safety Manual/45/	Potential emissions and associated pollutants have been identified, with appropriate mitigative measures in place as verified through the *Puro Environmental Evaluation Report/14/*. Occupational health and safety measures have also been implemented by the facility, as confirmed through the *Puro Environmental and Social Safeguards Questionnaire/13/*. These environmental and safety measures are considered effective in controlling emissions and ensuring safe	Y

		operations. In line with *Truecoco's Health & Safety Manual/45/*, safety protocols are established for all employees. Additionally, the *Material Safety Data Sheet (MSDS)* was reviewed to verify information on the substance's hazards, safe handling, storage, stability, reactivity, and emergency measures. Thus, condition is met.	

Section 1.2 Requirements for the production facility audit			
	Verification Method	Verification remarks	Requirement met?
1.2.1 The Production Facility Auditor checks the Production Facility against the Requirements for activities to be eligible under the general rules of Puro Standard and the specific requirement in this methodology (section 1.1.), and the Proofs and evidence needed from the CO_2 Removal Supplier (section 5).	The assessment team conducted an On-site Production Facility Audit/26/.	The assessment team confirms that the production facility is in compliance with the Puro Standard General Rules (version 4.1)/1/, Additionality Assessment Requirements (version 2.0)/3/, Stakeholder Engagement Requirements (version 1.1)/4/, and Puro Biochar Methodology/6/, as detailed in Section 2 of this report.	Y
1.2.2. The CO_2 Removal Supplier shall be able to	1. Puro Environmental Evaluation report/14/	The documents submitted by the supplier demonstrate that the production facility	Y

demonstrate Environmental and Social Safeguards and that the Production Facility activities do no significant harm to the surrounding natural environment or local communities	2. Truecoco's Annual Environmental Report/24/ 3. Stakeholder Engagement Report/12/ 4. Environmental and Social Safeguard questionnaire /13/ 5. Material Safety Datasheet/50/ 6. Truecoco's Health & Safety Manual/45/ 7. Waste Disposal Policy/16.a/ 8. Spill Response plan/16.b/ 9. Service Contract with Waste Disposal Agency/17/	complies with local environmental and social regulations, and that stakeholder engagement was undertaken alongside the EIA report. The Environmental Impact Evaluation Report/14/ lists the probable emissions from the production process and outlines the corresponding mitigative measures for emission control and avoidance. During the on-site assessment, stakeholders who participated in the November 2024 stakeholder meeting were interviewed. The assessment team verified the medium of communication used for the meeting, the topics discussed, and the grievance-handling mechanism. Through the Material Safety Data Sheet/50/, it was verified that provisions for emergency preparedness, safety, biochar handling, and job operating procedures were in place. The Truecoco Safety and Health Manual/45/ further confirmed that adequate systems exist for the safe	

		handling of biochar within the facility. In addition, the Waste Disposal Policy/16.a/ and Spill Response Plan/16.b/ confirmed that by-products such as wood vinegar and tar are collected and managed in accordance with regulatory requirements. Truecoco has also established an agreement with the waste disposal agency, Heaven Help Ltd/17/ for the safe disposal of waste manifests. Interactions with local community members confirmed that no significant environmental harm has resulted from the operations of the production facility. These plans and procedures were reviewed and discussed during the on-site audit, and interviews with facility personnel further verified their implementation during the site visit/26/.	
1.2.3 The CO_2 Removal Supplier shall be able to demonstrate additionality, meaning that the project must convincingly demonstrate that the	1. Financial spreadsheet of Truecoco Ghana Ltd'sBiochar Facility/61/ 2. Additionality Truecoco Ghana Ltd's Biochar	The CO_2 removal suppliers have demonstrated financial additionality through Investment analysis according to the CDM Tool 27 Investment Analysis/36/ and Puro Additionality Assessment	Y

CO_2 removals are a result of carbon finance. Even with substantial non-carbon finance support, projects can be additional if investment is required, risk is present, and/or human capital must be developed. To demonstrate additionality, CO_2 removal Supplier must provide full project financials and counterfactual analysis based on Baselines that shall be project-specific, conservative and periodically updated. Suppliers must also show that the project is not required by existing laws, regulations, or other binding obligations.	Facility.pdf – Puro Earth Baseline and Additionality Assessment Questionnaire /35/	Requirements/3/. The project also does not receive any public subsidies as confirmed from interview with the owner of the Truecoco Ghana Ltd's Biochar Facility. This is in compliance with the Puro Additionality Assessment Requirements/3/ for demonstrating investment analysis. The CO_2 removal supplier has appropriately filled in the Baseline and Additionality Assessment Questionnaire/13/, disclosing the cost structure of the capital and operational expenditure, providing all evidence documentation of the pyrolysis and processing contract, operation and maintenance costs, material costs, labour expenses and the production costs/38/. The assessment team confirms that investment analysis is the appropriate method to demonstrate additionality since project aims to generate income from biochar sales and how carbon finance will help in recovering the investment costs, biochar production costs, O & M costs. Through	

		sensitivity analysis performed part of the Investment analysis, the impact of key variables was assessed and none of the assessed combinations yield financially attractive scenario without carbon finance. Net present value (NPV) is always in the negative without carbon finance. The NPV without CORC revenues but biochar revenues come about -3.38 million USD while with CORC revenues, it is about 2.18 million USD. This was verified through the IRR sheet submitted for Truecoco Ghana Ltd's biochar facility and the sources of each of the financial parameter was confirmed through the corresponding documents/38/.	
1.2.4. The Production Facility Auditor checks that the Production Facility is capable of metering and quantifying the biochar output in a reliable manner, for the Quantification of CO_2 Removal (section 4). This check also prepares the CO_2	1. Biochar end-user agreements/32/ 2. Biomass used records for production of biochar and biochar fertilizer blend records/34/ 3. Waybill slips (for suppliers) /56/	The Truecoco Biochar production facility has been operational since April 2025 and the log for biomass consumed, and biochar produced has been shared with the assessment team. The production of first biochar batch started on 19/04/2025 as evident from the biochar production records/34/ and confirmed	Y

Removal Supplier for producing the periodic Output Report -The quantity of the biochar produced and sold is quantified and documented in a reliable manner (sections 4.2., 5.3., 5.4 and 5.5.) -Relevant meters are in place and they are calibrated -The emissions from cultivation, harvest and transportation of the biomass are estimated and calculated in a reliable manner (section 4.3.) -The material and energy use of the Production Facility can be quantified and the emissions from the process calculated (section 4.4.) -The emissions from biochar post-processing, transportation, and use are estimated and calculated in a reliable manner (section 4.5.) -The auditor goes through the Quantification of CO_2 Removal requirements	4. Meters and Manufacture specifications/37/ 5. Calibration requirements/40/ 6. LCA report and assessment sheet/25/. 7. Energy and Mass balance sheet/62/	during on site audit through manual records of biomass consumed in the facility/26/. The audit report for the first facility audit therefore accepts the same as the production date. The weighing scales in the production facility weigh the final product - biochar/37/40/. There is proper documentation of the waybill delivery slips of incoming feedstock (coconut husks), production records of biochar, biochar used in the biochar-fertiliser blend, which is documented in the production records and confirmed through biochar delivery receipts/29/ end-user agreements/32/ and also confirmed during the on-site assessment/26/. Section 4.3: No emissions are reported from the cultivation, harvesting, of the biomass, as the feedstock is an agricultural waste sourced through coconut husks suppliers who are farmers in the cooperative. However, emissions related to transportation of the biomass to the project	

with the CO_2 Removal Supplier, so that the Supplier is able to calculate the CO_2 Removal independently in its Output Report.		facility have been duly accounted for and are clearly documented in the LCA report/25/27/. Section 4.4 & 4.5: The sources of the emissions of biochar production, transportation, pyrolysis and the associated mass and energy balance sheet has been provided by the supplier to the assessment team, the input values are found traceable and cross-checked through waybill delivery slips, production logs, moisture meter records, diesel consumption records etc. maintained onsite and shared to assessment team. The source of evidence provided to the assessment team regarding the emissions in the LCA model have been reviewed and found acceptable/27/.	
1.2.5. Collection of standing data of the Production Facility. The Production Facility Auditor collects and checks the standing data of the Production Facility and the CO_2 Removal Supplier.	- Certificate of incorporation of Truecoco Ghana Ltd/9/ - Environmental License of Truecoco Ghana Ltd's Biochar facility/11/ - Biochar production records, Biochar used records, Biochar end -	The Truecoco Ghana Ltd. is registered under Companies Act, 1963 of Republic of Ghana as confirmed from the certificate of incorporation/9/. The CO_2 removal supplier has an environmental permit/11/ which makes	Y

	user agreements 29/32/34/ - A physical site visit to the facility to confirm the location/26/ - No public subsidy as verified during the discussion with the owner of facility/26/ - Truecoco's Health and Safety Manual/50/ - Environmental and Social Safeguard questionnaire /13/ -Material Safety Datasheet/50/	the facility legally eligible to produce biochar. There is documentation on the social and environmental safeguards as verified through the documents- Truecoco's Health & Safety Manual/45/, Material Safety Datasheet/50/ and Environmental and Social Safeguard questionnaire /13/. Through the data obtained during the reporting period, the verified biochar produced and used during this period (which was also accounted in LCA) was found to be 399.42 tonnes.	

Section 5.2 Biomass Production and supply			
	Verification Method	Verification remarks	Requirement met
5.2.1 Proof of origin and sustainability of the biomass feedstock used must be kept in records, be submitted to Puro, and made available for Output audits. In the case of other non-forest waste biomass: -Raw material needs to be sourced sustainably;	- Evidence against Biomass received provided by the Supplier/57/ - A physical site visit to verify the existence of agricultural waste in the region where the production facility is located/26/	Biomass, comprising agricultural waste such as coconut husks, is sustainably sourced from local farmers organized under cooperatives in the Takoradi-Sekondi region of Western Ghana. This was verified through supplier declarations, which specify the origin and legality of the	Y

however, certificates are not needed, as it is waste material.		biomass waste/57/. Therefore, the condition is met.	
5.2.2 Lifecycle assessment data for the biomass production and supply must be provided and documented	Verified during the LCA model/27/.	The LCA calculation sheet/27/ is reviewed, and calculations are demonstrated in a retraceable manner.	Y

Section 5.3 Biochar Production			
	Verification Method	Verification remarks	Requirement met
Section 5.3.1 The biochar producer must provide data trail and documentation on the amount of biochar produced. This includes: i. Continuous documentation of production for the whole period, taking into account any significant changes or stops in production ii. Data and methodology applied to calculate the dry mass of biochar produced	• Biochar production records/29/ • Technical specifications of Equipment/39/ • Delivery slips/58/ • Puro's LCA Model/27/	The biochar production records/29/ and delivery slips/32/ confirms the incoming biomass to the facility which can be clearly traced back in the CORC summary sheet and LCA sheet/27/. The assessment team confirms that the biochar production and reporting requirements have been met.	Y
Section 5.3.2 The biochar producer must, at a minimum, provide the following data on the amount of biochar produced:	• Biochar production records for reporting period/29/ • Water consumption records/23/ • Delivery slips/58/	The details of the biochar production records have been presented under paragraph 1.2.4 above. These records have been verified against the	Y

i. Continuous load cell measurement of the biochar production for the whole period ii. Water input measurement		production data reported for the current monitoring period. Furthermore, the input water has been duly accounted for in the environmental impact assessment, with water reuse in the spraying tower and cooling tower for syngas pretreatment and biochar cooling.	
Section 5.3.3 Life cycle assessment data for the biochar production	LCA sheet /27.a/	The LCA calculation sheet/27.a/ is reviewed, and calculations are demonstrated in a retraceable manner.	Y
Section 5.3.4 Biochar laboratory analysis - total organic carbon content, total hydrogen content, and calculated H/C_{org} ratio	Biochar Analysis report from Eurofins Umfelt dated 4th August 2025/33/.	The biochar produced meets the EBC criteria/33/.	Y
Section 5.3.5 Analysis for presence of PAHs and heavy metal content	Biochar Analysis report from Eurofins Umfelt dated 4th August 2025/33/.	The biochar produced meets the EBC criteria required for the biochar application on soil /33/	Y
Section 5.3.6 The CO2 Removal Supplier must have a protocol in place to ensure both representative sampling (i.e. biochar sent for analysis is representative of the batch produced) and appropriate testing frequency (i.e. biochar is	1. Standard Operating Procedures (SOP)/52/ - Biochar sampling 2.Biochar Testing Methods/53/	The sampling procedure for the production facility includes: **Sampling:** A biochar sample is collected once during each continuous production period (between start-up and maintenance shutdown), which typically	Y

sent for analysis as often as needed to reflect variability and seasonality in biomass feedstock and production conditions) of the biochar produced		corresponds to once per week. To ensure representativeness, the sample is not taken on the first or last day of the continuous production period. This was verified by the SOPs on biochar sampling provided by the CO_2 removal supplier/52/. **Frequency**: A representative sample from different batches, where no significant changes in raw materials are observed, is collected once per week for a continuous production batch. All samples taken from the same type of biochar (i.e., identical feedstock and production conditions) are stored together. These combined samples are assigned a collective ID. The analysis of biochar, as required by Puro, is conducted once per monitoring period for each collective sample. This was verified through the SOP for biochar sampling and the biochar testing methods	

		provided by the CO_2 removal supplier/53/.	
Section 5.3.7 The CO_2 Removal Supplier must comply with local environmental regulations, with respect to emissions of pollutants to air, water, and soil.	- Environmental Permit issued by Environmental Protection Agency of Sekondi region of Western Ghana/11/	The project is in compliance with the local environmental regulations as demonstrated in the Annual Environmental Report on Biochar & Charcoal Production Plant/24/, Environmental Evaluation Report/14/ and Environmental Permit /11/.	Y

Section 5.4 Biochar Use			
	Verification Method	Verification remarks	Requirement met
5.4.1. Life cycle assessment data for the biochar use must be provided and documented.	LCA report summary/25/	The Life cycle assessment data for the biochar use has been provided and documented.	Y
5.4.2. Proof that the end-use of the product does not cause CO_2 to return to the atmosphere (it is not used as fuel or reductant) must be kept in records, be submitted to Puro, and made available for Output audits. The proof can be an offtake agreement, documentation of the sale or shipment of the product, indicating the	-Soil application photographs taken during the physical site visit /26/ -End-user agreement with Biochar end-users/32/ - Records of biochar end use/29/	Para 1.1.1 of the applied methodology requires that the Biochar must be used in applications that preserve its carbon storage property (e.g. greenhouse substrates, surface water barrier, animal feed additive, wastewater treatment, insulation material, landfill/mine absorber, soil additive). The	Y

intended use of the product		project activity uses biochar as the soil additive as verified from the soil application pictures and physical on-site visit observation where application of biochar into soil was confirmed/26/. This was further verified through the end-user agreements, which confirmed that the biochar and biochar blends were applied exclusively to soil/32.a/. The biochar end-users include farmers, to whom the biochar is provided free of cost, and agricultural off-takers, to whom Truecoco sells the biochar blends. The latter was verified through the Supply-Profit Sharing Agreement with the agricultural off-takers /32.b/.	
5.4.3. Justification on the soil temperature selected for the calculation of the biochar carbon sequestration	1. Soil Temperature Selection_Truecoco/44/	The average soil temperature for the project location was determined to be 27 °C, based on global datasets for annual mean soil temperature at a depth of 5–15 cm	Y

		which was demonstrated under Statement on Soil Temperature data sources/44/ and verified from peer reviewed research/64/.	

	Section 5.5 No double counting		
	Verification Method	Verification Remarks	Requirement met
5.5.1. Double counting is avoided by the use of the Puro Registry, with a system of unique identification of each CORC that guarantees it is only used once. Each CORC in the registry contains information on Production Facility registration and crediting period dates, verification, issuance and cancellation transactions as well as the title and ownership over time.	Facility Statement is provided by Puro during the output audit. The facility ID issued by Puro is 816220.	This has been verified through the facility registration details provided by Puro.	Y
5.5.2 A statement is needed from the CO_2 Removal Supplier that the underlying physical product (biochar) in which the CO_2 is stored will not be sold or marketed as "climate	Statement of understanding of physical product decoupling/48/	The biochar produced is transported directly from the production facility to the application site without any commercial	Y

positive" if the CO_2 removal certificate associated with the underlying physical product (biochar) is removed from the underlying product and sold to another stakeholder not associated with the underlying physical product.		packaging. It is provided free of cost to interested parties and does not involve any marketing or promotional elements. Furthermore, the biochar is applied directly to the site by the removal supplier, based on bilateral agreements with the end-users. This was verified through the statement on the use of Biochar by end users/32/. This arrangement eliminates any possibility of the biochar being re-associated with the underlying physical product. Through the interaction with the stakeholders during the on-site visit/26/, it was verified that biochar provided by the carbon removal supplier was given for free	
5.5.3. Check of the packaging of the product (how the product is branded) is needed, if CO_2 removal certificate associated with the underlying physical product (biochar) is removed from the underlying product			
5.5.4. No marketing and branding claims can be made by the end-user (user of biochar) that the underlying physical product (biochar) is a carbon sink, when the decoupled CO_2 removal certificate has been sold to and accounted by another stakeholder not re-associated with the underlying physical product. The proof can be an offtake agreement, documentation of the			

sale or shipment of the product, indicating the procedures for claiming the CO_2 removal certificate		to the farmers and the farmers are not involved in the sale nor branding or branding claims of the biochar. The agreements with agricultural off-takers also confirm that the end-user will not be involved in the marketing of the end-product for carbon removal claims/32.b/. Therefore, the relevant requirements are met.	

APPENDIX 2: AUDIT FINDINGS

CL from this verification

CL ID	01	**Section no.**	4	**Date:** 08/09/2025
Description of CL				

Facility Audit

Reference:
Section 6.4 of Puro Standard General Rules v4.1, para 1.1.8 of Biochar Methodology, and Environmental Evaluation report:

Observation:
The measures defined for management of ash and fines generated from the facility are either re-use in agriculture or sent to disposal to a licensed EPA-approved refuse site *(Page 3 of Environmental Evaluation Report).* Also, it has been mentioned in the Environmental and Social Safeguards Questionnaire, that the "*Appropriate waste manifests and disposal records are maintained*" (Page 10 of 15). However, no documentary evidence has been provided against the waste disposal practices and their compliance with the local environmental regulations.

Action Required: PP shall provide suitable evidence to demonstrate that the disposal of ashes and fines is safe and in compliance with relevant standards. Additionally, PP shall provide documentary evidence such as waste manifests and disposal records (as required under Ghana EPA Standards) to validate the disposal of ash and fines sent to licensed EPA-approved refuse sites.
Project participant response **Date:** 15/09/2025
During the in-person facility audit, Truecoco demonstrated the processes in place to ensure the safe disposal of ashes and fines. All waste disposal is overseen by the waste disposal supervisor, and who was interviewed by the auditor. The waste disposal supervisor is responsible for managing the waste disposal policies and ensuring the safety of all waste disposal. All waste disposal practices are put in place to guarantee compliance to Ghana EPA standards. The process of waste disposal can be seen in the waste disposal policy. All waste is then safely removed from the site under the waste disposal service agreement. Truecoco work with a local contractor to ensure that all waste is disposed of at a Ghana EPA site. To ensure the safety of all Truecoco employees, Truecoco has a spill response plan that is actioned by the waste disposal supervisor in case of any waste spillage. All correct PPE equipment is provided to Truecoco employees.
Documentation provided by project participant
Truecoco has shared its waste disposal policy and waste disposal service agreement with the auditor. The auditor was also able to interview Truecoco's waste disposal supervisor during the in-person audit. Truecoco has also shared the spill response plan with the auditor alongside Truecoco's health and safety policy.
VVB assessment **Date:** 19/09/2025
The assessment team verified the spill response plan, which outlines the procedures for managing waste streams generated from the carbonization furnace, including wood vinegar and tar, as well as the corrective actions to be undertaken in the event of spills. It was confirmed that Truecoco Ghana Ltd. has executed a formal waste disposal service agreement with Heaven Health Ltd. for the disposal of waste at an EPA-approved site in Ghana. The agreement specifies that waste disposal is undertaken in compliance with Ghana EPA standards. The Environmental Permit issued by the Environmental Protection Agency in July 2025 further reconfirmed that the company's waste disposal practices are aligned with the Waste Disposal Policy and that waste is disposed of at EPA-approved sites. During the on-site visit, discussions with the waste supervisor corroborated that waste management and disposal practices are consistent with applicable local regulatory requirements. Furthermore, it was observed that all personnel involved in the operations were equipped with and using the required PPE in accordance with occupational health and safety protocols. #CL01 is closed

CL ID	02	Section no.	4	**Date:** 08/09/2025
Description of CL				
Facility Audit **Reference:** Para 1.1.8 of the applied methodology states "measures must be taken for ensuring safe working environment, cleaner production principles and safe handling and transport of biochar, e.g. to prevent fire, dust and health hazards". Para 1.1.5 of the applied methodology states, "In the biochar production process, the pyrolysis gases must be combusted or recovered through an engineered process that either negates or makes negligible any methane emissions to the atmosphere". **Observation:**				

As per the "Preliminary Report on Air Emissions Monitoring Conducted at Truecoco Plant at Tikobo 1 in the Western Region" dated 1st August 2025 prepared by SGS Laboratory Services Ghana Limited, it was recommended that the stack installation on the carbonization furnace be extended above the roof of the building to ensure that fumes are released directly into the atmosphere, thereby preventing employee exposure to gases.

Action Required:

1. PP shall clarify the details of the steps taken to address this recommendation to prevent exposure of harmful gases to employees.
2. PP shall provide details of the engineered process in place for the combustion of pyrolysis gases in line with the methodology requirements.

Project participant response	**Date:** 12/09/2025

During the in-person facility audit, Truecoco demonstrated to the auditor the steps that have been put in place to ensure that employees are not exposed to harmful gases during the production process. Firstly, all Truecoco staff are provided with and required to wear the correct PPE equipment. This is checked by the supervisor prior to beginning production and maintained throughout the process.
Secondly, Truecoco's facility is an 'open-air' site. This means that harmful gases can easily pass through the facility rather than remaining within the facility. This ensures that employees are 1) not exposed to harmful gases, 2) able to easily leave the facility should any harmful gases impact on them. Finally, Truecoco's pyrolysis equipment has been equipped with gas scrubbers that clean any harmful gases that are produced during the process. This is demonstrated by the non-existent levels of methane emission in the air emissions monitoring report.

Documentation provided by project participant

Truecoco provided a tour of the facility during the in-person audit to demonstrate how the 'open-air' facility reduces exposure to harmful gases, and the correct PPE equipment was worn by all Truecoco employees. Truecoco has also provided documentation that outlines the pyrolysis equipment that indicates the role of the scrubbers to reducing the levels of harmful gases.

VVB assessment	**Date:** 19/09/2025

The assessment during on site audit assessed the flue gas management system and measures taken against the same. It was observed that the harmful gases were directed to a cyclone dust collector followed by a spray tower, cooling tower and reintroduction to carbonization furnace, thereby ensuring an engineered approach for handling the exhaust gases. Furthermore, the employees were equipped with appropriate protective gears within the production facility. Thus, the safety measures were properly implemented, and exhaust gases were well within the compliance limits. Thus, the finding is closed.

#CL02 is closed.

CL ID	03	**Section no.**	4	**Date:** 08/09/2025

Description of CL

Facility and Output Audit

Reference:

Para 1.1.7 of applied methodology states "*The biochar produced must meet any product quality requirements existing in the jurisdiction where biochar is used and for the specific applications considered…. In jurisdictions where no requirements exist for the intended applications, the biochar produced must be benchmarked against quality thresholds defined in voluntary quality standards for biochar, namely the International Biochar Initiative (IBI) Certification Program or the European Biochar Certificate (EBC) Guidelines.*"

Observation:

As per the *"Eurofins Umwelt Report on the analysis of the biochar sample"* (Sample number: 125107039, Truecoco Ghana biochar sample blend), the test results indicate an exceedance of the allowable limits for Chromium (Cr) under certain categories of the European Biochar Certificate (EBC) - Version 10.3E

dated 05/04/2023.
Specifically, the sample was found to exceed the comparative values for the following categories:

- EBC-FeedPlus (animal feed)
- EBC-Feed
- EBC-Agro Organic (organic farming applications)

However, the sample complies for:

- EBC-Agro (general agricultural use)
- EBC-Urban
- EBC-Consumer Materials
- EBC-Basic Materials

Action required:
PP shall justify the intended end-use of the biochar does not violate the EBC limits for chromium and provide the supportive evidence to confirm the same.

Project participant response	**Date:** 12/09/2025

As discussed with the auditor during the facility audit, Truecoco does not work with farmers that are organically certified or would be classified as organic under the EBC standard. Therefore, it is not a requirement to provide EBC Agro-organic biochar. Having worked with the farmer network since 2017, Truecoco is aware that none of the farmers engaged in the Truecoco project are organic certified. This was verified by stakeholder farmers during the facility visit.

Truecoco is working towards achieving EBC agro-organic certification in Q1 in 2026. To that end, Truecoco is currently in the process of completing further biochar testing which will be included in Truecoco's next output audit. Truecoco expects this result to comply with EBC agro-organic certification standard.

Documentation provided by project participant

Truecoco has not provided additional documentation beyond the biochar chemical composition test. Further biochar chemical composition lab tests will be provided in the next output audit as an indication of Truecoco's ambition to be EBC Agro-organic certified.

VVB assessment	**Date:** 19/09/2025

From the detailed list of suppliers, including cooperatives provided by the carbon removal supplier, it was verified that the farmers under these cooperatives are not engaged in organic agriculture, specifically EBC-certified organic practices. This was further corroborated through stakeholder discussions during the site visit, where cooperative leaders confirmed that the application of biochar was not undertaken for organic agriculture or for EBC-certified agricultural activities.

#CL03 is closed

CL ID	04	**Section no.**	4	**Date:** 08/09/2025

Description of CL

<u>Facility Audit</u>

Reference:
Para 2.5.5 of Puro Stakeholder Engagement Requirements v1.1, states "The CO2 Removal Supplier shall show frankness and readiness to address feedback not only in words but to initiate potential revisions to its project design, implementation, or operation. It is especially important that local and indigenous knowledge receives attention and becomes utilized.

Observation:
Puro Stakeholder Consultation report
As part of the feedback received from farmers during the local stakeholder meeting, Truecoco indicated that in collaboration with dMRV partners, a transparent mobile payment system will be established to ensure farmers receive the full value of payments, traceability of transactions, and transparency in all

payment processes.

Action required:

PP shall elaborate on the current stage of implementation of mobile payment system as proposed during stakeholder consultation.

Project participant response	**Date:** 13/09/2025

During the facility audit, Truecoco went through the explanation that current developments of the mobile payment system are still in development. Truecoco has had exploratory conversations with Terraspect, a climate finance platform that delivers mobile payments to farmers in the global south, about developing a mobile payment system that is applicable to working with Truecoco's coconut cooperatives.

Truecoco has raised the possibility of moving Truecoco's coconut cooperatives to a mobile payment system. However, during ongoing stakeholder discussions Truecoco's cooperative members and suppliers have always maintained that they would prefer to receive any payments in physical cash.

Documentation provided by project participant

During the in-person facility audit, Truecoco showed the auditor its discussions with Terraspect (https://www.terraspect.earth/). During the in-person facility audit, Truecoco also had a discussion with the stakeholders about whether they had an appetite to move to a digital payment system. The stakeholders explained that they still prefer cash transactions.

VVB assessment	**Date:** 19/09/2025

The assessment team confirmed, through review of email correspondence between Terraspect and Truecoco Ghana Ltd., that the carbon removal supplier is engaged in discussions with Terraspect, a firm specializing in the traceability of climate infrastructure. These exchanges indicate that the digital payment system remains under development. However, it was also confirmed that actions have been initiated in response to grievances raised by farmers during the stakeholder meeting conducted in November 2024.

#CL04 is closed.

CL ID	05	**Section no.**	4	**Date:** 08/09/2025

Description of CL

<u>Facility Audit</u>

<u>Demonstration of Additionality</u>

1. The additionality sheet "*Truecoco_financialmodel_PDD_final"* includes different capex and opex costs related to project activity under worksheet *"Inputs-NTB".* The source and the rationale over input costs has not been provided. PP shall provide the supportive evidence against each input parameter under the *Truecoco_financialmodel_PDD_final /worksheet – Inputs-NTB*.
2. What are the existing laws, regulations, or other binding obligations regarding the organic waste management in the host country Ghana? PP shall demonstrate that project activity does not bound to any compliance regulations by providing relevance with major laws pertaining to waste management.
3. The commitment date in the *Baseline and Additionality Questionnaire* document has been mentioned as 13/01/2025. PP shall provide the contract for purchase of equipment for CO2 removal as supportive against the commitment date.
4. PP has mentioned under section A.7 of the Baseline and additionality questionnaire that *"Truecoco will also be selling the physical biochar, at a below market rate, as a soil amendment. Truecoco will also work with local partners to sell the wood vinegar as an organic fungicide to the local market".*
   - However, the revenues proposed to be generated through wood vinegar has not been included in the additionality sheet *"Truecoco_financialmodel_PDD_final".* PP shall clarify.

- PP shall justify the biochar value of 20 USD included in the additionality sheet (worksheet-overview/cell- F21) is below the market value.

5. The value of CORC in the additionality sheet (under different cells and worksheets) is mentioned as 160 USD, while in *Baseline and Additionality Questionnaire* document, the cost of 1 CORC has been mentioned as 180 USD. PP shall clarify the inconsistency and provide supportive evidence against the price of CORC.
6. The value of Biochar in the additionality sheet (under different cells and worksheets) is mentioned as 20 USD, while in baseline and additionality questionnaire document, the cost of Biochar has been mentioned as 80 USD. Furthermore, it is unclear from the additionality sheet whether the value of 20 USD corresponds to what quantity of biochar. PP shall clarify the inconsistency over the biochar values along with rate unit and provide supportive against the value of biochar.
7. *Section 3. Investment Analysis* of *Baseline and Additionality Questionnaire*, the impact of CORC revenues on NPV has been demonstrated through comparison of four different situations. It has been observed that the values for different parameters (price per CORC, Biochar per MT, and project NPV) provided in the Baseline and Additionality Questionnaire are inconsistent with the additionality sheet. Also, the calculations for all 4 scenarios have not been demonstrated in the *Truecoco_financialmodel_PDD_final* sheet. PP shall provide the calculations pertaining to all the four scenarios mentioned in the Baseline and Additionality Questionnaire.
8. The sensitivity analysis has not been demonstrated in the additionality sheet "*Truecoco_financialmodel_PDD_final*", while results from sensitivity analysis have been provided in the Baseline and Additionality Questionnaire. PP shall provide calculation for sensitivity analysis and rationale for selecting the percent variations from current project values.

Project participant response | **Date:** 11/09/2025

1. Truecoco's input costs have been accumulated through a combination of operational experience in West Africa and quotations from machinery providers which have been shared with the auditor. See below the breakdown of costs and their source. Furthermore, some of the items that have been built into the model are not relevant to the project as they were surplus to requirements.

CAPEX item	Source of cost
Transformer	Not applicable to the end project costs
Concrete work	Sent to auditor – quotation for construction work at the Tikobo One site.
Shed building	Sent to auditor – quotation for construction work at the Tikobo One site.
Wiring	Truecoco took a quotation from a local electrician.
Weigh bridge	Not applicable to the end project costs
Motor bikes	Truecoco knows the price of local motor bikes from operational experience in the area.
Supply truck	Not applicable to the end project costs. Truecoco did not purchase a supply truck but hires local vehicles
Pre audit costs	Sent to auditor – quotation from CrystalTrade
Processing machinery	Sent to auditor – quotation for the processing machinery

LCA feasibility	Sent to auditor – incorporated in the CT quote
Ratings	Not applicable to the end project costs. Costs are available on BeZero website
EBC testing	Costs are available on the Eurofins website. Truecoco's laboratory for testing biochar's chemical composition

2. For the project to be operational, Truecoco had to be eligible for an EPA permit. The EPA permit has been sent to the auditor and was shown during the in-person audit. The EPA permit ensures that the project activities are compliant with all environmental standards, including organic waste management, for Ghana. Alongside the permit, Truecoco completed an EIA that provided an explanation for project activities and showed how they were eligible and/ or complied with all Ghanaian regulations.

3. Truecoco has provided the contract for the purchase of the continuous charcoal furnace. The commitment date was made following Truecoco's trip to the manufacturer. At this point, Truecoco committed to making an additional payment of 70% of the product, on top of the initial 25%. The PP has attached a copy of the air ticket to show when Truecoco's PM, William Orr, travelled to Zhengzhou to visit the manufacturer.

4. Truecoco is not making any revenue from wood vinegar and has not forecasted it as revenue. It is hoped that a market will develop for the product but currently Truecoco gives it away to farmers for free. Until there is a realistic market, it cannot be factored in as revenue. Currently, there is no sophisticated market for biochar in West Africa. Truecoco's project is one of the first of its kind in Ghana, and West Africa more generally. This makes forecasting the value of biochar complicated. As there is no market for biochar, Truecoco is reliant on creating a market. This means that Truecoco has given away the majority of the biochar to the local farmer cooperatives for free. The biochar that Truecoco is forecasted to sell is net off against the loss of giving away biochar for free. So far, Truecoco has sold some biochar for 1.2GHS per kg. However, more than 90% of Truecoco's biochar has been given away for free. As a point of comparison, Husk in Cambodia sell their biochar at $40 per ton. This is on the low side. Whilst in Ireland, prices can range from $300 - $2,000 per tonne.

5. The mentioned CORC price at 180 USD is in response to the question around how the CORC revenue impacts the NPV of the project. The 180USD is meant to show the 'high-end' potential value. The question also shows the price per CORC at 60 USD at the low end. Again, this is meant to show how significant the CORC value is to the NPV of the project. It is not a price forecast, but rather a demonstration of how the CORC revenue changes against the expected NPV of the project.

   CORC prices have been selected from open-source datasets. Truecoco has relied on research from leading market platforms and players within the industry to understand the CORC price more clearly. This include Puro (https://puro.earth/corc-carbon- removal-indexes) and Supercritical (https://gosupercritical.com/blog?p=biochar-is- selling-out-fast-heres-what-the-numbers-say).
   The 160USD in CORC price that is mentioned in the Additionality sheet/ financial model, is Truecoco's internal financial modelling which has been set according to market research.

6. In the baseline and additionality questionnaire, the 80 USD biochar per MT price is in reference to a question concerning how the CORC revenues change the IRR or NPV or the project. The biochar price has been set at a consistent price, whilst the question looks at how changing CORC

prices can impact the NPV of the project. I have provided an updated version of the question below with the biochar per MT price at 20USD. However, the biochar price does not change the overall answer that demonstrates how changing CORC prices changes the project's NPV. Supportive value for biochar provided in point 4

The unit for the biochar is measured on a per ton produced basis. This is evident in the financial model.

Situation 1

Price per CORC (USD)	180
Biochar per MT (USD)	20
Project NPV (USD)	2.53mn

Situation 2

Price per CORC (USD)	160
Biochar per MT (USD)	20
Project NPV	1.99mn

Situation 3

Price per CORC (USD)	140
Biochar per MT (USD)	20
Project NPV	1.46mn

Situation 4

Price per CORC (USD)	100
Biochar per MT (USD)	20
Project NPV	397k

Situation 5

Price per CORC (USD)	60
Biochar per MT (USD)	20

Project NPV	-793k

7. In the Truecoco_financialmodel_PDD_Final sheet, the model does not show four alternative scenarios rather it is showing a financial model for four sites. The three additional sites have no projections currently, as the facility audit only covers Truecoco's one site.

Truecoco's financial model is dynamic, meaning it is adjustable according to the changing financial landscape. The differing scenarios have been shown in the answer to the question, with the critical variables explored. The scenarios mentioned in the baseline and additionality questionnaire explore three changing variables. Firstly, the value with which Truecoco can sell its CORCs. This is dependent upon the buyer and changing market dynamics. Secondly, the cost of purchasing feedstock directly from farmers. This cost can have a significant impact upon the project's margins. And finally, the price for selling biochar locally. In the financial model, Truecoco has set the price at 20USD as a 'worst case' scenario. This point is demonstrated during the sensitivity analysis.

8. The financial model is dynamic and only shows one site rather than differing scenarios. This can be seen in the titles of the models – see 'site 2, site 3, site 4'. The prices and valuations have been selected according to market research and experience with operating on the ground. This includes variable CORC and biochar prices, and feedstock costs. The critical results have been shown in the sensitivity analysis.

Documentation provided by project participant

Truecoco has sent the additional documentation to the auditor – building contracts including concrete pad, shed and retaining wall, the signed contract with CrystalTrade/ Truecoco's LCA provider, contract with manufacturer, air travel for Truecoco's project manager. Truecoco has also provided an in-depth explanation of the dynamic financial model and data regarding CORC and biochar prices.

VVB assessment | **Date:** 19/09/2025

1. The evidence provided against input values to the additionality assessment does not corroborate the figures in the sheet. The start date of financial model has been mentioned as 31/10/2024 and the valuation date as 01/11/2024. However, the invoices and supportive evidence provided against input values date to year 2025, which does not validate the input values. The chronology of the events regarding the project development and investment decisions is unclear.

   Para 3.4.1 of the Puro Additionality Assessment Requirements v.2.0 guides to follow CDM Tool 27 for the demonstration of investment analysis. Para 10 of the CDM Tool 27 states *"The **input values used in the investment analysis** and the **benchmark shall** be **valid and applicable at the time** of the **investment decision** taken by the project participant. The DOE is therefore expected to **validate the timing of the investment decision and the consistency and appropriateness of the input values with this timing.** The DOE should also validate that the listed input values have been consistently applied in all calculations."*

   Therefore, PP shall provide the chronology of the project development and clarify the investment decision date and provide the rationale behind the assumptions made over the input values applicable at the time of investment decision. This finding remains open.

2. The EPA permit, issued by the Environmental Protection Agency of the Sekondi region in Western Ghana, confirms that the project activities comply with all relevant environmental standards. In addition, Truecoco has completed an Environmental Impact Assessment (EIA), which provides detailed justification of the project activities and demonstrates their alignment with and adherence to applicable Ghanaian regulations. Closed.
3. The commitment date in the *Baseline and Additionality Questionnaire* document has been mentioned as 13/01/2025 which was verified through the air ticket of William Orr, the Project

Manager of Truecoco Ghana Ltd' Biochar facility. Closed.

4. PP has clarified that there were no revenues from the sale of vinegar and same has been confirmed during onsite audit through interviews with end users and facility records. Furthermore, PP has compared the costs of biochar with international markets where biochar has been sold at USD 40 to 300 per ton of biochar. Therefore, it has been confirmed that the costs applied for biochar are lower than the market rates. This finding is closed.

5. The assumption for CORC prices is a result of internal financial modelling based on the Puro.earth sources (https://puro.earth/corc-carbon-removal-indexes) and literature (Supercritical-https://gosupercritical.com/blog?p=biochar-is-selling-out-fast-heres-what-the-numbers-say). Considering the dynamic nature of CORC prices, the clarification provided by PP is deemed appropriate. This finding is closed.

6. The cost of biochar has been revised to 20 USD per MT which is now consistent with the financial model sheet. Closed.

7. The revised demonstration of impact of CORC revenues on expected NPV has been provided and the resultant values are now consistent with the financial model sheet. For instance, the CORC price at 160 USD and biochar price at 20 USD will lead to project NPV of USD 1.99 million. This values under this scenario have been provided in the Truecoco financial model for site '1'. Therefore, this finding is closed.

8. The model applied for demonstration of sensitivity analysis has been cross verified with the financial model. The values derived are consistent with the financial model sheet. For instance, the variable "impact of biochar sales" on revenue of project under worst scenario where price of biochar is set to 20 USD/MT leads to 802k of total revenue. The values for this scenario are consistent with the financial mode sheet (Financial model sheet/worksheet –'1'/cells E-341 and I-345). Closed.

#CL05 remains open.

Project participant response	Date: 22/09/2025

See below the chronological order of the project development to clarify the investment decisions. Over the course of the project, some investment decisions were modified to better suit the project. An example of this is the purchase of supply trucks. Truecoco has deemed it more cost efficient to rent exist supply trucks and form effective partnerships with local suppliers, rather than purchase their own supply trucks. The main consideration and rationale during the financial modeling is down to Truecoco's operational experience and network for setting up and managing projects 1) at this location, 2) in relatively recent times. This level of operational experience enabled Truecoco to make informed assumptions about the cost of the key inputs.

September 2023	Project conception. Development of the concept of the idea and planning to implement the project. Initial project R & D including costings. Primary costing included the carbonization machinery.
April 2024	Truecoco application for British International Investments (BII) funding. As part of GIP programme, Truecoco applied for BII funding to finance the project.
September 2024	Project financing. Truecoco received financing from BII to develop the project. BII's investment was in Truecoco's wider operation alongside the biochar project. The financing allowed Truecoco to thoroughly budget and adjust financial models according to how the financing was apportioned across the businesses.
October 2024	Finalisation of the financial model. The financial model was based on forecasts that were made from quotes from suppliers and operational experience

	(Truecoco has been active in West Africa since 2017). Beginning of major CAPEX spending, 25% payment of the first tranche for the carbonization machinery.
January 2025	70% payment of the second tranche for carbonization machinery. Site construction commences.
April 2025	Truecoco's operations began. This included purchasing coconut husk stock and processing to create biochar.

As stated, Truecoco's financial modelling was based on operational experience and assumptions from previous projects. The invoices reflect the accuracy of the modelling.

VVB Assessment	Date: 24/09/2025

PP shall provide a declaration from BII confirming that the investment provided was not used to fund the biochar project. Alternatively, any other supporting evidence demonstrated that the funds from BII were not allocated to the biochar project may be submitted. Additionally, the supporting document from Truecoco shall confirm that the funding received from BII does not obligate the company to implement a biochar project, as funding tied to such an obligation would not be considered additional.

CL05 is open.

Project Participant Response	Date : 24/09/2025

As clarified to the auditor, Truecoco has received loan financing from BII, not funding. Truecoco has sent the term sheet to the auditor (*Termsheet_BII)* which outlines the financing of the Truecoco operation. Under the loan financing arrangement, Truecoco is required to make repayments to BII. To that end, it is necessary for Truecoco to generate significant revenue. Truecoco's revenue from the biochar project is primarily from the sale of CORCs, this has been demonstrated in the additionality report.

Truecoco has also provided a declaration (*TC,CarbonRemoval_Declaration_signed)* that explicitly outlines that any carbon removal credits are the sole property of Truecoco Ghana Limited's biochar facility.

VVB Assessment	Date: 26/09/2025

Through the supporting documentation – *Term Agreement with BII* – the assessment team confirms that Truecoco has received loan financing from BII for its overall operations, with a repayment obligation. It was further verified that revenues from carbon finance will support repayment of these loans. Additionally, as verified through the *Truecoco Carbon Removal Ownership* document, Truecoco Ghana Ltd's biochar facility holds sole ownership of the carbon credits, and the document explicitly states that the credits derive from the carbon removal project

#CL05 is closed.

CL ID	06	Section no.	5	Date: 08/09/2025

Description of CL

Output Audit

The reporting period start date is mentioned as 01/04/2025 in the CORC summary sheet titled *"Truecoco_CORC_Report_Summary_04_08_25-Updated 2025-08-21/worksheet- Public CORC Summary"*. However, the commissioning date of equipment used in the pyrolysis is mentioned as 15/04/2025 under *"Biochar production equipment questionnaire, Truecoco.final.xlsx/Cell-D15".* PP shall clarify how the reporting period start date can commence before the commissioning date of pyrolysis equipment, which marks the date of biochar production.

PP shall also provide supportive evidence to substantiate the equipment commissioning date.

Project participant response	Date: 13/09/2025

The reporting period was set on 01/04/2025 to cover all monitored data, including biomass collection data starting 04/04/2025. Truecoco explained that although the pyrolysis machinery wasn't commissioned until 15/04/2025, but it was necessary to begin recording the sourcing of biomass to the facility which began prior to production. Truecoco provided evidence through production sheets to demonstrate when commission of the pyrolysis machinery began.

Documentation provided by project participant

VVB assessment	Date: 19/09/2025

PP has clarified that the reporting period has been assigned with the exercises pertaining to sourcing of waste biomass. The first production of biochar occurred on 19/04/2025, which is after the equipment commissioning date. Therefore, allocation of reporting period does not impact the biochar production and end use period. Thus, the finding is closed.

CL ID	07	Section no.		Date: 08/09/2025

Description of CL

<u>Output audit</u>

Concerns on LCA Model (LCA TrueCoco 2025-07-31- Updated 2025-08-21)

1.In the '*LCA sheet/worksheet-Results"*, the value of Ebiomass (2.45171 tCO2eq) (cell E41) and Eproduction (50.83956 tCO2eq) (cell E42) is inconsistent with the value of Ebiomass (2.37 tCO2eq) (cell G25) and Eproduction (49.15 tCO2 eq) (cell H25) in the 'CORC monthly summary' tab of the Truecoco_CORC-Report_Summary_04_08_2025 – Updated 2025-8-21 sheet. PP shall clarify the inconsistency.

2.The allocation factor value under "*worksheet – Results/Cell – E47"* is calculated as 96.96%, which is a ratio of total_DM_Biochar produced, and total_DM_Biochar sold. However, the allocation factor is applied to the Ebiomass and Eproduction value only and not to the Euse value. The Euse value designated the life cycle greenhouse gas emissions that occur along the distribution of the biochar up to its point of final use. Therefore, the application of allocation factor is unclear with respect different emission sources (Ebiomass, Eproduction and Euse). PP shall provide the rationale over calculation of allocation factor and its application to the emission sources.

3.In the 'LCI tab', values applied for % share of pure biochar applied to soil (cell E60) and the % share of biochar mixed with the compost (E61) are 60.15% and 39.85%. However, as per the delivery invoices, the biochar is either sold as pure biochar (100%) or mixed with compost at a concentration of 45% w/w. PP shall clarify how the % share of pure biochar and biochar mixed with compost provided in the LCI tab/Cell E60 and E 61, were calculated.

4.The source for average biochar moisture value (15.8%) under LCI worksheet/Row 27, is mentioned as "Truecoco_Biomass_Supply_2025_07_31". However, there is no records of biochar moisture values in the referred sheet. PP shall provide the source of average biochar moisture value used in the LCI analysis.

5.The annual electricity consumption value for the facility is estimated as 65,000 kWh, which has been used to estimate electricity consumption for current reporting period as 22,438 kWh under *"worksheet – LCI/Cell – E23"*. The rationale over assumption of annual electricity consumption is unclear. PP shall clarify.

6.The amount of steel estimated for pyrolysis equipment is 36100 kg *(worksheet – LCI/Cell E49)* and the source of same is mentioned as machine specifications under LCA report (Table 9), while under LCA sheet the values is mentioned as assumed value. Therefore, the source of quantity of steel used for pyrolysis equipment is unclear. PP shall clarify the provide the source with supportive evidence.

Project participant response	**Date :** 15/09/2025

1. Ebiomass and Eproduction in *"LCA sheet/worksheet-Results" are the total amount of emissions released during the reporting period for the production of 417,65 dry metric tonnes of biochar. Only 403,81 dry metric tonnes of biochar were used during the reporting period. As the reported Ebiomass and Eproduction should account for the biochar used during the reporting period, an allocation factor (403,81/417,65=96,69%) should be applied to the total amount of emission to obtain the amount of emission linked only to the biochar used, which is reported in the* 'CORC monthly summary' tab of the Truecoco_CORC-Report_Summary_04_08_2025 – Updated 2025-8-21 sheet. Allocated Ebiomass and Eproduction emission calculation were added in the *"LCA sheet/worksheet-Results"* and their value are consistent with those in the 'CORC monthly summary' tab of the Truecoco_CORC-Report_Summary_04_08_2025 – Updated 2025-8-21 sheet.

2. In the context of the project, Euse covers only emissions from the transport and application of biochar that is used. Biochar blended with compost is also treated as "used," and its emissions are accounted for in Euse. Unused biochar is not distributed and remains stored at the production facility. Because no emissions in Euse relate to biochar that is produced but unused, there is no need to apply the allocation factor to Euse.

3. In the 'Biochar end-use' tab of the Truecoco_CORC-Report_Summary_04_08_2025 – Updated 2025-8-21:
   Sum of the wet masses of pure-biochar batches sold = 288 metric tonnes Sum of the wet masses of mixed-biochar batches sold = 424 metric tonnes Biochar fraction in mixed-biochar batches = 45% w/w
   Calculated sum of wet biochar mass across blended batches = 424*0,45 = 190,8 metric tonnes
   Thus,
   Calculated share of pure biochar sold = 288/(288+190,8) = 60,15%
   Calculated share of biochar mixed with compost = 190,8/(288+190,5) = 39,85%

4. It is not the right source. The correct source is a weighted average of the moisture content from column N in the 'Biochar end-use' tab of the Truecoco_CORC-Report_Summary_04_08_2025 – Updated 2025-8-21

5. Truecoco has sent the auditor a copy of the electricity consumption that covers the auditing period, and to the LCA provider to ensure that the accurate usage over the monitoring period is covered.

6. Truecoco has sent supportive evidence to the auditor that shows the overall weight of the pyrolysis machinery. This can be verified by the Truecoco_CarbonisationMachineryContainers_March25 document.

Documentation provided by project participant

Truecoco has sent an updated version of the LCA, LCA report and CORC report summary. Alongside the updated LCA, LCA and CORC report, Truecoco has provided a copy of the latest electricity consumption and machinery weight records.

VVB assessment	**Date:** 19/09/2025

1. Considering that the total emissions reported during the period reflect the production of 415.87 dry metric tonnes of biochar, the application of the revised allocation factor has been accepted. The allocated Ebiomass and Eproduction values were added to the *"LCA sheet/worksheet –*

Results" and found to be consistent with the figures reported in the *"CORC monthly summary"* tab of the file *Truecoco_CORC_Report_Summary_04_08_25-Updated 2025-09-14*. The response was reviewed and accepted by the assessment team.

2. The assessment team reviewed the explanation regarding **Euse**, which represents the emissions from the transport and application of biochar that is used. Two aspects were considered under Euse: (i) biochar directly applied, and (ii) biochar blended with compost. As a result, Euse does not include emissions related to unused biochar, which remains stored at the production facility. Therefore, there is no requirement to apply an allocation factor. The response was reviewed and accepted by the assessment team.
3. In the *"LCI"* tab, the values applied for the percentage share of pure biochar applied to soil (cell E60) and the percentage share of biochar mixed with compost (cell E61) were verified as 60.15% and 39.85%, respectively. The rationale for calculating these shares was found valid and has been accepted by the assessment team.
4. The correct source of the weighted average moisture content, taken from column N in the *"Biochar end-use"* tab of the Truecoco_CORC_Report_Summary_04_08_25-Updated 2025-09-14, has been reviewed and found acceptable by the assessment team.
5. The electricity invoice for the period of 01st March 2025 to 31st July 2025. The amount of electricity consumed during the current verification period has been conservatively accounted for by discounting (5% of total consumption) the electricity consumption for the month of March and considering the 4 days of August. The approach applied is deemed appropriate by the assessment team. Closed.
6. The assessment has confirmed the weight of the pyrolysis machinery through the supporting documentation Truecoco_CarbonisationMachineryContainers_March25 document. Shared by the carbon removal supplier.

CL07 is closed.

CL ID	08	Section no.	5	Date : 08/09/2025

Description of CL

Output Audit

In reference to CORC Summary sheet/worksheet-Ebiomass/Column F-Sum of distance, there are several entries with values recorded as "0" for the distance covered by Truck from biomass supplier to facility. The columns D and E under the same worksheet, provide the volume of biomass supplied and total number of deliveries through different vehicles. For instance, in the month of April 2025, there were 4 deliveries (Cell E9) through Truck, while the sum of distance for these four deliveries is accounted as "0", leading to Ebiomass values to be "0". PP shall clarify why the value "sum of distance" is being considered as zero, despite recording the number of trips through same vehicle.

Project participant response	Date : 14/09/2025

Much of Truecoco's biomass is sourced from the T1 collection site. This site is adjacent to the Truecoco operation. Truecoco's sourcing operation works on the basis of collecting from depots. This was demonstrated during the audit.

Documentation provided by project participant

No further documentation has been provided. During the in-person audit, a demonstration of the depot system was shown to the audit.

VVB assessment	Date: 19/09/2025

Based on the review of waybill slips indicating the delivery of biomass feedstock (coconut husk) to the biochar facility, and observations made during the physical site visit to the T1 collection site, it was noted that the collection site is located in close proximity to the facility. Accordingly, the reporting of zero distance covered by the truck from the biomass supplier, as reflected in the CORC summary sheet/worksheet *Ebiomass* (Column F – Sum of Distance), is considered justifiable.

Hence, CL08 is closed

CL ID	09	Section no.	5	Date: 19/09/2025

Description of CL

Output audit

During the on-site visit, it was observed that incoming biomass feedstock (coconut husks) was delivered to the facility by trucks, with the total truck capacity used as the basis for accounting for the incoming biomass. While the actual feedstock volume may vary depending on material density, this approach was confirmed through waybill slips provided by the carbon removal supplier, which indicate that, depending on the type of vehicle, the incoming biomass is recorded as either 0.35 MT or 4 MT, corresponding to the truck's capacity. The assessment team notes that PP should clarify the methodology for using truck capacity as a measurement of incoming biomass.

Project participant response — **Date:** 22/09/2025

Truecoco works with a number of suppliers that contribute to the biomass feedstock being delivered at the site. Truecoco has a strict QC policy to measure the biomass upon arrival. Failure to meet the QC standards leads to rejection of the load, and repeat offenders are discouraged from supplying Truecoco. As shown during the in-person audit, when a vehicle reaches the site, they must 1) register with security upon arrival, 2) have sufficiently packed the feedstock in a manner that ensures the requisite volume is achieved. This includes checks regarding how densely it is packed, the moisture content of the husks, and the volume of load in said vehicle, 3) they are unable to leave the site until the supply & factory team have verified the load meets the Truecoco standard and the product has been offloading in its entirety. 4) Once the biomass has been verified by security, QC supervisors and signed off by the site manager, Truecoco will make the payment according to measured value of the vehicle.

During the monitoring period, Truecoco worked with four variations of local vehicles, the majority of biomass loads provided by tricycles (=0.35MTs) and Kias (=4MTs). During the ramp up production period, Truecoco would sample vehicles to verify the weight provided to the site and create its weight monitoring QC procedures. This would be achieved by the following steps, 1) unloading the vehicle, 2) reloading the contents into sacks, 3) weighing the load on the production scales. Over the course of this process, Truecoco was able to determine the average load of a vehicle to which Truecoco has set as a measurement.

Documentation provided by project participant

Truecoco provided a demonstration of the unloading and QC process during the in-person audit.

VVB assessment — **Date:** 24/09/2025

The Project Participant (PP) shall provide supporting documentation to confirm the monitoring procedures in place for determining the average feedstock carrying capacity of the vehicles. The procedures as mentioned,

1. unloading the vehicle,
2. reloading the contents into sacks, and
3. weighing the load on the production scales.

CL09 is open.

Project Participant response — **Date : 25/09/2025**

Truecoco has provided supporting documentation (*Truecoco_biomass_SOP_FINAL)* that confirms the monitoring procedure and SOP for checking the carrying capacity of the vehicles. Truecoco has also included the data collected from the sampling of vehicles to determine the average weight of the capacity vehicle. This sampling was carried out during the ramp up period and is covered in the documentation.

VVB Assessment — **Date: 26/09/2025**

With the support of the *Truecoco_biomass_SOP_FINAL* document, the assessment team reviewed the SOPs in place and confirmed that the average vehicle carrying capacity was determined through established quality protocols and procedures. The documentation also includes data from vehicle sampling conducted during the ramp-up period to validate the average carrying weight. CL09 is closed

CL ID	10	Section no.	5	Date: 19/09/2025
Description of CL				
Output audit The calibration certificates of different monitoring equipment (weighscale, moisture meter, thermometer) provided by the carbon removal supplier correspond to calibration performed in July 2025. As the reporting period of the output audit is from April 2025 to August 2025, calibration certificates valid prior to the July 2025 are required, covering the whole monitoring period. PP shall provide calibration certificates covering the reporting period 01/04/2025 to 04/08/2025. In absence of calibration events, PP is requested to apply minimum margin of error for a conservative estimation of CORCs.				
Project participant response				**Date:** 22/09/2025
Truecoco submitted all the measuring equipment (scales, moisture meter, thermometer) for calibration at the beginning of the monitoring period. However, Truecoco did not receive the certificate until July 2025. Therefore, Truecoco is unable to provide the certificates that cover the reporting period. In the absence of the calibration certificates, Truecoco can apply the minimum margin of error that has been applied to each of the measurement instruments. 1. Scales: The calibration certificate states that there is 0.00g standard deviation. This means that no margin for error can be applied to the weighing that Truecoco has used throughout the reporting period. 2. Thermometer: The calibration certificate states that there is a maximum "mean deviation" of 6°C over the temperature range. Temperature can impact a range of chemical properties including 1) H/Corg ratio, 2) Carbonization %, 3) PAHs active in the product. However, Truecoco has a strict QC policy and sample testing SOP that ensures the consistency of the chemical properties. The chemical composition of the biochar has been verified by a Eurofins laboratory test. Please see the document, *AR-25-FR-046181-0_Truecoco,biochar_Puro_audit.* 3. Moisture meter (1): During Truecoco's production, Truecoco samples the moisture during production as per *SOP 1_BiocharDryMatter_Truecoco.final.* However, the dry mass value of the biochar is calculated from the weight of the initial biochar produced and then cross referenced with the biochar moisture reading of 5.6% (see lab results *AR-25-FR-046181-0_Truecoco,biochar_Puro_audit)*. This provides Truecoco with the dry mass value. Following the initial weighing, Truecoco quenches the biochar to a safe handling capacity of 16 – 20%. 4. Moisture meter (2): The calibration certificate states that there is an uncertainty value of 0.9% of Truecoco's moisture meter. When the biochar is sent to end users, Truecoco uses the moisture meter to calculate the final amount of dry mass biochar that is applied to soil. As the moisture meter has an uncertainty error of 0.9%, and the range of differences in the moisture between stock biochar and dry mass biochar is around 20%, a 0.9% uncertainty would equate a variation of 0.18% moisture of the biochar that is sent. However, Truecoco's produced dry mass biochar is calculated through a combination of weighing the initial biochar (see Moisture meter (1)) and independent laboratory results shown in *AR-25-FR-046181-0_Truecoco,biochar_Puro_audit.*				
Documentation provided by project participant				
Truecoco has provided the calibration certificates that indicate the minimum margin of error.				
VVB assessment				**Date:** 24/09/2025

1. Since the calibration certificates state that there is a 0.0 g standard deviation, there is no margin of errors which needs to be accounted for in the weighing of biochar throughout the monitoring period.

2. The assessment team notes that temperature does not directly influence the CORC summary calculations and confirms that deviations in the thermometer readings were not accounted for in these calculation of CORCs in the CORC summary sheet.

3. Moisture meter(1) The Project Participant (PP) shall account for the deviation of the moisture meter when calculating the dry mass of biochar. In the CORC report summary (End-use' tab, column O), the dry mass of biochar is calculated based on manual moisture meter readings. Therefore, the PP shall incorporate the moisture meter's deviation value into the dry mass calculation and ensure that the updated dry mass of biochar values can be traced back to the source data where the measurement error has been considered.

4. Moisture Meter (2): The Project Participant (PP) shall apply the uncertainty value of 0.9% in the calculation of the dry mass of biochar. Although the dry mass is calculated based on both the initial biochar and the biochar sent to end-users, this deviation must be accounted for in the CORC report summary to ensure accurate calculation of emissions contributing to the CORCs. PP shall account he traceability of the updated values where the error has been accounted in the calculation of the dry mass of biochar.

CL10 is open

Project participant response	**Date:** 25/09/2025
Truecoco has addressed the open clarifications to the auditor. Further clarifications were provided by the LCA provider. Truecoco has sent the updated documents to the auditor, including: *LCA TrueCoco 2025-07-31 - Updated 2025-09-24 (1), TrueCoco LCA report - Ghana 2025-08-05 - Updated 2025-09-24, Truecoco_CORC_Report_Summary_04_08_25-Updated 2025-09-24 (2).*	
VVB Assessment	**Date: 26/09/2025**
The uncertainty value of 0.9% from the moisture meter has been applied in determining the dry mass of biochar to calculate the emissions contributing to the CORCs in the LCA model, and the CORC Report summary. The changes have been reflected in the LCA Report. #CL10 is closed	

CARs from current assessment

CAR ID	01	**Section no.**	5	**Date:** 08/09/2025
Description of CAR				
<u>Output Audit</u> In reference to CORC Summary sheet/Worksheets – Biochar Production/Column I, the values for moisture content in the biochar has been mentioned as 5.20%, while in the referred Biochar analysis report *"AR-25-FR-046181-0_Truecoco,biochar_Puro_audit",* the biochar moisture content is mentioned as 5.6% (w/w). PP shall ensure that the values for biochar moisture content are consistent throughout the project documents. Additionally, the moisture content values of the Biochar stock provided under *column M of worksheet – Biochar Production* and *column N of worksheet – Biochar End Use,* are inconsistent. For instance, the moisture content of biochar stock on 27/06/2025 is 15.9% under *column M of worksheet – Biochar Production* while same is recorded is 16.5% under *column N of worksheet – Biochar End Use*. PP shall clarify the inconsistencies observed and ensure that the consistent values are reported across worksheets. PP shall also provide the manual records of biochar moisture measurement as per the SOP 1_BiocharDryMatter_Truecoco.final.pdf.				
Project participant response				**Date:** 14/09/2025
Truecoco has updated the documentation so that the moisture %(w/w) is 5.6% throughout. This should				

be evident in the updated CORC report summary that has been sent to the auditor.

This process was explained during the audit and showed to the in-person auditor. Manual records of biochar moisture measurement as per the SOP were also shown to the auditor. The explanation of the inconsistency is as follows: 1) Once biochar has been discharged from the pyrolysis machine the biochar is then cured to a wet basis of between 15 – 20%. This is to guarantee the safe handling of the product. The product is then stored in 50kgs bags. 2) Due to the volume of product and facility set up, it is not feasible to track each production batch and direct that to the end-user, this was shown during the audit. To ensure accurate measurement and safe handling, when the biochar is leaving the facility moisture readings of the biochar are recorded. This is to provide an accurate measure of the 'dry mass matter' of biochar that is sent to the end user and ensures a more accurate measurement of the stock moisture. All stock is quenched to between 15 – 20% to ensure the safe handling of the product.

Documentation provided by project participant

During the in-person audit, the auditor was shown the process flow for managing the biochar stock, and for recording moisture readings. Furthermore, an updated CORC report summary has been provided.

VVB assessment | **Date:** 19/09/2025

The assessment team confirms that the moisture %(w/w) has been updated to 5.6% in the column I of the worksheet- Biochar production in the CORC report summary.

The assessment team reviewed the explanation on biochar handling, curing, storage, and mass reporting, supported by documentary evidence and on-site observations, and found it valid and acceptable. After discharge, biochar is quenched to 15–20% moisture to ensure safe handling, then stored in 50 kg bags to reduce dust, ignition, and handling risks. Due to production volumes and facility layout, it is not feasible to track each batch to individual end-users; instead, centralized stock management with dispatch controls is applied. This process was demonstrated during the audit and supported by waybills and supply records. Moisture measurements are taken at dispatch to calculate dry mass accurately, with records showing consistent practice. Quenching and packaging were verified as effective safety and inventory controls. Based on the review and observations, the assessment team considers the explanation valid and the practices acceptable, with no non-conformance raised.

#CAR01 is closed

CAR ID	02	Section no.	5	Date: 08/09/2025

Description of CAR

<u>Output Audit</u>

The quantity of biomass feedstock processed in the facility is reported as 1,479 MT under sheet *"Truecoco_Biomass_Supply_2025_07_31/worksheet – Summary/Cell – C3"*. However, the waybills shared for the reporting period 01/04/2025 to 04/08/2025 sums to 1237.7 MT of coconut husk delivered to facility. PP shall clarify the inconsistency and ensure values consistent with the supportive evidence
are reported.

Project participant response | **Date:** 14/09/2025

Truecoco were advised by CrystalTrade, who had aligned with Puro, that it was necessary to provide only 80% of the total mass of biomass supply documentation. This is due to the great volume of biomass suppliers and the frequency with which supply is provided to the site.

This was also demonstrated during the in-person audit, when Truecoco provided evidence of further waybills documenting all biomass supply to the operation over the course of the monitoring period. Truecoco also demonstrated the process by which all supply to the site is captured.

Documentation provided by project participant

Truecoco has provided all the documentation for its key suppliers that provide over 80% of all biomass. This is evident in the Puro.earth package.
VVB assessment **Date:** 19/09/2025
The carbon removal supplier has provided additional waybills during onsite audit covering the reporting period from 01/04/2025 to 04/08/2025. The assessment team verified the total quantity of waste reported in the *Turecoco_Biomass_Supply_2025_07_31* sheet, through waybills. The values are consistently reported in the biomass supply sheet. #CAR02 is closed.

CAR ID	03	**Section no.**	5	**Date :** 08/09/2025
Description of CAR				
<u>Output Audit</u> The allocation factor for biochar production and calculation of CORCs is calculated as 96.69% in the LCA Sheet/worksheet- Results/Cell – E47, while same has been reported as 100% under CORC Summary Sheet/Worksheet – Production Summary/ Cell – C12. PP shall address the inconsistency and ensure consistent values are reported across project documents.				
Project participant response				**Date :** 14/09/2025
This was an error, the right value for the allocation factor has been corrected and the necessary documentation has been sent to the auditor.				
Documentation provided by project participant				
Truecoco has sent an updated version of the LCA, LCA report and CORC report summary.				
VVB assessment				**Date:** 19/09/2025
The allocation factor has been updated and found to be consistent in the updated versions of the LCA model, LCA report and CORC report summary. #CAR03 is closed.				

APPENDIX 3: AUDIT TEAM EXPERIENCE

Name	Mohd Aamir Khan
Education	Ph. D. (Environmental Microbiology) M.Sc. (Biotechnology) B.Sc. (Life Sciences)
Experience	5+ Years
Field	Wastewater treatment and Waterbodies management
Approved Roles	
Team Leader	YES
Validator	YES
Verifier	YES
Local expert	YES(India)
Financial Expert	NO
Technical Reviewer	NO
TA Expert (13.1)	YES
add rows, if necessary	

Reviewed by	Shifali Guleria (Quality Manager)	**Date**	20/05/2025
Approved by	Deepika Mahala (Technical Manager)	**Date**	20/05/2025

Competence Statement			
Name	Anjali Chaudhary		
Education	Bachelor of technology in Civil Engineering		
Experience	2+ Years		
Field	Civil Engineering		
Approved Roles			
Team Leader	YES (VM only)		
Validator	YES (VM only)		
Verifier	YES (VM only)		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	Yes		
TA Expert (X.X)	YES (TA 1.1, 1.2, 3.1, 13.1 & 13.2)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	11/09/2024
Approved by	Deepika Mahala (Technical Manager)	**Date**	11/09/2024

Name	Saranya Balu		
Education	MS Environmental Engineering		
Experience	4+ years		
Field	Solid Waste Management & Plastic Waste Management		
Approved Roles			
Team Leader	NO		
Validator	YES		
Verifier	YES		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	YES (TA 13.1 & TA 13.2)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	11/09/2025
Approved by	Deepika Mahala (Technical Manager)	**Date**	11/09/2025

APPENDIX 4: REFERENCE DOCUMENTATION

S. No	Title	Version
1.	Puro Standard General Rules	Version 4.1
2.	Validation and Verification Requirements	Version 1.1
3.	Additionality Assessment Requirements	Version 2.0
4.	Stakeholder Engagement Requirements	Version 1.1
5.	Biomass Sourcing Criteria	Version 1.0
6.	Puro Biochar methodology	Version 3.0 Edition 2022
7.	Project Description Document	1.0
8	Technical specifications and Purchase Contract of Pyrolysis Equipment	Dated March 2025
9	Certificate of Incorporation of Truecoco Ghana Ltd	Dated 13/04/2017
10	Baseline and Additionality Assessment	Version 1.9
11	a. Environmental Permit issued to Trucoco Ghana Ltd by Environmental Protection agency of Sekondi (Western Region of Ghana) Validity : 13/01/2024 – 12/07/2025 b.Environmental Permit issued to Trucoco Ghana Ltd by Environmental Protection agency of Sekondi (Western Region of Ghana) Validity : 13/07/2025 – 12/01/2027	Dated 29/01/2024 Dated 11/06/2025
12	Puro Stakeholder Engagement Report	Version 2.0 Dated 06/01/2025
13	Puro Environmental and Social Safeguards Questionnaire	Version 1.1 Dated 31/07/2025

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b. Waste Disposal Policy</td><td>Dated 05/05/2025</td></tr>
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Validity : 22/03/2025 – 21/03/2026</td><td>Dated 22/03/2025</td></tr>
<tr><td>23</td><td>Water Consumption records</td><td>For the reporting period: April 2025 – August 2025</td></tr>
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<tr><td>25</td><td>Life Cycle Assessment Report of Truecoco Ghana Ltd’s Biochar Production and Use for CORC Calculation</td><td>Dated 15th September 2025</td></tr>
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b.Truecoco CORC Report Summary</td><td>Dated 15 September 2025

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<tr><td>28</td><td>Internal Calibration Procedures & Requirements
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	2	Direct Reading Thermometer	SELEC TC303	Production Temperature	DKD-R 5-1:2018 Once a year	
	3	Moisture meter	Paddy rice YY1011	Biochar moisture measurements	IS0712:2009 (E) Once a year	
	4	Gas Analyzer	Testo 350_2010	One-time third party conducted gas analysis by SGS	NA (Third party analysis by SGS)	
29	Biochar used records Biochar delivery receipts					-
30	Process Diagram of Production process					-
31	Geotagged & Timestamped pictures and Videos of biochar-based fertilizer in Soil application					-
32	End-user agreements of Biochar a. Truecoco's Coconut cooperatives b. Agricultural off-takers – Supply & Profit Sharing agreement					Dated July 2025
33	Biochar Analysis Report provided by Eurofins – Report number: AR-25-FR-046181-01					Dated: 4th August 2025
34	Biochar Production records					-
35	Puro Earth Baseline and Additionality Questionnaire					-
36	UNFCCC CDM Tool 27 Investment Analysis					-
37	Meters and Manufacture					-

S.No	Name	Purpose	Serial Number	Manufacturer	Accuracy class	Error factor
1	Platform scale	Weighing of biochar	2433137192	WADFOW	II	0.0 g
2	Direct Reading Thermometer	Production Temperature	2502A0050560000145	SELEC	NA	6 °C
3	Moisture meter	Biochar moisture measurements	X001TNHVMF	IERYI	NA	0.9%

38	LCA Evidence 1.Sample Diesel bills 2.Energy uses summary 3. Transport-distance summary 4. Moisture content records 5.Electricity bills 6.Quotations for construction and Infrastructure 7.Quotation for roof 8.Proposal for Machinery 9.Contract for Retaining wall 10.Other Infrastructure specifications	-
39	List of Equipment and Technical Specifications of the Equipment	-
40	Calibration certificates - Weigh Scale - Moisture Meter - Temperature Meter	-
41	Sample Employee Contracts	-
42	Service Contract between Truecoco Ghana Ltd and Crystalchain (dMRV partner)	Dated 4th June 2024
43	Independent research regarding Baseline scenario & Additionality https://www.researchgate.net/publication/245308652_Impact_of_biomass_burning_on_soil_organic_carbon_and_the_release_of_carbon_dioxide_into_the_atmosphere_in_the_coastal_savanna_ecosystem_of_Ghana https://link.springer.com/rwe/10.1007/978-3-030-45106-6_86	
44	Statement on Soil Temperature Data sources	-
45	Truecoco's Health & Safety Manual	Dated 24th November 2023
46	Internal Calibration Measures document	-
47	Photographical evidence of crop yields before usage of biochar and after the usage of biochar	-
48	Statement of understanding of physical-product decoupling	Dated 29th July 2025
49	Truecoco's Biochar production Equipment Questionnaire	-
50	Material Safety Datasheet of Biochar	Dated May 2025

51	Truecoco Biochar 's Marketing Specifications & Marketing Details	-
52	Standard Operating Procedures (SOP) a. Dry mass determination of biochar b. Biochar sampling c. Quantification of incoming biomass	Dated 29th July 2025 21st July 2025
53	Puro-earth Biochar Testing Methods	-
54	Document on guidance for biochar suppliers on determining the dry mass of biochar produced and delivered	-
55	Document on guidance on most common biochar test methods	-
56	Truecoco's Waybills of incoming feedstock (from Suppliers)	-
57	Truecoco's Supplier Declarations – Origin & Legality of Biomass Feedstock	-
58	Delivery slips of Biochar a. Truecoco's Coconut off-takers b. Agricultural off-takers	-
59	Preliminary report on Air emissions conducted at Truecoco Plant at Tikobo 1 in the Western region by SGS	-
60	Email chain between Truecoco Team and Terraspect	-
61	Financial spreadsheet of Truecoco Ghana Ltd's Biochar Facility	-
62	Energy and Mass Balance sheet of the Biochar facility	-
63	Positive list of biomass feedstock https://www.european-biochar.org/media/doc/2/positivlist_en_2025_v02.pdf	-
64	Research article and data source for determining soil temperature https://doi.org/10.1111/gcb.16060 https://zenodo.org/record/4558732#.Ydv0Hf7MJPY	-
65	Sampling and Production logs	-
66	Photographical records of Biochar sampling – Sampled Biochar	-
67	UNDP Africa Investment Study https://www.undp.org/sites/g/files/zskgke326/files/2023-07/undp-africa-investment-insights-en-2022.pdf	
68	Peer Reviewed article for Technoeconomic analysis of a Biochar project https://www.sciencedirect.com/science/article/pii/S0959652622032383	