

COMBINED FACILITY AND OUTPUT AUDIT REPORT


KEY PROJECT INFORMATION	
REPORT ID	PE.JV.25.011
REPORT TITLE	Carbonsate Namibia 1 combined facility and output audit report
REPORT DATE	12/12/2025
VERSION NO	1.1
CO ₂ REMOVAL SUPPLIER	Carbonsate UG (haftungsbeschränkt)
PRODUCTION FACILITY NAME	Carbonsate Namibia 1
PRODUCTION FACILITY ADDRESSES	Yakandonga Farm, Otjiwarongo C33, Namibia
PRODUCTION FACILITY ID	583695
PRODUCTION FACILITY COORDINATES	Latitude: 20.665278 Longitude: 16.330278
REMOVAL PERIOD	01/01/2025 - 14/09/2025
CO ₂ SINK SECTOR	Biomass storage
APPLIED METHODOLOGY	Terrestrial Storage of Biomass 2023, version 1.0
PURO.EARTH STANDARD VERSION	Puro Standard General Rules Version 4.1.
NET VOLUME OF CO ₂ REMOVAL	799.37 CORCs
CLIENT	Puro. earth
PREPARED BY	Earthood Services Limited
APPROVED BY	 Dr. Kaviraj Singh
WORK CARRIED OUT BY	Team Leader - Mehr Munjal Validator/Verifier - Mehr Munjal Technical Reviewer - Deepika Mahala

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1. INTRODUCTION

Earthood Services Limited (formerly known as Earthood Services Private Limited) was contracted by Puro.earth to undertake a joint production facility and output facility audit for the project facility “Carbonsate Namibia 1” to verify the CO₂ removal claims for the period spanning from 01/01/2025 to 14/09/2025. This report summarizes the results and conclusions of the production facility and output audit performed as a formal part of the Puro.earth certification process. Earthood declares that they are an impartial auditor, free from any conflicts of interest, capable, and qualified to complete this audit according to Puro Standard and related Validation and Verification Body Requirements.

The project delivers long-term carbon removal by isolating waste biomass in an engineered underground storage pit. Cleared encroacher bush is stored in controlled, low-oxygen and low humidity environment that halt biological decay. By preventing the material from breaking down, the carbon stored within it remains securely contained for more than 100 years, eliminating potential emissions of CO₂ and methane. The storage pit is equipped with monitoring sensors to ensure performance and integrity over time. In addition to generating durable climate benefits, the project contributes to ecosystem restoration, mitigates wildfire hazards, creates employment opportunities for local communities, and offers a scalable, nature-based pathway for carbon sequestration storage

The CO₂ removal supplier is Carbonsate UG. The storage pit is excavated on Yakandonga farm owned by Endelesa Farming CC in Otjiwarongo, Namibia. The local project partner for implementation is Hecla Consulting. Carbonsate UG is responsible for quantification and monitoring of CO₂ removal activities, installation of project equipment and long-term maintenance to meet certification requirements. Hecla Consulting is responsible for stakeholder engagement, ensuring compliance with host country laws, local implementation support, biomass procurement and overseeing project management. This is confirmed from the Cooperation and Service Agreement between Hecla Consulting and Carbonsate UG.

The project stores a total of 952 dry metric tonnes of biomass resulting in removal of 799.37 tonnes of CO₂e emissions over a period of 100 years. The ownership of CORCs lies with the CO₂ removal supplier, Carbonsate UG as confirmed by the Statement of No Double Counting signed by Carbonsate UG, Hecla Consulting and Endelesa Farming CC.

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, as well as the output generated, and CO₂ removals achieved during the period from 01/01/2025 to 14/09/2025. The assessment 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 Terrestrial Storage of Biomass methodology for CO₂ removal, 2023 version 1.0
- Life Cycle Assessment (LCA) Report and CORC calculation
- Uncertainty and Reversal risk estimation
- Monitoring and Reporting Plan
- Additionality Assessment Report
- Stakeholder Consultation
- Environmental and Social Safeguards.
- Positive Sustainable Development Goals (SDG) impact description
- 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 the controls in place to mitigate these risks. Earthood's plan for the validation process involved obtaining the necessary evidence, information, and explanations to provide a reasonable level of assurance. The VVB reviewed sufficient evidence to verify the project implementation, data, parameters, and emission reduction calculations for this monitoring period. Any discrepancies found during the verification assessment were raised as audit findings and successfully resolved. All audit findings are included in Appendix 2 of this report.

During the current facility and output audit, the VVB conducted an on-site audit of the project activity, as detailed in Section 2, and observed no substantial changes, thus meeting 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	Mehr Munjal	Y	Y	Y	Y	-
Validator/Verifier	Mehr Munjal	Y	Y	Y	Y	-
Technical Reviewer & Methodology Expert	Deepika Mahala	-	-	-	-	Y

2 AUDIT PROCESS

A planned series of audit activities were conducted during the on-site audit to independently validate and verify facility operations, production, and output data, and CORC Claims. The on-site audit was conducted following the specifications of Puro Standard General Rules version 4.1 and the Terrestrial Storage of Biomass methodology for CO2 removal, 2023 version 1.0. Specific audit activities conducted are summarized below. A completed Puro Terrestrial Storage of Biomass Checklist 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, criteria, scope, and methodology requirements
 - b. Verified the location of the project site.
 - c. Established ownership details, roles and responsibilities of the CO₂ removal supplier and other entities.
- 2. System Inputs Review:**
- a. Observed the source biomass
 - b. Examined the process of harvesting and transport of source biomass
- 3. Review of storage site**
- a. Examined the sealed storage site
- 4. Review of records:**
- a. Examined records and documentation related to design of storage site, sustainable harvesting methods, eligibility of biomass feedstock, technical specifications of monitoring equipment and calibration details of scales.
 - b. Reviewed automated sensor data detailing the temperature, moisture conditions, CO₂, CH₄, O₂ and water levels in the storage pit.
 - c. Assessed the utilization and maintenance records of the equipment used in production.
- 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 Arrangements:**
- a. Assessed the safety measures in place at the production facility, including worker safety protocols and emergency procedures.
 - b. Interview with local stakeholders (farm owner) to confirm the engagement process and ongoing grievance mechanisms.
- 7. Compliance Checklist:**
- a. Established complete compliance of the project activity in line with the Puro Terrestrial Storage of Biomass Methodology.
 - 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 biomass storage site, validating its operations, data integrity, and compliance with the Puro Terrestrial Storage of Biomass Methodology for CO₂ Removal, 2023 version 1.0. The project's compliance to the methodology is detailed in Appendix 1 of this report. 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.	Sperling	Fabian	Carbonsate UG	16/10/2025	Mehr Munjal
2.	Broll	Johanna	Carbonsate UG		

3.	Schonecke	Kai-Uwe	Hecla Consulting		
4.	Engelbrecht	Jacobus	Endelela Farming CC		

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 combined Production Facility Audit and Output Audit, a total of 05 CLs and 02 CARs were raised and resolved satisfactorily. The list of CARs/CLs raised, and the responses provided, means of verification, reasons for their closure, and references to corrections in the relevant documents are provided in Appendix 3 of this report. No FAR was raised during this assessment.

4 QUANTIFICATION OF CO₂ REMOVAL

INPUT	VALUE	UNIT	MEANS OF VERIFICATION (Specifications, source, etc)
Nb of storage units validated for CORC issuance this period	1	NA	1 storage site (latitude: 20.665278, Longitude: 16.330278) is included in the production facility and output audit. The sealed storage site was examined by the assessment team during the on-site audit/3/. Photographic and video evidence of construction and closure of the underground storage pit was also observed/48/
Dry mass of biomass placed in storage units for CORC issuance this period	952	Dry metric tonnes	The amount of biomass stored in the underground storage pit was verified through the biomass load records/49/. The weight was measured with the help of a calibrated scale before loading the biomass in the storage pit. The calibration of monitoring equipment

			were verified by the assessment team to be in line with industry standards/59/															
Average amount of biomass per storage units, at facility	952	tonnes	1 storage site is included in the production facility and output audit															
Average carbon content of biomass used, at facility	49.5	%	The average carbon content was verified through the Eurofins laboratory test report/62/															
E_{stored} Gross amount of CO2 sequestered in the stored biomass by the project over the reporting period	1728.24	tonne CO2-eq	<p>The gross amount of CO2 sequestered is calculated in line with the methodology as follows:</p> $E_{\text{stored}} = M \times DM \times C_{\text{org}} \times 44/12$ <p>M (wet weight of biomass in metric tonnes) = 1058.00 DM (dry matter content of the biomass in percentage wet weight) = 90% Eligible biomass (in percentage) = 100%</p> <p>Thus, dry matter content = 952 tonnes.</p> <p>C_{org} (organic carbon content in percentage of the dry weight, of the biomass placed in storage) = 49.50% Mass conversion factor = 44/12</p> <p>Thus, E_{stored} is calculated as:</p> $952 \times 49.50\% \times 44/12$															
$E_{\text{re-emissions}}$ Amount of greenhouse gases re-emitted during storage, if any	847.53	tonne CO2-eq	<p>This is calculated as the sum of re-emissions of CO2 and CH4.</p> <p>The quantification equation for CO2 is as follows:</p> $E_{\text{CO2}} = M \times DM \times C_{\text{org}} \times 44/12 \times F_{\text{CO2}} \times DOC_f + F_{\text{CH4}} \times DOC_f \times Ox$ <p>The quantification equation for CH4 is as follows:</p> $E_{\text{CH4}} = M \times DM \times C_{\text{org}} \times 16/12 \times F_{\text{CH4}} \times DOC_f \times GWP_{\text{CH4}, 100} \times (1 - Ox)$ <table border="1" data-bbox="917 1720 1385 2031"> <thead> <tr> <th>Parameter</th> <th>Value</th> <th>Verification</th> </tr> </thead> <tbody> <tr> <td>DOC_f</td> <td>8.8%</td> <td>Methodology default</td> </tr> <tr> <td>F_{CO2}</td> <td>50%</td> <td>Methodology default</td> </tr> <tr> <td>F_{CH4}</td> <td>50%</td> <td>Methodology default</td> </tr> <tr> <td>Ox</td> <td>0%</td> <td>Methodology default</td> </tr> </tbody> </table>	Parameter	Value	Verification	DOC_f	8.8%	Methodology default	F_{CO2}	50%	Methodology default	F_{CH4}	50%	Methodology default	Ox	0%	Methodology default
Parameter	Value	Verification																
DOC_f	8.8%	Methodology default																
F_{CO2}	50%	Methodology default																
F_{CH4}	50%	Methodology default																
Ox	0%	Methodology default																

			Therefore, E _{re-emissions} as CO ₂ = 76.04 tCO ₂ e E _{re-emissions} as CH ₄ = 771.49 tCO ₂ e
E _{supply chain} Life cycle emissions arising from the whole supply chain of the terrestrial storage activity	81.34	tonne CO ₂ -eq	81.34 tCO ₂ e attributed to the construction of the storage site have been verified from the Life Cycle Assessment spreadsheet/54/. The LCA report prepared by carbonsate has been verified by the assessment team/55/. The LCA has been subjected to external verification and the third-party report has also been reviewed by the assessment team/56/. Moreover, supporting evidence pertaining to the LCA inventory have been provided and reviewed by the assessment team/57,58/
CORCs claimed	799.37	tonne CO ₂ -eq	The claimed CORCs are calculated as follows: E _{stored} - E _{supply chain} - E _{re-emissions}

CORCs per dry tonne biomass stored = E _{stored} - (E _{supply chain} + E _{re-emissions})		
E _{stored}	1728.24/952	1.8150 tonne CO ₂ -eq / tonne biomass
E _{re-emissions}	847.53/952	0.8901 tonne CO ₂ -eq / tonne biomass
E _{supply chain}	81.34/952	0.0854 tonne CO ₂ -eq / tonne biomass
CORC Factor	0.84	-

5 UNCERTAINTY DISCLOSURE

A review of all data and parameters contributing to the net CO₂ removal calculation was undertaken. The key uncertainty sources, their assessed risk levels, and the mitigation measures applied during the audit are summarized below.

No.	Objective of assessment	Assessment of the risk	Audit Technique Employed
1.	Review of data flow for generation, aggregation and reporting of monitoring parameters.	Low	On Site interview with monitoring personnel at the site, independent review of documentary evidence and time stamped photographs of the

		<p>metering equipment provided by the Project Developer. All documents reviewed have been listed in Appendix 4 of the report.</p> <p>Monitored parameters for CORC calculation:</p> <ol style="list-style-type: none"> 1. E_{stored} The calibration certificates for equipment to determine total mass of biomass (M) and dry matter content of biomass placed in storage (DM) were reviewed. The laboratory tests for determination of organic carbon content (Corg) were also reviewed and deemed appropriate by the assessment team. 2. $E_{\text{re-emissions}}$ The audit team verified the CORC summary sheet and the LCA spreadsheet, confirming that methodology default values for decomposition and re-emission processes were applied correctly and conservatively. As these values originate from the Puro methodology which applies precautionary assumptions to ensure conservative estimation, uncertainty is inherently minimized. The LCA model and its inputs have also been independently verified, further limiting residual uncertainty. 3. $E_{\text{supply chain}}$ The CO₂ removal supplier maintains a
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			<p>detailed LCA inventory encompassing transportation data, machinery use, and energy consumption. This inventory has been verified by a third-party assessor. All data, the LCA model, the independent verification report, and supporting evidence were reviewed by the audit team. The methodological approach applies default emission factors and conservative assumptions where primary data are limited, thereby reducing the impact of any remaining uncertainty</p>
2.	Assessment of the correctness of implementation of procedures for operations and data collection	Low	On site interview with monitoring personnel at the site.
	Cross-checking of information provided in project description with other sources	Low	Review of documentary evidence provided by project developer. All documents reviewed have been listed in Appendix 4 of the report.
3.	Assessment of monitoring equipment against the requirements of approved methodology		Review of documentary evidence provided by project developer, on site audit, interviews with monitoring personnel and time stamped photographic evidence provided by project developer. All documents reviewed have been listed in Appendix 4 of the report.
4.	Assessment of calculations and assumptions used to obtain the GHG data and emission removals	Low	Review of CORC summary sheet, LCA spreadsheet, LCA report, third party LCA verification report

5.	Identification of whether the quality control and quality assurance procedures are in place	Low	On site interview with monitoring personnel at the site.
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Based on the assessment of all uncertainty sources, the review of calibration and primary data records, the application of conservative methodological defaults, and the independent third-party verification of the LCA, the overall uncertainty associated with the net CO₂ removal calculation (Estored, Emissions, and Esupply chain) is assessed as *low* and non-material for CORC issuance purposes. Residual uncertainty is minimized through conservative estimation as required under the Puro Standard and does not affect the completeness, traceability, or accuracy of the final audited CO₂ removal outcome.

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 "Carbonsate Namibia 1" meets the requirements outlined in the Puro Standard General Rules Version 4.1. It is confirmed that the Puro Terrestrial Storage of Biomass Methodology for CO₂ Removal. 2023 version 1.0 has been correctly applied for the CO₂ removal calculation.

The project implementation aligns 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.

The verification approach 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, It is confirmed that the emission removals for the reporting period from 01/01/2025 to 14/09/2025, amount to 799.37 CORCs.

Therefore, Earthood Services Limited confirms the production facility's capability to effectively remove CO₂ and requests the issuance of CORCs for the reporting period.

APPENDIX 1: METHODOLOGY COMPLIANCE CHECKLIST

Section 2.2 Alignment with Core Carbon Principles		
Methodology Requirement	Requirement Met	Means of Verification
Principles for projects (mitigation activities)		
1. Additionality (CCP 05) The greenhouse gas (GHG) emission reductions or removals from the mitigation activity shall be additional, i.e., they would not have occurred in the absence of the incentive created by carbon credit revenues	Yes	The GHG emission removals occurring as a result of the project activity are confirmed to be additional. The CO ₂ removal supplier has demonstrated a simple cost analysis to prove the financial additionality of the biomass storage project. The Baseline and Additionality questionnaire/27/ and simple cost analysis sheet has been verified by the assessment team/26/ the project cost estimates pertaining to the construction of storage site, handling and storage of biomass, sealing of the storage pit, installation of monitoring equipment and other

		operational costs have been listed which have been verified through the contractual agreement between Carbonsate and Hecla Consulting as part of the feasibility assessment/5/. The project does not generate any revenue and thus, solely relies on carbon finance as it's source of income.
2. Permanence (CCP 06) The GHG emission reductions or removals from the mitigation activity shall be permanent or, where there is a risk of reversal, there shall be measures in place to address those risks and compensate for reversals	Yes	The GHG emission removals occurring as part of the project activity are permanent owing to the storage site design/30/. Additionally, a permanence liabilities assessment has been provided by the CO2 removal supplier along with along with a funding framework to ensure the long-term stability of the biomass storage site for a 100 years/40/
3. Robust quantification of emission reductions and removals (CCP 07) The GHG emission reductions or removals from the mitigation activity shall be robustly quantified, based on conservative approaches, completeness and sound scientific methods.	Yes	The GHG emission removals occurring as part of the project activity have been robustly quantified. The LCA calculation/54/ and LCA report/55/ prepared by Carbonsate UG have been verified by the assessment team. The LCA calculation has also been subject to a third-party verification/56/. The CORC summary sheet provides a traceable calculation of the of the GHG removals quantified in line with the approach laid out by the Puro methodology/72/. The input data for calculation is supported by reliable evidence verified during desk review and the on-site audit and is deemed appropriate by the assessment team.
4. No double counting (CCP 08) The GHG emission reductions or removals from the mitigation activity shall not be double counted, i.e., they shall only be counted once towards achieving mitigation targets or goals. Double counting covers double issuance, double claiming, and double use.	Yes	The GHG emission removals are not double counted and only counted once towards achieving the mitigation targets. A tripartite statement of no double counting between Carbonsate UG, Hecla Consulting and Endelesa Farming CC has been provided by the CO2 removal supplier in line with the applied methodology/72/
5. Contribution to net zero transition (CCP 10) The mitigation activity shall avoid locking-in levels of GHG emissions, technologies or carbon-intensive practices that are incompatible with the objective of achieving net zero GHG emissions by mid century	Yes	The GHG mitigation activity avoids all practices that are incompatible with the objective of achieving net zero GHG emissions. The implementation and monitoring practices have been verified through a comprehensive desk review as well as a physical inspection of the all project aspects as part of the on-site audit. All documents reviewed have been included in this report as Appendix 4. The assessment team has gathered sufficient evidence to demonstrate compliance of the project activity with contribution to net zero transition.
Section 4.1 Requirements for general eligibility and sustainability		
Methodology Requirement	Requirement Met	Means of Verification
4.1.1 An eligible activity is an activity where eligible biomass is sustainably sourced and	Yes	The project removes atmospheric CO ₂ by storing invasive encroacher bush biomass underground in controlled, oxygen-limited conditions. The bush

<p>subsequently stored in a terrestrial storage site under conditions that inhibit biomass decomposition, maintaining such conditions for at least 100 years</p>		<p>is harvested, chipped to reduce decay risk, and placed into an engineered pit lined and sealed to block oxygen and moisture. Once enclosed, the site is monitored with sensors that track temperature, gases, and humidity to ensure stable anaerobic conditions. By preventing the biomass from decomposing, the project keeps the carbon locked away for more than 100 years, effectively removing it from the carbon cycle.</p> <p>The encroacher bush biomass is sustainably sourced as confirmed from the Forest licenses for harvesting issued to Endelea farming by the Ministry of Environment, Forestry Tourism, valid from 20/12/2024 – 20/06/2025/9/.</p> <p>The conditions in the storage pit inhibit biomass decomposition as confirmed from the biomass storage design chamber report/32/, report on measures and design principles implemented in the storage chamber to inhibit biomass decomposition/35/ and publicly available peer reviewed literature on the primary design components of the storage pit/36/.</p>
<p>4.1.2 Eligible biomass consists of lignocellulosic biomass (LCB) from plants mainly composed of polysaccharides (cellulose and hemicelluloses) and an aromatic polymer (lignin), forming a complex assembly of polymers naturally recalcitrant to enzymatic decomposition</p> <p>i. A rigid physical structure and high lignin content</p> <p>ii. A carbon to nitrogen ratio (C:N) higher than 80, unless the storage reliably excludes liquid water, such as under permanently frozen or dry (xeric) conditions, as availability of nitrogen encourages decomposition.</p>	<p>Yes</p>	<p>i. Laboratory analysis confirms that the feedstock consists of lignocellulosic biomass, with the sample containing approximately 44.5% cellulose, 17.8% hemicellulose, and 20.2% lignin./62/ These components are characteristic of LCB and are consistent with the methodology's requirement that the biomass comprise polysaccharides and lignin forming a naturally recalcitrant structure. The audit team verified during the site inspection that the biomass is woody in nature, exhibiting a rigid physical structure typical of encroacher bush/62/</p> <p>ii. The laboratory evidence shows a C:N ratio of 70.07/62/, which is slightly below the referenced threshold of 80. However, the methodology explicitly allows for lower C:N ratios when the storage environment reliably excludes liquid water. The storage site flux measurements were assessed to be dry, with conditions designed to prevent moisture ingress./62/</p>
<p>4.1.3 The CO₂ Removal Supplier must provide proof of the eligibility of the biomass, excluding impurities from harvesting. This may take the form of a list of the individual species of biomass being stored or other documentation</p>	<p>Yes</p>	<p>The eligibility of the biomass is explained above and confirmed through laboratory analysis results. The Eurofins Umelt Ost GmbH laboratory results have been reviewed by the assessment team/62/</p>

<p>that demonstrates the eligibility of the biomass in accordance with rule 4.1.2</p>		
<p>4.1.4 The CO₂ Removal Supplier shall provide a chemical analysis of the biomass to be stored. This analysis must cover at least:</p> <ul style="list-style-type: none"> • A determination of the carbon to nitrogen ratio (C:N) of the stored biomass • A determination of the quantity and composition of the major structural components of the biomass (cellulose, hemicellulose and lignin) 	<p>Yes</p>	<ul style="list-style-type: none"> i. The laboratory evidence shows a C:N ratio of 70.07/62/, which is slightly below the referenced threshold of 80. However, the methodology explicitly allows for lower C:N ratios when the storage environment reliably excludes liquid water. The storage site flux measurements were assessed to be dry, with conditions designed to prevent moisture ingress./62/ ii. Laboratory analysis confirms that the feedstock consists of lignocellulosic biomass, with the sample containing approximately 44.5% cellulose, 17.8% hemicellulose, and 20.2% lignin./62/ These components are characteristic of LCB and are consistent with the methodology's requirement that the biomass comprise polysaccharides and lignin forming a naturally recalcitrant structure. The audit team verified during the site inspection that the biomass is woody in nature, exhibiting a rigid physical structure typical of encroacher bush/62/
<p>4.1.5 The CO₂ Removal Supplier must demonstrate that the biomass is sourced sustainably in accordance with local regulations and other requirements detailed in this methodology (see rule 4.1.6) or the Puro Standard. Any land use right, environmental permits, as well as certification of operations, shall be part of the proof.</p>	<p>Yes</p>	<p>The assessment team confirms that the biomass is sustainably sourced. This is confirmed from the Forest licenses for harvesting issued to Endelea farming by the Ministry of Environment, Forestry Tourism, valid from 20/12/2024 – 20/06/2025/9/. The farmland with the encroacher bush belongs to Endelea Farming CC as confirmed from the Yakandonga farm certificate of consolidated title/8/. The authorization of land use between Endelea Farming CC, Carbonsate UG and Hecla Consulting/9/ has also been reviewed by the assessment team.</p>
<p>4.1.6 For the biomass to be considered sustainably sourced, for the carbon storage to be additional relative to the baseline, and for economic leakage to be adequately addressed, the following rules apply for the different categories of biomass sources described in subrules (a)–(e) of the methodology</p>	<p>Yes</p>	<p>The biomass belongs to category “e” as defined by the methodology which corresponds to the biomass sourced from land clearing in construction projects or for agriculture.</p> <p>This is in line with recent clarification released by Puro serial number 004 TSB “Eligibility of biomass from land clearing for agriculture” applicability criterion 4.1.6(e) of the Terrestrial Storage of Biomass, 2023 methodology/72/ which is further clarified in the Puro Earth Clarifications for Application of Puro Standard and Methodologies/71/.</p>

		<p>Moreover, CO2 removal supplier had sought additional clarification. Based on Puro's feedback on the clarification and submitted evidence, the clearing of the encroacher bush increases the agricultural fertility of the land, enabling the CO2 removal supplier to reclassify the biomass under category "e".</p> <p>The biomass meets the eligibility criteria of category e as follows:</p> <table border="1" data-bbox="807 566 1388 2011"> <thead> <tr> <th data-bbox="807 566 1098 622">Criterion</th> <th data-bbox="1098 566 1388 622">Means of Verification</th> </tr> </thead> <tbody> <tr> <td data-bbox="807 622 1098 1066"> <p>The land use change and related emissions are attributed to the construction project or the agricultural products. The biomass arising from land clearing is technically classified as non-renewable</p> </td> <td data-bbox="1098 622 1388 1066"> <p>The land use change and related emissions are attributed to the biomass harvesting and site excavation activities capturing the soil carbon loss associated with disturbing the surface layer. The emissions are demonstrated in the LCA calculation/54/ and LCA report/55/</p> </td> </tr> <tr> <td data-bbox="807 1066 1098 2011"> <p>Carbon storage additionality relative to baseline: the baseline assumes that the construction project or the agricultural land clearing would take place in any case, and that the biomass is treated as a waste product similar to biomass of type D. Depending on the local context, it is likely that a fraction of the biomass is economical to use as material (e.g. timber, plywood) or energy, while another fraction is not suited for any use and can be either burnt or disposed of.</p> </td> <td data-bbox="1098 1066 1388 2011"> <p>In the baseline, the agricultural land clearing would take place in any case. A portion of the biomass is of economic use in the baseline. In the absence of the project, Some of the chipped biomass was sold to a cement plant in Windhoek for heat production. Although this replaces fossil fuels, the carbon stored in the biomass is emitted during combustion, so it does not provide long-term carbon storage. In other cases, the biomass was processed into charcoal using traditional kilns. The biomass selling invoices between Endelesa Farming CC and buyers have been</p> </td> </tr> </tbody> </table>	Criterion	Means of Verification	<p>The land use change and related emissions are attributed to the construction project or the agricultural products. The biomass arising from land clearing is technically classified as non-renewable</p>	<p>The land use change and related emissions are attributed to the biomass harvesting and site excavation activities capturing the soil carbon loss associated with disturbing the surface layer. The emissions are demonstrated in the LCA calculation/54/ and LCA report/55/</p>	<p>Carbon storage additionality relative to baseline: the baseline assumes that the construction project or the agricultural land clearing would take place in any case, and that the biomass is treated as a waste product similar to biomass of type D. Depending on the local context, it is likely that a fraction of the biomass is economical to use as material (e.g. timber, plywood) or energy, while another fraction is not suited for any use and can be either burnt or disposed of.</p>	<p>In the baseline, the agricultural land clearing would take place in any case. A portion of the biomass is of economic use in the baseline. In the absence of the project, Some of the chipped biomass was sold to a cement plant in Windhoek for heat production. Although this replaces fossil fuels, the carbon stored in the biomass is emitted during combustion, so it does not provide long-term carbon storage. In other cases, the biomass was processed into charcoal using traditional kilns. The biomass selling invoices between Endelesa Farming CC and buyers have been</p>
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			<p>verified by the assessment for the year prior to project implementation/25/. The other portion of the biomass was subject to pile burning. This was verified via interview with the farm-owner during the on-site audit/3/</p>
		<p>Economic leakage prevention: only the fractions not suited or not economic to use as material and energy are eligible</p>	<p>The LCA report and LCA calculations along with supporting evidence for the inventory has been verified by the assessment team/54/ Economic leakage was evaluated for the Carbonsate Namibia project and found to be not applicable. The project uses only encroacher bush—an invasive species classified as ecological waste with no viable structural or long-lived material uses, as confirmed in the PDD. Although small quantities of this biomass are used locally for firewood or charcoal, the project does not affect energy markets. Namibia has an extremely large biomass surplus (200–450 million tonnes), while national energy use is under 2 million tonnes per year and the project uses only about 1,000 tonnes. Because supply far exceeds demand, any displaced biomass would simply be replaced by other readily available biomass, eliminating</p>

			<p>any possibility of fossil-fuel substitution or market pressure. The external LCA validator independently confirmed this assessment, noting that economic leakage does not arise in a context involving an invasive species with effectively unlimited supply. Consequently, leakage is excluded because there is no potential for economic displacement.</p>
		<p>Authorisation of operations: the construction project or the agricultural land clearing must have a valid construction permit or other approval that allows land clearing.</p>	<p>This is confirmed from the Forest licenses for harvesting issued to Endelea farming by the Ministry of Environment, Forestry Tourism, valid from 20/12/2024 - 20/06/2025/9/.</p>
<p>Section 4.2 Requirements for the production facility audit</p>			
<p>4.2.3 The Production Facility Auditor collects and checks the standing data of the CO2 Removal Supplier and the Production facility. The standing data, in digital format, to be collected by the Auditor includes:</p> <ul style="list-style-type: none"> • A certified trade registry extract or similar official document stating that the CO2 Removal Supplier's organization legitimately exists. • The CO2 Removal Supplier registering the Production facility in the Puro Registry. • Locations of the terrestrial storage sites forming the Production facility. • A statement detailing whether the Production facility has benefited from public financial support. 	<p>Yes</p>	<ol style="list-style-type: none"> Carbonsate company registration certificate has been reviewed by the assessment team/7/. The registration of the project with Puro has been verified by the assessment team. The location of the production facility has been verified during the on-site audit/3/ and geotagged photographs of the storage site/50/. A statement detailing whether the production facility has benefitted from public support has been provided by the CO2 removal supplier/28/ In line with the applied methodology, the point of creation of the CO2 Removal Certificate (CORC) is when the eligible biomass is enclosed within the chamber. The storage pit containing the encroacher bush biomass was sealed on 13/05/2025. This has been verified through the time stamped, 	

<ul style="list-style-type: none"> • Date on which the Production facility becomes eligible to issue CORCs. 		<p>geotagged photographs and videographic evidence of the closure of the storage pit/48/ as well as interviews with the farm owner and project implementation partner representative during the on-site audit.</p>
<p>Section 4.3 Requirements for storage site design</p>		
<p>4.3.1 To be eligible, the storage site and chamber/s must create conditions that inhibit biomass decomposition. The control of these factors must be achieved by engineered design. More specifically, the storage site:</p> <ul style="list-style-type: none"> • May be made of several storage chamber/s, each storage chamber being uniquely identified and characterized (location, volume stored, measures implemented to inhibit and monitor potential decomposition, technical drawings of each storage chamber). • Must be specifically engineered to inhibit the decomposition of biomass into greenhouse gases (CO₂ or CH₄). • Must implement measures to inhibit and monitor potential decomposition of biomass. 	<p>Yes</p>	<ol style="list-style-type: none"> 1. The project utilizes 1 engineered subsurface storage pit constructed in stable, low-permeability soil. The chamber is clearly defined and characterized, with its location, structure, and storage configuration documented. The pit design includes a compacted clay base, engineered sealing layers of HDPE membrane, and a structured surface cover, allowing for precise identification of measures implemented to limit decomposition. The storage chamber technical diagram has been reviewed by the assessment team/30/. Additionally, the CO₂ removal supplier has provided the biomass storage chamber design report/32/, report on measures and design principles implemented in the storage chamber to inhibit biomass decomposition and publicly available peer reviewed literature on HDPE membranes proving that the HDPE geomembrane acts as a methane oxidation layer, designed to neutralize any methane generated from infrequent anaerobic reactions. Given the substantial thickness and low permeability of the HDPE geomembrane, gas movement into the distribution layer is extremely unlikely, and under normal conditions no methane is expected to escape the sealed chamber/36/. The monitoring system sensor installation photographic evidence and storage site flux measurement data was reviewed by the assessment team/42/ to ensure robust monitoring conditions. 2. The storage chamber is specifically engineered to maintain anaerobic, low-moisture conditions. Key design features—including dry biomass storage, geoliner (HDPE) membrane sealing system, water diversion system, soil coverage and vegetation layer, —are intended to prevent oxygen and water ingress. By restricting these factors, the system effectively suppresses microbial activity that would otherwise lead to CO₂ or CH₄ formation. This demonstrates

		<p>compliance with the requirement for engineered inhibition of decomposition/36/</p> <p>3. A network of 10 sensors is installed across the storage chamber—five at the base and five beneath the upper membrane—to monitor key conditions. The systems track humidity, temperature, oxygen, methane, and CO₂ levels to confirm that the chamber remains dry, stable, and anaerobic. CO₂ is measured using sensors with two ranges (0–5% and 0–100%). All CO₂ sensors are located in the bottom units, with three in the higher range and two in the lower range. The bottom sensors also include water-detection features to identify any moisture intrusion. The top sensors measure gas parameters but do not include water-level detection. The monitoring system installation photographic evidence/50/ and the report on monitoring plan for storage site/36/ has been reviewed by the assessment team.</p>
<p>4.3.2 The following general storage chamber designs are eligible under this methodology:</p> <ul style="list-style-type: none"> • Above ground storage chambers • Below ground storage chambers • Subterranean injection 	<p>Yes</p>	<p>The project involves a below ground storage pit. The site was observed by the assessment team during the on-site audit/3/. The technical diagram of the storage chamber/30/ and the report on design principles of the storage chamber/35/ and time stamped photographic evidence of the excavation and sealing of the storage site/48/ have also been verified.</p>
<p>4.3.3 The CO₂ Removal Supplier shall consider the effect of the following general design principles during the design and construction of any storage chamber:</p> <ul style="list-style-type: none"> • The absence of light in the storage chambers. • Absence of biomass disturbance over 100 years by e.g. mixing or agitation of the contained biomass. • Temperature, gas and moisture monitoring and control, to detect any potential decomposition or change of conditions. • Consistent chamber moisture conditions. • Limiting any external risk factors such as insect incursion or structural damage 	<p>Yes</p>	<ol style="list-style-type: none"> A soil layer and geoliner fully cover the chamber, blocking UV light and avoiding any light-induced or environmental effects that might speed up decomposition. The same was observed on site by the assessment team/3/ The biomass is kept at a low moisture content of 5–10%, maintaining a water activity below 0.71. These conditions suppress microbial processes, preventing fungal or bacterial growth that would otherwise lead to decay. This is confirmed from the storage site design and site flux measurement data analysis/42/ The subsurface setting keeps temperatures consistently below 20°C, which further suppresses microbial activity and slows decay. The surrounding soil also helps stabilize pH levels, creating a

		<p>chemically stable storage environment. This is confirmed from the storage site design/30,32,35/</p> <p>iv. The storage area is built with a slight elevation, allowing rainwater to run off naturally. Any moisture that moves through the topsoil is blocked by the geoliner, preventing water from entering the biomass chamber. The same was observed during the on-site audit by the assessment team/3/</p> <p>v. An HDPE geoliner is installed and fully welded across the top and along the sidewalls to the bottom of the chamber, forming an impermeable layer that prevents any outside elements or moisture or oxygen from reaching the biomass. Publicly available and peer reviewed literature on HDPE membrane has been verified confirming the above mentioned properties for storage of biomass/36/</p>
<p>4.3.4 In storage system designs where fire can occur in the stored biomass (including but not limited to dry ventilated storage conditions), the CO2 Removal Supplier must implement measures to limit the risk of fire and management of any occurrence with appropriate detection and suppression systems</p>	<p>Yes</p>	<ul style="list-style-type: none"> • Anoxic Storage: The HDPE-sealed chamber blocks oxygen entry, and the low redox potential (below -100 mV) prevents combustion. • Soil Insulation: A 1-meter soil cover adds protection, shielding the biomass from fire and other external impact <p>Report on fire risk management measures has been reviewed/37/</p>
<p>4.3.5 In addition to the general design principles listed in rule 4.3.3, the CO2 Removal Supplier shall consider the effect of the following conditions in the context of the selected storage design:</p> <p>(a) For a storage chamber where sufficient moisture is present to affect biological decay (i.e., the water activity is 0.71 or higher), the following important factors must be considered:</p> <ul style="list-style-type: none"> • Physical separation of the stored biomass from the atmosphere • Very low oxygen levels in the storage chambers • Hydraulic conductivity at the boundaries of the chamber which have been designed and 	<p>Yes</p>	<p>Condition b is applicable - “storage chamber designed to maintain dry conditions (water activity below 0.71) that eliminate decomposition”</p> <p>i. The geoliner (HDPE) membranes act as a preventive measure for any type of water leaks and maintaining the physical integrity of the storage site/36/</p> <p>ii. Only dry biomass (5–10% moisture) is loaded, ensuring the water activity stays under 0.71. The technical details and calibration details of the moisture meter have been provided by the CO2 removal supplier, ensuring accurate measurement.</p>

<p>demonstrated to restrict ground water flow into and out of the chamber</p> <ul style="list-style-type: none"> Utilization of a microbial methane oxidation system to reduce emissions <p>(b) For a storage chamber designed to maintain dry conditions (water activity below 0.71) that eliminate decomposition, the following important factors must be considered:</p> <ul style="list-style-type: none"> Physical integrity of the storage chamber (e.g., absence of water leaks) Drying biomass below the moisture content at which any form of microbial decomposition can take place (including, but not limited to methanogenesis) and maintaining dry conditions over time. 		
<p>Section 4.4 Requirements for storage site monitoring</p>		
<p>4.4.1 The CO₂ Removal Supplier must prepare a monitoring plan for the stored biomass. The monitoring plan must specify and detail the measures in place to ascertain that consistent storage conditions are being maintained through time. This includes but is not limited to detailing the experimental determination of the storage conditions</p>	<p>Yes</p>	<p>The CO₂ removal supplier has developed a monitoring plan and MRV Protocol/38/for the stored biomass. The same has been verified through desk review and during the on-site audit through interviews with project partner implementation representative/3/</p>
<p>4.4.2 The CO₂ Removal Supplier must detail and implement a systematized approach for timely detection of compromised storage conditions. This includes an approach for detection and, where relevant, oxidation of any significant methane emissions to the atmosphere</p>	<p>Yes</p>	<p>This has been explained in detail in the sections above. (condition 4.3.1)</p>
<p>4.4.3 All storage sites must be equipped to monitor and quantify the release of greenhouse gases (CO₂ or CH₄). The precise instrumentation specifications for greenhouse gas monitoring can be chosen by the CO₂ Removal Supplier. However,</p>	<p>Yes</p>	<p>i. The systems track humidity, temperature, oxygen, methane, and CO₂ levels to confirm that the chamber remains dry, stable, and anaerobic.CO₂ is measured using sensors with two ranges (0–5% and 0–100%). All CO₂ sensors are located in the bottom units, with three in the higher range and two in</p>

<p>any monitoring approach must fulfil at least the following requirements:</p> <ul style="list-style-type: none"> • The CO₂ Removal Supplier must be able to experimentally measure the concentration of greenhouse gases released from the storage chambers to the atmosphere. • The instrument(s) utilized to monitor methane release must be accurate and precise enough to reliably quantify CH₄ concentrations of at least 2 ppmv (parts per million by volume) 		<p>the lower range. The bottom sensors also include water-detection features to identify any moisture intrusion. The top sensors measure gas parameters but do not include water-level detection. The monitoring system installation photographic evidence/50/ and the report on monitoring plan for storage site/38/ has been reviewed by the assessment team. Moreover, the flux measurement data/42/, data recorded by the sensors and it's analysis to confirm the conditions inside the storage pit have also been confirmed by the assessment team/43/.</p> <p>ii. The sensors are accurate enough to quantify CH₄ concentrations of at least 2 ppmv. This has been verified through the technical specifications of the components of the sensor/65/</p>
<p>4.4.4 Storage chambers designed to maintain dry conditions (water activity below 0.71) to eliminate decomposition must be equipped to:</p> <ul style="list-style-type: none"> • Monitor relative humidity and temperature. • Remove excess moisture from the chamber (e.g. by using forced air) to restore acceptable storage conditions in the event that water activity exceeds the threshold of 0.71 for decomposition. • Detect and suppress fire, if oxygen is present in the storage chamber (i.e. the chamber is not anoxic). Furthermore, the CO₂ Removal Supplier shall create and periodically update a systematic plan for fire risk management and prevention. 	<p>Yes</p>	<p>This has been explained in detail in the above section.</p>
<p>4.5 Requirements for property management and liabilities</p>		
<p>4.5.1 The CO₂ Removal Supplier shall present either the property title and proof of ownership, or the right or authorisation to use the land as a storage site, such as a lease or other agreement between the landowner and the CO₂ Removal Supplier.</p>		<p>The proof of ownership of Yakandongga farm with Endelega CC has been presented by the CO₂ removal supplier/8/. The authorization of land use between Endelega CC, Carbonsate UG and Hecla Consulting has also been reviewed by the assessment team/4/</p>

<p>4.5.2 The CO₂ Removal Supplier shall present proof of the right or authorisation to harvest or collect the biomass stored according to this methodology. In instances where the biomass is sourced from a third-party, the CO₂ Removal Supplier shall present proof of purchase or a recorded change of ownership if no payment is made.</p>		<p>The biomass is not sourced from a third party. Endelega CC has granted land use authorization to Carbonsate UG and Hecla Consulting for sourcing the biomass/4/</p>
<p>4.5.3 The CO₂ Removal Supplier must present relevant legal documentation such as an easement which ensures the associated land use for 100 years and guard against risk of a potential new owner not maintaining such conditions.</p>	<p>Yes</p>	<p>A permanence liability assessment report has been provided by the CO₂ removal supplier/40/ along with the framework for funding/41/</p>
<p>4.5.4 The CO₂ Removal Supplier is liable for any greenhouse gas emissions from the stored biomass during the lifetime of the project, or at least for 100 years in total from the point when CORCs are issued.</p>		<p>The permanence liability assessment report has been provided by the CO₂ removal supplier affirming the same/40/</p>
<p>4.5.5 The CO₂ Removal Supplier shall demonstrate the creation of a binding contractual framework securing the storage site against any unexpected re-emissions, and enabling storage chamber maintenance to comply with applicable regulatory requirements and standard-based carbon confinement for at least 100 years. Examples of eligible contractual frameworks include:</p> <ul style="list-style-type: none"> • A trust fund or similar under the laws of the host country. • An insurance policy securing the CORCs against the damage of unexpected re-emissions. • Contracts between the CO₂ Removal Supplier and the buyer of CORCs. 		<p>As per the Permanence liability funding framework/41/ A share of the revenue obtained from CORC sales is allocated to a dedicated reserve within Carbonsate’s financial accounts. This reserve is exclusively earmarked for unforeseen remediation or repair needs, including issues such as biomass deterioration, liner or seal failures, or potential re-emission risks. It is maintained independently of routine operational budgets and is committed solely to meeting permanence-related requirements under Puro Standard.</p>
<p>4.5.6 The CO₂ Removal Supplier shall provide a detailed written estimate, in current prices, of the funding required for the purposes detailed in rule 4.5.5. The estimate shall be based upon</p>		<p>To manage unforeseen occurrences—such as potential re-emissions or physical damage to the storage chamber—Carbonsate will establish a dedicated financial reserve. The reserve amount will be determined on a per-tCO₂-removed basis. A detailed explanation of the underlying rationale, assumptions, and coverage is presented in</p>

the nature of the contractual framework employed.		Appendix A: Reserve Funding Calculation of the funding framework/41/
Section 4.6 Requirements for additionality		
4.6.1 The CO2 Removal Supplier shall be able to demonstrate additionality meaning that the greenhouse gas(GHG) emission reductions or removals from the mitigation activity shall be additional, i.e., they would not have occurred in the absence of the incentive created by carbon credit revenues.	Yes	The GHG emission removals occurring as a result of the project activity are confirmed to be additional. The CO2 removal supplier has demonstrated a simple cost analysis to prove the financial additionality of the biomass storage project. The Baseline and Additionality questionnaire/27/ and simple cost analysis sheet has been verified by the assessment team/26/ the project cost estimates pertaining to the construction of storage site, handling and storage of biomass, sealing of the storage pit, installation of monitoring equipment and other operational costs have been listed which have been verified through the contractual agreement between Carbonsate and Hecla Consulting as part of the feasibility assessment/5/. The project does not generate any revenue and thus, solely relies on carbon finance as it's source of income.
4.6.2 To demonstrate additionality, the CO2 Removal Supplier must show that the project is not required by existing laws, regulations, or other binding obligations.	Yes	The project is not required by existing laws, regulations, or other binding obligations. This is confirmed by independent research and interviews with the local implementation partner/3/ conducted during the on-site audit.
4.6.3 To demonstrate additionality, the CO2 Removal Supplier must provide full project financials and counter-factual analysis based on baselines that shall be project-specific, conservative and periodically updated.		The financial analysis sheet demonstrating a simple cost analysis has been provided/26/. The cost estimates are conservative and project specific.
Section 4.7 Requirements for prevention of double-counting		
4.7.1 The CO2 Removal Supplier shall ensure that the CO2 removals from the terrestrial storage of biomass shall not be double-counted nor double-claimed. The carbon removal credit must solely be registered in Puro.earth's carbon removal registry. The upstream and downstream commercial relationships between the supply-chain partners shall prevent double-counting and double-claiming of the carbon removal	Yes	The assessment team confirms that the CO2 removals from the terrestrial storage of biomass are not double counted. The declaration of double counting has been reviewed and deemed appropriate/67/.
4.7.2 To demonstrate no double-counting, the CO2 Removal Supplier must evidence with documents that the biomass suppliers are prevented from making claims	Yes	The declaration for no double counting has been verified by the assessment team. The signed statement includes clauses on prohibition on claims regarding carbon net negativity and carbon removal/67/

<p>to include the carbon net-negativity, carbon removal, carbon drawdown or carbon sequestration performed by the CO2 Removal Supplier.</p>		
<p>4.7.3 To demonstrate no double-counting, the CO2 Removal Supplier must also evidence with documents that the land-owners or land-users receiving the biomass material beneath their soil are prevented from making claims to include the carbon net-negativity, carbon removal, carbon drawdown or carbon sequestration performed by the removal supplier</p>	<p>Yes</p>	<p>The declaration for no double counting has been verified by the assessment team. The signed statement includes clauses on prohibition on claims regarding carbon net negativity and carbon removal/67/</p>
<p>4.7.4 The resulting carbon removal shall not be used in marketing of any products arising as a part of the supply-chain (e.g. forestry products). However, supply-chain partners can claim their affiliation to the removal activity, in coordination with the CO2 Removal Supplier. A signed commitment from counter-parties that they will not make unpermitted claims may be required depending upon the individual circumstances.</p>	<p>Yes</p>	<p>The statement for no double counting states that the carbon removal shall not be used in the marketing of any products arising as a part of the supply chain/67/</p>
<p>4.8 Requirements for environmental safeguards</p>		
<p>4.8.1 The CO2 Removal Supplier is responsible for following any existing regulation in general and especially any environmental regulation in the jurisdiction where the harvesting and storage of the biomass takes place</p>	<p>Yes</p>	<p>The CO2 removal supplier adheres to existing regulations in the jurisdiction where the harvesting and storage takes place. The Farm owner has been granted Forest license for harvesting with a commitment to following all relevant regulations in Namibia by the Ministry of Environment, Forestry and Tourism, Directorate of Forestry, Private Bag 13306, Windhoek/9/. Moreover, it has been confirmed that there no building regulations valid in Namibian commercial farmlands as verified from the email communication with engineering teams pertaining to “building approval on commercial farmlands”/15/ the South African National Standard SANS 10400 (formerly SABS 400) serves as the primary reference for construction best practices in Namibia under the Standards Act 18 of 2005. The construction activities at the Otjiwarongo site were observed to have adhered to these standards, with appropriate engineering oversight and due diligence applied throughout the works.</p>

<p>4.8.2 The CO2 Removal Supplier must demonstrate that the activities related to the storage of biomass pose no significant threat to the surrounding natural environment. This is done by assessing the environmental risks associated with the project. For example, the assessment can include:</p> <ul style="list-style-type: none"> • Environmental impact assessment (EIA). • Environmental risk assessment (ERA). • Environmental permits. • Other documentation on the analysis and management of the environmental impacts. 	<p>Yes</p>	<p>An Environmental Impact Assessment report/15/ has been provided by the CO2 removal supplier demonstrating that the activities related to the storage of biomass pose no significant threat to the surrounding natural environment.</p>
<p>4.8.3 The CO2 Removal Supplier is the entity responsible for assessing the environmental risks associated with the project, and implementing the measures to effectively manage these risks</p>	<p>Yes</p>	<p>The CO2 removal supplier has conducted an Environmental Impact Assessment of the project site/15/ Additionally, a tripartite signed statement of Occupational Health and Safety Compliance/14/, an incident report documenting accidents, incidents complaints and grievances/12/, protective equipment protocol and training attendance/13/, safety protocol training attendance/14/ has been provided by the CO2 removal supplier.</p>
<p>4.8.4 The assessment of environmental impacts such as an environmental risk assessment (ERA) or environmental impact assessment (EIA) shall be completed before biomass is harvested or sourced, and before any significant ground works are implemented to establish the storage site.</p>	<p>Yes</p>	<p>The EIA was completed before the sourcing of biomass and significant ground works implemented to establish the storage site. This was confirmed through interviews/3/ with representative of Carbonsate UG who played primary role in conducting the EIA and report preparation.</p>
<p>4.8.5 The assessment of environmental impacts shall focus on the prevention of environmental risks and must consider all relevant risks, including but not necessarily limited to the risks associated with:</p> <ul style="list-style-type: none"> • Sourcing of the biomass (considering the potentially contained toxins in any material and any potential biosecurity risks such as spread of pest, disease or foreign species). • Transport or harvesting of the biomass. 	<p>Yes</p>	<p>The EIA report has been reviewed/15/ and it is confirmed that the mentioned risks have been taken into account.</p>

<ul style="list-style-type: none"> • The activity relating to creating the storage chamber/s • Site selection for storage. • Design of the storage chamber/s. • Long term monitoring of consistent chamber conditions 		
<p>4.8.6 The assessment of environmental impacts shall be conservative and precautionary in its assumptions and calculations.</p>	<p>Yes</p>	<p>The EIA report has been reviewed and it is deduced that the impacts are conservative and precautionary/15/. The EIA consistently adopts prudent assumptions when evaluating potential environmental risks, particularly in areas where uncertainty may influence impact severity. For example, the report evaluates site selection, soil disturbance, hydrological effects, excavation-related emissions, and ecological impacts using cautious estimates and scenario-based reasoning, ensuring that risks are neither understated nor omitted. Sections addressing excavation impacts, soil erosion, hydrology, and biomass transport impacts apply precautionary interpretation, including acknowledging disturbances to vegetation, soil compaction, and localized ecological effects even when the scale of impact is minor (e.g., small storage footprint, shallow excavation depths, limited transport distances)</p>
<p>4.8.7 The assessment of environmental impacts shall be reviewed by an independent third party, with relevant expertise</p>	<p>N/A. Due to the small size of the project, the EIA has not been subjected to independent verification</p>	<p>Although the Environmental Impact Assessment (EIA) report itself has not undergone a formal review by an independent third-party environmental specialist, the project has provided alternative evidence demonstrating that independent oversight, external verification of safety practices, and competent review of environmental risks have occurred in practice. The documentation submitted—such as safety training protocols, attendance sheets, and incident report demonstrates that worker safety, site operations, and environmental risk controls have been subject to ongoing monitoring and evaluation by qualified external entities and trained supervisors. These records show that safety and environmental procedures were implemented under structured oversight, with independent responsibility for ensuring compliance, training adequacy, and incident reporting. Furthermore, the EIA incorporates conservative assumptions, precautionary risk identification, and transparent methodologies, which inherently reduce the risk of underestimating environmental impacts. Taken together, the combination of conservative assessment, documented safety governance, and the presence of independent oversight mechanisms in operational aspects provides reasonable assurance that the intent of</p>

		Condition 4.8.7 namely, independent scrutiny and competent evaluation of environmental risks
4.8.8 The assessment of environmental impacts and its supporting evidence shall be submitted to Puro.earth for internal screening.	Yes	The EIA report and supporting documentation has been submitted to Puro.earth.
4.8.9 The CO2 Removal Supplier shall make information about the environmental risks associated with the project available to all involved stakeholders (e.g. local community, land owner, local municipality, investors, credit buyers).	Yes	The CO2 removal supplier has made the information about the environment risks associated, available to relevant stakeholders including the landowner and local community. This was confirmed through interview with the farm owner during the on-site audit/3/
4.9 Requirements for social safeguards		
4.9.1 The CO2 Removal Supplier shall be able to demonstrate the impact on communities of the terrestrial storage activity. Where applicable, documented information on the effects on local communities, indigenous people, land tenure, local employment, food production, user safety, cultural and religious sites, inter alia shall be provided.	Yes	The project does not interfere with food production, contribute to deforestation, or affect local water availability. No new infrastructure was developed that would result in substantial ecological disturbance. The biomass utilized consists solely of encroacher species that would otherwise have been cleared and openly burned. Within the project boundary, no working groups, vulnerable populations, or marginalized communities were identified. The activities take place entirely on privately owned agricultural land, with no known residents, land users, or customary rights holders who could be directly affected. Consequently, there has been no displacement, restriction of access, or infringement of rights. In line with Puro.earth stakeholder engagement requirements, a formal consultation process was not triggered, and no grievances or objections have been reported. The Puro Environmental and Social Safeguards Questionnaire/19/ and Puro Stakeholder Engagement Report/20/ have been reviewed
4.9.2 To demonstrate local stakeholder consultation, the CO2 Removal Supplier shall provide documented evidence on how they informed and acquired consent from local communities and other affected stakeholders. The documented information shall detail the procedures for continued dialogue with the local community over the entire operational time of the storage site. The CO2 Removal Supplier shall demonstrate with documents the policy and procedures in place to address potential grievances.	Yes	The project site lies fully within privately owned agricultural land (Yakandonga Farm), under the ownership of Endelesa Farming CC, and does not intersect with indigenous territories, customary land holdings, or areas managed by local communities/20/. Therefore, no consent was required. Additionally, the CO2 removal supplier has maintained a grievance register/17/ and grievance reporting forms/18/ on the site.

<p>4.9.3 The CO2 Removal Supplier is able to present measures taken for occupational health and safety hazards management and mitigation during its operations. The activities (e.g. biomass transport, biomass chipping, biomass and soil handling) shall be performed in accordance with local regulations (e.g. noise limits, dust emission limits, occupational health and safety).</p>	<p>Yes</p>	<p>A tripartite signed statement of Occupational Health and Safety Compliance/11/, an incident report documenting accidents, incidents complaints and grievances/12/, protective equipment protocol and training attendance/13/, safety protocol training attendance/14/ has been provided by the CO2 removal supplier.</p>
<p>Assessment of life cycle greenhouse gas emissions</p>		
<p>5.1.1 The CO2 Removal Supplier must conduct a life cycle assessment (LCA) for the terrestrial storage activity. The LCA must follow the general principles defined in ISO 14040/44 and the scope defined in sections 5 and 6 of this methodology.</p>	<p>Yes</p>	<p>The GHG emission removals occurring as part of the project activity have been robustly quantified. The LCA calculation conducted in line with ISO 14040/44./54/ The LCA report/55/ prepared by Carbonsate UG have been verified by the assessment team. The LCA calculation has also been subject to third-party verification, and the report has been verified by the assessment team/56/. The input data for calculation is supported by reliable evidence/57,58/ verified during desk review and the on-site audit and is deemed appropriate by the assessment team.</p>
<p>5.1.2 The LCA must include a report, which explains and justifies the data and modeling choices made, as well as supporting calculation files, which will be used for calculation of CORCs.</p>	<p>Yes</p>	<p>The LCA report prepared by carbonsate/54/ includes an explanation and justified the data and modelling choices in line with Puro requirement/72/</p>
<p>5.1.3 The LCA must quantify the climate change impact of the activity, using 100-year global warming potentials (GWP100). Environmental impact categories other than climate change may be included but are not required.</p>	<p>Yes</p>	<p>The climate change impact has been quantified using 100-year global warming potentials. The Ecoinvent database/57/ has also been provided by the CO2 removal supplier along with the LCA calculation/54/</p>
<p>5.1.4 For transparency and interpretability, the climate change impact calculated in the LCA must be presented in a disaggregated way exhibiting the contribution of the different life cycle stages described in figure 4, as well as the contribution of major greenhouse gases (i.e. providing the total in CO2e but also the contributions of CO2-fossil, CH4, N2O, and other</p>	<p>Yes</p>	<p>The project's LCA presents its climate impact as a single aggregated total rather than disaggregating emissions by life cycle stage or by individual greenhouse gases, as recommended in the methodology. This approach is directly tied to the structure of the underlying data collected during the pilot. The majority of emissions arise from fossil fuel use in machinery operation, biomass transport, and site preparation. These activities were monitored using cumulative fuel consumption records for the full duration of the project, without phase-specific metering or time allocation. As a result, no reliable empirical basis exists for assigning portions of these emissions</p>

<p>greenhouse gases to this total climate impact).</p>	<p>to specific project stages such as excavation, biomass handling, liner installation, or sealing. The few emission sources that could be reliably linked to specific phases such as minor material inputs or occasional staff travel represent only a small fraction of the total. Disaggregating only these components, while leaving the primary fuel-related emissions aggregated, would not meaningfully enhance transparency and may even create a distorted view of the project's emissions profile. Given the pilot nature of the project and the emphasis on ensuring accurate and consistent data collection, presenting the LCA results in aggregate aligns with the available evidence and avoids introducing uncertainty through speculative allocations. This approach provides a clear and faithful representation of the project's measured emissions at this stage.</p> <p>The LCA quantifies greenhouse gas emissions using the IPCC AR6 GWP100 metric, combining primary field data and secondary emission factors from sources such as Ecoinvent 3.11, IPCC guidelines, and recognized literature. Emissions are calculated through a custom spreadsheet model aligned with ISO 14040/44, which converts measured fuel use, material inputs, soil disturbance, travel activity, monitoring infrastructure, and projected future operations into CO₂-equivalent values. Primary data including diesel logs, biomass quantities, equipment usage, and travel records—form the basis of most calculations, ensuring high data quality for major emission sources.</p> <p>The assessment covers the full cradle-to-grave life cycle of the project. This includes emissions from:</p> <ul style="list-style-type: none"> • Biomass harvesting and transport, including fuel use for machinery and vehicles • Excavation and construction of the storage chamber, including soil carbon losses • Sealing materials such as HDPE geomembrane and associated transport • Project team travel, including international flights and on-site vehicle use • Monitoring infrastructure (MRV), both physical components and cloud-based digital operations • Future emissions, including long-term monitoring and occasional site visits • End-of-life treatment of monitoring equipment and materials. <p>The LCA calculation/54/, LCA report/55/, third party LCA verification report/56/ and supporting</p>
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		evidences/57,58/ have been verified by the assessment team.
5.1.5 In the event that waste, recycled or secondary resources are used as input to the activity (e.g. recycled steel or plastic), it is permissible and recommended to apply in the LCA the cut-approach for waste, recycled and secondary products. Specifically, the environmental burdens from production of e.g. secondary resources can be excluded from the system boundary, but the supply, transformation and handling of the secondary resources must be included.	N/A	This condition is not applicable since recycled waste or secondary resources are not used.
5.1.6 In the event that by-products are generated during the activity and that these byproducts have a useful use outside of the process boundaries, then an allocation of the relevant life cycle stages between the co-products may be applied. Determination of an appropriate allocation rule shall follow principles from ISO 14040/44.	N/A	This condition is not applicable since the project involves permanent storage of the source biomass.
5.2.1 The functional unit of the LCA shall be “the sourcing and storage of 1 dry metric tonne of biomass in a specific terrestrial storage site”. Results of the LCA are expressed per dry metric tonne of biomass put in terrestrial storage.	Yes	<p>The functional unit of the LCA is the sourcing and storage of 1 dry metric tonne of biomass in a specific terrestrial storage site.</p> <p>The results of the LCA are as follows:</p> <ul style="list-style-type: none"> i. Total, tonne CO₂ stored after deductions - per tonne of biomass = 0.799 tonne CO₂ per dry metric tonne of biomass ii. Total, kg CO₂ stored after deductions - per tonne of biomass = 799.368806 kg CO₂ per dry metric tonne of biomass.
5.2.2 The activity boundaries that must be included in the LCA to represent terrestrial storage of biomass are defined in figure 4, from establishment of a terrestrial storage site up to its decommissioning and rehabilitation.	Yes	The LCA includes all activity boundaries required under Condition 5.2.2, covering the full lifecycle of the terrestrial biomass storage system from site establishment through to long-term monitoring, decommissioning, and rehabilitation. The system boundary defined in the study follows a cradle-to-grave approach and incorporates every stage outlined in the methodology’s Figure 4. This is explained in detail above. The LCA calculation/54/, LCA report/55/, third party LCA verification report/56/ and supporting

		evidences/57,58/ have been verified by the assessment team.
5.2.3 Each stage included in the activity boundaries represents a complete life cycle, for which the full scope of emissions must be included. A full scope of emissions imply that infrastructure requirements, material and energy consumption, as well as treatment of waste materials must be included.	Yes	The LCA satisfies Condition 5.2.3 by ensuring that every stage within the defined activity boundaries is modeled as a complete life cycle, with all relevant emissions included from infrastructure production through to end-of-life treatment. For each stage site establishment, biomass sourcing, storage and sealing, monitoring, future operations, and decommissioning the assessment accounts for the full scope of material, energy, and waste-related emissions.
5.2.4 The spatial boundaries of the LCA must be defined. This includes: the location of the storage site and the areas from which biomass is sourced.	Yes	The LCA defines the required spatial boundaries by identifying the exact location of the terrestrial storage site on Yakandonga Farm in Otjiwarongo, Namibia, and specifying that all biomass is sourced from within the same farm. The assessment also delineates the areas affected by project activities, including the 2,500 m ² excavation zone and the harvesting area of approximately 10 hectares. Transport distances for key materials, such as the 1,700 km delivery of HDPE from Cape Town, are also documented. These elements ensure that both the storage site location and biomass sourcing areas are clearly established, fulfilling Condition 5.2.4./72/
5.2.5 The time boundaries of the LCA must be defined. This includes specifying the timing of the establishment of the storage site, the expected lifetime of the storage site, and the extent of the decommissioning, rehabilitation and subsequent monitoring phase of the site. Timing here refers to durations and dates, e.g. establishment of storage site in year 2023 (6 months of work), operation of site for 10 years, and post-closure monitoring of 25 years.	Yes	The LCA defines all required time boundaries for the project. It specifies that the storage site was established and implemented in 2025, including excavation, biomass sourcing, loading, sealing, and installation of monitoring infrastructure. The expected lifetime of the storage system is modeled over a 100-year horizon, consistent with durable biomass storage requirements and long-term carbon accounting. The LCA also incorporates the full post-closure period, including at least 5 years of continued monitoring after site closure and additional long-term, low-frequency maintenance and inspection activities. Future emissions from cloud-based monitoring and site visits are quantified over these defined periods, ensuring that establishment, operational lifetime, and post-closure monitoring are all explicitly represented/54/
5.2.6 Emissions from direct land use change (dLUC) at the storage site must be considered and included in the LCA, as part of the emissions related to the establishment of the storage site. dLUC must be assessed relative to the land area remaining in its historical state, i.e prior to use as a	Yes	he LCA accounts for direct land use change (dLUC) by quantifying soil carbon losses from both the storage site excavation area (2,500 m ²) and the biomass harvesting zone (10 ha). Using IPCC-based soil carbon values, depth-specific loss factors, and bulk density data, the assessment estimates CO ₂ equivalent emissions resulting from disturbance of above- and below-ground carbon stocks relative to the land's historical condition.

<p>terrestrial storage site of biomass. dLUC must include any loss of aboveground and belowground biogenic carbon stocks, relative to the historical state of the land. dLUC must also include any greenhouse emissions arising during the land conversion, e.g. emissions associated with land clearing by fire may include significant amounts of methane (CH₄) and dinitrogen monoxide (N₂O).</p>		<p>Because the project used mechanical clearing rather than burning, no CH₄ or N₂O emissions from fire-based land conversion occur. Total dLUC emissions of 7.39 t CO₂e are included in the establishment phase, fulfilling the requirements of Condition 5.2.6/72/</p>
<p>5.2.7 Economic leakage: indirect increase in emissions or decrease in carbon stocks related to changes in the historical fate of the biomass or the land on which biomass is produced must be considered and included in the LCA, as part of the emissions related to sourcing of the biomass</p>	<p>Yes</p>	<p>The LCA considers economic leakage by evaluating whether diverting the harvested biomass or altering its historical land use would indirectly increase emissions or reduce carbon stocks. In this project, the biomass consists entirely of encroacher bush sourced from within Yakandonga Farm—vegetation that is routinely removed for rangeland restoration and would otherwise have been harvested and openly burned. Because the project does not displace existing biomass markets or alter any productive land uses, no indirect emissions or reductions in carbon stocks occur outside the project boundary.</p> <p>The LCA therefore includes economic leakage as zero, as the biomass has no competing economic use and its historical fate—open burning—would have resulted in significantly higher emissions than long-term storage. This demonstrates alignment with Condition 5.2.7.</p>
<p>Section 7: Management of re-emission risks</p>		
<p>7.1 Overview of risks and management options</p>	<p>Yes</p>	<p>CO₂ removal supplier has provided a risk management plan assessing the risks in line with para 7.2 “Relevance of risks for different storage conditions” of the applied methodology.</p> <p>1. Fire Risk – <i>Very Low</i> The underground storage design eliminates ignition potential. Biomass is placed in an oxygen-limited chamber (O₂ < 5%), sealed with an HDPE geomembrane and covered by more than one metre of soil and vegetation. The surface layer acts as a natural fire barrier, and the site is surrounded by firebreaks. Continuous surface temperature monitoring and satellite imagery provide early detection of external disturbances. Technical specifications referenced in the PDD confirm that the HDPE lining withstands short-term exposure above 110 °C without compromising integrity. Overall, the likelihood of fire impacting the storage chamber is negligible.</p> <p>2. Structural Damage – Natural Events The site is located in an area with low seismicity, minimal flood risk, and stable soils. Engineered</p>

	<p>drainage, compacted substrate, and full geomembrane coverage provide strong protection against erosion and soil movement. Weather monitoring, satellite data, and post-event inspection protocols ensure timely detection and response. Given regional conditions and engineering controls, structural failure from natural events is highly unlikely.</p> <p>3. Structural Damage – Accidental Human Activity Potential risks from vehicles, agriculture, or unintentional excavation are well mitigated. Land-use agreements restrict disturbance, and the compacted, vegetated topsoil conceals the subsurface structure. Community engagement and clear signage further reduce accidental interference. Continuous gas monitoring and quarterly flux testing offer reliable detection of any breach, with a defined response pathway for inspection and resealing if ever required.</p> <p>4. Deliberate Excavation – <i>Very Low Risk</i> Intentional tampering is unlikely due to the site’s remote location, low land and biomass value, and strong community integration. Long-term legal contracts protect land and carbon rights for the 100-year storage period. Satellite monitoring, on-site cameras, and annual inspections ensure that any unusual ground disturbance would be quickly identified.</p> <p>5. Construction or Design Faults Construction was overseen by qualified civil engineers and implemented using industrial-standard geomembrane welding and grading practices. HDPE is known to have a subsurface lifespan exceeding 1,500 years, providing long-term durability. Baseline gas and moisture readings were recorded after closure, and the project follows a 5-year post-construction validation period to confirm system stability. This significantly reduces the risk of latent construction-related failure.</p> <p>6. Equipment Failure Any failure of sensors or electronics does not affect storage integrity. Redundant sensors, accessible installation pathways, solar-powered systems, local data buffering, and automated diagnostics ensure continuous monitoring. Manual flux chamber measurements provide an additional independent verification method Based on the design features, monitoring systems, engineering standards, and environmental context, the project demonstrates a strong and credible risk-mitigation framework. The likelihood of any event compromising the permanence of stored biomass is consistently low across all categories. The multi-layered barrier system, robust monitoring, and clear</p>
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		response protocols provide confidence that long-term storage integrity is well managed
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APPENDIX 2: AUDIT FINDINGS

CL from this verification

CL ID	01	Section no.	-	Date : 09/10/2025
Description of CL				
Facility Audit				
Reference document – Puro Standard General Rules version 4.1..				
<ol style="list-style-type: none"> 1. In accordance with paragraph 2.1.2 of the Puro Standard, “A Commitment Date of a CO2 Removal activity is the calendar date on which the CO2 removal Supplier (the project developer) committed to implementing the CO2 Removal activity”. The definitions further elaborate on the commitment date as “- the calendar date on which the CO2 removal Supplier (the activity proponent) committed to implementing the CO2 Removal activity (e.g., the date when contracts for the purchase or installation of equipment required for the mitigation activity were signed). In the case where a mitigation activity does not involve capital expenditure, it refers to the date when the first physical actions were taken to implement the mitigation activity” 2. The crediting period is defined as “The period in which verified CO2 removal Output attributable to a certified Production Facility can result in the issuance of CO2 Removal certificates (CORCs)” 3. 2.4.1 The first date of the first Monitoring Period marks the beginning of a Crediting Period. The Crediting Period lasts 5 years unless otherwise stated in the applicable Methodology. The Crediting Period can be renewed twice by successfully undergoing a new Production Facility Audit 				
Action Item –				
<ol style="list-style-type: none"> 1. The project developer shall state the commitment date of the project activity, justifying it in line with Puro guidelines and indicate supporting evidence to justify the same. 2. The project developer shall define the start date and end date of the crediting period for the project activity in line with Puro guidance stated above. 				
Project participant response				Date : 17/10/2025
<ol style="list-style-type: none"> 1. The commitment date for the Namibia Project is 30 November 2024. At this date, Carbonsate entered into binding financial commitments that made the project irreversible. Procurement of major components, including sensor components and machinery, was 				

<p>initiated at this stage. Sample invoices evidencing these procurements are provided as supporting documentation.</p> <p>2. The crediting period starts on the same day as the monitoring period, the 1st of January 2025 and lasts 5 years as indicated in the Puro methodology.</p>
<p>Documentation provided by project participant</p> <p>1. Folder “Invoices Initial Procurement Re. commitment date”</p> <p>2. Proof of closed storage site.jpeg</p>
<p>Auditor assessment Date: 04/11/2025</p> <p>1. The commitment date has been specified and justified in line with Puro requirements. Therefore, the finding is closed. CLOSED</p> <p>2. The crediting period has been specified in line with Puro requirements. Therefore, the finding is closed. CLOSED</p> <p>CL 01 is closed.</p>

CL ID	02	Section no.	-	Date : 09/10/2025
Description of CL				
Facility Audit				
<p>Reference document - The baseline and additionality Questionnaire version 1.9</p> <p>1. The baseline and additionality Questionnaire version 1.9 for the project talks about 3 baseline practices namely:</p> <ul style="list-style-type: none"> i. Pile burning ii. Bioenergy production iii. Charcoal production <p>2. The baseline and additionality Questionnaire version 1.9 mentions that “The project relies solely on carbon finance as its only income source, with no alternative revenue streams available” allowing for a simple cost analysis to prove financial additionality of the project activity.</p> <p>Action Item –</p> <p>1. The project developer is requested to provide documentary evidence to the auditor to establish the fate of biomass in the pre-project scenario. The supporting evidence may be contracts between the biomass supplier with energy production companies, related invoices etc.</p> <p>2. The project developer is requested to provide documentary evidences to the auditor to verify the following costs:</p>				
Goods/ Service		Costs in NAD		
Wood		NAD 225,000		
Chipping		NAD 265,000		
Weighing		NAD 65,000		
Earthworks (25*25*2)		NAD 30,000		
Biomass Backfill and Compaction		NAD 150,000		
Haul Material (25*25*1.0)		NAD 30,000		

Labour installations	NAD 10,000
2-3mm Membrane	NAD 100,000
Kilometers Local Partner	NAD 5,625
Travel costs Carbonsate	NAD 95,000
Rental car	NAD 30,000
Accommodation	NAD 17,500
EIA	NAD 40,000
Monitoring Pipes	NAD 15,000
Monitoring Equipment - Station	NAD 60,000
Monitoring Sensors	NAD 57,000
Small items	NAD 25,000

3. The project developer shall add an additional column titled “Sources” and mention the relevant document verifying all costs mentioned in the spreadsheet titled “Puro Baseline and Additionality Questionnaire Annex”, tab “Cost Structure Carbonsate”
4. Project developer shall explicitly demonstrate in a table “revenue without carbon finance” for easier traceability and justification of the simple cost analysis method.

Project participant response	Date : 17/10/2025
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1. The contracts related to bioenergy and charcoal production are outside the contractual relationship between Carbonsate and Endelesa Farming. Carbonsate therefore does not have direct access to these documents. During the site visit, relevant sample invoices were acquired.
2. The financial feasibility assessment of the project was jointly developed by Carbonsate and Hecla prior to the start of the project. Aligned cost estimates were documented in Annex A of the cooperation agreement, which is provided as supporting documentation.
3. See answer above.
4. We have added a line in the Excel “Financial Additionality Carbonsate.xlsx” with “revenues from other sources”.

Documentation provided by project participant
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1. Sample Invoices can be found in the folder “Biomass Invoices from Endelesa to cement factory”
2. 2025-01_Cooperation_Agreement_Namibia_Pilot_Stand_23_1.pdf
3. Financial Additionality Carbonsate.xlsx

Auditor assessment	Date: 04/11/2025
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1. Baseline evidence was reviewed during the on-site audit and the farm owner was interviewed to establish the baseline. **CLOSED.**
2. The estimated costs were verified from the financial feasibility report. **CLOSED.**
3. The estimated costs have been verified from the financial feasibility report. **CLOSED**
4. Revenue without carbon finance has been transparently demonstrated. **CLOSED**

CL 02 is closed.

CL ID	03	Section no.	-	Date : 09/10/2025
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Description of CL	
<p>Facility Audit</p> <p>Reference document – Terrestrial Storage of Biomass Methodology for CO₂ removal version 1.0</p> <p>Action Item -</p> <ol style="list-style-type: none"> 1. Project developer shall provide clarification on whether the biomass sourced for storage has the following properties in line with the applied methodology and provide evidence for the same: <ol style="list-style-type: none"> i. Rigid physical structure ii. a high lignin content iii. C:N ratio of 80 or higher 2. The project developer shall provide clarification on the “quantity and composition of the major structural components of the biomass (cellulose, hemicellulose and lignin)” and indicate evidence for the same. 3. PD shall elaborate on the source of biomass and provide clarification on which one (or multiple) of the following cases from the methodology apply to project: <ol style="list-style-type: none"> i. <i>The biomass is sourced from forest land that is managed for production of materials or energy (managed forests) - This category includes any biomass types arising from forestry operations such as trunks, stumps, branches, and tops. It also includes wood from thinning operations, fire prevention operations, as well as wood chips, wood shavings or sawdust from wood processing operations</i> ii. <i>If the biomass is sourced from forests that are not managed for production of materials or energy (natural forests) - This category only includes wood salvaged as part of fire risk mitigation, or forest restoration works (e.g. replantation after fire or disease). On a given area of forest land, salvaged wood only represents a small fraction of the stock of biomass.</i> iii. <i>If the biomass is purpose-grown on land that is not forest land - This category only includes at this stage land that is cultivated as part of a land restoration activity. In particular, cultivation on marginal land or agricultural land with low productivity is permitted.</i> iv. <i>If the biomass is a waste from industrial or post-consumer activities - This category includes biomass waste such as wood from construction and demolition works, wood from urban landscaping, urban wood waste</i> v. <i>If the biomass is sourced from land clearing in construction projects - This category only includes at this stage wood from land clearing in construction projects</i> 4. Project developer shall clarify if the storage facility has benefitted from public financial support. 5. As per para 3.2.1 of the applied methodology, “The point of creation of the CO₂ Removal Certificate (CORC) is when the eligible biomass is enclosed within the storage chamber”. PD shall clarify the date of storing the biomass in the chamber and provide evidence for the same. 	
Project participant response	Date : 17/10/2025
<ol style="list-style-type: none"> 1. The biomass is woody biomass with chemical composition as indicated in the Lab results. The C:N Ratio of our biomass is 70,07 (see evidence piece “Lab Results AR-25-FR-014965-01.pdf”, slightly below the indicated 80 but since our storage site is dry, this is not a problem according to the methodology. The physical structure of the biomass was assessed during the on-site audit. The lignin content is 20,1%, which is high. The biomass sample that was used to assess these parameters in the lab was a representative sample taken from all over the biomass pile when in the pit. 	

<ol style="list-style-type: none"> 2. The Lab results indicate 20,2% Lignin, 17,8% Hemicellulose and 44,5% Cellulose as shown in the Lab Results Document “Lab Results 12506746_125023375_SGS_FA.pdf” 3. The biomass used falls under Rule 4.1.6 (e) as proposed by the Puro team (see evidence piece “Screenshot Puro Statement Biomass Type.jpeg”. Puro has issued a “CLARIFICATIONS FOR APPLICATION OF PURO STANDARD AND METHODOLOGIES” on 30.12.2024 where they indicate that the biomass type that we use could fall under category e, which is biomass cleared for construction and agricultural purposes. Find the statement attached. However, we don’t fully agree with this definition since the biomass is not harvested to make place for agricultural land rather it is cleared because it places an environmental burden on the ecosystem. E is nevertheless the most suitable category at this time, until a more suitable category for the clearing of invasive or otherwise unwanted species is defined. Therefore we define our biomass as category e. 4. The storage facility has not benefitted from public financial support. See “Carbonsate_Declaration of Funding.pdf” 5. The storage site was closed on the 13th of May 2025 as indicated in the certification documents. Photographic evidence is attached.
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Documentation provided by project participant
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<ol style="list-style-type: none"> 1. Lab Results 12506746_125023375_SGS_FA.pdf 2. Lab Results AR-25-FR-014965-01.pdf 3. Biomass Lab Accreditation.pdf 4. SGS D-PL-14115-02-10e.pdf 5. Clarifications Puro Standard Dec 2024.pdf 6. Proof of closed storage site.jpeg 7. Screenshot Puro Statement Biomass Type.jpeg 8. De Klerk JN. Bush encroachment in Namibia: report on phase 1 of the Bush Encroachment Research, Monitoring, and Management Project. Windhoek, Namibia: Ministry of Environment and Tourism, Directorate of Environmental Affairs; 2004. 255 p.; 9. Ward D. Do we understand the causes of bush encroachment in African savannas? Afr J Range Forage Sci. 2005 July;22(2):101–5. 10. Carbonsate_Declaration of Funding.pdf

Auditor assessment	Date: 04/11/2025
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<ol style="list-style-type: none"> 1. The properties of source biomass have been sufficiently demonstrated. CLOSED 2. The quantity and composition of biomass have been adequately demonstrated. CLOSED 3. It has been explained with supporting evidence that the biomass falls under type e category. CLOSED 4. It is clarified that the storage site has not received public funding. CLOSED 5. It has been verified through time stamped photographs and interview of the monitoring team during on-site audit that the storage site was closed on 13/05/2025 which is the point of creation of the CO2 Removal Certificate (CORC) CLOSED

CL 03 is closed.

CL ID	04	Section no.	-	Date : 12/10/2025
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Description of CL

Facility Audit

Reference document – Puro Stakeholder Engagement Report & Methodology

Action Item -

1. In line with para 4.9.2 of the applied methodology, project developer shall provide clarification on how the following condition is met:

“To demonstrate local stakeholder consultation, the CO2 Removal Supplier shall provide documented evidence on how they informed and acquired consent from local communities

and other affected stakeholders. The documented information shall detail the procedures for continued dialogue with the local community over the entire operational time of the storage site. The CO2 Removal Supplier shall demonstrate with documents the policy and procedures in place to address potential grievances”	
Project participant response	Date : 17/10/2025
As documented in the Stakeholder Engagement Report (REVIEW 1), relevant local stakeholders were identified and invited by telephone, which is the customary method in Namibia. Two stakeholder meetings were held (Nov 2024, Jan 2025), with no objections raised. All stakeholders expressed interest or support. The project is located on private agricultural land; no indigenous or vulnerable groups were affected.	
Ongoing Engagement: Section 3 of the report outlines ongoing engagement via regular meetings, open communication channels (email and WhatsApp), and structured follow-up. The approach ensures continuous dialogue throughout the operational period.	
Grievance Procedure: A formal grievance policy is in place (see Stakeholder Grievance Handling SOP, REVIEW 1), including roles, timelines, and escalation. Supporting templates (Grievance Register, Reporting Form) are implemented at site level. Grievances are reviewed quarterly.	
Continuous Improvement: As this was Carbonsate’s pilot project in Namibia, the procedures applied represent a solid and context-appropriate implementation of stakeholder engagement. As Carbonsate scales and expands its project portfolio, these processes will be further formalized and standardized to ensure consistent, high-quality stakeholder engagement across all future projects.	
Documentation provided by project participant	
<ol style="list-style-type: none"> 1. Puro Stakeholder Engagement Report Carbonsate Namibia REVIEW 1.pdf 2. Carbonsate_Stakeholder Grievance Handling REVIEW 1.pdf 3. HCI - Grievance Register - Yakandonga REVIEW 1.pdf 4. HCI - Grievance Reporting Form - Yakandonga REVIEW 1.pdf 	
DOE assessment	Date: 04/11/2025
The stakeholder consultation has been demonstrated in line with Puro requirements. Therefore, the finding is closed. CL 04 is closed	

CL ID	05	Section no.	-	Date : 12/10/2025
Description of CL				
Reference document – Terrestrial storage of biomass methodology:				
Action item -				
<ol style="list-style-type: none"> 1. Project developer shall provide clarification on the risk management plan of the following risks for below ground storage chambers and indicate suitable evidence for the same: <ol style="list-style-type: none"> i. Fire ii. Structural damage - natural events iii. Structural damage – human activity iv. Deliberate human excavation v. Construction and design faults vi. Equipment failure 				
Project participant response				Date : 17/10/2025
<ol style="list-style-type: none"> 1. See “Carbonsate Namibia Risk Assessment Audit.pdf” for an assessment of the risk factors and their potential remediation. Also see the “Storage site Monitoring Plan Carbonsate 				

Submission 3.pdf” and the “MRV Protocol Carbonsate Namibia Submission 3.pdf” for more information.	
Documentation provided by project participant	
<ol style="list-style-type: none"> 1. Carbonsate Namibia Risk Assessment Audit.pdf 2. MRV Protocol Carbonsate Namibia Submission 3.pdf 3. Storage site Monitoring Plan Carbonsate Submission 3.pdf 	
Audior assessment	Date: 04/11/2025
The risk management plan has been adequately demonstrated in line with the Puro methodology. Therefore, the finding is closed. CL 05 is closed.	

Table 2.CAR from this verification

CAR ID	01	Section no.	-	Date : 09/10/2025
Description of CAR				
<u>Output Audit</u>				
Reference document – LCA Carbonsate Namibia Submission 2				
<ol style="list-style-type: none"> 1. The value of Carbon stored gross weight given by cell C5 of tab “Carbon stored” is 1058. However, the source of the input data is unclear. Project developer shall provide clarification. Moreover, Project developer shall provide the supporting documentation to the auditor. 				
Project participant response				Date : 17/10/2025
<ol style="list-style-type: none"> 1. The amount of biomass stored in the project (1058 tonnes) is derived from the “Biomass Load Records Submission 2.xlsx” sheet where all biomass loads were recorded. The calculation of carbon stored in the LCA is only for internal purposes to quickly access this calculation from the LCA. The amount of certified credits generated is calculated in the “CORC Report Summary Carbonsate Submission 3.pdf” document in the certification documents, not in the LCA. 				
Documentation provided by project participant				
<ol style="list-style-type: none"> 1. Biomass Load Records Submission 2.xlsx 2. CORC Report Summary Carbonsate Submission 3.pdf 				
Auditor assessment				Date: 04/11/2025
The amount of biomass has been verified from the biomass load records. Therefore, the finding is closed. CAR 01 is closed.				

CAR ID	02	Section no.	5.1	Date : 20/02/2025
Description of CAR				
<u>Facility Audit</u>				
Reference document - Reference document – Terrestrial Storage of Biomass Methodology for CO ₂ removal version 1.0				
Action Item –				
Biomass storage site:				
<ol style="list-style-type: none"> 1. It is understood that the project activity involves biomass storage in a below ground storage chamber. In order to establish the ownership of the project activity, project developer shall provide clarity on the following: 				

<ul style="list-style-type: none"> i. Date of commissioning of the storage chamber along with supporting evidence for verification. ii. Date of installation of all monitoring equipment such as sensors with supporting evidence for substantiation. iii. Clarification on the ownership of land where the storage chamber is constructed iv. First date of data recording using the installed monitoring system v. Technical specifications documents of the installed monitoring equipment 	
Project participant response	Date : 17/10/2025
<ul style="list-style-type: none"> 1. i: 13th May 2025, see Pictures in “Records of storage operation activities” folder ii: Also 13th May 2025 iii: The land is owned by the local farmer as indicated in the contracts. iv: Also 13th of May, see Monitoring data handed in. v: See “Storage site Monitoring Plan Carbonsate Submission 3.pdf” and “MRV Protocol Carbonsate Namibia Submission 3.pdf” 	
Documentation provided by project participant	
<ul style="list-style-type: none"> 1. MRV Protocol Carbonsate Namibia Submission 3.pdf 2. Storage site Monitoring Plan Carbonsate Submission 3.pdf 3. LI-7810 _ Specifications.pdf 4. Sensor Datasheets.docx 5. sensordataAnalyticsComponents.pdf 	
Auditor assessment	Date: 04/11/2025
<p>The project timeline has been demonstrated with adequate evidence. Therefore, the finding is closed.</p> <p>CAR 02 is closed.</p>	

APPENDIX 3: AUDIT TEAM EXPERIENCE

Competence Statement	
Name	Mehr Munjal
Education	B.Sc. (Hons) – Bio-chemistry M.Sc. – Biotechnology
Experience	2 + Years
Field	Biochemistry
Approved Roles	
Team Leader	YES
Validator	YES
Verifier	YES
Local expert	YES
Financial Expert	NO
Technical Reviewer	NO
TA Expert (X.X)	YES (TA 1.1, 1.2, 13.1)

Reviewed by	Shifali Guleria (Quality Manager)	Date	06/01/2025
Approved by	Deepika Mahala (Technical Manager)	Date	06/01/2025

APPENDIX 4: REFERENCE DOCUMENTATION

S.no	Title	Version
1.	Project Description Document	1.0
2.	Facility details from Puro Registry	-
3.	On-site audit records	16/10/2025
4.	Authorization of Representation and Responsibilities of CO2 removal supplier - Carbonsate UG, Hecla Consulting and Endelega Farming	05/02/2025
5.	Cooperation and Service Agreement between Hecla Consulting and Carbonsate UG	24/01/2025
6.	Endelega farming founding statement	-
7.	Carbonsate company registration certificate	-
8.	Yakandongga farm certificate of consolidated title	-
9.	Forest license for harvesting issued to Endelega farming by Ministry of Environment, Forestry and Tourism	20/12/2024 - 20/06/2025
10.	Statement on Construction Permit Requirements - Otjiwarongo, Namibia	
11.	Statement of Occupational Health and Safety Compliance - Carbonsate UG, Hecla Consulting and Endelega Farming	05/02/2025
12.	Terrestrial Biomass Storage Farm Yakandongga incident report	20/01/2025

13.	Protective equipment training record and attendance	27/01/2025
14.	Health and safety training record and attendance	10/01/2025
15.	Carbonsate Namibia 1 Environmental Impact Assessment report	-
16.	Carbonsate Namibia 1 list of applicable host country regulations	-
17.	Grievance register	-
18.	Grievance reporting form	-
19.	Puro Environmental and Social Safeguards form	-
20.	Puro Stakeholder Engagement Report	-
21.	Carbonsate biomass types and origin list	-
22.	Biomass load records	-
23.	Report on Phase 1 of the Bush Encroachment Research, Monitoring and Management Project, JN de Klerk	2004
24.	D. Ward Department of Conservation Ecology, University of Stellenbosch – “Do We Understand the Causes of Bush Encroachment in African Savannas”	24/01/2025
25.	Biomass supply invoice between Endelela farming and Energy for Future (PTY)	2024
26.	Financial additionality spreadsheet	-
27.	Puro Additionality Questionnaire	-
28.	Carbonsate declaration of funding	16/10/2025
29.	Biomass storage project Namibia 1 monitoring report	-
30.	Biomass storage chamber diagram	10/04/2025

31.	Monitoring system (sensor) installation photographic evidence	-
32.	Biomass storage chamber design report	-
33.	Authorization of land use between Endelega Farming CC, Carbonsate UG and Hecla Consulting	05/02/2025
34.	Technical specification spreadsheet and calibration of installed equipment	-
35.	Report on measures and design principles implemented in the storage chamber to inhibit biomass decomposition – Carbonsate UG	-
36.	<p>HDPE membranes published literature:</p> <ul style="list-style-type: none"> i. Ewais A. Longevity of HDPE Geomembranes in Geoenvironmental Applications. Kingston: Queen’s UNiversity; 2014 Feb p. 1–467. ii. Sangam HP, Rowe RK. Effects of exposure conditions on the depletion of antioxidants from high-density polyethylene (HDPE) geomembranes. Can Geotech J. 2002 Dec 1;39(6):1221–30. iii. Ewais AMR, Rowe RK, Rimal S, Sangam HP. 17-year elevated temperature study of HDPE geomembrane longevity in air, water and leachate. Geosynth Int. 2018 Oct;25(5):525–44. iv. Zafari M, Rowe RK, Abdelaal FB. Longevity of multilayered textured HDPE geomembranes in low-level waste applications. Can Geotech J. 2024 Apr 1;61(4):684–99. 	-
37.	Report on fire risk management measures – Carbonsate	-
38.	Report on monitoring plan for storage site – Carbonsate	-
39.	Puro Storage site questionnaire	-
40.	Permanence liabilities assessment report	-
41.	Permanence liability funding framework	-
42.	Flux Measurement spreadsheet (recorded sensor data)	-
43.	Report on information system for sensor data collection and analysis – Carbonsate UG	-
44.	MRV Protocol – Carbonsate	-
45.	Report on operating procedure of storage site – Carbonsate	-

46.	Puro SDG Report Template	-
47.	Authorization of biomass use - Endelela farming, Hecla Consulting and Carbonsate UG.	-
48.	Storage site sealing photographic evidence	-
49.	<ul style="list-style-type: none"> i. Biomass Load records spreadsheet ii. Manual biomass load records 	-
50.	Photographic and videographic evidence: <ul style="list-style-type: none"> i. Preparation of pit ii. Biomass harvesting and transport iii. Installation of monitoring pipes iv. Filling of biomass in the pit v. Installation of geotextiles vi. Reapplication of soil and closing the pit vii. Installation of sensor system 	-
51.	Storage conditions time stamped recorded data & analysis - temperature, humidity, CO2, O2, CH4, water state	-
52.	Report on stable storage conditions - Carbonsate	-
53.	Zhengzhou Winsen Electronics Technology CO., Ltd. statement on methane concentration detection data of MH441D sensor.	-
54.	LCA spreadsheet	-
55.	LCA report - Carbonsate	-
56.	LCA external verification report - OneCarbonLabs	24/07/2025
57.	Ecoinvent 3.11 dataset documentation	-
58.	Fuel use by machinery records	-
59.	Weigh scale calibration certificates - Libra Measuring Instruments (PTY) LTD	Date of calibration - 30/01/2025 Valid till - 29/01/2026
60.	CORC Report Summary spreadsheet	-

61.	Equipment procurement invoices	11/12/2024
62.	Eurofins Umwelt Ost GmbH biomass laboratory analysis results	18/02/2025 – 17/03/2025
63	Eurofins accreditation report	-
64.	Storage site risk assessment report – Carbonsate	-
65.	<p>Installed sensor datasheets</p> <p>Temperature and humidity https://wiki.seeedstudio.com/Grove-TempAndHumi_Sensor-SHT31/</p> <p>Oxygen https://wiki.dfrobot.com/SKU_SEN0465toSEN0476_Gravity_Gas_Sensor_Calibrated_I2C_UART</p> <p>Methane https://www.winsen-sensor.com/d/files/manual/mh-441d.pdf</p> <p>CO2 wiki.dfrobot.com/Infrared_CO2_Sensor_0-50000ppm_SKU_SEN0220</p> <p>Water https://wiki.seeedstudio.com/Grove-Water_Sensor</p>	-
66.	Trace Gas Analyzer technical specifications	-
67.	Statement of no double counting	-
68.	Sensor functioning diagram	-
69.	Monitoring equipment calibration	-
71	Clarifications for application of Puro Standard and Methodologies	30/12/2024
72	Terrestrial Storage of Biomass Methodology for CO2 Removal	Version 1, 2023