JOINT VALIDATION AND VERIFICATION REPORT FOR CARBONSAFE PROGRAM STANDARDS AND METHODOLOGY FOR IMPROVING AND REPORTING THE LEVEL OF SEQUESTERED CARBON IN THE SOIL IN THE AGRICULTURAL SECTOR

Earthood

KEY PROJECT INFORMATION	
Report ID	CS.VAL.24.11
Project Title	Carbonsafe Program Standards and Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector
Project ID	CSBG-22/27- AGRI
Sectoral Scope	UNFCCC 15 – Agriculture Technical Area 15.1
Verification period	19/01/ 2023 to 22/03/2024
Crediting period	17/01/2023 – 02/02/2028.
Date of issue	03-October-2024
Version of this document	v.2.0
Methodology applied	v.2.0, Dated 05/09/2024
Total amount of carbon credits generated by the project in number	15,536 tons
Total amount of captured CO_2	15,536 tons
Amount of SOC sequestered for the current monitoring period	4,233 tons
Total number for buffer fund	777
Client	CARBONSAFE Ltd.

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Summary of the Validation and Verification Conclusion

- The project falls under UNFCC's sectoral scope 15 "Agriculture". The primary aim of Carbonsafe was to introduce latest and advanced farming practices among the farmers in Bulgaria which they would not otherwise undertake in the absence of this programme. This group project activity is a voluntary initiative that undertakes quantification of Soil Organic Carbon (SOC), for which georeferenced soil samples are drawn from farms at three soil depth (i.e., 0-30cm, 30-60cm and 60-90cm) and are analysed for SOC content in laboratory. Based on the laboratory analysis, individual agronomic strategies are prepared by the Carbonsafe for the participating farms. The implementation of these regenerative practices is expected to result in increased levels of SOC level in agricultural soils. The start date of operation of the group project is 19/01/2023, based on the GHG emission reductions due to the implementation of regenerative agricultural practices. The project applies the methodology "Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector, V2.0" to quantify the amount of greenhouse gas reductions achieved through this project.
- Earthood Services Private Limited (hereafter referred to as Earthood) carried out a joint validation and verification assessment of the project activity "Carbonsafe Program Standards and Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector". The review of joint PD & MR, supporting documentation and subsequent follow up actions (on-site audit and interviews) have provided Earthood with sufficient evidence to determine the fulfillment of stated criteria stated out in the Carbonsafe Standard/Procedure/ Guidelines established. Thus, this grouped project activity mitigates the GHG emissions generated from shift in the agriculture practices implemented and the increase in the soil SOC content of the soil.

- The group project activity results in reduction of CO_2 emissions that are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the project is not a likely baseline scenario and the emission reductions attributable to the project are, hence, additional to any that would occur in the absence of the project activity.
- This assignment is an independent validation by a third party Earthood of proposed "Carbonsafe Program Standards and Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector" against all defined criteria set for the registration set out in the Carbonsafe Standard document, Carbonsafe Methodology Requirements, any other applicable requirements set out under the Carbonsafe Program and applicable Carbonsafe Standards / Procedures / Decisions / Guidance established. The joint validation and verification assessment was conducted by Earthood procedures which are developed in line with the requirements specified in the Carbonsafe applicable requirements set out under the Carbonsafe Program and applicable Carbonsafe Standards / Procedures / Decisions / Guidance established.
- This assignment is an independent and objective review for determination of the monitored reduction in GHG emissions. The joint validation & verification includes the assessment of implementation and operation of the project as reported in the project description & monitoring report/01/. The validation and verification process are undertaken by Earthood that involves the following:
  - The desk review of documents and evidence submitted by the project participant in context of the Carbonsafe guidelines.
  - Undertaking on-site inspection, interviews, or interactions with the representative of the project participant.
  - Reporting audit findings with respect to clarification and non-conformities and the closure of the findings as appropriate.
  - Preparing a draft joint validation & verification report complying with the Carbonsafe guidelines and Earthood's internal protocols.
  - An independent Technical Review team reviews this report made by the assessment team. After the final report is accepted by the Technical Reviewer it is then approved by Earthood Services Private Limited which is processed further according to the Carbonsafe procedures/guidelines
- During the validation process 06 CLs and 03 CARs were successfully raised and resolved. All findings raised during the assessment have been included in appendix 4 of this report. 2 FARs from methodology validation have also been resolved during the current scope of assessment.
- Earthood has undertaken an elaborate audit trail for joint validation and verification process. The assessment team checked the information provided in the joint Project Design (PD) and Monitoring Report (MR), version 1.3, dated 05th September 2024. Each detail has been checked during the onsite audit and document review which is not only confined to information provided by Project Proponent (PP) but also by undertaking an independent evaluation of relevant publicly available information by making use of technical expertise of the assessment team. Thus, there are no uncertainties associated with the joint validation and verification process.

- In conclusion, it is Earthood's opinion that the project activity "Carbonsafe Program Guidelines and Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector" meets all relevant requirements for Carbonsafe guidelines, and correctly applies Carbonsafe methodology "Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector, v2.0. The implementation of the group project activity has resulted in 15,536 Tons captured CO_{2e} In Earthood's opinion this group project activity meets all requirements set out for registration and we recommend an issuance of 15,536 (Fifteen Thousand Five Hundred and Thirty-Six) carbon credits.

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1. INTRODUCTION

Carbonsafe contracted Earthood to carry out joint validation and verification of the grouped project activity "Carbonsafe Program Standards and Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector" located in Bulgaria against the Carbonsafe Program guidelines/04/. This report summarizes the results and conclusions of the joint scope of validation and verification performed as a formal part of Carbonsafe certification process. Earthood declares that we are an impartial auditor, free from any conflicts of interest, capable, and qualified to complete this audit according to Carbonsafe rules and guidelines related to the Validation and Verification Body (VVB).

1.1 Objectives

The objective of this audit is to conduct a third-party assessment of the operational and administrative processes as well as the implementation processes of Carbonsafe. The CO_2 removal achieved during the period 19/01/2023 to 22/03/2024. The assessment team verified the compliance of all project documentation and supporting documentation with the rules and regulations of Carbonsafe. In particular,

- The project compliance with all the applicable Carbonsafe Program guidelines/03//04//05/.
- Project conformity with the applied methodology, "Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector," version 2.0/02/, including the procedure for demonstrating additionality specified in the applied methodology.
- Likelihood that methods and procedures set out in the project description will generate verifiable GHG data and information when implemented; and
- The reported data/information was accurate, complete, consistent, transparent, and free of material errors or omissions.

To fulfil the above-mentioned objectives, Earthood assigned the task of assessment to the assessment team, which is collectively qualified as per the Earthood's Quality Management System (QMS) manual and other internal requirements. Validation and verification is an independent assessment of the project by a validation and verification body (VVB) that determines whether the project complies with Carbonsafe rules/guidelines.

1.2 Scope and Criteria

The joint validation and verification scope of this assignment is defined as an independent and objective review of the Project Description & Monitoring Report (PDMR)/01/ and supporting

annexures, which are reviewed by the assessment team against the relevant criteria set by the Carbonsafe methodology/02/ and guidelines/03//04//05/. The assessment team employed a risk-based approach as per recommendations prescribed in the latest version of the methodology applied/02/, focusing on the identification of significant risks for project implementation and the generation of carbon certificates.

The scope of this assignment was to assess the claims and assumptions made in the joint project documentation and monitoring report against the Carbonsafe guidelines/03//04//05/ and the applied methodology/02/.

1.3 Reasonableness of Assumptions and Level of Assurance

☒ Reasonable Level of assurance

☐ Limited Level of assurance

A reasonable level of assurance includes the understanding that there is a remote likelihood that material misstatements will not be prevented or detected on a timely basis. To achieve reasonable assurance, auditors must obtain sufficient evidence to reduce their audit risk to an acceptably low level. The approach used by the Earthood for the assessment of project activity is built on a thorough understanding of the risk associated with reporting data on GHG emissions and the control used to mitigate them.

Earthood reviewed sufficient evidence to verify the project implementation, data, and parameters and achieved emission reduction calculations for this monitoring period. Further clarifications were asked, and all discrepancies found during the validation assessment were raised as audit findings and successfully closed. All audit findings raised by the validation team during the validation process are included in the report in Appendix 4.

During the current assessment, the Earthood conducted an on-site audit of project activities, as discussed in Section 2.3, and no substantial changes were observed, thereby meeting a reasonable level of assurance. In our opinion, the estimated GHG emission reduction and the amount of soil organic carbon accumulated were correctly calculated based on the approved baseline and monitoring methodology, “Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector, v2.0/02/, and its associated appendixes.

1.4 Audit Team Composition

No	Role	Type of Resource	Last Name	First Name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Validation findings
1	Team Leader	IR	Singh	Kaviraj	Central Office	Y	Y	Y	Y
2	Validator	IR	Kour	Karamjot	Central Office	Y	N	N	Y
3	TA Expert	IR	Nazneen	Sadaf	Central Office	Y	N	N	Y
4	Trainee	IR	Almeida	Max	Central Office	Y	Y	Y	Y

Technical Reviewer and Approver of the Validation Report

No	Role	Type of Resource	Last Name	First Name	Affiliation (e.g., name of central or other office of VVB or outsourced entity)
1.	Technical Reviewer	IR	Gautam	Ashok Kumar	Central Office
2.	TA Expert to TR	ER	Arora	Kalpana	Central Office
3.	Approver	IR	Gautam	Ashok Kumar	Central Office

2. VALIDATION AND VERIFICATION PROCESS

2.1 Method and Criteria

A planned series of audit activities was conducted during the on-site audit to independently validate and verify CO_2 emission reduction/capture and Carbon Certification. The validation and verification processes were conducted according to the internal Earthood QMS manual in accordance with the criteria laid down by ISO 14064-2. The specific audit activities are summarized below.

1. **Desk Review**

   a. PDD and MR along with other documents submitted by PP was reviewed by the assessment team before planning the onsite activities.

b. The submitted documents was reviewed against the requirements and Standard of Carbonsafe, general validation and verification principles of carbon offsets and Earthood internal guidance and requirements.

c. Any non-compliances identified, or clarification sought were raised as findings in the form of Corrective Action Request (CAR) and Clarification Request (CL).

2. Opening Meeting:

a. An initial meeting was conducted to outline audit objectives, scope, and methodology.

b. The key operational measurement points and instrumentation used in the facility were reviewed for georeferenced soil sampling/21/

c. Review of ownership details, roles, and responsibilities of the contractor and participating farmers/20/.

d. Review of procedure of project registration and monitoring documentation/20/.

e. Reviewed the soil organic carbon analysis results for the participating farms/23//24/.

f. The individual agronomic practices developed based on soil organic carbon and macro- and micro-element analysis results were reviewed/25/.

3. Implementation

a. The on-field inspection of regenerative practices implemented by farmers was based on the recommendations of PP/25/.

b. The accuracy and consistency of the data were verified.

c. The accuracy and consistency of the sampling procedures were verified/21/.

4. Records Examination:

Review of the project and supporting documentation

a. PR-201: Application for Registration of participating farms/19/.

b. PR-202- Administrative contracts signed between Carbonsafe Ltd. and the participating entity/20/.

c. PR-103-Individual Strategy recommendations for participating farms/25/.

d. PR-104-Technological Maps of participating farms/28/.

e. PR-211- Annual Periodic Report for the participating Farms/29/

f. PR-107: Monitoring report from on-site inspection of participating farms/30/.

g. PR-205- Sequestered Soil Organic Carbon (SOC) Calculation/31/

h. Laboratory Sampling and Testing Protocols/21//23//24/

i. Agronomic Recommendations 22-23/25/

j. Agronomic Recommendations 23-24/25/

5. **Data collection and sample-handling procedures**

   a. Review of Project's data collection procedures and documentation of results/32/.

6. **Equipment and Calibration Review**

   a. On-field inspection of a specialized automated probe used for soil sampling/21/.

   b. Review of calibration procedures for automated probe/21/.

7. **Verification of carbon certification** These activities collectively ensured a comprehensive audit of the "Carbonsafe Program Standards and Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector", validating its operations, data integrity, and compliance with the Carbonsafe methodology, "Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector", version 2.0/02/ applied.

2.2 Document Review

The joint validation and verification of the project activity were performed primarily as a document review of Carbonsafe PDMR /01/ and the associated documentation, as stated in detail in Appendix 2. The assessment team cross-checked the information provided in the documents through document review and on-site completion in line with the requirements specified in the Carbonsafe Methodology "Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector" version 2.0 /02/. Additional cross-checks were

performed for the information provided in the joint PDMR/01/ using other independent sources of information Project compliance with national laws and regulations were reviewed /08//09/.

Earthood conducted a desk review as follows:

- A review of the data and information was reviewed to verify their completeness.
- A review of the monitoring plan, monitoring methodology, and applicable tools.
- An evaluation of data management and the context of their influence on general collection procedures for calculating and reporting emission reductions.

2.3 Site Visits

Site inspection was conducted on 30/07/2024 – 01/08/2024 (inclusive of both dates) by the Earthood audit team. The team members were accompanied by the PP during the site visit. The site visit was planned and executed in accordance with the applied Carbonsafe methodology "Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector," version 2.0/02/.

2.3.1 Sampling plan for on-site inspection

Earthood inspected the implemented activities on the farms as part of the site visit activity. To ensure that the risk of auditing was minimized to a reasonable level and to ensure effectiveness and efficiency, a project-specific validation and sampling plan was developed to guide the validation process.

The applied methodology, "Methodology for Improving and Reporting the Level of Sequestered Carbon in Soil in Agricultural Sector" version 2.0/02/ does not instruct the use of a particular sampling approach. Therefore, Earthood applied random sampling to the biomass plots for the site-visit interviews.

Field sampling and other techniques were based on the best professional judgment of Earthood to meet a reasonable level of assurance. The assessment team categorized plots based on the farm enterprise, practices undertaken, crop grown, area under cultivation and the final selection of field plots was decided based on a combination of the above factors but also finally random selection.

Earthood applied simple random sampling using 90% confidence and 20% precision in a population size of 36 using the Raosoft sample size calculator /37/. To ensure that the data samples were representative of the entire project, 12 out of the 36 samples were randomly selected and included in the site visit surveys. Earthood uses the Raosoft sample size calculator/37/ to identify the number of samples required for each scope of assessment, validation, and verification (a screenshot is provided). The methodology of the sampling plan is

based on ISO 14064-3:2019. Any modifications applied to the plan were made based on the conditions observed during monitoring, to detect processes with the highest risk of material discrepancy. Earthood, along with on-site observations, objective evidence collection, data generation, and recording analysis, also considered the views obtained in these interviews while arriving at a verification opinion.

Sampling farms for the site visit

Scope of Work	Validation	Verification
Number of samples	12	12

2.4 Interviews

S No	Interviewee			Dates	Subject	Team Member
	Last Name	First Name	Affiliation			
1.	Marinov	Chavdar	Carbonsafe	30/07/2024 – 01/08/2024	Project activity, group project and PAI boundary, project ownership, land ownership, project registration, Choice and applicability of baseline methodology(ies). Discussion on baseline identification, additionality, project emissions and monitoring plan. Responsibility of implementation of monitoring plan, data recording & storage procedures.	Kaviraj Singh Max Almeida

					Project start date, crediting period, safeguards, risk analysis.	
2.	Nikolov	Hristo	Carbonsafe	30/07/2024 – 01/08/2024	Project activity, group project and PAI boundary, project ownership, land ownership, project registration, Choice and applicability of baseline methodology(ies). Discussion on baseline identification, additionality, project emissions and monitoring plan. Responsibility of implementation of monitoring plan, data recording & storage procedures. Project start date, crediting period, safeguards, risk analysis.	Kaviraj Singh Max Almeida
3.	Kirova	Denitsa	Carbonsafe	30/07/2024 – 01/08/2024	Project activity, group project and PAI boundary, project ownership, land ownership, project registration,	Kaviraj Singh Max Almeida

					Choice and applicability of baseline methodology(ies). Discussion on baseline identification, additionality, project emissions and monitoring plan. Responsibility of implementation of monitoring plan, data recording & storage procedures. Project start date, crediting period, safeguards, risk analysis.	
4.	Semerdzhieva	Konstantina	Carbonsafe	30/07/2024 – 01/08/2024	Project activity, group project and PAI boundary, project ownership, land ownership, project registration, Choice and applicability of baseline methodology(ies). Discussion on baseline identification, additionality, project emissions and monitoring plan. Responsibility of implementation	Kaviraj Singh Max Almeida

					of monitoring plan, data recording & storage procedures. Project start date, crediting period, safeguards, risk analysis.	
5.	Aleksandrova	Lyudmila	Carbonsafe	30/07/2024 – 01/08/2024	Project activity, group project and PAI boundary, project ownership, land ownership, project registration, Choice and applicability of baseline methodology(ies). Discussion on baseline identification, additionality, project emissions and monitoring plan. Responsibility of implementation of monitoring plan, data recording & storage procedures. Project start date, crediting period, safeguards, risk analysis.	Kaviraj Singh Max Almeida
6.	Kasabov	Dobromir	Carbonsafe	30/07/2024 – 01/08/2024	Project activity, group project and PAI boundary,	Kaviraj Singh Max Almeida

					project ownership, land ownership, project registration, Choice and applicability of baseline methodology(ies). Discussion on baseline identification, additionality, project emissions and monitoring plan. Responsibility of implementation of monitoring plan, data recording & storage procedures. Project start date, crediting period, safeguards, risk analysis.	

Interviews with the PP team and the participating farmers /08/ were conducted to confirm the project objectives, current monitoring and implementation plan, training, and programs delivered during this monitoring period. Other project details include project ownership, benefit-sharing mechanisms, socio-economic impacts, and continuous mechanisms of stakeholder consultation.

The reviewed evidence, along with other supporting documents, was also provided to the assessment team by the PP, as listed in Appendix 2, and found that the project implementation was in line with the Carbonsafe methodology /02/. The interview records were maintained by the VVB/08/.

2.5 Resolution of Findings

The process for raising the findings (corrective actions, non-conformities, or other findings) by the validation team was conducted during the desk review phase and through site visit observations

and discussions. As an outcome of the validation process, the validation team can raise different findings based on the following understanding:

A clarification request (CL) is raised where information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met.

When nonconformance arises, the team leader raises a Corrective Action Request (CAR). CAR is issued, were

- The project participant made mistakes that would influence the ability of the project activity to achieve real, measurable, and additional emission reductions.
- The methodology and other requirements have not been met, and there is a risk that emission reductions cannot be monitored or calculated.
- The validation process may be halted until this information is made available for the team leader's satisfaction. Informed consent or clarification provided as a result of CL may also lead to a CAR.

A Forward Action Request (FAR) is raised when certain issues related to project implementation are reviewed during the validation assessment.

Irrespective of the nature of the findings, all of these were given to the PP in a separate document. In this document, project proponents (s) are given the opportunity to respond to these findings. Based on the responses of the PP, along with relevant supporting documents/evidence, the validation team determined whether the findings were resolved. The findings may also be raised in later stages, for example, during the internal technical review process, and these are also communicated/dealt with in the same manner as described above. A draft joint validation and verification report was prepared during this period, reflecting the status of the findings, if any, as appropriate.

During the assessment process, 06 CLs and 03 CARs were raised and satisfactorily resolved. The list of CARs/CLs was raised, and the responses provided, means of validation and verification, reasons for their closure, and references to corrections in the relevant documents are provided in Appendix 4 of this report. The section also includes responses, if provided, by the project participants and an assessment by the assessment team if it was closed or otherwise. All CARs and CLs raised by the Earthood during validation were resolved prior to the submission of a request for registration.

In summary, the types and total number of findings are presented below.

Type of Finding	CL	CAR	FAR
Total Findings	06	03	XX

The FAR(s) from the previous methodology validation were also resolved during the present assessment.

3.Project Details

The Carbonsafe Program is a system of sustainable agricultural practices based on regenerative agriculture. Regenerative agriculture has shown significant potential in enhancing soil organic carbon (SOC) levels. By implementing practices, such as cover cropping, reduced tillage, and crop rotation, regenerative agriculture promotes the accumulation of organic matter in the soil. This increase in organic matter leads to improved soil structure, enhanced water retention capacity, and increased microbial activity. The long-term effects of regenerative practices on SOC are particularly promising, with some estimates suggesting that widespread adoption could sequester billions of tons of carbon globally over the next few decades. This not only contributes to climate change mitigation by removing carbon dioxide from the atmosphere but also improves overall soil health and agricultural productivity. Farmers voluntarily participated in the program by signing an agreement with Carbonsafe Ltd. Individual tracking and reporting were conducted for each participating farm. The monitoring and documentation of carbon sequestered in the soil relies on a method that incorporates agronomic assessment of crop suitability, soil sampling using an automated probe, and chemical analysis of the collected samples in a laboratory. Following the review of VVB for project validation and removal verification, carbon credit certificates were issued to individual farmers.

a) **Audit History**: First Validation and Verification of the Project activity "Carbonsafe Program Standards and Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector.

   Validation of the Carbonsafe project conducted by Earthood Services Private Limited for the crediting period of 5 years.

   Meanwhile, the verification of activities was conducted for the monitoring period of 19/01/2023 to 22/03/2024.

b) **Project Start Date:** The start date of the project is 17/01/2023, corresponding to the date of signing of the agreement with the first farmer. This was verified by assessment team by reviewing the contract/20/ signed between the PP and the participating entity.

c) **Project Ownership:** Carbonsafe Ltd. owns the project "Carbonsafe Program Standards and Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector." The management capabilities of the Carbonsafe Ltd. project were examined from two perspectives: the developer's management capacity (the organization responsible for overseeing and coordinating the program) and the management capacity of the individual farms involved in the project. This was verified by Earthood by reviewing the contract/20/ signed between the PP and the participating entity and during the interview conducted during the onsite audit/08/.

d) **Benefits Assessment and Crediting period**: The start date of the project crediting period is the same as that of the project activity, i.e., 17/01/2023. As per the applied methodology "Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector, v2.0, the total crediting period must be at least 5 years. This was verified by Earthood by reviewing the contract/20/signed between the PP and the participating entity.

After the expiry of the 5-year crediting period, the participating farmers will be given the opportunity to extend the contract for another five years. The extension of the contract does not interrupt the certification process, but the baseline will be reviewed and redefined.

e) **Double Counting and Participation Under other GHG programs:** To prevent double counting of projects and emissions, each project is assigned a unique identification registration code in accordance with PR202 "Procedure for registration and monitoring of projects in the CARBONSAFE Program." Project executors are required to sign a "Double Counting Declaration" as part of the "Application for Registration in the CARBONSAFE Program," which is outlined in PR202. This declaration confirms that the project does not simultaneously participate in another program for the implementation of a similar project (SOC). In the events, where a duplicacy of occurrence is identified during the work process, such projects receive no compensation and will be excluded from the certification system and subsequently will be listed in the "Unscrupulous projects" register, which is part of PR02 "Procedure for registration and monitoring of projects in the CARBONSAFE Program." In cases where payments have already been made and double counting has been discovered, the corresponding amount of issued carbon credit is covered by the provided buffer, which is duly recorded in the register. Appropriate authorities should be informed of attempted fraud following established protocols.

f) **Benefit-Sharing Mechanism:** The process for transferring carbon titles between Carbonsafe and participating farmers in the Carbonsafe program is delineated in Section 13 of the PDMR /01/. The mechanism implemented by the PP allocates the issued carbon credits to farmers, Carbonsafe, and the Buffer pool.

Upon certification of the carbon credits, they are assigned a unique serial number to facilitate transparency and monitoring and subsequently notified through the Registry. Carbonsafe oversees this process, ensuring compliance and reporting any discrepancies.

Carbonsafe retains a portion for development and management purposes, whereas 5% is allocated to the buffer pool for risk mitigation. Carbonsafe maintains comprehensive transfer records, ensures transparency through formal notifications, and secures documentation. Any procedural modifications were communicated to all relevant stakeholders, including farmers and regulatory bodies.

3.1 Project Implementation Status.

During the current monitoring period, the following project activities were implemented.

a. **Number of participants for the current crediting period**: Eight farms are involved in the ongoing monitoring period. The specifics are as follows.

Name of the Participant Farm	Project Participant No./ Date of Contract	Area under the Project	Number of Cells
ECOSYST AGRO OOD	№ CSBG-42SC-22/27-AGRI-0001/17.01.23	92.79 ha	26
DABENSKA ETERICHNA KOMPANIA OOD	№ CSBG-42SC-22/27-AGRI-0002/17.01.23	29.38 ha	4
STOICEV AGRO EOOD	№ CSBG-42SC-22/27-AGRI-0003/17.01.23	61.93 ha	7
APLEND BULGARIA EOOD	№ CSBG-33NE-22/27-AGRI-0004/18.01.23	761.28 ha	62
SEKAPP BULGARIA EOOD	№ CSBG-33NE-22/27-AGRI-0005/18.01.23	86.41 ha	5
PROIZVODITEL YOTIN EOOD	№ CSBG-41SW-22/27-AGRI-0006/19.01.23	90.84 ha	9
ZP NASTIA STOYANOVA YOTINA	№ CSBG-41SW-22/27-AGRI-0007/02.02.23	47.27 ha	6

ZP BORIS EMILOV YOTIN	№ CSBG-41SW-22/27-AGRI-0008/02.02.23	229.68 ha	24
TOTAL		1399.58 hectares	143

The above information was verified by the assessment team through the "PR202- Administrative Contract"/20/ under the project signed between the participating entities and Carbonsafe Ltd and PR-205- Sequestered Soil Organic Carbon (SOC) Calculation /31/.

b. **Activities Performed:** The following activities were performed as part of the project implementation

- PR-201- Application for registration in the Carbonsafe program: The process begins when the farmer submits PR201, an application for farm participation /19/, along with relevant documentation and Shape/KML files/17/ outlining the cultivated areas.
- PR-101: Farm Suitability Assessment Checklist- Before the determination of farm baseline, an assessment checklist is filled in which farmer data, crop details and existing practices traced back up to 5 years, equipment used.
- PR-202- Administrative Contract signed between the participating entities and Carbonsafe Ltd.: Once the farms are deemed eligible, Administrative Contract /20/ was signed between Carbonsafe and participating farms.
- PR-03- Procedure for automated georeferenced soil samples: Soil sampling was performed using a specialized, calibrated automated probe. Samples were collected from three soil layers (0-30 cm, 30-60 cm, and 60-90 cm) in a single drill operation. For each layer, 25 samples (or "stitches") were obtained from each cell, and the samples from each layer were mixed to create one representative sample per layer. This resulted in three soil samples per cell: one from each of the 0-30 cm, 30-60 cm, and 60-90 cm layers.
- PR-103-Agronomic Recommendation and Individual Strategy: Regenerative agriculture is an innovative approach to farming that aims to restore and enhance ecosystem health while sustainably producing food. This holistic method focuses on improving soil quality, increasing biodiversity, and carbon sequestration to mitigate climate change. Key practices in regenerative agriculture include Conservation Tillage, Treatment of beds, Minimal processing/treatments, Organic farming, Integrated Production, Precision Agriculture, Crop diversification, Fertilization with Microbial fertilizers, Green manuring (Sideration), Cultivation of nitrogen-fixing crops, Mulching treatments, Use of Organic/Natural Pesticides, Processing

Stripes, Pastures and/or Crops Rotation and Crop Rotation Management, Weeding of the rows in perennial crops and vineyards, cultivation of more than one agricultural crop, Implementation of Strip Farming, Improvement measures in permanently grassed areas.

- PR-104-Technological Map: After receiving the laboratory chemical analysis and establishing the amount of sequestered soil carbon (SOC) from the specific crop relevant recommendations and technological map are prepared for each participating farms and will be treated as part of the individual strategy for managing the used areas.

- PR-107- On-spot Monitoring Report of the project activities on the participating farms: Assessment of the actual condition of the areas participating in the program and assessment of the implementation of the agricultural practices set out in the individual strategies.

- PR-205- Calculation of the Sequestered Soil Organic Carbon

  According to methodology/02/, the calculation interval must be at least 12 months, spanning from the initial soil sampling to the control soil sampling and analysis. Control sampling should be conducted in the next business year. While 12 months is the standard calculation period, a range of 10–14 months is permissible considering factors such as crop rotation, growth stages, and weather patterns. In this context, a "business year" is defined as October 1 of the current year to September 30 of the following year

- Annual Periodic Report of the project activities on the participating farms: The assessment of the implemented project activities at the end of business year, along with the sampling and analysis of SOC for the control year.

- Monitoring the removal of Carbon Dioxide (CO_2) from the atmosphere and its storage in the soil in the form of carbon (C) in agricultural areas in the land use system through a fixed georeferenced soil sample.

- Data Monitoring: To minimize uncertainties in data recording, all data were registered and reported in the ISACO2 system to manage carbon capture from plant species, crops, and other agricultural activities. As part of PR02 and farm registration, each contract is assigned a unique number. ISACO2 records contract data, user roles, and plot boundaries for sampling, with the option of modifying the agricultural blocks. Plot information is entered via the "Loading a map for a physical block" module using Shapefiles or Google Earth KML files. The drill operator receives sampling tasks via the "Mobile Application" module of CARBONSAFE and follows PR03 for georeferenced soil sampling. Plots were divided into cells (maximum 25 ha, 3% tolerance) for sampling in the "Separation of Cells for Sampling" module. After the soil samples are physically accepted in the laboratory, they receive a barcode that maintains

traceability from the field to the laboratory, ensuring anonymity and preventing sample manipulation. The sample preparation included crushing, grinding, burning, and homogenization. After the chemical analysis, the results were entered into ISACO2 for each contract, block, and sampling cell. Once the control sample are also entered, it is reviewed by a qualified agronomist, and integrated into the management strategy

- The amounts of fuel consumption from agricultural activities were measured and deducted. To calculate the fuel used by the equipment necessary for production in each area, the average fuel consumption was determined based on the Ministry of Agriculture's methodology for calculating individual annual quotas under the state aid scheme, 'Aid in the form of a discount on the excise duty of gas oil used in primary agricultural production.'/34/ The net greenhouse gas emissions of carbon dioxide (CO_2) removed were calculated by subtracting the total fuel consumption (per area) in tons of CO_2 equivalent from the gross amount of CO_2 emissions removed by the project.

Net amount of removes emissions of greenhouse gas emissions CO_2 (tons)	Gross amount of removed greenhouse gas emissions Carbon dioxide CO_2 (ton)	-	Total fuel consumption (tCO_2eq)

3.2 Application of Methodology

3.2.1 Title and Reference

The methodology applied for the implementation of the project activity “Carbonsafe Program Standards and Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector” is “Methodology for improving and monitoring the level of sequestered carbon in the soil in the agricultural sector, v2.0, dated 05-September-2024/02/.

3.2.2 Applicability of the project activities

The implemented project activity is in compliance with the applicability conditions given in the applied methodology “Methodology for Improving and Reporting the Level of Sequestered Carbon in the soil in the Agricultural Sector.

The eligibility of the project participants was pre-determined based on the following criteria:

To develop activity in the sector of plant breeding and/or plant breeding and animal breeding on the territory of the Republic of Bulgaria.	All project/ plots are located in the territory of the Republic of Bulgaria, and which was confirmed by the Earthood through the KML files /17/.
To have a legal basis for the use of agricultural land within 5 years, which is included in the land use system.	All the project participants have the legal basis for the for the use of agricultural land within 5 years, which is included in the land use system, as confirmed by the signed contracts/20/
Have an operational area of minimum of 200ha of annual or 50ha of perennial crops	The conditions are met by the participating farmers, as verified by the signed contract between the farmers and the PP/20/.
To have an up-to-date registration of the holding, as an agricultural producer with the Ministry of Agriculture.	The project shall encompass all land in agriculture, which falls within a system of land use and considers the relevant national specificities /20/.
Project initiatives have not been incentivized by Government / required by law	As reviewed by the Earthood, the project activities undertaken are not incentivized by Government of Bulgaria/10//14/
Participant is incentivized by the financial gains resulting from carbon credits and is motivated to achieve additional carbon removals.	All the participating farmers are allocated a percentage of the carbon credits certified, as described in the Benefit Sharing Mechanism established by the PP.

3.3 Baseline Scenario

As per the literature reviewed/14,15,42,43/ by assessment team, the traditional agriculture in Bulgaria illustrates the continuation of established methods, in which chemical fertilizers, pesticides, and mechanization play a central role in both crop and livestock production. This approach aims to maximize yields and meet market demands but is often at the expense of environmental sustainability. Issues such as soil degradation, water pollution, and biodiversity loss are persistent, with intensive farming practices leading to resource depletion and long-term environmental damage. Despite the economic significance of traditional agriculture, particularly in rural regions, it is facing mounting challenges from climate change, land fragmentation, and aging

infrastructure. Without substantial policy changes, short-term productivity gains may be overshadowed by worsening environmental issues and reduced long-term resilience. This scenario has been consistently highlighted in various studies and reports, including national agricultural assessments and broader analyses by organizations such as the EU, World Bank, and FAO/14,15,45,46/, which examine the impacts of traditional farming on both productivity and environmental sustainability.

To establish the baseline scenario for the participating farms in the project each farms has to get registered plot at the cell level using direct soil carbon content measurements, with no alternative method accepted under the program.

As discussed in section IX Performance Methods and Criteria, to establish the baseline during the initial year, Carbonsafe representatives visited the site, engaged with the farmers, and provided program details. The process begins when the farmer submits PR202, an application for farm participation /19/, along with relevant documentation and Shape/KML files/17/ outlining the cultivated areas. An evaluation was then conducted to assess farm suitability. Detailed farm information, including crop types, cultivation methods, practices, soil treatments, and fertilization rates, was gathered and compiled in the PR101 - Farm Suitability Assessment Checklist /18/. The pre-project scenario outlined in the PR0101 Farm Suitability Assessment Checklist/18/ must be completed before inclusion in the official program. This form collects data on farmers, crops, equipment, and existing practices, dating back up to five years.

Upon approval, a standard 5-year PR202 - Administrative Contract /20/ was signed between Carbonsafe Ltd. and approved farms. The farm was then registered in specialized software (ISAKO2), and a request for soil sampling and baseline determination was initiated to manage CO_2 emissions and sequestered soil organic carbon.

Georeferenced soil samples /21/ were collected, barcoded, and analyzed by an accredited laboratory, with results linked to the system. The baseline was determined from the laboratory analysis results of the soil organic carbon content/23//24/. To ensure precision, additional chemical analyses of microelements, organic matter, and bulk density /26//27/ were conducted on the georeferenced soil samples from each eligible plot. Baseline data were recorded on the control sheet PR0205 - Calculation Checklist for Sequestered Soil Carbon (SOC) /31/.

Based on the analysis, the team issued a PR0103-Agronomic Recommendation and Individual Strategy/25/ along with a PR0104-Technological Map/28/ for the farm to complete, outlining its activities for the first year. The farmer then reports on these activities using the completed map.

All data were recorded using an internal barcode system, enabling tracing of the results from each cell to the corresponding carbon credits, and vice versa. Performance records and process tracking were managed using specialized software and validated documentation.

Earthood has conducted a thorough evaluation of several documents for the eight farms involved, including the PR202-Application for farm registration/19/, PR101-Farm Suitability Checklist/18/, PR03-Procedure for Automated Georeferenced Soil Sampling/21/, PR103-Individualized Strategies/25/, and PR104 -Technological Maps/28/. The assessment team conducted an on-site evaluation, examining the aforementioned documents and the ISACO2 protocol, while also confirming the same with the PP and participating farmers/08/.

The baseline scenario is clearly outlined with transparent and suitable methods for gathering and examining data. After a thorough evaluation, Earthood can confirm that methodology /02/ was correctly applied and adhered to the established protocol.

3.4 Additionality

The project activity uses the implementation of project practices as additional criteria. The following steps were used to check the project additionality.

1. **The demonstration of regulatory surplus**

   The implementation of regenerative agricultural practices is not mandated by any law, statute, or other regulatory requirement in the project area. The assessment team checked the national acts, rules, and regulations, and confirmed that regenerative agricultural practices were not mandated in the project region/09//14//15/16/. These national regulations were also discussed during the on-site audit, and it was ensured that project activities were not mandated in the defined project region.

2. **Identify barriers that would prevent the implementation of a change in pre-existing agricultural practices.**

   Carbonsafe Ltd. implemented a thorough monitoring and control framework that incorporates software applications, GPS-enabled soil sampling techniques, and laboratory testing to continuously track processes. This strategy allows the program to assess the effectiveness of applied methods and offers farmers customized suggestions for improving soil carbon sequestration efficiency, which would not have been implemented without participating in the program. This was confirmed by assessment through an individual review of literature /15//16/, agricultural initiative taken by the Bulgarian government/14/, and during the on-site audit/08/.

3. **Demonstrate that the adoption of suite of proposed project activities is not common practice**

The program actively implements innovative, eco-friendly farming methods and technologies on the participating farms. These sustainable agricultural practices include the use of cover crops, minimum tillage, and active management of soil biological activity, which are directly applied to enhance soil carbon sequestration. The assessment checked the baseline practices traced back to five years of the participating farms /20/, agricultural initiative mandated by the Bulgarian government/14/, and through interviews conducted during the on-site audit /08/ can confirm that the practices implemented under the Carbonsafe program is not a common practice in the host country and was found to be voluntary participation by the farmers.

4. **Deduction of fuel emission footprint from production equipment**

Carbon dioxide emissions are recognized as the primary greenhouse gases linked to all field operations, particularly owing to the utilization of diesel-powered machinery. Within the framework of the applied methodology, the project proponent adopted a conservative and distinctive approach to calculate the carbon emissions from fuel usage in crop cultivation. These calculated emissions were then deducted from the total sequestered soil organic carbon (SOC) achieved by the project. Conversion into carbon emissions is based on the following equation:

100-liter diesel fuel/ha = 340 kg CO_2 /ha.

The total fuel consumption (per cell) in tons of CO_2 equivalent was subtracted from the gross number of tons of greenhouse gas carbon dioxide CO_2 emissions removed by the project, and the net amount of greenhouse gas carbon dioxide CO_2 emissions removed was obtained.

A coefficient of 3.42 is used to convert the total fuel consumption from tonne/hectare to tonne/ CO_2 equivalent. 1l of diesel was equal to 36 MJ /12/.

1MJ is equivalent to 95.1 g CO2 /35/

Therefore 36 * 95.1 / 1000 = 3.42

Thus, a default value of 3.42 is drawn and subtracted.

This conservative method of subtracting the amount of fuel used from carbon credit claims to determine net carbon credits is unique in the context of the voluntary carbon market.

To calculate the fuel used by the equipment, necessary for the production in each cell, the average fuel consumption determined by the Methodology of the Ministry of Agriculture for determining the individual annual quotas in connection with the implementation of the state aid scheme "Aid in the form of a discount on the value of the excise duty on gas oil used in primary agricultural production."

The net amount of greenhouse gas carbon dioxide (CO_2) emissions was calculated by subtracting the total fuel consumption (per cell) in tons of CO_2 equivalent from the gross number of tons of CO_2 emissions removed by the project. The calculation has been described in detail in the section 3.6.1 of this report After evaluating the PP approach, Earthood verified that PP correctly accounted and

subtracted emissions from diesel fuel usage from the total carbon sequestration achieved through the project activities.

In conclusion, Earthood can confirm that additionality was independently assessed by each project participant. This evaluation utilized the PR0101- Checklist for assessment of the farm suitability/18/ and KL 0101-4, comparing the provided information with the program's required practices/33/.

3.5 Monitoring of Data

In accordance with the monitoring plan outlined in the applied Carbonsafe methodology/02/, the Carbonsafe team and participating farmers jointly conducted the data collection and monitoring processes. The specifics of this process are described below:

Data and Parameters monitored:

Fixed and Monitored Parameters		
Parameter	Value applied	Means of Assessment
Area	Fixed for basic soil samples.	The area of the field is calculated by multiplying the length of the plot and width of the plot.. The methodology used the georeferenced data and cross verified the data from the KML files/17/ provided and administrative contracts/20/.
Depth	0-30 cm, 30-60cm and 60-90 cm	The depth for soil sample selected in the methodology is standard and it is validated from literature review /40/.
SOC	As per laboratory analysis results	The sample for SOC analysis is taken for each individual land area from each participant in the program. SOC samples are taken from the three soil layers: 0-30 cm, 30-60 cm, and 60-90 cm, and are sent for testing in an accredited laboratory. The test results for SOC for the participatory farms were recorded for both base and control year and were used in calculations. The analysis for SOC is under an accredited laboratory /36/. The soil quality analysis is conducted by “Determination or organic and total carbon after fry combustion (elementary analysis)/23//24/.

Bulk Density	The bulk density is fixed for the entire monitoring period as per the laboratory analysis results	The sample for bulk density is taken for each individual land area from the first participant in the Program, whose plots fall within the boundaries of a land area where no data on measured bulk density is available. Bulk density samples are taken from the three soil layers: 0-30 cm, 30-60 cm, and 60-90 cm, and are sent for testing in an accredited laboratory. The test results for bulk density for the participatory farms were recorded and used in calculations for every subsequent participant with plots falling within the same land area/26/27/.
Conversion factor of Area from decare to meter square	10000	The value is cross checked from the online literature review, the value is correct and appropriate
Soil quantity (ton)	-	The soil quality is calculated by using bulk density, area, and depth.
Conversion Factor	3.667	The value is validated from the IPCC Special Report on Carbon dioxide Capture and Storage /41/. The value is correctly mentioned in the methodology
Equivalent CO_2	1l=3.42 kg CO_2 (Values given in PR0106)	For the calculation of equivalent CO_2, it is taken into account that 1l of diesel is equal to 36 MJ which is validated from Ordinance No. H-18 of August 8, 2016 /41/. 1MJ is equivalent to 95,1 g CO_2 which is validated from Methodology for determining the intensity of greenhouse gas emissions from the entire life cycle of fuels and energy of non-biological origin in transport /12/.
Average consumption of fuel in liters for the plots	Applied in accordance with the crop sown	The applied is as per the crop sown and can be confirmed by the “Aid in the form of a discount on the value of the excise duty on gas oil used in primary agricultural production” /34/.

		The values given in the parameters are verified from the M3M methodology for determining the individual annual quotas in connection with the implementation of the state aid scheme "Aid in the form of a discount on the value of the excise duty on gas oil used in primary agricultural production"/34/ and were correctly applied in the calculation in the spreadsheet PR205- Sequestered Soil Organic Carbon (SOC) Calculation under the project/31/.
Total consumption of fuel in litres for the plot	-	The value is calculated by multiplying Average consumption of fuel in litres for the plot litres/hectare with area (ha).

The implemented project activity calculation period was defined as the duration during which the carbon reserve changes were computed and recorded. According to the methodology, this interval must be at least 12 months, spanning from the initial soil sampling to the control soil sampling and analysis. Control sampling should be conducted in the next business year. While 12 months is the standard calculation period, a range of 10–14 months is permissible considering factors such as crop rotation, growth stages, and weather patterns. In this context, a "business year" is defined as October 1 of the current year to September 30 of the following year.

For the current monitoring phase, the soil was sampled and tested to assess changes in soil carbon stocks. Georeferenced soil samples were obtained, labeled with unique barcodes linked to specific field cells, and dispatched to an accredited lab. Test outcomes were uploaded to ISACO2 software, connecting the field and lab barcodes. Based on these findings, the team produced an Agronomic Recommendation, Individual Strategy, and Technological Map for the farm to be implemented in the second year. All farm operations were documented in a monitoring report, with carbon data reported and calculations performed on validated control sheets. This information was compiled into an annual report for each farm

In cases where SOC levels remained stable or decreased, the baseline established in the first year was maintained, and these cells continued to be monitored.

The carbon credit certificates will be issued only for cells that exhibit increased Soil Organic Carbon (SOC) stocks during the monitoring period. The number of cells eligible for carbon certificates for the current monitoring period is

Farm/Entity Name	Number of Positive Cells	Area under positive cells (ha)	Total amount of removed CO_2 (tons)
ECOSYST AGRO OOD	5 cells	14.04 ha	494 tons
DABENSKA ETERICHNA KOMPANIA OOD	1 cell	9.82 ha	348 tons
STOICEV AGRO EOOD	2 cells	13.50 ha	450 tons
APLEND BULGARIA EOOD	14 cells	189.73 ha	8616 tons
SEKAPP BULGARIA EOOD	0	-	-
PROIZVODITEL YOTIN EOOD	4 cells	19.62 ha	930 tons
ZP NASTIA STOYANOVA YOTINA	1	6.33	187 tons
ZP BORIS EMILOV YOTIN	9 cells	92.07 ha	4511 tons
TOTAL	**36 cells**	**345.11 ha**	**15536 tons**

3.6 Quantification of GHG Emission Reductions and Carbon Dioxide Removals

3.6.1 Accuracy of Reduction and Removal Calculation

The methodology applied "Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector, v2.0" uses several formulae to calculate the Actual quantity of generated carbon credits under the project.

Several parameters were used to calculate the soil quantity, which are mentioned in section 3.5 with a detailed assessment. The formula used in this methodology is as follows.

Calculation for the controlled samples	
Soil Quantity	Soil quantity (ton) = Area * 10000 * 0.3 * Bulk density

	Where, Area = Length * Width 0.3m depth (m), = Soil samples were collected from three layers of soil 0-30 cm, 30-60 cm and 60-90 cm. 10000 = Conversion factor of area from decare to meter square Bulk density (g/cm^3) = The bulk density was examined once during the first control year and used for calculation until the end of the monitoring period.
Difference in organic carbon	Organic Carbon (OC) % = Measured Soil Organic Carbon (SOC) % in control year - Measured Soil Organic Carbon (SOC) % in base year
Percent content (OC) in soil	Difference in organic carbon * Soil quantity (%)
Total percentage content (OC) in the soil	Sum of percent content (OC) in soil for the tree soil depths (0-30 cm, 30-60 cm and 60-90 cm).
Gross amount of removed greenhouse gas emissions Carbon dioxide CO_2	Total percentage content (OC) in the soil * 3.667 (IPCC default)
Quantification of greenhouse gas emission reduction	The GHG emissions reduction is calculated as follows Organic Carbon (OC) % = Measured Soil Organic Carbon (SOC) % in control year - Measured Soil Organic Carbon (SOC) % in base year Calculated quantity of sequestered carbon for = Soil quantity (ton) * Soil Organic Carbon (SOC) %

	the period (ton) Total quantity of sequestered soil Carbon (ton). = Sum of all Calculated quantity of sequestered carbon for the period (ton)
The assessment team has reviewed the section 13 Calculations of the PDMR, and PR205- Sequestered Soil Organic Carbon (SOC) Calculation under the project-ERR sheets/31/ and can confirm that the calculation and monitoring of all the parameters are applied in line with the applied methodology/02/.	

Total Number of certified units under the programme

1 Certified unit = 1 Carbon Credit= 1 tone CO_2 removed

All the above parameters were calculated in the PR0205- Recapitulation of the checklist for calculating Sequestered Carbon (SOC) in Soil from Removed Greenhouse Gas Carbon Dioxide (CO_2) Emissions/31/. Earthood assessed and reviewed the calculation of the parameters in the PR0205- Recapitulation of the checklist for calculating Sequestered Carbon (SOC) in Soil from Removed Greenhouse Gas Carbon Dioxide (CO_2) Emissions/31/ and confirmed that it is appropriate and conservative in nature.

Leakage: The implementation strategy for the project adopts a cautious approach, utilizing concrete data from periodic evaluations of soil nutrient reserves to mitigate potential leakage risks. Within the context of the applied methodology, leakage is identified when carbon dioxide removal activities lead to increased emissions or reduced absorption in other areas, thereby diminishing the overall positive impact on the climate. Carbonsafe Ltd. proactively monitored and recorded any circumstances that could potentially result in leaks. The Methodology addresses leakages in situations involving uncontrollable force majeure events or observed reductions in soil organic carbon stocks by decreasing the number of carbon credit certificates issued, which are subsequently covered by the buffer account.

The buffer serves to offset any decrease in SOC levels in regions where certificates have been granted previously. At the end of the crediting period, SOC levels may have risen, remained constant, or declined, as determined by evaluating the overall balance at the project participant level. Any reduction in SOC levels observed after the project's conclusion was categorized as a leakage.

Earthood assessed that the buffer is reserved for all the positive cells eligible for carbon certificates for the current monitoring period, and the same can be confirmed by the PR0205- Recapitulation of checklist for

calculating Sequestered Carbon (SOC) in Soil from Removed Greenhouse Gas Carbon Dioxide (CO_2) Emissions/31/

3.6.2 Quality of Evidence to Determine Reduction and Removals

Farm/Entity Name	UIC	Contract date	ISACO2 ID	Number of Positive Cells	Net amount (tons) of sequestered organic carbon (OC) for the reporting period (ton)	Net amount of removed emissions of greenhouse gas carbon dioxide CO_2 (ton)	Buffer 5% of credits
ECOSYST AGRO OOD	203457757	17-January-2023	1779	5 cells	135	494	25
DABENSKA ETERICHNA KOMPANIA OOD	204679198	17-January-2023	1780	1 cell	95	348	17
STOICEV AGRO EOOD	204556854	17-January-2023	1781	2 cells	123	450	22
APLEND BULGARIA EOOD	203578940	18-January-2023	1785	14 cells	2 348	8 616	431
SEKAPP BULGARIA EOOD	203578424	18-January-2023	1786	0	-	-	-
PROIZVODITEL YOTIN EOOD	207021636	19-January-2023	1799	4 cells	253	930	46

ZP NASTIA STOYANOVA YOTINA	179637785	2-February-2023	1825	1	51	187	9
ZP BORIS EMILOV YOTIN	179643717	2-February-2023	1826	9 cells	1 229	4 511	226
Total				**36 cells**	**4233**	**15 536**	**777**

The reporting and recording of the results were performed according to the procedures and forms in accordance with the CARBONSAFE Program Methodology/02/. All stages were documented in accordance with the Methodology of the CARBONSAFE program, and consistency was observed when issuing agronomic recommendations: analyses of the condition of the soil, recommendations for crop nutrition, and technical maps of the farm. The amount (CO_2) from the equipment used for the production of agricultural crops was calculated and documented according to the Methodology of the Ministry of Agriculture for the determination of individual annual quotas in connection with the implementation of a state aid scheme "Aid in the form of a discount on the value of the excise duty on gas oil, used in primary agricultural production." Thus, Earthood can confirm that all steps in (CO_2) calculations are well documented and monitored/32/.

4. VALIDATION AND VERIFICATION OPINION

4.1 Validation and Verification Summary

Earthood Services Private Limited (Earthood) performed the Joint Validation and Verification of the group project activity "Carbonsafe Program Standards and Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector" for the monitoring period of 19-January-2023 to 22-March-2024 as reported in the joint PDMR v.1.3 dated 05-September-2024/01/. Carbonsafe Ltd is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emission reduction from the project activity.

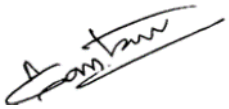
It is our responsibility to express an independent verification statement on the reported GHG emission reduction from the project activity. Earthood commenced the assessment based on the Carbonsafe Methodology "Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector, v2.0, dated 05-Sepetember-2024/02/.

The assessment approach of the team is based on the understanding of the risk associated with reporting of GHG emission data and the controls in place to mitigate these. Earthhood planned and performed the verification by obtaining evidence and other information and explanations that Earthood considered necessary to give reasonable assurance that reported GHG emission reduction are fairly stated.

4.2 Validation and Verification Conclusion

In our opinion the GHG emissions reductions reported for the project activity for the period 19-January-2023 to 22-March-2024 are calculated and stated in PDMR version 1.3 dated 05-September-2024/01/. The GHG emission reduction was calculated correctly based on the approved baseline and monitoring methodology "Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector, v2.0, dated 05-Sepetember-2024/02/.

Approved By:



Ashok Kumar Gautam
Director
Earthood Services Private Limited

Date: 03/10/2024

Place: Gurugram, Haryana

APPENDIX 1: COMPETENCE STATEMENT

Competence Statement (CDM)			
Name	Kaviraj Singh		
Education	Ph.D. (Environmental Engineering), IIT Delhi Masters (Energy & Environmental), DAVV Indore		
Experience	15 Years +		
Field	Climate Change & Environment		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.D., AMS-II.D., ACM0006, AMS-I.A., AMS-I.C., AMS-II.B., AMS-III.H, ACM0002, ACM0001, AM0080, ACM0018, AM0056, AM0073 VM0042, AMS-III.G, AMS-III.AF., VM0032, VM0018, ACM0010, ACM0022, AMS-III.D, AMS-III.F and AMS-III.A.Q		
Local expert	YES (India)		
Financial Expert	YES		
Technical Reviewer	YES		
TA Expert (X.X)	YES (TA 1.1, TA 1.2, TA 3.1, TA 13.1, TA 13.2)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	02/02/2023
Approved by	Deepika Mahala (Technical Manager)	**Date**	02/02/2023

Competence Statement	
Name	Karamjot Kour
Education	M.Sc (Soil Science and Agricultural Chemistry) B.Sc (Agriculture)
Experience	-
Field	Agriculture
Approved Roles	
Team Leader	NO
Validator	YES (VM only)
Verifier	YES (VM only)
Methodology Expert	NO
Local expert	NO
Financial Expert	NO
Technical Reviewer	NO
TA Expert (X.X)	NO
Trainee	NO

Reviewed by	Shifali Guleria (Quality Manager)	**Date**	12/06/2024
Approved by	Deepika Mahala (Technical Manager)	**Date**	12/06/2024

Competence Statement			
Name	Sadaf Nazneen		
Education	PhD (Environmental Sciences)		
Experience	4 Years		
Field	Climate Change & Environment		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	YES (14.1)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	06/09/2023
Approved by	Deepika Mahala (Technical Manager)	**Date**	06/09/2023

Competence Statement			
Name	Waris Hooda		
Education	Master of Science (Geo-Information Science and Earth Observation) Bachelor of Engineering (Computer Engineering)		
Experience	2 years +		
Field	Geo-Information Science and Earth Observation (Specialization: Geo-informatics)		
Approved Roles			
Team Leader	NO		
Validator	YES		
Verifier	YES		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	02/07/2024
Approved by	Deepika Mahala (Technical Manager)	**Date**	02/07/2024

Competence Statement			
Name	Max Almeida		
Education	Bachelor's in Law Master's in Political Science (Climate Change) Master's Degree Sustainability and Climate Change (in progress)		
Experience	2 years, 4 months (Climate Safe Sustainability Services)		
Field	Environmental and Sustainability Consultancy		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	YES (Brazil)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Trainee	YES		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	04/01/2024
Approved by	Deepika Mahala (Technical Manager)	**Date**	04/01/2024

Competence Statement	
Name	Ashok Gautam
Country	India
Education	M. Sc. (Environmental Sciences) M. Tech. (Energy & Environmental Management)
Experience	16 Years +
Field	Energy, Climate Change & Environment
Approved Roles	
Team Leader	YES
Validator	YES
Verifier	YES
Methodology Expert	AMS-I.D., AMS-I.A., AMS-I.C., AMS-I.E, AMS-II.D., AMS-II.G., AMS-III.E., AMS-III.H., AMS-III.Q, AMS-III.Z., AMS-III.AV., AMS III.AR, AM0029, AM0025, AM0056, ACM0001, ACM0002, ACM0004, ACM0012, ACM0006, AM0018, ACM0017, ACM0009, AM0034, AMS.I.B, ACM0016, AMS-III.BL, AMS-II.L, AMS-I.I., AMS-III.A.O., ACM0010, ACM0025
Local expert	YES (India)
Financial Expert	YES
Technical Reviewer	YES
TA Expert	YES (TA 1.1, TA 1.2, TA 3.1, TA 13.1)

Reviewed by	Shifali Guleria	**Date**	06/03/2023
Approved by	Deepika Mahala	**Date**	06/03/2023

Competence Statement			
Name	Kalpana Arora		
Country	India		
Education	M.Sc. (MicroBiology), Ph.D. (Waste Management)		
Experience	5.5 Years +		
Field	Waste management, Animal Waste, Environment		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local Expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert	YES (TA 13.2 & TA 15.1)		
Reviewed by	Shreya Garg	**Date**	17/01/2019
Approved by	Anshika Gupta	**Date**	18/01/2019

APPENDIX 2: DOCUMENT REFERENCES

S No.	Author	Title	Reference to the documents	Provider
1.	PP	Joint Project Description and Monitoring Report (PD & MR)	Version:1.3 Dated:05/09/2024	PP
2.	Carbonsafe	Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector https://carbonsafe.bg/wp-content/uploads/2024/09/METHODOLOGY-CARBONSAFE_v2_05.09.24.pdf	Version:2.0 Dated:05/09/2024	PP
3.	Carbonsafe	PREAMBLE: Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector	Version:1.0 Dated: 22/06/2023	PP

		https://carbonsafe.bg/wp-content/uploads/2023/08/Preambul_v1_22.06.23_sample.pdf		
4.	Carbonsafe	Guidelines for Carbonsafe Application in the Agricultural Sector https://carbonsafe.bg/wp-content/uploads/2023/05/PR0214-Application-guidelines_CARBONSAFE_v1_r0_01.04.23.pdf	Version:1.0 Dated:01/04/2023	PP
5.	Carbonsafe	Guide for Participants/Project Operators in the Carbonsafe™ Carbon Farming program https://carbonsafe.bg/wp-content/uploads/2024/07/PR0111-Project_guidelines_CARBONSAFE_for_client_v2_16.07.24_EN.pdf	Version:2.0 Dated: 16/07/2024	PP
6.	Carbopnsafe	ISO 9001:2015 Certificate https://carbonsafe.bg/wp-content/uploads/2024/03/IN-24.03.19-GIBP-0157-QC2024-9001_sert_do_18.03.25.pdf Quality Management System Certificate No.: GIBP-0157-QC	Issue Period: 19/03/2024 Valid Period: 19/03/2024 – 18/03/2025	PP
7.	-	ISO 14001:2015 Certificate https://carbonsafe.bg/wp-content/uploads/2024/03/IN-24.03.19-GIBP-0157-EC2024-14001_sert_do_18.03.25.pdf Environmental Management System Certificate No.: GIBP-0157-EC	Issue Date: 19/03/2024 Valid Period: 19/03/2024 – 18/03/2024	
8.	-	On-site visit records- Interviews Photographs	Dated:30/07/2024-01/08/2024	Earthood

9.	-	Guidelines for Implementation of the Statutes Management Requirements Ministry of Agriculture and Food (MZH) https://www.mzh.government.bg/bg/	Dated: 08/07/2021	PP
10.	-	National Program for Protection, Sustainable Use and Restoration of Soil Functions (2020 – 2030)	NA	PP
11.	-	Ministry of Transport, Information Technology and Communication https://www.mtc.government.bg/en	NA	PP
12.	-	Ordinance No H-18 of 8-August-2016 determining the methodology for calculating certain costs for the entire life cycle of road vehicles.	Dated: 08/08/2016	PP
13.	-	Order No. 3 of January 29,1999 on the Creation and Maintenance of a Register of Farmers (Title Amended- SD No. 31 of 2015)	Dated: 28-April-2015	PP
14.	-	Ministry of Agriculture and Food | Ministry of Agriculture (government.bg)	NA	-
15.	-	Sustainable Development Of Organic Farming In Bulgaria - State And Opportunities (econstor.eu)	NA	-
16.	-	Special Accession Programme for Agriculture and Rural Development - Wikipedia	NA	-
17.		KML files	NA	PP
18.		PR0101 - Farm Suitability Assessment Checklist in section PR0101	NA	PP
19.		PR201- Application for Registration for the Carbonsafe Program	NA	PP
20.		PR202- Administrative Contract signed between the participating entities and Carbonsafe Ltd.	NA	PP

21.		PR03- Procedure for automated georeferenced soil sampling	Dated: 08/08/2023	PP
22.		For calibration certificate of the probes please	Dated:24/06/2022 Dated:22/12/2022	PP
23.		Lab protocols for baseline	Dated: 2023	PP
24.		Lab protocolos for control first year	Dated: 2024	PP
25.		PR103- Individual Agronomic Strategy recommended for the participating farms	Version: 1.0 Dated: 25/01/2023	PP
26.		Lab analysis results for marco and micro nutrients and bulk density for the baseline	NA	PP
27.		Lab analysis results for marco and micro nutrients and bulk density for the first control year.	NA	PP
28.		PR104- Technological maps for the participating farms	NA	PP
29.		PR0211- Annual Periodic Report	NA	PP
30.		PR107- Monitoring report from on-spot inspection of the farms	NA	PP
31.		PR205- Sequestered Soil Organic Carbon (SOC) Calculation	Dated: 06/08/2024	PP
32.		PR04-Procedure for Maintenance of the documentation	Version: 1.0 Dated: 08/08/2023	PP
33.		KL 0101-4– Additionality was conducted by comparing the supplied information with the practices required under the program	NA	PP
34.		Aid in the form of a discount on the value of the excise duty on gas oil used in primary agricultural production https://www.mzh.government.bg/bg/politiki-i-programi/programi-za-	NA	PP

		finansirane/darzhavni-pomoshti/otstapka-akciz-gaziol/		
35.		Methodology for determining the intensity of greenhouse gas emissions from the entire life cycle of fuels and energy of non-biological origin in transport).	April 2017	PP
36.		Laboratory accreditation certificates	Dated:12-October-2023 – 28-September-2026	PP
37.	-	Raosoft sample size calculator	NA	-
38.	PP	PR01: Procedure for preparation of agronomical prescriptions, recommendations and an individual strategy under the "carbon farming" programme	Version:1.0 Dated: 22/06/2023	PP
39.	PP	PR02: Procedure for registration and monitoring of projects in the carbonsafe programme	Version:1.0 Dated: 22/06/2023	PP
40.		Soil Science Society of America Journal Volume 85, Issue 1, entitled Soil organic carbon sequestration calculated from depth distribution		
41.		IPCC Special Report on Carbon dioxide Capture and Storage, page 12, table AI.6 https://www.ipcc.ch/site/assets/uploads/2018/03/srccs_annex1-1.pdf		
42.	Bachev	Bachev, H., 2008. Management of environmental challenges and sustainability of Bulgarian agriculture. In *Environmental Change and Human Security: Recognizing and Acting on Hazard Impacts* (pp. 117-142). Springer Netherlands. https://link.springer.com/chapter/10.1007/978-1-4020-8551-2_7		

43.	Yanka Kazakova	https://eu.boell.org/en/2021/03/12/support-high-nature-value-farming-bulgaria	Dated: 12/03/2024	
44.		https://www.fao.org/home/en		
45.		https://documents.worldbank.org/en/publication/documents-reports/documentdetail/939501468769886584/food-and-agriculture-in-bulgaria-the-challenge-of-preparing-for-eu-accession		

APPENDIX 3: ABBREVIATIONS

PDMR	Project Description & Monitoring Report
VVB	Validation and Verification Body
GHG	Greenhouse gases
SOC	Soil Organic Carbon
BD	Bulk Density
SOM	Soil Organic Matter
CO_2	Carbon dioxide
KML	Keyhole Markup Language
ha	Hectares
%	Percentage

APPENDIX 4: FINDINGS RAISED DURING THE ASSESSMENT

Table 1. Remaining FAR from validation and/or previous verification

FAR ID	01	**Section no.**	FAR from methodology validation	**Date :** 02/09/2024
Description of FAR				
Carbon title transfer: At the time of the current audit, the carbon title transfer documents and mechanism is not fully developed by the programme developer. Therefore, it shall be assessed during the first verification assessment by the relevant assessment team.				

Project participant response	Date : 05/09/2024
Please see added PDMR section X. REPORTING RESULTS., point 22	
Documentation provided by project participant	
VVB assessment	**Date:** 05/09/2024
The information provided by the PP in Section X of the PDMR is accurate, and it can be confirmed that a transparent carbon title procedure is in place. Carbon credits will only be granted to farms that qualify for carbon certification after receiving a final positive assessment from the VVB. To ensure traceability and transparency, the registry keeps an electronic record of every issued carbon credit, complete with unique serial numbers. Hence Closed.	

FAR ID	02	Section no.	FAR from methodology validation	Date : 02/09/2024
Description of FAR				
Lab Accreditation: *The laboratory where testing of soil will be conducted (AGvisor Lab) is under the process of obtaining accreditation at the time of this audit. The next assessment team shall ensure that:* *a. the lab has obtained accreditation before the results form lab are used for calculation of carbon credits; or* *b. The testing is conducted by an accredited lab until the AGvisor lab obtains its accreditation*				
Project participant response				**Date :** 05/09/2024
The testing of SOC is conducted by an accredited lab and these results are used for the calculation of carbon credits.				
Documentation provided by project participant				
Lab protocols_baseline_2023.pdf *Lab protocols_first_contol_2024.pdf* *Certificate of testing laboratory accreditation: cert12.10.2023_2071_286 ЛИ_certificateEN.pdf* *Accreditation documents are available at the following address of Executive agency Bulgarian Accreditation Service: https://www.nab-bas.bg/en/registers/laboratoriya-za-izpitvane-kam-nik-agro-sarvis-ood-286-li-11241.html*				
VVB assessment				**Date:** 05/09/2024
On assessment of the evidence provided by the PP, VVB can confirm that the accreditation was obtained for the laboratory(Nik agro services)is valid for the period of 12-October-2023 – 28-September-2026. Closed.				

Table 2. CL from this verification

CL ID	01	Section no.	ER calculation	Date : 31/07/2024
Description of CL				

In the "Calculation" sheet titled "24.05.15-PR0106-Check for cal sep CO2_v1_22.06.23_ECOSYST AGRO EOOD" and section 2.2.1 of the Monitoring Report (MR), there is a mention of the estimation of reductions along with removals due to reduced fuel consumption as part of the project activity. The assessment team understands that while calculating the overall gains in terms of SOC increase, the Project Proponent (PP) is discounting the carbon footprint resulting from the fuel usage by the farmers. However, the methodology applied for this calculation is unclear, and the document VVBs do not provide specific provisions or parameters required for calculating the carbon footprint from fuel usage.

a. The Project Proponent is requested to clarify how the fuel accounting and conversion to tCO_2e by these farmers has been conducted and how these figures have been integrated into the SOC calculations for carbon capture and carbon credits claimed by the farmer.
b. PP also need to provide the E capture summary sheet with formula linked with SOC baseline and control, fuel carbon footprint adjustments and the final carbon credit claims.

Project participant response	**Date :** 09/08/2024

a. Fuel accounting is described in the Methodology section IV Project Boundaries, 3) Greenhouse Gases

To calculate the fuel used by the equipment, necessary for the production in each cell, the average fuel consumption determined by the Methodology of the Ministry of Agriculture for determining the individual annual quotas in connection with the implementation of the state aid scheme "Aid in the form of a discount on the value of the excise duty on gas oil used in primary agricultural production."
Total fuel consumption (per cell) in tons of CO_2 equivalent is subtracted from the gross number of tons of greenhouse gas carbon dioxide CO_2 emissions removed by the project and the net amount of tons of greenhouse gas carbon dioxide CO_2 emissions removed is obtained.
A coefficient of 3.42 is used to convert the total fuel consumption from ton/hectare to ton/CO_2 equivalent.
1l of diesel is equal to 36 MJ (Ordinance No. H-18 of August 8, 2016).
1MJ is equivalent to 95.1 g CO_2 (Methodology for determining the intensity of greenhouse gas emissions from the entire life cycle of fuels and energy of non-biological origin in transport).
*Therefore 36 * 95.1 / 1000 = 3.42*
Calculations are performed in PR0205-Calculation for sequestered soil carbon (SOC).
b. PR0205-Calculation for sequestered soil carbon (SOC) is provided

Documentation provided by project participant

Methodology for improving and reporting the level of sequestered carbon in the soil in the agricultural sector
PR0205-Calculation for sequestered soil carbon (SOC)
Methodology for determining the intensity of greenhouse gas emissions_Metodika_final_ENG
Methodology_MA_individual annual quotas_akciz_2022_ENG
Ordinance No H-18 of 8 August 2016

VVB assessment	**Date:** 02/09/2024

The VVB, after reviewing the evidence provided by the PP, concluded that the approach taken is in full compliance with the guidelines set forth by the Ministry of Agriculture in Bulgaria. The methodology employed by the PP was found to be conservative, ensuring that the claims of reductions are not overstated. Since the approach is deemed appropriate, the finding is considered closed.

CL ID	02	Section no.	XII	Date : 31/07/2024
Description of CL				

a. As per the applied methodology, the Project Proponent (PP) is required to provide agronomic recommendations and individual strategies to the agricultural holdings participating in the project activity. Upon reviewing Section XII of the Monitoring Report (MR), titled "Detailed Presentation of Participants and Activities in the Project," the VVB could not confirm the system and procedures used for agronomic management practices recommended to the participating farms by CarbonSafe.
b. The PP is requested to provide the specific individual strategies and the Technological Maps of the farms. For instance, the VVB reviewed documents such as the “Annual/Periodic Report for the 1st Project Year and Calendar Year (19.01.2023/23.05.2024)” and the “Monitoring Report from On-the-Spot Inspection” but was unable to verify the individual strategies recommended to the farmers. Please provide the specific strategy recommendations given to the eight farmers included in this monitoring period.
c. The applied methodology also requires the PP to collect farmer data, including crop details, existing practices, and equipment used, traced back up to five years. Please provide justification on how this information was collected, recorded, and subsequently used to develop the strategies or advice given to the farmers.
d. The PP also needs to clarify, with supportive evidence, how CarbonSafe monitored and recorded that the suggested strategies were followed by farmers during the current monitoring period and the increase in SOC is the result of these activities only.
e. Additionally, please clarify whether the strategy under the project activity was provided at the cell level or at the farm level.

Project participant response	Date : 09/08/2024

a. PR0103-Individual strategy_v1, and Agronomic recommendations for the 12 sample plots are provided
b. PR0103-Individual strategy_v1 and PR0104-Technlogical map_v1_22.06.23 are provided.
c. Farmers fill in PR0201 - Application_for_registration, where they declare the existing situation on the farm and data on crops, practices and equipment used, before the existence of a project. Carbonsafe has also conducted preliminary interviews with farmers to clarify the practices that were applied up to 5 years ago. Based on the collected information, Carbonsafe prepares a PR0101 - Checklist for assessment of the farm suitability, where it compares the existing situation in the farm with the practices that are expected to occur during the implementation of the project. An assessment is made as to whether the farm has the necessary equipment to implement a project, as well as whether there is an opportunity to implement new practices. During the implementation of the project, Carbonsafe issues PR0103 - Individual strategy_v1, tailored to the specifics of each farm.
d. For each cell, Carbonsafe performs an analysis of the OC content in the soil by taking baseline soil samples and control soil samples and testing in an accredited laboratory. Based on this analysis, the actual measured amounts of carbon sequestered in the soil are reported. Laboratory tests include also both macro and microelements, and after receiving results, Agronomic recommendations are issued for the cultivated crop at the cell level. Based on the recommendations and discussion about the possibilities of the farm, an individual PR0103 strategy is issued at the level of crops and cultivated areas. Depending on the cultivation technology and recommended practices, different practices may be recommended for the same crop. These differences will be reflected in the Individual Strategy on two lines. At the discretion of the supervising Agronomist, the Individual Strategy may be updated as necessary throughout the monitoring period.
Along with the individual strategy Carbonsafe provides and PR0104 - Technological map, which must be filled in by the farm. The instructions to the farm to complete are:
1. If one type of crop is grown on the farm using the same technology and the same practices are recommended, one technology card is filled out for all cells.
2. If several types of crops are grown on the farm, technological maps for all crops are filled in for the corresponding cells.
3. If the same type of crop is grown on the farm using different technologies and/or different practices are recommended, different technological maps are filled in to reflect the differences in the respective cells.
4. If the farm grows different crops in each cell, technological maps will be filled out for each cell.
Instructions for completion are sent by e-mail to each farm with individual strategy and technology map attached.
Towards the end of the reporting period, the supervising agronomist is required to conduct a site visit to monitor project activities. The report of the activities, the information collected, and the photographic material are documented in PR0107 - Monitoring report from on-the-spot inspection.
Based on all the collected information from the farm and completed records of the relevant documents for each farm, PR0211 -Annual/Periodic Report is prepared, which aims to summarize all the data. All documents are issued periodically, and when circumstances change and necessary, they are updated in a timely manner.
e. The strategy for project activities is issued at farm level, by crop and applies to all cells. If a specific strategy is recommended for a specific cell, it will be reflected on a separate line in the strategy. At the same time, the agronomic recommendation is issued for each cell. The process ends with the provision of technological maps by cultures, cells and practices.

Documentation provided by project participant

PR0201 - Application_for_registration - for ECOSYST AGRO and DABENSKA.
PR0101 - Checklist for assessment of the farm suitability - for all participants.
PR0103 - Individual strategy - for all participants.
PR0104 - Technological map - for all participants.

VVB assessment	Date: 02/09/2024

a. The VVB has assessed the PR103-Individual Strategy sheet for all 12 plots. This document lists all baseline activities and recommended project activities for the farmers. This issue is therefore closed.
b. The documents PR0103-Individual Strategy_v1 and PR0104-Technological Map_v1_22.06.23, provide all the strategy and technological map for all 08 cells under verification, are present. These documents outline the strategy and recommendations. Thus, this finding is closed.
c. PR201 has been provided for all the participating farms and the pre-project practice can be traced and confirmed by the checklist. Closed.
d. The VVB assessed the SOC analysis results for the baseline using the “Lab Protocols Baseline” and control results from “Lab Protocols_First_Control_2024.” The results were found to be verifiable and accurate.
   The VVB also reviewed the results for macro and microelements and concluded that the individual strategies formed for the farms were well-founded. The VVB found the PP's approach to be conservative and effective. The PR103 strategies aligned with the analysis results.
   Upon assessing the “PR107 - Monitoring Report from On-the-Spot Inspection,” the VVB verified the scope and indicators for monitoring. The VVB found the PP's approach to be appropriate and conservative, thereby closing this issue.
e. The PP has explained that project activities are issued at the farm level and applied to all cells, while agronomic recommendations are issued at the cell level. Carbonsafe has developed a detailed strategy for the first soil sample analysis in the baseline. Based on the laboratory results, they provide specific recommendations for each cell on a farm. Therefore, this finding is closed.

CL ID	03	Section no.	ER calculation	Date : 31/07/2024

Description of CL

Soil samples were obtained at three depths: 0-30 cm, 30-60 cm, and 60-90 cm. As observed by the Validation and Verification Body (VVB) in the ER sheet titled "24.05.15_PRO205-DAB.ETER. KOMPANIA," some farms show an increase in Soil Organic Carbon (SOC) in the deeper layers (i.e., 60-90 cm), while there is no noticeable increase in the upper 30 cm where the effect of regenerative activities is expected to be more pronounced, according to expert opinion. PP needs to clarify the following.

a. The Project Proponent (PP) is requested to justify whether the observed increase in SOC in the deeper layers is a direct result of the regenerative practices implemented or due to some other external factors. If the increase is entirely attributed to the regenerative practices, the PP should also explain how such a significant SOC increase in the deeper layers could occur within such a short period.
b. Additionally, please provide more detailed information regarding the baseline establishment as per the methodology requirements. Specifically, what is the typical percentage of SOC in Bulgaria under a business-as-usual scenario (i.e., before the project activity)?

Project participant response	Date : 09/08/2024
a. Implementing a different set of good practices leads to an increase in SOC in all soil layers. In the cases where we observe an increase in the lower layers, the main factor causing such results during the surveyed period is the low amount of precipitation or the unusually long duration of dry periods. *As a result of the lack of sufficient moisture in the upper soil layer, plants begin to obtain food and water from the deeper layers, which leads to an increase in the microbial life in these layers, respectively, in the processes of degradation and assimilation of nutrients on the one hand and mineralization of plant residues and dead plant roots from previous crops on the other.* *b. We establish the baseline through direct measurement of SOC. However, the average reserves of organic carbon for the main soil groups in Bulgaria are in the range from 7.3 kg/m2 to 14.4 kg/m2 or an average of 11.79 kg/m2 in 0-100 cm. (National Program for Conservation, Sustainable Use and Restoration of Soil Functions (2020-2030) in Bulgaria, page 19, table 1.1-1). Average volumetric weight of soils in Bulgaria is 1300 kg/m3, which is equivalent to 0.907% carbon.*	
Documentation provided by project participant	
National Program for Conservation, Sustainable Use and Restoration of Soil Functions (2020-2030) in Bulgaria	
VVB assessment	**Date:** 02/09/2024
a. The rationale provided by the PP for increase in SOC in the deeper layers is reasonable. The description given in the response explains the probable reason for increased SOC in deeper in some cells while the upper layers did not show a change. Therefore, this finding is closed. b. The baseline has been established through direct measurement of SOC which is found to be conservative. Closed.	

CL ID	04	Section no.	ER calculation	Date : 31/07/2024
Description of CL				
The assessment team is unable to draw conclusions from the review of the Monitoring Report and the Emission Calculation Sheets regarding the process used for cell selection across the eight farmers. Specifically, it is unclear how many samples were collected from each cell for both the baseline and control (Project Activity) as representative units of the entire cell. However, the team understands that the maximum size limit for a cell is set at 25 hectares. Please provide a detailed explanation of the cell selection process, including the methodology used to determine the number of samples per cell, along with supporting documentation or evidence.				
Project participant response				**Date :** 09/08/2024
Cell size and number of samples per cell are described on page 4 of PR03 - Procedure for automated georeferenced soil sampling				
Documentation provided by project participant				
PR03 - Procedure for automated georeferenced soil sampling				
VVB assessment				**Date:** 02/09/2024

On the assessment of the document, VVB found that for soil sampling an ATV with attached probe for automatic georeferenced sampling is used. For drawing samples, the field operator estimates the distance on ground between the individual sampling points, taking into account that requirement of 25 individual drills in a cell, and the sampling cell cannot exceed 25 ha as per the PR02 requirement. One average sample is taken from each elementary section, which is formed by 25 stitches. The points are made diagonally or zigzag (according to the attached example schemes) in the elementary section, avoiding places uncharacteristic of the field. However, VVB was unable to assess the number of samples collected from each cell for both the baseline and control (Project Activity) as representative units of the entire cell. Finding remains open.
Project participant response **Date:** 05/09/2024
Please see page 5 of PR03 - Procedure for automated georeferenced soil sampling: “Each point samples the three soil layers, which are separated into separate vessels on the probe. On completion of sampling in the respective plot, increments from each layer are mixed and this constitutes a representative sample for each soil layer.” The automated probe takes soil samples from all three layers with one stich (drill). These samples are separated into different vessels on the probe – vessel for 0–30-layer, vessel for 30-60 layer and vessel for 60-90 layer. In each cell 25 stiches are made. At completion of sampling in the cell increments from each layer are mixed i.e. 25 samples from the vessel for 0-30 layer, 25 samples from the vessel for 30-60 layer, 25 samples from the vessel for 60-90 layer. This way a one representative sample from each layer is formed or three soil samples in total for each cell– one from 0-30 layer, one from 30-60 layer, and one from 60-90 layer.
Documentation provided by project participant
VVB assessment **Date:** 05/09/2024
The information provided is deemed to be appropriate, hence closed.

CL ID	05	**Section no.**	IX	**Date :** 31/07/2024
Description of CL				
In Section 9 of the Monitoring Report (MR), it is mentioned that farmers are growing perennial crops such as apples, apricots, and grapes alongside annual crops under the current project. The soil texture and SOC content of farms growing perennial crops are expected to differ from those of farms growing annual crops. Farms with trees are anticipated to have improved soil structure and higher organic matter content due to increased biomass and the extensive root networks binding the soil. Additionally, these farms may require different types of interventions. The Project Proponent (PP) is requested to explain the following: How were the individual agronomic strategies for the farms determined, considering both the crop practices (annual and perennial crops) or at different cell levels as applicable?				
Project participant response				**Date :** 09/08/2024

The individual strategies for each farm indicate the recommended practices that the farmer must apply separately for each crop he grows. *For example: If a farm participates in the program with 10 cells, and on 3 of them it has a crop rotation and grows annual crops (in 1 cell during the reporting period it grew sunflower, in 2 cells wheat), and in the remaining 7 cells it grows perennial crops (in 3 cells roses, in 4 cells lavender), then the individual strategy indicating the appropriate practices will be made for him for sunflower, wheat, roses, lavender.*
Documentation provided by project participant
PR0103 - Individual strategy
VVB assessment **Date:**02/09/2024
The individual strategy for each farm in terms of regenerative agricultural practices has been described in document PR0103. This explains that there is a detailed plan for every type of crop grown on the farm. There are different recommendations for annual and perennial crops. Therefore, this finding is closed.

CL ID	06	**Section no.**	16	**Date :** 31/07/2024
Description of CL				
Section 16 of the Monitoring Report mentions the support provided by Carbonsafe to participating farmers in adopting sustainable farming practices. However, in reference to the additionality requirement of the methodology, it remains unclear whether any of the suggested practices are mandated by local or national laws in Bulgaria. To address this, the Project Proponent (PP) is requested to clarify the following points and provide supporting documents to substantiate the claims: a. Are the baseline activities supported or required by any Government regulations? b. Are any of the project activities enforced by Government regulations? c. Is any kind of approval required by farmers to change their agricultural practices as suggested by the PP				
Project participant response				**Date :** 09/08/2024
a. None of the baseline activities are required by Government regulations *b. None of the project activities are enforced by Government regulations* *c. No*				
Documentation provided by project participant				
Guidelines_Implementation_Statutory_Governance_Requirements_ENG				
VVB assessment				**Date:** 02/09/2024
According to the document provided Guidelines_Implementation_Statutory_Governance_Requirements_ENG the recommendations provided to the farmers and practice change were not mandated by the government regulations. There is no binding law in Bulgaria which mandates regenerative practices on the farms. Further, it is also clear from different documents that PP do not require any kind of approval required by farmers to change their agricultural practices. Hence closed.				

Table 3. CAR from this verification

CAR ID	01	Section no.		Date : 31/07/2024
Description of CAR				
It was observed that the existing contract with the farmers is for a period of 5 years. PP needs to clarify the following with reference to the requirement of permanence in the applied methodology. a. How it will be ensured that the SOC increased in the first year leading to the issuance of credit in that year, and has not reduced in the following years below the baseline level? b. What would happen in the event a farmer doesn't continue after 5 years and returned to the traditional (baseline) practices and as a result the stored SOC has been released back to the atmosphere?				
Project participant response				**Date :** 09/08/2024
a. Rules for this are detailed in Methodology section II. SCOPE AND STRUCTURE OF THE METHODOLOGY, 3. Calculation period. *In PR 0205 the three soil layers are summed at the cell level.* *b. For the purposes of the project's permanence, the Methodology provides for the retention of a 5% buffer, which is non-tradable*				
Documentation provided by project participant				
Methodology for improving and reporting the level of sequestered carbon in the soil in the agricultural sector *PR0205-Calculation for sequestered soil carbon (SOC)*				
VVB assessment				**Date:** 02/09/-2024
a. Upon assessing the methodology section II. *SCOPE AND STRUCTURE OF THE METHODOLOGY, 3 Calculation period*, VVB was able to verify the calculation scheme for the cells where SOC stocks have decreased or shown no change. However, the VVB was unable to verify the calculation scheme for the cells where an increase in SOC was observed in the first year (current monitoring period), but where a negative/decreasing trend might occur in the SOC accumulation following years. The PP should clarify the calculation scheme for these cases. b. The rationale followed by the PP is found to be appropriate and conservative. Hence closed.				
Project participant response				**Date :** 05/09/2024
Please see last paragraph of methodology section II. *SCOPE AND STRUCTURE OF THE METHODOLOGY, 3 Calculation period:* "In the event that in a subsequent reporting period there is a drop in SOC levels in cells for which carbon credit certificates have already been issued, the differences should be compensated by the Buffer."				
Documentation provided by project participant				
VVB assessment				**Date:** 05/09/2024
The information and revisions provided are in line with the applied methodology and is found to be conservative, hence closed.				

CAR ID	02	Section no.		Date : 31-July-2024
Description of CAR				

The applied methodology sets the participation (inclusion) criteria for farmers in procedure PR0101 (checklist for assessment), which requires collecting detailed information about the farmers. The assessment is conducted using form PR0201 to confirm that no activities or practices recommended in the project were already adopted by the farmers during the baseline scenario (pre-project activity), ensuring that the emissions captured as SOC are indeed additional. The Project Proponent is requested to clarify or provide the following: a. Provide a summary of the assessment demonstrating how the inclusion of the eight farmers met the criteria. b. Explain how it was confirmed that none of these eight farmers were using any of the project activities or practices in the baseline scenario? c. The applied methodology also requires the PP to collect data on the farmers' crop details, existing practices, and equipment used, traced back up to five years. Please provide evidence that this information was collected and verified for the five-year baseline period?
Project participant response **Date :** 09/08/2024
a. Summary is available at page 18 in the MR (8. ELIGIBILITY OF PARTICIPANTS, table 2) *b. Please see response to point c. of finding CL 02, and in complementation, Carbonsafe signs a contract agreement with the farmers. In section VI. General Provisions, Art. 21 the farmer declares that he is familiar with the Methodology and accepts it.* *c. The information is reflected in PR0101 Checklist for assessment of the farm suitability*
Documentation provided by project participant
Monitoring report 24.08.08-1-MR-PV-VC-CARBONSAFE-19.01.23-22.03.24_CSresponse *Contract agreements with the project participants.* *PR0101 Checklist for assessment of the farm suitability - for all participants.*
VVB assessment **Date:** 02/09/2024
a. The summary of the criteria along with the conditions met is added to the section * *Eligibility of Farmers"* in the MR. The revisions are found to be appropriate, hence closed. b. The signed agreements have been provided and on review were found to be appropriate. Hence closed. c. The sheets *PR01 Checklist for assessment of the farm suitability* has been assessed for all the participating farms and contains details regarding the pre-project scenario of the farms. VVb found the checklist to appropriate, hence closed.

CAR ID	03	Section no.		Date : 31/07/2024
Description of CL				
The project start date, which is the first date when the legal actions started towards the project activity has not been defined. Please provide the following clarifications supported by evidence. a. What is the project's start date? b. All the farmers which are part of the project have only been included after the project start date?				
Project participant response				**Date :** 09/08/2024

a. Carbonsafe Ltd. is registered in the Commercial Register, according to Bulgarian legislation, on 17.11.2022. The starting date of the project is 17.01.2023 *b. Yes*
Documentation provided by project participant
Carbonsafe Ltd. Date of registration in the Commercial Register can be seen at the https://portal.registryagency.bg/CR/en/Reports/ActiveConditionTabResult?uic=207162188 (Click button "History" on the right of row 1. UIC/PIC) Contract agreements with the project participants

VVB assessment	**Date:** 02/09/2024
The project start date selected by the Project Participant (PP) corresponds to the date on which the contract with the farmers were signed which corresponds to the date on which the project activities were implemented. Hence closed.	

Table 4. FAR from this verification

FAR ID	XX	**Section No.**	XX	**Date :** DD/MM/YYYY
Description of FAR				
No FAR were raised during the current assessment.				
Project participant response				**Date :** DD/MM/YYYY
NA				
Documentation provided by project participant				
NA				
VVB assessment				**Date:** DD/MM/YYYY
NA				