Carbonsafe carbon farming project – North Bulgaria

MONITORING REPORT

FOR REPORTING OF REMOVED GREENHOUSE GAS EMISSIONS CARBON DIOXIDE (CO_2)

PROJECT TITLE	**CARBONSAFE CARBON FARMING PROJECT – NORTH BULGARIA**
PROJECT DEVELOPER	**CARBONSAFE**
PROJECT ID	**CSBG-BG-N**
COUNTRY	**BULGARIA**
SECTORAL SCOPE	**AGRICULTURE**
PROJECT TYPE	**CARBON REMOVAL – SOIL ORGANIC CARBON (SOC) SEQUESTRATION**
PROJECT START DATE	**17/01/2023**
CREDITING PERIOD	**2023 - 2063**
MONITORING PERIOD	**23.03.2024-15.05.2025**
NUMBER OF PROJECT PARTICIPANTS (FARMS)	**8**
NET AMMOUNT OF GHG REMOVED CARBON DIOXIDE (t CO_2 eq):	**45480**
VERSION	**2.0**
DATE (DD/MM/YYYY)	**02/07/2026**

CONTENT:

1. Executive Summary

1.1 Overview of monitoring period.

This Monitoring Report presents the results of the monitoring activities for the Carbonsafe Carbon Farming Project – North Bulgaria (Project ID: CSBG-BG-N), covering the period from 23 March 2024 to 15 May 2025 . The report is prepared by Carbonsafe JSC in its capacity as project developer and aggregator, based on the validated methodology "Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector" (Code CSBG-AGRI, Version 3.1/22.08.2025), registered in Balkan Carbon Credits Standard (BCCS) and aligned with the UNFCCC sectoral scope 15 – Agriculture.

The monitoring period included the participation of eight farms and in North Bulgaria. These participants implemented regenerative agricultural practices aimed at enhancing soil organic carbon (SOC) levels and removing carbon dioxide (CO_2) from the atmosphere. Practices included, reduced tillage, use of organic amendments, and improved nutrient management. All participating farms underwent baseline and control soil sampling, georeferenced and conducted with calibrated automated probes at three depth intervals (0–30 cm, 30–60 cm, 60–90 cm). Laboratory analyses were performed in accredited laboratories, and results were integrated into the ISACO2 system with full traceability through barcode protocols.

The monitoring results confirm significant net removals of CO_2 achieved within the reporting period. Across the monitored farms in North Bulgaria , the total net verified removals amount to 45 480 tCO_2. Project applies 5% buffer deduction to safeguard against potential non-permanence and project reversals. Issuance of verified carbon credits follows the staged approach of Carbonsafe, whereby 25% of verified removals are released in the current period, while the remaining 75% are retained in sub-project credit reseve for subsequent issuance upon positive farm balance results in the next verification cycle

The monitoring confirms compliance with the project safeguards and the principles of conservativeness, transparency, and accuracy. The project provides environmental and social co-benefits, including:

- measurable improvements in soil health and fertility,
- reduced dependency on synthetic inputs,
- enhanced resilience to climate variability, and
- generation of additional income streams for farmers through carbon credit revenues.

The results of this monitoring period demonstrate that the Carbonsafe Carbon Farming Project in North Bulgaria is operating effectively, achieving its intended purpose of increasing soil carbon sequestration while supporting the agricultural community in transitioning to regenerative farming practices. The data and conclusions presented in this Monitoring Report are based on verified field records, laboratory analyses, and validated calculation protocols, ensuring readiness for third-party verification and subsequent credit issuance under the Balkan Carbon Credits Registry (BCCR)

1.2. Key results

During the monitoring period under review, the participating farms in the North Bulgaria achieved substantial removals of atmospheric carbon dioxide (CO_2), quantified through direct soil organic carbon (SOC) measurement and conservative calculation protocols. The following results are reported:

Table 1 Executive Summary Table

Category	Volume (tCO_2)	Explanation
Net SOC Change (tC)	15 837	Net SOC
Gross amount of removed GHG emissions carbon dioxide CO_2 (t CO_2)	58 084	Gross removals
Uncertainty deduction (20,70 % of Gross amount of removed GHG emissions carbon dioxide t CO_2 eq)	12 027	Uncertainty deduction
N_2O emissions from mineral fertilizers (t CO2 eq)	93	N_2O emissions deduction
Total fuel consumption (t CO_2 eq)	471	Fuel consumtion deduction
Emissions from leakage (t CO_2 eq)	11	Leakage deduction
Adjustments to reduce removals from GHG (t CO_2 eq)	0	Other deductions due to corrections (if applicable)
Net ammount of GHG removed carbon dioxide (t CO_2 eq)	45 480	Total Verified Net Removals
Total Buffer allocation (5% from Net ammount of GHG removed carbon dioxide (t CO_2 eq))	2 271	Total Buffer Deduction
Issuable this cycle (25% from Net ammount of GHG removed carbon dioxide (t CO_2 eq))	11 368	Credits issuable in the current monitoring period
Retained in sub-project reserve (75% from Net ammount of GHG removed carbon dioxide (t CO_2 eq))	34 112	Credits retained in sub-project reserve
Buffer allocated in this cycle (5% from Issuable this cycle)	565	Buffer deduction in this cycle

Table 2 Farm-level contributions table

Farm	Net ammount of GHG removed carbon dioxide (t CO_2 eq) /Total Verified Net Removals/	Total Buffer allocation (5% from Net ammount of GHG removed carbon dioxide (t CO_2 eq)) /Total Buffer Deduction /
APLEND BULGARIA EOOD/ AGRO KIM BULGARIA EOOD (Group Farm	3 341	167
SEKAPP BULGARIA EOOD	0	0
ZK BEZMER	6 356	317
APIS AGRO 98 OOD	2 241	112
MAPI 96 EOOD	4 891	244
ET TIASO-DOBROMIR VALCHEV	5 185	259
ET RUMEN NATSEV	13 389	669
NATSEVI 2019 OOD	10 077	503
TOTAL	**45 480**	**2 271**

Co-benefits achieved:
Beyond carbon removals, the monitoring period confirmed multiple environmental and socio-economic co-benefits consistent with the Project's objectives and the UN Sustainable Development Goals (SDGs):

- Soil health improvement: measurable increases in SOC stocks across participating farms, contributing to enhanced fertility and resilience.
- Reduced chemical dependency: reduced reliance on synthetic fertilizers and pesticides.

- Climate resilience: improved water retention and soil structure strengthened resilience against droughts.
- Farmer empowerment: participating farmers received agronomic recommendations, individual strategies, and direct technical support, improving their capacity to adopt regenerative practices.
- Economic incentives: issuance of carbon credits creates a new revenue stream for farms, enabling reinvestment in sustainable technologies and practices.

The monitoring results confirm that the Carbonsafe Carbon Farming Project – North Bulgaria is both delivering quantifiable climate benefits through verified carbon removals and generating broader co-benefits aligned with sustainable agriculture and rural development.

1.3. Project Developer Data.

CARBONSAFE JSC is a company registered in the Commercial Register at the Registration Agency on 17.11.2022 with UIC 207162188 and was transformed into a joint-stock company on 19.03.2025 with UIC 208222962

PROJECT DEVELOPER COMPANY DATA	
Name:	CARBONSAFE JSC
Company registration date:	17.11.2022
UIC/BULSTAT:	207162188
VAT No.	BG207162188
Date of conversion (of Ltd. to JSC):	19.03.2025
UIC/BULSTAT:	208222962
VAT No.	BG208222962
Address of registration:	
Country:	Bulgaria
City, Post code:	Sofia, 1113
Address:	No. 126 “Tintiava” str.
Correspondence Address:	
Country:	Bulgaria
City, Post code:	Plovdiv, 4000
Address:	No. 53. “Tsarigradsko shose” blvd.
Phone:	+359899491111
e-mail:	office@carbonsafe.bg

1.4. Project development, Monitoring and Reporting team

No	Organisation	Position	Name	Last name	Role	e-mail	Responsible for		
							Document verification	Physical examination	Report
1.	Carbonsafe	CEO	Chavdar	Marinov	Team leader	marinov@carbonsafe.bg	YES	YES	YES
2.	Carbonsafe	Head of Integrated Management Systems (IMS)	Denitsa	Kirova	Specialist - integrated management system ISACO2	kirova@carbonsafe.bg	YES	NO	YES
3.	Carbonsafe	Head of Administration	Konstantina	Semerdzhieva	Specialist - validated documentation	semerdzhieva@carbonsafe.bg	YES	NO	YES
4.	Carbonsafe	Agronomist - Agroecology	Lyudmila	Aleksandrova	Specialist in the sectoral scope of agriculture and agroecology	aleksandrova@carbonsafe.bg	YES	YES	YES
5.	Carbonsafe	Agronomist – Plant Protection	Tanya	Asenova	Specialist in the sector scope of agriculture and agroecology	asenova@carbonsafe.bg	YES	NO	YES

1.5. Statement of compliance with methodology and PDD.

The monitoring activities and results presented in this report have been conducted in full compliance with the approved Project Design Document (PDD) for the Carbonsafe Carbon Farming Project – North Bulgaria and the methodology “Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector” (Code CSBG-AGRI, Version 3.1/22.08.2025).

All monitoring procedures followed the requirements established in the PDD, including:

- Project boundaries and eligibility criteria: All farms included in this monitoring cycle meet the eligibility requirements for participation, including registration in the national Register of Farmers, documented land rights, and minimum threshold areas (200 ha for annual crops and/or 50 ha for perennial crops).

- Baseline and control soil sampling: Georeferenced soil sampling was conducted at the required depths (0–30, 30–60, 60–90 cm) using calibrated automated probes. Representative samples were prepared from 25 drills per depth per cell, in accordance with the methodology's technical standards.
- Laboratory analysis and QA/QC: All soil samples were analyzed in accredited laboratories, with traceability ensured via barcoded protocols linking field samples, laboratory IDs, and final SOC results.
- GHG accounting: SOC stock changes were calculated at the plot (cell) level, aggregated to the farm level, and expressed in tCO_2 removals using the IPCC conversion factor (1 tC = 3.667 tCO_2). N_2O and Leakage emissions were deducted based on Project specified methods and calculations. On-farm fuel emissions were deducted based on the officially recognized methodology of the Ministry of Agriculture, ensuring conservative estimation of net removals.
- Uncertainty and conservativeness: The monitoring results were subjected to conservative treatment, with negative or net-zero balances at farm level excluded from credit issuance, while continuing to be monitored for future reporting periods.
- Risk management: A 5% buffer deduction and quantified uncertainty deduction were applied to all verified removals, consistent with the PDD risk management provisions. The staged issuance mechanism (release of 25% of verified credits per monitoring period) was also observed, as prescribed in the PDD.

Based on the evidence collected, Carbonsafe JSC confirms that the monitoring results are consistent with the PDD provisions, the applied methodology, and the principles of accuracy, transparency, consistency, comparability, and conservativeness. All data presented in this Monitoring Report are therefore considered valid and suitable for subsequent validation and verification by an accredited Validation and Verification Body (VVB).

1.5.1. Farms eligibility table

Participant	Project is implemented in Bulgaria	Registered Agricultural Producer	Has legal rights to the participating land	Operates minimum of 200ha of annual or 50ha of perennial crops	Fulfills additionality criteria	Project initiatives have not been incentivized by Government / required by law	Participant is incentivized by the financial gains resulting from carbon credits and is motivated to achieve additional carbon removals
APIS AGRO 98 OOD	✓	✓	✓	✓	✓	✓	✓
MAPI 96 EOOD	✓	✓	✓	✓	✓	✓	✓
ET RUMEN NATSEV	✓	✓	✓	✓	✓	✓	✓
NATSEVI 2019 OOD	✓	✓	✓	✓	✓	✓	✓

APLEND BULGARIA EOOD/ Agro Kim Bulgaria EOOD (Group Farm)	✓	✓	✓	✓	✓	✓	✓
SEKAPP BULGARIA EOOD	✓	✓	✓	✓	✓	✓	✓
ZK BEZMER	✓	✓	✓	✓	✓	✓	✓
ET TIASO-DOBROMIR VALTCHEV	✓	✓	✓	✓	✓	✓	✓

2. Project Description and Status

2.1. Project objectives.

The Carbonsafe Carbon Farming Project – North Bulgaria has been designed to address the dual challenge of climate change mitigation and sustainable agricultural development by promoting the sequestration of atmospheric carbon dioxide (CO_2) into agricultural soils through the adoption of regenerative farming practices.

The core objective of the project is to increase Soil Organic Carbon (SOC) stocks across participating farms in North Bulgaria by introducing and supporting agricultural practices that farmers would not have undertaken in the absence of the project. These practices include:

- maintaining continuous soil cover through cover crops and crop residues,
- diversifying crop rotations,
- reducing tillage intensity to minimize soil disturbance,
- applying organic amendments and soil improvers to restore fertility,
- optimizing fertilizer and nutrient management, and
- enhancing water retention and soil structure.

The project specifically seeks to:

1. Remove CO_2 from the atmosphere and store it in soils in the form of SOC, measured and verified through direct soil sampling and accredited laboratory analysis.
2. Provide farmers with a new source of revenue through the generation and sale of high-quality, verifiable carbon credits on the voluntary carbon market. Participating farms receive certificates for carbon removals verified by accredited Validation and Verification Bodies (VVBs) and registered on the Balkan Carbon Credits Registry (BCCR).
3. Improve soil health and resilience by increasing fertility, organic matter, and water-holding capacity, thus reducing vulnerability to droughts and climate variability, which were observed as challenges during the monitoring period.

4. Promote biodiversity and reduce environmental impacts by supporting the reduction of synthetic inputs such as mineral fertilizers, and pesticides, and by encouraging the use of ecological alternatives such as biostimulants.
5. Empower the agricultural community by equipping farmers with individual agronomic strategies, training, and continuous technical support, fostering a transition to regenerative practices and enhancing long-term sustainability.
6. Contribute to national and global climate goals, particularly the UN Sustainable Development Goals (SDGs) (*see SDG_CS tool_CSBG*):

	SDG 13 (Climate Action): by creating measurable carbon sinks in soils
	SDG 15 (Life on Land): by improving soil biodiversity and ecosystem services
	SDG 2 (Zero Hunger): by more farmers adoption of regenerative agriculture practices

In summary, the project aims not only to deliver quantifiable climate benefits through CO_2 removals but also to create lasting improvements in agricultural productivity, soil quality, and farmer livelihoods in the North Bulgaria . It demonstrates how carbon farming can serve as a scalable and replicable solution to support Bulgaria's agricultural sector in the transition to a low-carbon, climate-resilient future.

Objectives stated in this Monitoring Report are unchanged from those in validated *PDD 2-PDD-CS-BG-NORTH_v2.1_08.05.2026, Section 2 – Project Objectives and Description.*

2.1.1 Agronomic Support Implementation Framework

In line with the objectives defined in the Project Design Document (PDD), the project has established and implemented a comprehensive agronomic support framework to ensure that regenerative agricultural practices are scientifically grounded, tailored to individual farm conditions, consistently applied, continuously monitored, and fully traceable.

This framework is governed by Procedure PR01 – Procedure for Agronomic Assessment, Individual Strategy and Technological Map Development (v2.1). All agronomic support activities are systematically documented ensuring full traceability and auditability.

Individualized Agronomic Planning

Each participating farm undergoes a structured, multi-step agronomic planning process and during implementation.

The process begins with a baseline agronomic assessment. This assessment includes a review of historical crop rotation, georeferenced baseline soil sampling (including Soil Organic Carbon (SOC), bulk density, pH, and nutrient levels), and an evaluation of current agricultural practices. This step establishes the technical and environmental baseline against which project performance is measured. Supporting evidence includes the Application for initial registration in

the project (PR0201), Farmer's copies of the survey cards, registration cards, and IACS applications, *PR0101 – Farm Suitability Assessment Checklist*, soil laboratory reports, and GeoJSON files.

Based on this baseline, an Individual Strategy (PR0103) is developed for each farm. This strategy defines a tailored set of regenerative practices. The strategy integrates georeferenced soil data, regional agro-climatic conditions, and economic feasibility considerations.

At the operational level, the Individual Strategy is translated into an annual Technological Map (PR0104) completed by the farmer. This document provides detailed, field-level executuion of all agricultural operations.

Farm-Level Technical Support and Monitoring

To ensure effective implementation, each participating farm receives continuous technical support. This includes on-site visits (PR0107) and farm annual report (PR0211) individualized agronomic consultations and follow-up advisory support as needed (by mail of phone).

Implementation progress and compliance are systematically monitored through the Technological Maps, which serve as the primary reference for assessing whether planned practices are executed as intended.

Agronomic recommendations

The agronomic recommendations include individualized documents and comments for each plot of each participating farm. These comments are developed based on the specific analytical results obtained from the respective fields, as well as taking into account the crop cultivated on the given field at the time the recommendation is prepared.

The comments consist of targeted guidance to the agricultural producers, tailored to the parameters identified through the conducted soil sampling and laboratory tests. Recommendations for each plot are provided by qualified and licensed agronomists, based on established agronomic principles as outlined in the textbook by Prof., DSc Gorbanov (Стефан Горбанов, проф. дсн, Торене на земеделските култури [Fertilization of Agricultural Crops])[1].

This approach ensures farm-specific treatment, precision, and scientific justification of the recommendations, as well as their practical applicability at the plot level.

Monitoring of Agronomic Effectiveness

The effectiveness of implemented regenerative practices is primarily evaluated through Soil Organic Carbon (SOC) trend analysis. This includes comparative SOC measurements over time, benchmarking against control-year values, and application of a conservative baseline reset mechanism where required. In addition, key soil health indicators—such as organic matter (OM), soil pH, and C/N ratio—are monitored to support the overall agronomic performance.This approach ensures a robust and conservative assessment of carbon sequestration outcomes.

Verification and Evidence

All elements of the agronomic support framework are fully transparent and verifiable. Supporting documentation includes the PR01 procedural framework, Individual Strategy documents (PR0103), Technological Maps (PR0104), on-site inspection reports (PR0107), Agronommic recommendations and accredited soil laboratory certificates.

These documents are referenced in Annex I: *2-MR-CS-BG-NORTH_ANNEX I-FARMS_v2_08.05.26*

Training

[1] Стефан Горбанов, проф. дсн, *Торене на земеделските култури* [Fertilization of Agricultural Crops], Sofia: "Videnov i sin" (This source is currently available only in printed (hard-copy) format and is not publicly accessible online.)

Farmer training support is implemented through the established Farmer Training Policy.

Table 3 Timeline of ongoing monitoring activities

Activity	Document	Format	Responsible	Time
Review of incoming application documents	Application for initial registration in the project (PR0201) Farmer's copies of the survey cards, registration cards, and IACS applications Incoming GeoJSON/shapefile kml files	ERP/paper	Agronomist	At enrollment
Interview with the farmer	By phone or in person		Agronomist	At enrollment
Individual Strategy Note: This is issued periodically and is updated whenever necessary. The need arises when a new crop is added, when laboratory test results deviate from expectations, at the discretion agreed upon between the farmer and the agronomist team, in cases of force majeure, or when it is impossible to carry out a particular activity, practice, or event.	Individual Strategy (PR0103)	paper	Agronomist (collaborating with the farmer)	On farm-level, after signing the contract
Request for baseline soil sampling Note: These activities depend on the type of crop and its stage of development	Soil sampling Request / Soil sampling Schedule / Soil sampling Assignment	ERP/paper	Agronomist and sampling and laboratory team (collaborating with the farmer)	On plot-level, after signing the contract

Baseline soil sampling (laboratory input data)	Soil Sampling Protocol	ERP/paper	sampling and laboratory team (collaborating with the farmer)	On plot-level, after signing the contract
Laboratory test results (laboratory input data)	Laboratory Test Report	ERP/paper	Laboratory	On plot-level, after soil sampling
Verification of crops and yields prior to the issuance of agronomic recommendations	Email/phone call, reference regarding crop and yield confirmation	paper	Agronomist (collaborating with the farmer)	After reviewing the laboratory results and before the agronomist issues recommendations
Issuance of an agronomic recommendation Note: Fertilization rates are based on laboratory results, soil nutrient levels, and target crop yields, and are calculated using nutrient supply coefficients necessary for plant growth	Agronomic recommendations	ERP/paper	Agronomist (collaborating with the farmer)	On plot-level, after laboratory results are uploaded
On-site visit to the farm	On-site monitoring report (PR0107)	paper	Agronomist (collaborating with the farmer)	On farm-level, following an on-site visit
Reporting on Implemented Practices Note: Technological maps must be completed for each crop included in the project. In cases where the same crop is managed using different technologies and/or different practices/measures are applied, multiple technical sheets must be completed.	Technological map (PR0104)	paper	Farmer	After the crop has been harvested

Summary of Activities During the Base Year	Annual Periodic Report (PR0211)	paper	Agronomist	After reviewing all documents prepared and submitted for the period
Updating data for the next reporting period Data provided by the farmer: Farmer's copies of the registration cards, and IACS applications for re-registration	Annual re-registration (PR0213)	paper	Agronomist (collaborating with the farmer)	Following the Annual Periodic Report

All of the activities described in the table above are cyclical, aligned with the sampling periods, and are carried out throughout the entire duration of the farm's participation.

2.2. Project boundary and geographic scope.

The Carbonsafe Carbon Farming Project – North Bulgaria is implemented within the administrative boundaries of the Northwestern, Northeastern, and Northcentral regions of Bulgaria. The project boundary is defined both geographically and sectorally, in accordance with methodology "Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector" (CSBG-AGRI, v3.1/22.08.2025). The information is provided in Annex II – Maps and coordinates.

2.2.1. Geographic Scope

The project encompasses a set of agricultural holdings located in several municipalities and villages within North Bulgaria. For the reporting period, the project includes:

- Aplend Bulgaria EOOD/ Agro Kim Bulgaria EOOD (Group Farm), located in Aleksandria, Bistrets, Gaber, Dobrin, Efreytor Bakalovo, Zimnitsa, Kapitan Dimitrovo, Ognyanovo, Telerig, populated area within the Dobrich region.
- Sekapp Bulgaria EOOD, located in Telerig populated area within the Dobrich region.
- ZK Bezmer, located in Bezmer, Mali Izvor populated areas within the Dobrich region.
- Apis Agro 98 OOD, located in Lesura populated area within the Vratsa region.
- Mapi 96 EOOD, located in Pudria, Kravoder, Golemo Babino populated areas within the Vratsa region.
- ET Tiasso-Dobromir Valtchev, located in Esenitsa, Dobrotich populated areas within the Varna region.
- ET Rumen Natsev, located in Drenov populated area within the Lovetch region.
- Natsevi 2019 OOD, located in Drenov populated area within the Lovetch region.

Together, these farms represent a monitored project area of 1983,76 ha for the current reporting cycle. The territories are formally part of the national land use system, and all plots included in the project are eligible under Bulgarian agricultural regulations and registered in the Ministry of Agriculture's Register of Farmers.

2.2.2.Sectoral Boundary

The project falls entirely within the Agriculture sector (UNFCCC Scope 15), focusing on cropland management for both annual and perennial crops. Key crop types grown by participating farms include:

- annual crops: wheat, barley, corn, sunflower.
- perennial and industrial crops: lavender, alfalfa.

2.2.3. Boundary Definition in the Monitoring System

Each agricultural holding is registered in the ISACO2 platform, where plots are digitized as polygons and subdivided into monitoring plots (cells) (minimum 4 ha, maximum 25 ha).

Each plot (cell) is subject to baseline and control soil sampling, with geo-referenced coordinates ensuring spatial integrity and avoiding overlap with other projects.

Data traceability is guaranteed via unique plot (cell) IDs, laboratory protocols, and integration with the ISACO2, and BCCR Registry systems.

2.2.4. Exclusions

Only lands with verified legal rights are included.

Forests and non-agricultural lands are excluded from this monitoring cycle.

Plots (cells) with insufficient sampling due to inaccessibility or adverse weather remain outside the scope until re-sampled in subsequent periods. This is not observed in this monitoring cycle.

2.2.5. Significance of the Boundary

By focusing on the North Bulgaria , the project captures a representative share of Bulgaria's most fertile agricultural land, characterized by diverse soil types and a transitional climate (continental-Mediterranean). This diversity provides both challenges (e.g., drought events affecting cover crop development) and opportunities for high-impact SOC sequestration. The geographic concentration also enables efficient monitoring, stakeholder engagement, and demonstration of best practices for scaling carbon farming in Bulgaria and the Balkans.

2.3. Participation process overview

Baseline year.

- ✓ The Carbonsafe team conducts personal contacts, a site visit to the agricultural holding and a meeting with the farmer and/or his representatives;
- ✓ The Carbonsafe team provides to farmer a set of information materials for participation in the project;
- ✓ The farmer submits an application for participation, accompanied by documents and Shape/KML files containing information about the areas he cultivates;
- ✓ The team performs a documentary check, on the basis of which an offer is prepared with an eligibility of plots for participation in the project;
- ✓ Contract is signed between the farmer and Carbonsafe JSC for the implementation of a project for a standard period of 5 years with the possibility of extension;

- ✓ Based on the signed contract, the Carbonsafe team registers the agricultural holding in specialized software ISACO2 and submits a request for sampling and testing and determination of a baseline;
- ✓ Georeferenced soil sampling is performed. The obtained sample is recorded in the system with a unique barcode from the field identifying the plot (cell) from which it was taken;
- ✓ Soil samples are delivered for testing in an accredited laboratory, being recorded in a register with a laboratory barcode. The test results are loaded into specialized software ISACO2, which links the barcode from the field and the laboratory barcode;
- ✓ The Carbonsafe team issues an Agronomic Recommendation and Individual Strategy, provides a Technological Map to be completed by the agricultural holding for the areas participating in the project for the first year of participation in the project;
- ✓ The farmer fills in a Technological Map for reporting the activities carried out on the areas participating in the project;

Control years.

- ✓ The Carbonsafe team submits a request for sampling and testing for the relevant control year;
- ✓ Georeferenced soil sampling is performed. The obtained sample is recorded in the system with a unique barcode from the field identifying the cell from which it was taken;
- ✓ Soil samples are delivered for testing in an accredited laboratory, being recorded in a register with a laboratory barcode. The test results are loaded into specialized software ISACO2, which links the barcode from the field and the laboratory barcode;
- ✓ The team issues an Agronomic Recommendation, an Individual Strategy and provides a Technological Map to be completed by the agricultural holding for the areas participating in the project for the second year;
- ✓ The Carbonsafe team documents the activities in the farm in a monitoring report;
- ✓ The Carbonsafe team reports the carbon data from the test reports and performs calculations in validated control sheets;
- ✓ The Carbonsafe team summarizes the information in an annual report for each farm;
- ✓ The Carbonsafe team prepares a summary monitoring report to a third independent party to validate the project activities and verify the removal of greenhouse gas carbon dioxide (CO_2) from the atmosphere into the soil.

The following eligibility criteria have been examined durin enrollment in correspondence with the PDD requirements

Criteria	Evidence
Geographical eligibility – The farm must be located within the territory of the Republic of Bulgaria	Farms' incoming shapefiles
Legal status – The participant must be a registered agricultural producer under Ordinance No. 3 (1999).	Farmers' copies of the survey cards, registration cards, and IACS applications
Farm type – The holding must be crop-growing or mixed crop-livestock.	Farmers' copies of the survey cards, registration cards, and IACS applications
Legal land tenure – The participant must demonstrate valid legal rights	Farmers' copies of the survey cards, registration cards, and IACS applications
Minimum area thresholds – ≥ 200 ha for annual crops, or ≥ 50 ha for perennial crops	PR0101 – Farm Suitability Assessment Checklist

Plot-level eligibility – Minimum 4 ha per crop parcel.	PR0101 – Farm Suitability Assessment Checklist
Capacity for implementation – The farm must demonstrate technical, operational, and agronomic capacity to implement new regenerative practices.	PR0101 – Farm Suitability Assessment Checklist
Exclusivity – Enrolled land parcels must not be registered in another carbon project	Application for initial registration in the project (PR0201)
Commitment and incentive alignment – Participants must be contractually committed and economically motivated through carbon credit revenues.	Farmer contracts

2.4. Participation overview.

The Carbonsafe Carbon Farming Project – North Bulgaria engages a diverse group of eight farms, representing both individual agricultural enterprises and farmer cooperations. All participating entities are formally registered under the Bulgarian Commercial Register and the Register of Farmers of the Ministry of Agriculture, and each holds valid land use rights exceeding the minimum eligibility thresholds specified in the PDD.

2.4.1. Aplend Bulgaria EOOD /Agro Kim Bulgaria EOOD (Group Farm)

- Project participant ID: CSBG-33NE-22/27-AGRI-0004
- Project participant start date: 18.1.2023
- Legal status and registration: Aplend Bulgaria EOOD (UIC 203578940) and Agro Kim Bulgaria EOOD (UIC 207445026)
- Location: Aleksandria, Bistrets, Gaber, Dobrin, Efreytor Bakalovo, Zimnitsa, Kapitan Dimitrovo, Ognyanovo, Telerig, Dobrich region
- Area under monitoring: 707.24 ha.
- Crops grown: sunflower, wheat, maize.
- Status: Fully compliant with project requirements and subject to issuance of credits for the current monitoring period.
- Aplend Bulgaria EOOD/ Agro Kim Bulgaria EOOD (Group Farm) is currently in its second control year. Control year means the current monitoring period observed in this Monitoring Report.
- Accordingly, the current Monitoring Report covers the verified removals from their second control year (monitoring period 23.03.2024-15.05.2025) thereby avoiding any risk of double-counting and ensuring full alignment with registry requirements.
- History of areas and plots (cells):

	Area, ha	Total plots (cells), no.
Baseline year	761.28	62
Control 1	761.28	62
Control 2	707.24	55

Clarification of Area and Plot Changes

Non-material adjustments to area and plot changes occured in ths monitoring period. No new land was added outside the validated project boundary. The area is reduces due to lost legal rights for some of the plots. Those plots were excluded prior to carbon accounting and no credits will be issued from the excluded areas in accordance with PR0205-ER calculation_SOC_v3_APLEND. SOC gains attributable to the excluded parcel are not credited. All changes comply with PDD *Sections 5.1.1. Eligibility conditions criteria* and *8.3.3. Land Buffer or Risk Reserves.*

Group Farm Governance

The entity Aplend Bulgaria EOOD / Agro Kim Bulgaria EOOD is treated as a single project participant under a validated group farm structure.

Under grouped participation arrangements (e.g., where farmers exchange land parcels for crop rotation), multiple farmers are treated as a single participant within the MRV system through the designation of a Lead Farmer. Aplend Bulgaria EOOD is the Lead Farmer for this group. All participating farmers are contractually included, but the Lead Farmer acts as the central contracting entity, receiving agronomic recommendations, managing reporting, and being the recipient of issued carbon certificates and invoicing. All enrolled land parcels are registered under the Lead Farmer in the MRV system, ensuring consistency in monitoring and crediting. Internal allocation of responsibilities, costs, and benefits among group members is managed contractually between the farmers themselves, including any re-invoicing arrangements where applicable, as referenced in the *PDD Section 13. GROUPED STRUCTURE DETAILS., 13.1. Sub-project (Project participant) Definition, Option 2 – Grouped Contract with Land Exchange.*

2.4.2. Sekapp Bulgaria EOOD

- Project participant ID: CSBG-33NE-22/27-AGRI-0005
- Project participant start date: 18.1.2023
- Legal status and registration: Sekapp Bulgaria EOOD (UIC 203578424)
- Location: Telerig, Dobrich region.
- Area under monitoring: 86.49 ha.
- Crops grown: sunflower, wheat, maize.
- Special notes: This farm balance is negative for the reporting period.
- Status: The farm is not subject to the issuance of credits for the current reporting period.
- Sekapp Bulgaria EOOD is currently in its second control year/monitoring period.
- Accordingly, the current Monitoring Report covers their second control year (monitoring period 23.03.2024-15.05.2025).
- History of areas and plots (cells):

	Area, ha	Total plots (cells), no.
Baseline year	86.49	5
Control 1	86.49	5
Control 2	86.49	5

2.4.3. ZK Bezmer

- Project participant ID: CSBG-33NE-22/27-AGRI-0009

- Project participant start date: 29.5.2023
- Legal status and registration: ZK Bezmer (UIC 834050441).
- Location: Bezmer, Mali Izvor, Dobrich region.
- Area under monitoring: 316.30 ha.
- Crops grown: maize, wheat.
- Status: Compliant and subject to issuance of credits.
- ZK Bezmer is currently in its first control year.
- History of areas and plots (cells):

	Area, ha	Total plots (cells), no.
Baseline year	316.37	14
Control 1	316.30	14

2.4.4. Apis Agro 98 OOD

- Project participant ID: CSBG-31NW-22/27-AGRI-0017
- Project participant start date: 29.9.2023
- Legal status and registration: Apis Agro 98 OOD (UIC 203496607).
- Location: Lesura, Vratsa region.
- Area under monitoring: 74.59 ha.
- Crops grown: lavender.
- Status: Compliant and subject to issuance of credits.
- Apis Agro 98 OOD) is currently in its first control year.
- History of areas and plots (cells):

	Area, ha	Total plots (cells), no.
Baseline year	74.59	4
Control 1	74.59	4

2.4.5. Mapi 96 EOOD

- Project participant ID: CSBG-31NW-23/28-AGRI-0006
- Project participant start date: 5.10.2023
- Legal status and registration: Mapi 96 EOOD (UIC 205415956).
- Location: Pudria, Kravoder, Golemo Babino, Vratsa region.
- Area under monitoring: 178.83 ha.
- Crops grown: lavender.
- Status: Compliant and subject to issuance of credits.
- Mapi 96 EOOD is currently in its first control year.

- History of areas and plots (cells):

	Area, ha	Total plots (cells), no.
Baseline year	178.83	12
Control 1	178.83	12

2.4.6. ET Tiasso-Dobromir Valtchev

- Project participant ID: CSBG-33NE-23/28-AGRI-0007
- Project participant start date: 3.11.2023
- Legal status and registration: ET Tiasso-Dobromir Valtchev (UIC 103124100).
- Location: Esenitsa, Dobrotich, Varna region.
- Area under monitoring: 220.66 ha.
- Crops grown: maize, soft wheat.
- Status: Compliant and subject to issuance of credits.
- ET Tiasso-Dobromir Valtchev is currently in its first control year.
- History of areas and plots (cells):

	Area, ha	Total plots (cells), no.
Baseline year	220.66	9
Control 1	220.66	9

2.4.7. ET Rumen Natsev

- Project participant ID: CSBG -31NW-23/28-AGRI-0012-GF
- Project participant start date: 9.2.2024
- Legal status and registration: ET Rumen Natsev (UIC 110514921).
- Location: Drenov, Lovetch region.
- Area under monitoring: 241.53 ha.
- Crops grown: sunflower, soft wheat, alfalfa.
- Status: Compliant and subject to issuance of credits.
- ET Rumen Natsev is currently in its first control year.
- History of areas and plots (cells):

	Area, ha	Total plots (cells), no.
Baseline year	241.53	12
Control 1	241.53	12

2.4.8. Natsevi 2019 OOD

- Project participant ID: CSBG -31NW-23/28-AGRI-0012-GF
- Project participant start date: 9.2.2024
- Legal status and registration: Natsevi 2019 OOD (UIC 205515209).

- Location: Drenov, Lovetch region.
- Area under monitoring: 158.12 ha.
- Crops grown: sunflower, soft wheat, alfalfa.
- Status: Compliant and subject to issuance of credits.
- Natsevi 2019 OOD is currently in its first control year.
- History of areas and plots (cells):

	Area, ha	Total plots (cells), no.
Baseline year	159.72	8
Control 1	158.12	8

Clarification of Area and Plot Changes

Non-material adjustments to area and plot changes occured in ths monitoring period. No new land was added outside the validated project boundary. The area is reduces due to lost legal rights for some parts of the plots. The calculations perfomed in PR0205-ER calculation_SOC_v3_NATSEVI 2019 are implemented according to those reduces areas and do not affect the credits issuance. SOC gains attributable to the excluded parcel are not credited. All changes comply with *PDD Sections 5.1.1. Eligibility conditionsriteria* and *8.3.3. Land Buffer or Risk Reserves*

Group Farm Governance

The entities Natsevi 2019 OOD and ET Rumen Natsev are participating in the project under a grouped participation arrangement established solely for the purpose of meeting the minimum project area eligibility requirements. Under this arrangement, participating farmers do not exchange land parcels and continue to manage their agricultural operations independently.

Although the two participating farmers are included under a single participation agreement, each farmer remains an individual project participant within the MRV system. Each participating farmer receives individual agronomic recommendations, a farm-specific implementation strategy, and a technological map. All enrolled land parcels are registered separately within the MRV system under the respective farmer, ensuring individual monitoring, reporting, and assessment of practice implementation and project performance.

Carbon certificates are issued individually to each participating farmer based on the performance of their respective enrolled land, and invoicing for project services is conducted separately for each participant. The grouped participation arrangement serves exclusively as an administrative mechanism to facilitate project enrollment and does not constitute operational consolidation of the participating farms. Management decisions, implementation of agricultural practices, monitoring obligations, and allocation of carbon benefits remain the responsibility of each individual farmer, as referenced in the *PDD Section 13. GROUPED STRUCTURE DETAILS, 13.1. Sub-project (Project Participant) Definition, Option 1 – Grouped Contract Without Land Exchange*.

Although the cultivated area reported for Natsevi 2019 OOD (159.72 ha) is below the minimum eligibility threshold for an individual annual-crop participant, the participant is enrolled under a grouped participation arrangement together with ET Rumen Natsev in accordance with the provisions of the approved Methodology and PDD Section 13.1, Option 1 – Grouped Contract Without Land Exchange. The combined eligible agricultural area of the grouped participants exceeds the minimum 200 ha eligibility requirement for annual crop systems. The grouped arrangement is established solely for eligibility purposes, while each participating farmer remains

an independent project participant within the MRV system, with separate monitoring, quantification, reporting, and issuance of carbon certificates.

Aggregate Participation Summary

Total participating entities: 8 farms.

Total monitored area: 1 983.76 ha.

Total net removals: 45, 480tCO_2.

Engagement and Support

All participating farmers received:

- tailored Individual Strategies for the reporting period,
- Agronomic recommendations for 2023–2025,
- access to ISACO2 platform for tracking performance, and
- on-site inspections and monitoring visits.

No farmer withdrawals occurred during the monitoring period, and all contracts remain active under the crediting period 2023–2028/2029.

Table 4 Participation Overview

Participant ID	Legal Name	Region (NUTS Level 3)	Total Enrolled Area (ha)	Start Date	Monitoring Period	Status
CSBG-33NE-22/27-AGRI-0004	Aplend Bulgaria EOOD / Agro Kim Bulgaria EOOD (Group Farm)	Dobrich	707.24	18.1.2023	23.03.2024-15.05.2025	Compliant and subject to issuance of credits
CSBG-33NE-22/27-AGRI-0005	Sekapp Bulgaria EOOD	Dobrich	86.49	18.1.2023	23.03.2024-15.05.2025	The farm is not subject to the issuance of credits for the current reporting period
CSBG-33NE-22/27-AGRI-0009	ZK Bezmer	Dobrich	316.30	29.5.2023	23.03.2024-15.05.2025	Compliant and subject to issuance of credits
CSBG-31NW-22/27-AGRI-0017	Apis Agro 98 OOD	Vratsa	74.59	29.9.2023	23.03.2024-15.05.2025	Compliant and subject to issuance of credits
CSBG-31NW-23/28-AGRI-0006	Mapi 96 EOOD	Vratsa	178.83	5.10.2023	23.03.2024-15.05.2025	Compliant and subject to issuance of credits
CSBG-33NE-23/28-AGRI-0007	ET Tiasso-Dobromir Valtchev	Varna	220.66	3.11.2023	23.03.2024-15.05.2025	Compliant and subject to issuance of credits
CSBG - 31NW-23/28-AGRI-0012-GF	ET Rumen Natsev	Lovech	241.53	9.2.2024	23.03.2024-15.05.2025	Compliant and subject to issuance of credits
CSBG - 31NW-23/28-AGRI-0012-GF	Natsevi 2019 OOD	Lovech	158.12	9.2.2024	23.03.2024-15.05.2025	Compliant and subject to issuance of credits
Total Project Area:			**1 983.76**			

3. Monitoring Methodology

3.1. Applied methodology.

The monitoring of the Carbonsafe Carbon Farming Project – North Bulgaria was conducted in strict accordance with the approved and validated methodology:

- Title: Methodology for Improving and Reporting the Level of Sequestered Carbon in the Soil in the Agricultural Sector
- Code: CSBG-AGRI
- Version: 3.1/22.08.2025
- Sectoral scope: UNFCCC Sector 15 – Agriculture
- Validation: Earthood Services Limited (Validation Report MET.VAL.22.25/20.06.2023)
- Registration: Balkan Carbon Credits Standard – BCCS

This methodology was specifically developed to quantify and monitor Soil Organic Carbon (SOC) sequestration in agricultural systems, reflecting the unique conditions of Bulgarian and regional farming practices while aligning with internationally recognized carbon accounting standards (IPCC 2006 Guidelines, ISO 14064-2).

Key Features of the Methodology Applied in this Monitoring Period

Project Boundary Definition

- Eligible lands include croplands with secure tenure and legal use rights for the sub-crediting period.
- Monitoring is conducted at the plot (cell) level (minimum 4 ha, maximum 25 ha), digitized in the ISACO2 platform, ensuring transparency and traceability.

Baseline and Control Sampling

- Baseline SOC measurements were established at the start of the project crediting period.
- Subsequent control sampling campaigns (2023–2025) followed an approach with 25 stiches per depth interval aggregated into representative samples for laboratory analysis.

Depth Intervals and SOC Measurement

- Soil samples were collected at three depth layers (0–30 cm, 30–60 cm, and 60–90 cm).
- SOC was determined through accredited laboratory analyses (dry combustion method), ensuring comparability across farms and periods.

Bulk Density

- Determined once per sub-project crediting period and applied consistently to calculate SOC stocks (tC/ha).

GHG Balance Calculation

- Net CO_2 removals were calculated as the difference between SOC stock increases and emissions from leakage, N_2O, and on-farm fuel consumption).
- SOC stock changes were converted using the IPCC factor (1 tC = 3.667 tCO_2).

Risk and Uncertainty Management

- Quantified Uncertainty deduction

- 5% buffer deduction is applied on all verified removals, for allocation to the common pool for non-permanence risks.

Issuance

- A staged issuance mechanism will be applied, with 25% of verified removals will be released in this cycle and the remainder will be retained for issuance upon positive farm balance.
- Only 25% of all of verified removals will be submitted for issuance for this monitoring period. Respectively 5% Buffer on these 25% of the verified removals will be allocated to the common pool for non-permanence risks.
- At every issuance the same rate of 5% buffer will be deducted from the verified removals submitted for issuance and allocated in the common pool.
- Negative or net-zero farm balances are excluded from issuance but remain under monitoring for subsequent cycles, ensuring conservativeness.

Data Management and Verification Readiness

- All field and laboratory data are integrated into the ISACO2 monitoring platform with full chain-of-custody, GPS coordinates, and barcoded traceability.
- This ensures alignment with the requirements of the Balkan Carbon Credit Registry and verification by accredited Validation and Verification Bodies (VVBs).

3.2. Adherence to Monitoring Plan

The monitoring activities undertaken during the reporting period were conducted in strict accordance with the Monitoring Plan as outlined in the Project Design Document (PDD). The plan defined the scope, parameters, frequency, and procedures for monitoring, ensuring consistency with the methodology CSBG-AGRI v3.1/22.08.2025.

3.2.1. Sampling Procedures

Baseline and control sampling: Soil Organic Carbon (SOC) was measured through georeferenced sampling campaigns conducted at the required depth intervals (0–30 cm, 30–60 cm, 60–90 cm).

Sampling intensity: In line with the PDD, each monitoring plot (cell) was sampled using 25 drills per depth, aggregated into representative composite samples.

Traceability: Each sample was tracked through a barcode-based system linking field collection, laboratory ID, and final analysis results, consistent with the PDD monitoring provisions.

3.2.2. Bulk Density and Soil Properties

Bulk density values were measured once per sub-project crediting period, as required, and applied consistently across the calculations for SOC stock changes.

Ancillary soil properties (e.g., pH, macro- and micronutrients) were analyzed and archived as supporting data, in line with the PDD's recommendation to capture co-benefit indicators.

Bulk Density is measured in accordance with the provisions in validated PDD section 6.2. Sampling Frequency and the approved Methodology (v3.1/22.08.2025).

In case corrections in Bulk Density are required in subsequent monitoring and verification cycles, they will be addressed through the established Corrections Mechanism Policy, section 10. Bulk Density.

3.2.3. Laboratory Analysis and QA/QC

Soil samples were analyzed in accredited laboratories following standardized procedures (dry combustion method for SOC determination).

All results were recorded in the ISACO2 platform, fulfilling the PDD's requirement for transparent data management.

3.2.4. Management Practice Monitoring

Farmers provided annual data on crop rotations, tillage practices, cover crop use, fertilizer and pesticide application, and irrigation (see Technological maps).

These data were verified against on-site inspection reports, technological maps, and photographic evidence, as required by the PDD.

Any deviations (e.g., drought limiting cover crop establishment) were documented, assessed, and conservatively reflected in SOC projections.

3.2.5. GHG Balance and Fuel Emissions

SOC stock changes were calculated at the plot (cell) level and aggregated to farm and project levels (see PR0205-ER calculation_SOC_v3.1), in accordance with the PDD plan.

On-farm fuel consumption was deducted using the national methodology of the Ministry of Agriculture[2], fulfilling the PDD requirement for comprehensive accounting of both removals and emissions.

3.2.6. Frequency of Monitoring and Reporting

Soil sampling and monitoring activities were performed in the prescribed cycles.

This Monitoring Report covers the period 23.03.2024-15.05.2025, in line with the PDD-defined crediting intervals.

3.2.7. Safeguards and Risk Management

The 5% buffer and quantified uncertainty deduction for risk management and the 25% staged issuance mechanism were applied exactly as prescribed in the PDD.

Negative or net-zero balances at the farm level were excluded from issuance but remain under continued monitoring, in line with the PDD's conservative treatment of underperforming plots. All monitoring activities for the current period adhered to the Monitoring Plan established in the PDD, with no deviations that could materially affect the credibility or conservativeness of the reported results.

Monitoring Plan Compliance Matrix

Monitoring Requirement (PDD)	Key Evidence
Monitoring of enrolled project area and boundaries	GeoJSON files of enrolled areas
Geo-referenced monitoring and spatial traceability	GPS tracks of sampling, ISACO2 records

[2] Ministry of Agriculture and Food, "Methodology for determining individual annual quotas in connection with the implementation of the state aid scheme "Aid in the form of a discount on the value of excise duty on gas oil used in primary agricultural production" https://www.mzh.government.bg/bg/politiki-i-programi/programi-za-finansirane/darzhavni-pomoshti/otstapka-akciz-gaziol/

Monitoring Requirement (PDD)	Key Evidence
Soil sampling and measurement procedures	Soil sampling protocols
Laboratory analysis and QA/QC	Laboratory reports, Laboratory accreditation certificates
Data management and traceability	Data Retention Policy
Monitoring of carbon outcomes and land conditions	SOC calculations, monitoring datasets
Remote sensing and anomaly detection	NDVI, SOC proxy, GPP analysis outputs
Control of area changes, reversals, and risks	Internal registers, RS outputs, supporting documentation
Monitoring of agronomic practices and safeguards	Technological maps, recommendations, inspection records
Verification readiness and evidence availability	Monitoring datasets, GeoJSON, lab reports, contracts

The table above demonstrates that all monitoring activities were implemented in accordance with the Monitoring Plan defined in the PDD, with full traceability to supporting evidence and data systems.

3.2.8 Remote Sensing Monitoring Framework

As part of the MRV framework, Carbonsafe has implemented a Remote Sensing (RS) monitoring approach as an independent verification layer supporting project monitoring, transparency, and spatial consistency assessment.

The RS analyses for the farms included in the current monitoring cycle were conducted using independently sourced geospatial datasets, including:

- Copernicus Sentinel-1 and Sentinel-2 imagery;
- Copernicus DEM and terrain derivatives;
- FAO HWSD2 v2 and SoilGrids 2.0 datasets.

The RS framework is applied to support:

- historical land-use verification;
- retrospective assessment of pre-project conditions;
- verification of crop presence and land management consistency;
- monitoring of permanence and safeguards;
- leakage risk assessment;
- verification of implementation of regenerative practices such as reduced tillage, inter-row vegetation, and optimized nitrogen management.

The RS analyses operate independently from the field sampling and laboratory measurement system. Soil organic carbon quantification and N_2O calculations used for carbon accounting and issuance are determined exclusively through the project's field-based MRV system and accredited laboratory analyses in accordance with the applicable methodology and EN ISO/IEC 17025 requirements.

Satellite-derived indicators are therefore used as complementary evidence supporting spatial verification, consistency checks, and monitoring transparency, but do not replace direct soil measurements used for issuance calculations.

The RS datasets and outputs provided for the current monitoring cycle include:

- GeoJSON project boundaries and parcel layers;
- satellite-derived time-series datasets;
- parcel-level statistical outputs;
- Difference-in-Differences analyses;
- RS-based monitoring reports for verified farms.

3.3. Deviations and justifications.

During the current monitoring period, the implementation of monitoring activities was consistent with the Monitoring Plan defined in the PDD.

No Deviations in Core Parameters

There were no deviations from the PDD requirements concerning:

- sampling depth intervals (0–30, 30–60, 60–90 cm),
- number of stiches per cell (25 per depth),
- bulk density determination,
- QA/QC requirements in laboratory analysis, or
- application of buffer deductions and staged issuance rules.

Deviation ID	Description of deviation	Justification / Impact
N/A	N/A	N/A

4. Data and Parameters Monitored

4.1 Key monitored parameters

Table 5 Key Monitored Parameters

Parameter Name	Unit	Description / Use in Calculation	Data Source / Method	Monitoring Frequency
Soil Organic Carbon (SOC) concentration	mg/kg	Used to calculate SOC stock and change vs. baseline	Georeferenced soil sampling; laboratory analysis (dry combustion method)	Each sampling campaign
Bulk Density (BD)	g/cm³	Used to convert SOC concentration to SOC stock	Field core sampling; laboratory determination	Once per crediting period
Soil depth interval	cm	Defines carbon stock calculation layer	Field sampling protocol	Each sampling campaign

Parameter Name	Unit	Description / Use in Calculation	Data Source / Method	Monitoring Frequency
Parcel area	ha	Used to scale SOC stock to total removals	GeoJSON	Annually
Fuel consumption	t/ha	Used to calculate project emissions deduction	National standardized coefficients (Ministry of Agriculture methodology)	Annually
Crop type	-	Crop rotation/ Fuel emissions/Leakage/N_2O/Yields	Technological Map (PR0104)	Per harvest/Growing cycle
N_2O	tCO_2 eq	N_2O emissions from mineral fertilizers	N_2O calculation sheet/ Technological Map (PR0104)	Each monitoring period/Preparation of MR
Leakage	tCO_2 eq	Emissions from leakage	Leakage calculation sheet/ Technological Map (PR0104)	Each monitoring period/Preparation of MR
Uncertainty	%	Uncertainty deduction	Quantified uncertainty from Sampling/ Organic carbon analysis/ Bulk density analysis/ Software	Each monitoring period/Preparation of MR
Farm balance	tCO_2 eq	Ammount of GHG removed carbon dioxide	PR0205-ER calculation_SOC	Each monitoring period/Preparation of MR

4.1.1. Sampling Campaign Overview

Soil sampling was carried out in accordance with the PDD Monitoring Plan and the CSBG-AGRI methodology, with campaigns executed across the monitoring period. The main campaigns covered:

- Baseline sampling for all participating farms.

- Control samplingconducted during the current monitoring cycle to determine SOC stock changes.

4.1.2.The reporting periods for the farms were as follows:

- 23.03.2024–15.05.2025 (22-27): Aplend Bulgaria EOOD/ Agro Kim Bulgaria EOOD (Group Farm) , Sekapp Bulgaria EOOD.
- 23.03.2024–15.05.2025 (22-27): ZK Bezmer, Apis Agro 98 OOD
- 23.03.2024–15.05.2025 (23-28): Mapi 96 EOOD, ET Tiesso-Dobromir Valtchev, ET Rumen Natsev, Natsevi 2019 OOD

4.1.3. Sampling Design and Procedures

Cell-based monitoring: Each farm was subdivided into plots (cells) ranging from 4 ha to 25 ha, digitized in the ISACO2 platform.

Depth intervals: Samples were taken at 0–30 cm, 30–60 cm, and 60–90 cm in each cell, as mandated by the methodology.

Stiches: 25 stiches were collected per depth per plot (cell) and homogenized to create composite samples, ensuring representative coverage of each monitoring area.

Geo-referencing: Sampling traces were recorded using GPS devices and uploaded into ISACO2 and verified against cadastral boundaries and satellite maps.

4.1.4.Traceability and Quality Control

All samples were labeled with unique barcodes linked to plot (cell) IDs, sampling teams, and laboratory identifiers.

Chain-of-custody protocols were observed from field to laboratory, ensuring sample integrity.

4.1.5. Laboratory Analysis

Analyses were conducted in accredited laboratories using the dry combustion method for SOC determination.

Bulk density measurements were performed once per sub-project crediting period and applied consistently in SOC stock calculations.

4.1.6. Results Summary

The SOC sampling and laboratory analyses generated the following net carbon dioxide (CO_2) removal results for the farms in North Bulgaria :

Table 6 Results Summary

Farm / Group	Reporting Period	Area (ha)	Net CO_2 Removed (t)	Total Buffer (5%)
APLEND BULGARIA EOOD/ Agro Kim Bulgaria EOOD (GF)	23.03.2024–15.05.2025	707,24	3 341	167
SEKAPP BULGARIA EOOD	23.03.2024–15.05.2025	86.49	0	0

ZK BEZMER	23.03.2024–15.05.2025	316,30	6 356	317
APIS AGRO 98 OOD	23.03.2024–15.05.2025	74.59	2 241	112
MAPI 96 EOOD	23.03.2024–15.05.2025	178,83	4 891	244
ET TIASO-DOBROMIR VALCHEV	23.03.2024–15.05.2025	220.66	5 185	259
ET RUMEN NATSEV	23.03.2024–15.05.2025	241.53	13 389	669
NATSEVI 2019 OOD	23.03.2024–15.05.2025	158.12	10 077	503
Total		1 983,76	45 480	2 271

(Source: 2-MR-CS-BG-NORTH_ANNEX I-FARMS_v2, SOC calculation files and laboratory protocols)

The soil carbon measurements conducted during the monitoring period adhered fully to the requirements of the PDD and methodology. The robustness of the sampling design, traceability protocols, and QA/QC procedures ensures that the SOC data form a reliable and conservative basis for the quantification of CO_2 removals in this monitoring cycle.

4.2 Activity data / management practices

Table 7 Participant-Level Activity Data Summary

Participant ID	Legal Name	Key Practices Implemented	Short Description of Activity	Monitoring Period
CSBG-33NE-22/27-AGRI-0004	Aplend Bulgaria / Agro Kim (GF)	Reduced tillage; diversified rotation; residue retention; fertilization with microbial fertilizers; Strip-till	There is a gradual transition from conventional tillage to reduced-tillage practices and crop diversification, with the aim of improving soil health and ensuring sustainable production. Multiple operations are combined into a single pass, including crop residue removal, disc harrowing, soil loosening, fertilization, leveling with discs, harrowing, rolling, and seeding. Fertilizers containing live microorganisms are also used to increase fertility and improve nutrient uptake.	23.03.2024–15.05.2025
CSBG-33NE-22/27-AGRI-0005	Sekapp Bulgaria EOOD	Reduced tillage; diversified crop rotation and crop	There is a gradual transition from conventional tillage to reduced-tillage practices and crop diversification, with	23.03.2024–15.05.2025

		residue retention; application of microbial fertilizers; strip-till	the aim of improving soil health and ensuring sustainable production. Multiple operations are combined into a single pass, including crop residue removal, disc harrowing, soil loosening, fertilization, leveling with discs, harrowing, rolling, and seeding. Fertilizers containing live microorganisms are also used to increase fertility and improve nutrient uptake.	
CSBG-33NE-22/27-AGRI-0009	ZK Bezmer	Reduced tillage; optimized fertilization; strip-till	A lower intensity of soil tillage is applied to improve nutrient use efficiency and preserve soil structure. Agricultural practices include clearing crop residues, disc harrowing, loosening, fertilizing, leveling, rolling, and sowing, with their combination optimized for more efficient and soil-conserving management.	23.03.2024–15.05.2025
CSBG-31NW-22/27-AGRI-0017	Apis Agro 98 OOD	Organic farming; Reduced tillage;	In lavender plantations, periodic deep loosening of the soil, shallow disc harrowing between rows, and cultivation for weed control are performed, with plant residues left in the row spaces. These operations are optimized by reducing the depth to 3–5 cm, performing them only when necessary, and limiting mechanical passes to preserve soil structure.	23.03.2024–15.05.2025
CSBG-31NW-23/28-AGRI-0006	Mapi 96 EOOD	Organic farming; Reduced tillage;	In lavender fields, shallow cultivation (5–10 cm) is performed, as well as mowing after harvest, with the mowed material left in the row spaces. Optimizing and reducing tillage operations and performing them only when necessary, leaving plant residues on the surface.	23.03.2024–15.05.2025
CSBG-33NE-23/28-AGRI-0007	ET Tiasso-Dobromir Valtchev	Reduced tillage; crop diversification; application of	Reduced tillage is practiced by combining several operations into one - disc harrowing, cultivation, rolling, fertilization, and seeding - which leads to more efficient and sustainable	23.03.2024–15.05.2025

		microbial fertilizers	management of soil resources. Additionally, fertilizers containing live microorganisms are used to improve soil fertility and nutrient uptake.	
CSBG - 31NW-23/28-AGRI-0012-GF	ET Rumen Natsev	Minimal tillage; Crop rotation; Fertilization with microbial fertilizers	Reduced tillage is practiced by combining several operations into one - disc harrowing, cultivation, rolling, fertilization, and seeding. Fertilizers containing live microorganisms are used to improve soil fertility.	23.03.2024–15.05.2025
CSBG - 31NW-23/28-AGRI-0012-GF	Natsevi 2019 OOD	Minimal tillage; Crop rotation; Fertilization with microbial fertilizers	Reduced tillage is practiced by combining several operations into one - disc harrowing, cultivation, rolling, fertilization, and seeding. Fertilizers containing live microorganisms are used to improve soil fertility.	23.03.2024–15.05.2025

4.2.1. Bulk Density Measurement

In accordance with the CSBG-AGRI methodology (v3.1/22.08.2025) and the Monitoring Plan outlined in the PDD, bulk density (BD) was determined once per sub-project crediting period and applied consistently in the calculation of soil organic carbon (SOC) stocks.

- Sampling procedure:
    - Undisturbed soil cores were extracted from a specific plot (cell), selected randomly within EKATTEs: 00268, 04193, 14043, 27656, 30884, 36138, 53357, 72196, 03215, 46334, 43462, 15494, 39236, 58788, 21717, 27629, 23666. Bulk density samples are taken from the three soil layers: 0-30 cm, 30-60 cm, and 60-90 cm. (*Note: Each populated land area has an identification code - The Unified Classifier of Administrative-Territorial and Territorial Units (EKATTE))*
- Application in SOC calculations:
    - BD values were multiplied by SOC concentrations (gC/kg soil) and sampling depth (cm) to calculate SOC stocks per hectare.
    - These stock values were then aggregated per plot (cell), per farm, and across the project area.
    - The procedure followed ensures comparability across time periods and compliance with ISO and IPCC standards.

4.2.2. Other Soil Properties

In addition to SOC and BD, several ancillary soil parameters were analyzed to support interpretation of carbon sequestration trends and to provide evidence of environmental co-benefits:

- pH levels: Determined for each composite sample. Results generally indicated soils ranging from neutral to moderately acidic, consistent with regional soil characteristics.
- Macro- and micronutrients: Concentrations of nitrogen (N), phosphorus (P), potassium (K), magnesium (Mg), and sulfur (S) were measured. These data help assess the nutrient balance of soils under regenerative practices.

4.2.3. Integration into Monitoring System

All ancillary soil data were archived in the ISACO2 platform alongside SOC, ensuring a complete dataset for verification and potential co-benefit reporting.

While only SOC and BD were directly applied in the carbon accounting calculations, the additional soil parameters contribute to the environmental performance assessment of the project and support alignment with the Sustainable Development Goals (SDGs).

Bulk density values were measured and applied in accordance with the methodology and PDD, ensuring robust and conservative calculation of SOC stocks. Ancillary soil properties provided complementary insights into soil health improvements, confirming the project's broader contribution to sustainable agriculture beyond carbon removals.

4.3 Supporting parameters

Supporting Parameters

In addition to key carbon accounting parameters, the following supporting parameters are monitored.

Table 8 Supporting Parameters

Supporting Parameter	Unit	Site Coverage	Measurement Method	Monitoring Frequency	Purpose
Soil pH	pH unit	Plot-level	Laboratory analysis	Each sampling campaign	Soil Health
Crop yield	kg/ha	Crop-level	Technological maps	Annual	Economic efficiency/Leakage
N, P, K, Ca, Mg, Na, S, Mo, B, Cu, Fe, Mn, Zn	mg/kg	Plot-level	Laboratory analysis	Each sampling campaign	Soil Health
OM	mg/kg	Plot-level	Laboratory analysis	Each sampling campaign	Soil Health
C/N ratio	mg/kg	Plot-level	Laboratory analysis	Each sampling campaign	Soil Health

Supporting parameters are not directly used in GHG calculation but provide:

- Soil condition context,
- Agronomic interpretation,
- Safeguard validation.

Monitoring of agricultural management practices is a core component of the project, ensuring that reported soil carbon sequestration is directly attributable to the adoption of regenerative farming measures. Data were collected annually through farmer self-reporting, on-site inspections, technological maps, and ISACO2 platform entries, and cross-verified by Carbonsafe agronomists.

4.3.1. Crop Rotations and Diversification

- Annual crops cultivated: wheat, barley, corn, sunflower.
- Perennial and industrial crops cultivated: lavender, alfalfa.
- Farms are engouraged to implemented diverse crop rotations including legumes (peas, alfalfa) and cover crops, which enhance nitrogen fixation and improve soil fertility.

4.3.2. Tillage and Soil Disturbance

- No-tillage, Strip-tillage, shallow and vertical cultivation methods were used to minimize soil disturbance, aligning with the project's carbon sequestration objectives.
- Reduced or minimum tillage is observed on most farms.
- Some exceptions were noted due to site-specific agronomic requirements; however, these were conservatively treated in carbon accounting.

4.3.3. Soil Cover

- Drought conditions during the 2023–2024 agricultural year limit the establishment of cover crops. Nevertheless, the farms remain under strict monitoring and encouragement to implement cover crops in next monitoring periods.

4.3.4. Nutrient and Fertilizer Management

- Application of mineral fertilizers was reflected in the technological maps.
- Increased use of organic amendments, and biostimulants was reported, particularly in farmя ET Tiaso-dobromir valchev, Natsevi 2019 OOD, ET Rumen Natsev, Aplend bulgaria EOOD/ Agro Kim Bulgaria EOOD (Group Farm), Sekapp bulgaria EOOD.
- Fertilizer use efficiency improved through precision application techniques, reducing potential nitrous oxide emissions and aligning with both carbon and environmental objectives.

4.3.5. Irrigation and Water Management

- Most farms rely on rain-fed conditions, but selective irrigation was applied.
- No excessive irrigation or groundwater depletion practices were recorded during the monitoring period.

4.3.6. Fuel Consumption Data

- Farmers provided fuel consumption data linked to field operations (tillage, seeding, spraying, harvesting).

- These data were verified using standard coefficients from the Ministry of Agriculture methodology for agricultural emissions.
- Fuel emissions were deducted from SOC-based removals at the farm level to ensure conservative net balance calculations.

The monitoring of management practices confirms that farmers have adopted regenerative agricultural practices consistent with their Individual Strategies and agronomic recommendations. While climatic constraints affected cover crop establishment in certain areas, compensatory practices were implemented, and the conservative treatment of results ensures methodological integrity. Overall, management practice adoption has improved compared to the last monitoring period, supporting both carbon sequestration and broader environmental co-benefits.

4.3.7 Co-Benefit Data

In addition to quantifying verified carbon removals, the project collects data on environmental and socio-economic co-benefits. While not directly credited in the carbon accounting framework, these indicators provide important evidence of the project's wider positive impacts in line with the Sustainable Development Goals (SDGs).

4.3.7.1 Soil Fertility and Nutrient Balance

Laboratory analyses confirmed improvements in soil organic matter, with gradual increases observed across multiple farms compared to baseline conditions.

Monitoring of soil macro- and micronutrients (N, P, K, Mg, S) indicated balanced fertility, with reduced risk of depletion.

Farmers adopt organic amendments and biostimulants.

4.3.7.2 Water Retention and Soil Structure

Cover-cropped fields had the potential to higher moisture retention capacity, improving resilience to drought conditions.

Reduced tillage practices supported the development of more stable soil aggregates, lowering erosion risk during high rainfall events.

This aligns with the project's objective to enhance climate adaptation capacity alongside mitigation.

4.3.7.3 Biodiversity and Ecosystem Services

The project fosters soil biodiversity by promoting reduced reliance on synthetic inputs, reduced tillage, microbial diversity, earthworm populations, and root-soil interactions. These biological processes are essential for long-term soil fertility, organic matter stabilization, and pest and disease suppression.

4.3.7.4 Reduced Use of Agrochemicals

Adoption of regenerative practices lead to reduced reliance on mineral fertilizers.

Biostimulants and organic fertilizers were increasingly used, lowering potential environmental impacts on soil and water quality.

These reductions support compliance with EU Farm-to-Fork objectives and contribute to more sustainable resource use.

4.3.7.5 Farmer Empowerment and Capacity-Building

All participating farmers received Individual Strategies and annual agronomic recommendations prepared by Carbonsafe agronomists.

On-site inspections provided tailored feedback and corrective measures to optimize practice adoption.

Farmers confirmed that participation in the project improved their technical knowledge, reduced financial risks, and provided a new income stream through carbon credits.

4.3.7.6 Socio-Economic Benefits

By generating verified carbon credits, the project provides additional income sources to farms in North Bulgaria , supporting rural economic resilience.

These revenues enable reinvestment in sustainable inputs and technologies, fostering long-term productivity.

The monitoring of co-benefit data confirms that the Carbonsafe Carbon Farming Project – North Bulgaria contributes not only to climate change mitigation through SOC sequestration but also to soil health, biodiversity, resource efficiency, and rural development. These outcomes strengthen the project's alignment with the UN SDGs (particularly SDG 13: Climate Action, SDG 15: Life on Land, SDG 2: Zero Hunger).

5. GHG Calculations

5.1 Baseline Recap

The baseline scenario for the Carbonsafe Carbon Farming Project – North Bulgaria is defined in accordance with the PDD and the CSBG-AGRI methodology (v3.1/22.08.2025). It represents the conditions under which participating farms would have continued their operations in the absence of the project, without the adoption of regenerative practices introduced through Carbonsafe.

5.1.1. Baseline Farming Practices

Conventional tillage: Deep and repeated tillage leading to higher soil disturbance, loss of soil organic matter, and CO_2 emissions.

Simplified crop rotations: Dominance of certain cereals and oilseeds with limited inclusion of legumes or cover crops.

Residue removal: Crop residues often removed rather than retained as soil cover, limiting carbon inputs to soils.

High mineral fertilizer dependency: Heavy reliance on synthetic nitrogen and phosphorus fertilizers, increasing emissions and soil acidification risks.

Limited soil cover: Fallow periods between main crops, leaving soils exposed to erosion and carbon loss.

These practices collectively contribute to low or declining soil organic carbon stocks, with soils either losing carbon or remaining close to equilibrium under baseline conditions.

5.1.2. Baseline SOC Stocks

SOC stocks at baseline were determined through the initial sampling campaigns conducted at project start (2023), providing reference values for each monitoring plot (cell) in line with the validated PDD (*Section 5.2.4 Field level definition of the baseline*.).

Baseline stocks are expressed in tonnes of carbon (tC) per hectare, based on measured SOC concentrations, bulk density, and sampling depth.

Subsequent SOC changes are quantified in accordance with the Methodology (Section 3.1 Calculation of results at the cell level), which prescribes that results are determined through comparison between:

- the baseline (first measurement),
- previous control measurements, and
- where applicable, the highest previously recorded SOC value.

For every plot (cell), the baseline is defined as the SOC stock from the first sampling campaign. If there is an increase in the subsequent sampling campaign the baseline is moved to the highest measured SOC stock value ever recorded for that plot (cell). This approach is explicitly defined and permitted under the approved Methodology. The Methodology section 3.2 Farm balance establishes conservative baseline determination rules allowing or requiring the use of the highest historical SOC measurement within the defined reference period to prevent over-crediting and ensure environmental integrity. All subsequent measurements are compared exclusively against the maximum reference point. Because each plot (cell) baseline is dynamically anchored to its peak SOC result, the system prevents over-crediting and ensures that reductions are transparently recognized. At the farm level, the balance is reset annually and reflects the actual total net removals of all plots (cells) in that reporting year, rather than a cumulative projection.

5.1.3. GHG Emissions in the Baseline

- Fuel emissions: The baseline assumes continued use of fossil fuels for field operations, equivalent to current agricultural practices.

- Fertilizer emissions: While not credited directly in this project, the continued baseline use of high mineral fertilizers contributes indirectly to declining soil quality and SOC loss.

5.1.4. Baseline Additionality

In the absence of the project, farmers would have no financial or technical incentive to transition to regenerative practices, as these often require upfront investment, increased knowledge, and risk-bearing.

The additional SOC gains measured in the monitoring period can therefore be attributed to the project intervention, which introduced/improved new practices, provided agronomic support, and created financial incentives through carbon credit generation.

The baseline scenario is characterized by conventional practices leading to stagnant or declining SOC levels, with no measurable carbon removals attributable to farming activities. The adoption of regenerative practices under Carbonsafe constitutes a clear deviation from the baseline and forms the basis for the calculation of net anthropogenic removals reported in this Monitoring Report.

5.1.4.1. Aplend Bulgaria EOOD/ Agro Kim Bulgaria EOOD (Group Farm)

The farm grows annual crops. Before the farm was included in the project, none of the recommended practices for annual crops were applied. At the beginning of the project, the farm was issued an individual strategy with recommended practices for application in annual crops. In the second control year, the agricultural practices specified in the individual strategy are applied to the areas participating in the project. It is recommended to work to ensure year-round soil coverage on the areas participating in the project with annual crops (intermediate and/or cover crops). The use of organic fertilizers, soil improvers and biostimulants is recommended to improve soil health and fertility.

Practices comparison table 1 – Aplend Bulgaria EOOD/ Agro Kim Bulgaria EOOD (Group Farm)

Participant	Base crop	BaselinePractices	Practices recommended in Project - Baseline	Result 1st cotrol	Crop 1st control	Practices recommended in Project - 1st control	Result 2nd control
Aplend Bulgaria EOOD/ Agro Kim Bulgaria EOOD (Group Farm)	Soft wheat	20	1;3;4;5;6;7;8;12;17	3;5;7;8	Soft wheat	1;3;4;5;6;7;8;12;17	1;3;5;7;8
Aplend Bulgaria EOOD/ Agro Kim Bulgaria EOOD (Group Farm)	Sunflower	20	1;3;4;5;6;7;8;12;13;17	2;5	Sunflower	1;3;4;5;6;7;8;12;13;17	1;3;5;7
Aplend Bulgaria EOOD/ Agro Kim Bulgaria EOOD (Group Farm)	Grain maize	20	3;4;5;6;7;8;12;13;16;17	3;5;7;13	Maize	3;4;5;6;7;8;12;13;16;17	5;7;13

5.1.4.2. Sekapp Bulgaria EOOD

The farm grows annual crops. Prior to the farm's inclusion in the project, none of the recommended practices for annual crops were applied. At the start of the project the farm was issued an individual strategy with recommended practices for implementation in annual crops. In the second control year, the farm partially implements the agricultural practices set out in the individual strategy. Intermediary and cover crops are not sufficiently well developed due to poor weather conditions. During the reporting period, long periods of drought and insufficient moisture were observed, which create prerequisites for poor crop development and hence reduced or no accumulation of carbon in the soil. The use of organic fertilizers, soil improvers and biostimulants is recommended in order to improve soil health and fertility.

Practices comparison table 2 Sekapp Bulgaria EOOD

Participant	Base crop	BaselinePractices	Practices recommended in Project - Baseline	Result 1st cotrol	Crop 1st control	Practices recommended in Project - 1st control	Result 2nd control
Sekapp Bulgaria EOOD	Soft wheat	20	1;3;4;5;6;7;8;12;17	3;5;7;8	Soft wheat	1;3;4;5;6;7;8;12;17	1;3;5;7;8
Sekapp Bulgaria EOOD	Sunflower	20	1;3;4;5;6;7;8;12;13;17	2;5	Sunflower	1;3;4;5;6;7;8;12;13;17	1;3;5;7
Sekapp Bulgaria EOOD	Grain maize	20	3;4;5;6;7;8;12;13;16;17	3;5;7;13	Maize	3;4;5;6;7;8;12;13;16;17	5;7;13

5.1.4.3. ZK Bezmer

The farm grows annual crops. Before the farm was included in the project, a limited number of recommended practices for annual crops were applied. At the beginning of the project, the farm was issued an individual strategy with recommended practices for application for annual crops.

It is recommended to work to ensure year-round soil coverage in the areas participating in the project with annual crops (intermediate and/or cover crops). The use of organic fertilizers, soil improvers and biostimulants is recommended to improve soil health and fertility.

Practices comparison table 3 ZK Bezmer

Participant	Crop	Baseline Practices	Practices recommended in Project	Result
ZK Bezmer	Maize	13;	3;7;13;	7;13
ZK Bezmer	Wheat	20;	1;3;5;7	1;3;5;7

5.1.4.4. Apis Agro 98 OOD

The farm grows perennial crops. Prior to the farm's inclusion in the project, a limited number of recommended practices for perennial crops were applied. At the beginning of the project, the farm was issued an individual strategy with recommended practices for application for annual crops. The use of organic fertilizers, soil improvers and biostimulants is recommended to improve soil health and fertility.

Practices comparison table 4 Apis Agro 98 OOD

Participant	Crop	Baseline Practices	Practices recommended in Project	Result
Apis Agro 98 OOD	Lavender	4;	3;4;5;8;	4;5

5.1.4.5. Mapi 96 EOOD

The farm grows perennial crops. Prior to the farm's inclusion in the project, a limited number of recommended practices for perennial crops were applied. At the beginning of the project, the farm was issued an individual strategy with recommended practices for application for annual crops. The use of organic fertilizers, soil improvers and biostimulants is recommended to improve soil health and fertility.

Practices comparison table 5 Mapi 96 EOOD

Participant	Crop	Baseline Practices	Practices recommended in Project	Result
Mapi 96 EOOD	Lavender	4;	4;8;9;12;	4;12

5.1.4.6. ET Tiasso-Dobromir Valtchev

The farm grows annual crops. Before the farm was included in the project, a limited number of recommended practices for annual crops were applied. At the beginning of the project, the farm was issued an individual strategy with recommended practices for application for annual crops.

It is recommended to work to ensure year-round soil coverage in the areas participating in the project with annual crops (intermediate and/or cover crops). The use of organic fertilizers, soil improvers and biostimulants is recommended to improve soil health and fertility.

Practices comparison table 6 ET Tiasso-Dobromir Valtchev

Participant	Crop	Baseline Practices	Practices recommended in Project	Result
ET Tiasso-Dobromir Valtchev	Maize for silage	7;14;	3;5;7;8;14;	3;5;7
ET Tiasso-Dobromir Valtchev	Soft wheat - winter	7;14;	3;5;7;8;14;	3;5;7;8

5.1.4.5. ET Rumen Natsev

The participants in the project are a group of Farmers and includes two agricultural holdings - Natsevi 2019 OOD and ET Rumen Natsev. The group of farmers does not have a leading participant. The carbon credits realized from the territory they manage will be issued in the name of each holding.

The holding grows annual and perennial crops. Before the holding was included in the project, a limited number of recommended practices were applied. At the beginning of the project, the holding was issued an individual strategy with recommended practices for application in annual and perennial crops. It is recommended to work to ensure year-round soil coverage in the areas participating in the project with annual crops (intermediate and/or cover crops). The use of organic fertilizers, soil improvers and biostimulants is recommended to improve soil health and fertility.

Practices comparison table 7 ET Rumen Natsev

Participant	Crop	Baseline Practices	Practices recommended in Project	Result
ET Rumen Natsev	Alfalfa	7;14;	7;8;9;10;14;	-
ET Rumen Natsev	Soft wheat - winter	7;14;	3;5;7;8;14;	3;5;7;8
ET Rumen Natsev	Sunflower	7;14;	3;5;7;8;14;	3;5;7;8

5.1.4.6. Natsevi 2019 OOD

The participants in the project are a group of Farmers and includes two agricultural holdings - NATSEVI 2019 OOD and ET RUMEN NATSEV. The group of farmers does not have a leading participant. The carbon credits realized from the territory they manage will be issued in the name of each holding.

The holding grows annual crops. Before the holding was included in the project, a limited number of recommended practices were applied. At the beginning of the project, the holding was issued an individual strategy with recommended practices for application in annual crops. It is recommended to work to ensure year-round soil coverage in the areas participating in the project

with annual crops (intermediate and/or cover crops). The use of organic fertilizers, soil improvers and biostimulants is recommended to improve soil health and fertility.

Practices comparison table 8 Natsevi 2019 OOD

Participant	Crop	Baseline Practices	Practices recommended in Project	Result
Natsevi 2019 OOD	Barley	7;14;	3;5;7;8;14;	3;5;7;8
Natsevi 2019 OOD	Soft wheat - winter	7;14;	3;5;7;8;14;	3;5;7;8
Natsevi 2019 OOD	Sunflower	7;14;	3;5;7;8;14;	3;5;7;8
Natsevi 2019 OOD	Grain maize	7;14;	3;5;7;8;14;	3;5;7;8

Legend of Practices 1

Legend of Practices (1-20)	
1. Conservation without processing;	13. Processing of stripes;
2. Treatment of beds;	14. Pasture and/or crop rotation and crop rotation management;
3. Minimal processing;	15. Weeding of the rows in perennial crops and vineyards;
4. Biological agriculture;	16. Joint cultivation of more than one agricultural crop;
5. Integrated production;	17. Implementation of strip farming;
6. Precision agriculture;	18. Improvement measures in permanently grassed areas;
7. Diversification of crops;	19. Other not listed here;
8. Fertilization with microbial fertilizers;	20. None of the above apply.
9. Green fertilization (Sideration);	
10. Cultivation of nitrogen-fixing crops;	
11. Mulching treatment;	
12. Use of organic/natural pesticides;	

Legend of Practices 2

Legend of Practices	
Zero-till	1. Conservation without processing
Cover crops/intercrops and residue management	2. Treatment of beds 3. Minimal processing 4. Biological agriculture 7. Diversification of crops

	10. Cultivation of nitrogen-fixing crops 11. Mulching treatment 13. Processing of stripes 14. Pasture and/or crop rotation and crop rotation management 15. Weeding of the rows in perennial crops and vineyards 16. Joint cultivation of more than one agricultural crop 17. Implementation of strip farming 18. Improvement measures in permanently grassed areas
Organic fertilization and pesticides	5. Integrated production 6. Precision agriculture 8. Fertilization with microbial fertilizers 9. Green fertilization (Sideration) 12. Use of organic/natural pesticides

5.2 Calculation summary table

Methodology for SOC Change Calculation

Soil organic carbon (SOC) stock changes were calculated in line with the CSBG-AGRI methodology (v3.1/22.08.2025) and the Monitoring Plan in the PDD. The following procedure was applied:

1. SOC concentration measurement: Determined in accredited laboratories using the dry combustion method for each composite sample from 0–30 cm, 30–60 cm, and 60–90 cm depth layers.
2. Bulk density application: Values measured once per sub-project crediting period were applied to convert SOC concentrations into stock values (tC/ha).
3. SOC stock calculation per depth: $SOC_{stock}=SOC_{concentration}\times$Bulk Density$\times$Depth$\times$Area
4. Conversion to CO_2 removals: SOC stock changes were converted to CO_2 equivalents using the IPCC factor (1 tC = 3.667 tCO_2).
5. Aggregation: Results were aggregated from plot (cell) level to farm level, and then to the entire North Bulgaria project boundary.

Calculation summary tables are included in *Section 1.2. Key results* and *Section 6.1. Net verified removals* and supported by data in Annex I and Annex III.

Only incremental removals for the current monitoring period are included.

In accordance with the approved Methodology and the validated PDD, the baseline scenario represents the continuation of pre-project agricultural practices without the implementation of regenerative measures.

Under this scenario, no systematic increase in soil organic carbon (SOC) stocks is expected. SOC levels are assumed to remain stable or decline due to ongoing conventional management practices and environmental conditions.

The baseline greenhouse gas removals are conservatively defined as:

- Baseline removals = 0 tCO_2e per hectare per year

All reported carbon removals are calculated ex-post based on measured increases in SOC relative to the baseline reference, in line with the Methodology requirements for direct measurement and conservative accounting.

5.3 Emissions from Farm Activities

In accordance with the CSBG-AGRI methodology (v3.1/22.08.2025) and the Monitoring Plan in the PDD, emissions associated with on-farm fuel consumption were quantified and deducted from gross SOC-based removals to ensure a conservative net balance. These emissions represent the direct greenhouse gas (GHG) outputs from agricultural operations and are essential to providing a comprehensive project GHG assessment.

5.3.1. Sources of Emissions Considered

Credit issuance includes Soil Organic Carbon (SOC) stock increases within 0–90 cm measured under the project protocol, combined with the accounting of relevant greenhouse gas emissions associated with agricultural activities.

The released amount of CO_2 from equipment used for agricultural production is calculated for every plot (cell). Emissions of CO_2 from on-farm fuel use are quantified and deducted from the gross CO_2 removals generated by each sub-project to determine the net CO_2 removal.

Emissions of nitrous oxide (N_2O) associated with nitrogen inputs and fertilizer application are included in the greenhouse gas accounting boundary of the project. These emissions are quantified for both the baseline and project scenarios ensuring consistency, transparency, and conservativeness. N_2O emissions are accounted for as part of the overall project emissions balance and are incorporated into the calculation of net climate impact expressed in CO_2 equivalents (CO_2e).

The accounting framework therefore reflects net greenhouse gas performance, whereby SOC removals are adjusted for relevant emission sources, including fuel-related CO_2 emissions and soil-related N_2O emissions. This ensures that credited removals represent a conservative estimate of net climate benefit.

The description of baseline greenhouse gas sources and practices defines the formal accounting boundary of the project. Within this boundary, both carbon removals (SOC) and selected emission sources are quantified and compared between baseline and project scenarios to determine the net greenhouse gas benefit. Other non-material sources remain excluded.

5.3.2. Emission Calculation Method

5.3.2.1 How Fuel Emissions Are Addressed in the Project

Fuel-related CO_2 emissions are calculated separately from PR0104 in accordance with the national methodology issued by the Ministry of Agriculture, as required under the CSBG-AGRI methodology and PDD. Fuel emissions are calculated using:

- Standardized fuel consumption coefficients per operation,

- National default emission factors,
- Ministry of Agriculture guidance for agricultural emission accounting.

Fuel emissions are calculated and documented in PR0205-ER calculation_SOC_v3.1.

Total fuel consumption [3] per plot (cell) = Average fuel consumption per plot (cell) x Plot (cell) area

Total fuel consumption CO_2 equivalent = Total fuel consumption per plot (cell) x 3.42

Convertion factor of 3.42 is used for tons/ha to tCO_2e

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

Net amount of removed emissions of greenhouse gas carbon dioxide CO_2 (ton) = Gross amount of removed greenhouse gas emissions Carbon dioxide CO_2 (ton) - Total fuel consumption (tCO_2e)

5.3.2.2 How N_2O emissions are calculated

The project quantifies nitrous oxide (N_2O) emissions using a Tier 1 approach based on the IPCC Guidelines for National Greenhouse Gas Inventories (2006, updated 2019), Volume 4, Chapter 11 (Managed Soils). The methodology applies a comparative assessment between baseline and project scenarios, with emission reductions calculated as the difference in total N_2O-related emissions expressed in CO_2e.

The approach covers the full nitrogen cycle and includes two main components:

1. Emissions from Production and Supply of Nitrogen Fertilizers

Emissions associated with the production and transport of mineral nitrogen fertilizers are calculated based on the quantity of applied nitrogen (kg N/ha) and corresponding emission factors (kg CO_2e/kg N).

Emission factors are differentiated by production origin and technology (e.g., EU standard, low-carbon/BAT, or non-EU conservative scenarios), using data from Fertilizers Europe and industry lifecycle databases. This ensures a life-cycle perspective on fertilizer-related emissions.

2. Soil N_2O Emissions (Direct and Indirect)

Soil emissions are calculated using IPCC default factors and include three emission pathways:

- Direct emissions from nitrogen applied to soils
- Indirect emissions from volatilization, where nitrogen is lost as NH_3/NOx and later converted to N_2O
- Indirect emissions from leaching and runoff, where nitrogen is transported to water systems and subsequently generates N_2O

All emission flows are calculated using standardized IPCC conversion factors, including transformation from N_2O-N to N_2O and conversion to CO_2e using the global warming potential (GWP = 273)[4].

[3] Ministry of Agriculture and Food, "Methodology for determining individual annual quotas in connection with the implementation of the state aid scheme "Aid in the form of a discount on the value of excise duty on gas oil used in primary agricultural production" https://www.mzh.government.bg/bg/politiki-i-programi/programi-za-finansirane/darzhavni-pomoshti/otstapka-akciz-gaziol/

[4] IPCC AR6 WG I (2021), Climate Change 2021: The Physical Science Basis, Table 7.SM.7; GHG Protocol (2024), Global Warming Potential Values. GWP100 for N_2O = 273

Calculation Logic and Reporting

- Emissions are calculated annually
- The net emission impact is determined as the difference between baseline and project emissions.
- Only reductions in N_2O emissions are accounted as climate benefits; where project emissions exceed baseline, no reductions are credited.

Methodological Principles

The approach follows key principles of:

- Conservativeness (avoiding underestimation of emissions)
- Transparency and traceability
- Use of standardized default factors (Tier 1)
- Full nitrogen cycle coverage, including upstream fertilizer production and downstream soil processes

The N_2O assessment framework is supported by files:

Methodology for the Calculation of Nitrous Oxide (N_2O) Emissions in agricultural systems (v1_01.04.26)

N_2O calculations sheets (ER calculation_N_2O_leakage_v1)

5.3.2.3 How Leakage emissions are calculated

The project applies a yield-based market leakage approach to conservatively account for potential indirect emissions resulting from reduced agricultural production.

Leakage is considered where the implementation of regenerative practices results in a significant yield decrease, defined as a reduction below 95% of the historical baseline yield (5-year average prior to project start). Yield variations within ±5% are treated as normal agronomic variability and do not trigger leakage calculations.

When the threshold is exceeded, leakage is quantified by estimating the production shortfall relative to the adjusted baseline yield and converting this into emissions using crop-specific emission factors. The calculation follows:

- The difference between the adjusted baseline yield (95% threshold) and the actual project-year yield is multiplied by the cultivated area to determine the missing production volume.
- This volume is converted into emissions using crop-specific emission factors (EFcrop) derived from IPCC methodologies and recognized databases
- A conservative leakage factor (β = 20%) is applied, reflecting the assumption that only a portion of the production deficit leads to additional production (and emissions) elsewhere.

Importantly, leakage is only applied after additional validation steps:

- Comparison with regional yield benchmarks to ensure that yield reductions are not driven by external factors (e.g., climate conditions).
- Verification that yield reductions are not economically intentional decisions by the farmer.

If yield reductions are consistent with regional trends or justified by external factors, no leakage deduction is applied.

Leakage Assessment Framework and calculation sheets are reffered in Annex IV and Annex V

5.3.3. Results and Deductions

The results and deductions are recorded in tables in *Section 1.2. Key results* and *Section 6.1. Net verified removals.*

5.4 Net Project Removals

The net project removals represent the balance of soil organic carbon (SOC) sequestration gains minus emissions from on-farm activities, minus uncertainty deduction rate, and adjusted for buffer allocations and issuance rules. This ensures that all reported credits are real, measurable, conservative, and verifiable in accordance with the CSBG-AGRI methodology and the Monitoring Plan in the PDD.

5.4.1. Gross Removals (SOC Stock Changes)

Total SOC stock increase across all farms during the reporting periodThese removals reflect the successful implementation of regenerative practices across 1,983.76 hectares of monitored cropland.

5.4.2. Uncertainty deduction

Uncertainty deduction is applied at the farm level to make sure reported results are not overstated due to measurement error, lab variability, or sampling limitations.

For the current monitoring period an uncertainty deduction of 20.70% was applied to the quantified net removals. This value was derived by combining the main sources of uncertainty associated with the project's Monitoring, Reporting and Verification (MRV) system, including soil sampling, laboratory analysis of soil organic carbon (SOC), laboratory analysis of bulk density, and field area measurements.

The uncertainty associated with soil sampling was estimated at 15.0% using the RANOVA-3 approach, while laboratory uncertainties were determined from laboratory validation data and amounted to 8.4% for SOC analysis and 10.3% for bulk density analysis. A conservative uncertainty of 5.0% was applied to field area measurements based on the expected positional accuracy of the mapping tools used.

The individual uncertainty components were combined using the root-sum-of-squares method, resulting in a total combined uncertainty of 20.70% and applied as a deduction to the quantified removals.

The same uncertainty deduction was applied across all farms because it reflects uncertainties associated with the project-level MRV system, sampling methodology, laboratory procedures, and quantification approach, which are applied consistently to all participating farms.

5.4.3. N_2O emissions from mineral fertilizers

The project accounts for N_2O reductions or increases, as the increases are being deducted from the farms' total volume of carbon credits. N_2O emissions related to fertilizer use and soil processes are included within the monitoring and accounting scope to ensure a comprehensive net greenhouse gas balance for the project as mentione above in Section *5.3.2.2 How N_2O emissions are calculated*

5.4.4. Deduction of On-Farm Emissions

Emissions from fuel consumption and other farm operations were calculated and deducted at the farm level to avoid overestimation of sequestration benefits.

5.4.5. Emissions from leakage

Activity-shifting and market leakage are mitigated by the project's focus on maintaining productivity. To ensure transparency, leakage is directly measured through the monitoring of yield changes in farms and is supported by satellite data analysis to confirm that agricultural production remains stable within the project boundary.

Structured leakage assessment identifying potential leakage pathways and mitigation strategies are elaborated in Carbonsafe Leakage Assessment Framework mentioned above in *Section 5.3.2.3 How Leakage emissions are calculated*

5.4.6. Application of Buffer for Non-Permanence Risk

In line with the methodology, 5% of verified removals are allocated to the project buffer pool to insure against force-majeure events (e.g., drought, land-use change, pest outbreaks).

5.4.7. Staged Issuance Mechanism

The PDD prescribes a staged issuance mechanism: only 25% of verified credits may be issued in the current cycle, with the remaining 75% retained in the sub-project reserve for issuance in subsequent cycles after confirmation of positive farm balance.

6. Issuance and Risk Management

6.1. Net verified removals / reductions

The monitoring and verification system applied in the Carbonsafe Carbon Farming Project – North Bulgaria provides a transparent and conservative estimate of the net verified removals of carbon dioxide (CO_2) attributable to regenerative agricultural practices. These results represent the foundation for credit issuance under the Balkan Carbon Credits Registry (BCCR) and ensure the credibility of environmental outcomes.

The net verified removals are derived from the following steps:

1. Measurement of gross SOC stock changes (CO_2 removals).
2. Deduction of Uncertainty factor (t CO_2 eq)
3. Deduction of N_2O emissions from mineral fertilizers (t CO_2 eq)
4. Deduction of emissions from farm activities (fuel use) (t CO_2 eq)
5. Deduction of Emissions from leakage. (t CO_2 eq)
6. Adjustments to reduce removals from GHG (if applicable) (t CO_2 eq)
7. Issuable this cycle (25% from Net ammount of GHG removed carbon dioxide (t CO_2 eq))
8. Retained in sub-project reserve (75% from Net ammount of GHG removed carbon dioxide (t CO_2 eq))
9. Buffer allocated in this cycle (5% from Issuable this cycle)

The total buffer represents a fixed 5 % applicable deduction from all net verified removals.

The 5% buffer credits are deducted proportionally at each time of credits issuance e.g. 5% buffer is deducted from 25 % initially issued and 5% buffer is also deducted from 75% when they are released and issued, as per the Issuance Policy.

Total Verified Removals

Net Verified Removals: The total quantity of greenhouse gas removals (tCO_2e) determined through the MRV process and confirmed through third-party verification (VVB) for the reporting period.

Issuable this cycle: The portion of net verified removals that is subject to credit issuance within the current reporting cycle, in accordance with the project's issuance rules.

Reserved Removals (25/75 Mechanism): The portion of verified removals temporarily withheld from issuance under the 25/75 mechanism. These removals are issued upon compliance with project requirements, and internal confirmation of the farm balance by Carbonsafe. The reserved removals are released according to Issuance Policy, Section 5.1.2 Conditions for Release of Reserved Credits

Farm-Level Results

Table 9 Farm-Level Results

Farm ID	Farm Name	Area (ha)	Net SOC Change (tC)	Gross amount of removed GHG emissions carbon dioxide CO_2 (t CO_2)	Uncertainty deduction (20,70 % of Gross amount of removed GHG emissions carbon dioxide t CO_2 eq)	N_2O emissions from mineral fertilizers (t CO_2 eq)	Total fuel consumption (t CO_2 eq)	Emissions from leakage (t CO_2 eq)	Adjustments to reduce removals from GHG (t CO_2 eq)	Net ammount of GHG removed carbon dioxide (t CO_2 eq)	Total Buffer allocation (5% from Net ammount of GHG removed carbon dioxide (t CO_2 eq))	Issuable this cycle (25% from Net ammount of GHG removed carbon dioxide (t CO_2 eq))	Retained in sub-project reserve (75% from Net ammount of GHG removed carbon dioxide (t CO_2 eq))	Buffer allocated in this cycle (5% from Issuable this cycle)
203578940	APLEND BULGARIA EOOD	707,24	1 206	4 425	916	0	161	6	0	3 341	167	835	2 506	41
203578424	SEKAPP BULGARIA EOOD	86,49	0	0	0	0	0	0	0	0	0	0	0	0
834050441	ZK BEZMER	316,30	2 228	8 171	1 692	39	84	0	0	6 356	317	1 589	4 767	79
203496607	APIS AGRO 98 OOD	74,59	778	2 854	591	4	18	0	0	2 241	112	560	1 681	28
205415956	MAPI 96 EOOD	178,83	1 697	6 224	1 289	0	43	0	0	4 891	244	1 222	3 669	61
103124100	ET TIASO-DOBROMIR VALCHEV	220,66	1 803	6 614	1 370	0	59	0	0	5 185	259	1 296	3 889	64
110514921	ET RUMEN NATSEV	241,53	4 628	16 972	3 514	6	62	1	0	13 389	669	3 347	10 042	167
205515209	NATSEVI 2019 OOD	158,12	3 497	12 824	2 655	44	44	4	0	10 077	503	2 519	7 558	125
	TOTAL	**1 983,76**	**15 837**	**58 084**	**12 027**	**93**	**471**	**11**	**0**	**45 480**	**2 271**	**11 368**	**34 112**	**565**

***Note**: Discrepancies in area calculations may occur when processing GIS data across different software platforms.

Discrepancies exceeding 0.4 ha per cell are explicitly detailed in the calculation sheets.

Minor discrepancies under 0.4 ha (accounting for less than 1% of the total area) are attributed to software-specific processing variances and have been incorporated into the software uncertainty percentage within the calculation sheets.

6.2. Allocation to issuance / reserve / buffer

The allocation of verified carbon removals into issuance, sub-project reserve, and buffer pools ensures that the Carbonsafe Carbon Farming Project – North Bulgaria maintains environmental integrity while providing tangible benefits to participating farmers. This mechanism, embedded in the CSBG-AGRI methodology (v3.1/22.08.2025) and the PDD, serves as a safeguard against risks of over-crediting and non-permanence.

Consolidated Buffer pool and Sub-project reserve volumes:

Category	Share (%)	Amount (tCO_2e)
Issued this period	25	11 368
Project reserve	75	34 112
Total Project Buffer	5	2 271

This layered approach ensures both rigor and fairness. Farmers receive immediate recognition and financial benefit through the issuance of a portion of verified credits. A substantial reserve ensures that the project does not over-issue credits prematurely, preserving environmental credibility. The buffer pool provides collective insurance, protecting the market against risks that are outside of farmer control.

6.3. Negative balances and corrective actions

The Carbonsafe Carbon Farming Project – North Bulgaria incorporates a robust system for addressing negative balances and reversals, ensuring that the environmental integrity of issued credits is not compromised. Negative balances may arise when SOC stocks in a farm decline between monitoring periods, either due to climatic shocks, management shortfalls, or measurement uncertainty. The project applies conservative rules to prevent over-crediting and to manage the risks of non-permanence.

During the current monitoring period, no final-year reversals were identified. However, the project has established procedures for addressing such situations if they arise in future cycles.

Key Principles of Reversal Management

Exclusion from issuance:

- Farms with negative or net-zero SOC changes are excluded from credit issuance for the reporting cycle.
- Their data are retained in the monitoring system for tracking in subsequent periods.

Continued monitoring:

- Farms with negative balances remain active participants in the project.
- They are subject to renewed monitoring in the next cycle, with the possibility of regaining positive balances and eligibility for future issuance.

Buffer pool coverage:

- A reversal is defined as a verified net loss of the overall farm balance in the final year of the farm's crediting period.
- Reversals in the final year of farm's crediting period first consume the farm performance (sub-project) reserve; if insufficient, the project draws from the shared buffer pool.

- This ensures that issued credits maintain full environmental integrity.

No penalty for temporary shortfalls:

- Farmers are not penalized financially for negative balances, as these may be outside their control (e.g., drought).
- Instead, they forego issuance for the affected period, providing a natural incentive to continue applying regenerative practices.

Application in the Current Period

Seven participating farms (Aplend Bilgaria EOOD, ZK Bezmer, Apis Agro 98 OOD, Mapi 96 EOOD, ET Tiaso-Dobromir Vatchev, ET Rumen Natsev, Natsevi 2019 ODD) are achieved positive net SOC stock changes and are eligible for issuance, subject to the project's staged issuance approach.

One participating farm (Sekapp Bulgaria EOOD) reported increased SOC changes but negative farm balance and is excluded from credit issuance for the reporting cycle. The farm is not in its final crediting year, and thus this does not constitute a reversal. It remain active participant in the project and is subject to renewed monitoring in the next cycle, with the possibility of regaining positive balance and eligibility for future issuance.

Corrective actions regarding Sekapp Bulgaria EOOD are stated in *Section 8.2. On-Site Inspections and Monitoring, Table 13 On-Site Inspections Conducted*

The reversal management framework ensures that the project issues only high-integrity credits. By excluding negative balances from issuance, retaining farmers in the project for future monitoring, and maintaining a sub-project credits reserve and a buffer pool, safeguard against both temporary and structural risks. This approach provides confidence to stakeholders and buyers that credits from the North Bulgaria represent genuine, durable climate benefits.

6.3.1 Buffer pool usage

There are no registered force majeure events in this monitoring cycle requiring the use of buffer pool credits

7. Environmental and Social Safeguards

The Carbonsafe Carbon Farming Project – North Bulgaria is designed and implemented with a strong emphasis on environmental integrity and social responsibility. Beyond generating carbon removals, the project contributes to broader sustainability goals by ensuring that its activities do not cause harm, actively promote co-benefits, and deliver equitable value to participating farmers and local communities.

7.1. Safeguard compliance summary

Environmental compliance: All participating farms operate under Bulgarian agricultural regulations and EU environmental directives. No project activity has resulted in deforestation, wetland degradation, or other forms of ecological harm.

Legal land tenure: All farms possess verified and documented legal rights to use the project land, preventing risks of land tenure conflict or displacement.

Alignment with methodology and PDD: Safeguards outlined in the PDD were adhered to, including soil protection, biodiversity preservation, and sustainable land management.

Safeguard Compliance and Traceability (Do-No-Harm)

In line with the Do-No-Harm framework defined in the PDD (*Section 10.9*), the project confirms compliance with all safeguard requirements. The table below provides explicit traceability between PDD safeguard provisions, implementation measures, and supporting evidence.

Table 10 Safeguard Compliance

PDD Section	Safeguard Topic	Implementation / Compliance	Supporting Evidence
10.9.3 & 10.9.10	Land tenure & legal compliance	All participating farms demonstrate valid legal rights over the enrolled land;	Farmer contracts/ Farmers copies of the survey cards, registration cards, and IACS applications
10.9.4	Biodiversity & habitat protection	Project activities promote biodiversity through crop rotation diversification, reduced tillage, cover cropping, and minimized chemical inputs (N_2O calculations) No project land has been converted from forests, natural habitats	Individual Strategies (PR0103), Technological Maps (PR0104), and SOC and N_2O calculations sheets Farmers copy of the survey cards, registration cards, and IACS applications for 5 years period prior to enrollment, and RS Analysis
10.9.6	Soil & emissions management	Reduced tillage, SOC monitoring, optimized fertilization to minimize N_2O risk	Compliance with soil and emissions safeguards is evidenced through Monitoring Report data, direct SOC measurements from field sampling and laboratory analysis (MR Annex III), and calculation sheets quantifying carbon removals (PR0205-ER calculation_SOC_v3.1) and associated emissions (ER calculation_N_2O_leakage_v1), ensuring that soil health improvements and emission risks are properly monitored and managed.
10.9.7	Agrochemicals use and waste	Farmers declare that they do not use prohibited agrochemicals—including pesticides, fertilizers, or other chemical products prohibited under current Bulgarian and European legislation.	Farmers declaration
10.9.8	Community safeguards	The project ensures that no physical or economic displacement of local communities occurs, as agricultural activities remain unchanged in land use and continue to support productive use.	No Displacement Declaration Contractual agreements Farmers copy of the survey cards, registration cards, and IACS applications for 5 years period prior to enrollment, and RS Analysis

PDD Section	Safeguard Topic	Implementation / Compliance	Supporting Evidence
			Grievance records (no grievances received in this monitoring period) Leakage assessment and calculations
10.9.9	Labor & OHS	Signed farmer declarations confirming provision of safe working conditions and fair remuneration in accordance with national labor legislation	Farmers declaration
10.9.11	Data protection & transparency	The project ensures that all personal and operational data are processed in compliance with GDPR and applicable data protection legislation, including role-based access control and secure storage. Transparency and traceability of carbon credits are ensured through the registry system, where issued credits are uniquely identified and linked to the corresponding project, monitoring period, and participating farms.	Data Retention Policy BCCR registry entries
10.9.12	Grievance mechanism	A multi-channel grievance mechanism is established and operational, allowing stakeholders (farmers, workers, and external parties) to submit complaints or concerns via website, email, or phone. All grievances are recorded, acknowledged, and addressed within defined timelines in accordance with internal procedures. The mechanism ensures transparency, accessibility, and timely resolution of issues.	Publicly available grievance mechanism via project website ; Grievance log documenting submitted cases and their resolution status (Grievance Register); Formal procedures for receiving, recording, and addressing grievances (Grievances and Complain Mechanism)

The project confirms full compliance with all applicable Do-No-Harm safeguard requirements as defined in PDD Section 10.9. No material adverse environmental or social impacts have been identified during the monitoring period.

7.2. Environmental Benefits

Soil health: SOC sampling and ancillary laboratory results confirm increases in soil organic matter and fertility, directly enhancing long-term agricultural productivity.

Water management: Reduced tillage improved water retention and reduced erosion risks, particularly valuable during the drought conditions of 2023–2024.

Biodiversity support: Reduced tillage, reduced reliance on synthetic fertilizers in favor application of microbial fertilizers.

The environmental benefits are supported in *Sections 4.1 Key monitored parameters, 4.2 Activity data / management practices* and *4.3 Supporting parameters*.

7.3. Social benefits / engagement

Capacity-building: All participating farmers received Individual Strategies and annual agronomic recommendations prepared by Carbonsafe agronomists. On-site inspections reinforced knowledge transfer and practical application.

Economic incentives: Farmers directly benefit from carbon credit revenues, providing a supplementary income stream that strengthens their economic resilience.

Fair participation: No farmer was excluded or disadvantaged during the monitoring period; all participating entities had equal access to training, monitoring services, and registry benefits.

Empowerment: Farmers reported increased awareness of regenerative practices and greater confidence in long-term soil and farm management.

Documentation of farmer engagement and capacity building:

- Individual Strategy for Management of Used Areas (PR0103), tailored to each farm based on soil analysis and agronomic conditions;
- Annual Technological Maps (PR0104), completed by farmers and reviewed by Carbonsafe agronomic experts, documenting all implemented agricultural practices;
- Records of on-site visits, monitoring inspections, and remote agronomic consultations;
- Issued agronomic recommendations at plot level, based on laboratory soil results and crop-specific conditions;

Supporting evidence is provided in Annex I, including Individual Strategies, Technological Maps, agronomic recommendations, and inspection reports.

Grievance and feedback mechanism:
A formal grievance and feedback mechanism is established and operational at project level, in line with BCCS requirements for stakeholder engagement and transparency. The mechanism includes:

- A publicly communicated feedback channel on Carbonsafe's website including public consultation announcements;
- Direct communication channels between farmers and Carbonsafe (email, phone, and in-person consultations);
- Publicly available Stakeholder Engagement Policy;

- Recording and tracking of any received feedback, concerns, or complaints within internal registers.

During the current monitoring period:

- No formal grievances or complaints were submitted by participating farmers or external stakeholders;
- No material concerns affecting project implementation, farmer participation, or social safeguards were identified;
- Informal feedback received through routine interactions was limited to agronomic optimization discussions and has been incorporated into ongoing advisory support and Individual Strategies.

Corrective action and continuous improvement
In the event that grievances or concerns are raised, the project applies:

- registration and classification of the issue;
- investigation and root-cause analysis;
- implementation of corrective actions;
- follow-up verification and closure;
- integration of lessons learned into the project's Integrated Management System to prevent recurrence.

7.4. Identified risks / mitigation

No displacement risk: Project activities are implemented exclusively on existing croplands. No resettlement, land appropriation, or displacement of other land uses occurred.

Reversal safeguards: The 5% buffer allocation and staged issuance system ensure that temporary performance shortfalls do not result in environmental or financial risks to stakeholders.

The monitoring confirms that the Carbonsafe Carbon Farming Project – North Bulgaria not only avoids environmental and social harm but also delivers substantial co-benefits. Improvements in soil fertility, biodiversity, water retention, and farmer livelihoods reinforce the project's alignment with the UN Sustainable Development Goals (SDGs), particularly SDG 13 (Climate Action), SDG 15 (Life on Land), SDG 2 (Zero Hunger)

During the monitoring period, environmental and social risks associated with project activities were identified and assessed in accordance with the project Risk Assessment framework, which covers climate, environmental, leakage, and social risks relevant to soil carbon projects.

In parallel, compliance with the Do-No-Harm safeguards was demonstrated in Section 7.1. The safeguards implementation provides the operational evidence that the identified risks are effectively mitigated in practice.

No material negative environmental or social impacts, nor displacement effects, were observed during the monitoring period. The identified risks were proactively managed through agronomic practices, contractual safeguards, and stakeholder engagement, as documented in Section 7.1.

Table 11 Identified risks / mitigation

Risk Category	Risk Description *(from Risk Assessment)*	Mitigation Measures Applied	Evidence (MR Section 7.1)
Soil degradation / environmental risk	Soil disturbance, erosion, or SOC loss due to improper practices	Reduced/conservation tillage, permanent soil cover, crop rotation	Technological Maps (PR0104), on-site inspection reports
Nutrient & emissions risk	Excess fertilizer use leading to emissions or soil imbalance	Soil-based nutrient management, agronomic recommendations	Soil laboratory reports, agronomic recommendations
Biodiversity impact	Reduced biodiversity due to monocropping or input intensity	Crop diversification, reduced chemical inputs	Technological Maps, farm records
Leakage risk	Displacement of agricultural activities outside project boundary	Eligibility criteria, land-use monitoring, yield-protective agronomy	GIS records, ISACO2 system, boundary checks
Social / participation risk	Farmer non-compliance, dissatisfaction, or withdrawal	Contracts, financial incentives, continuous advisory support	Farmer contracts
Stakeholder / community risk	Potential grievances or lack of transparency	Grievance mechanism, stakeholder engagement and consultations	Grievance records, stakeholder documentation

The above risks and mitigation measures are derived from the project Risk Assessment and are substantiated through monitoring evidence presented in Section 7.1. Residual risks remain low to negligible, and no unmitigated environmental or social impacts were identified during the monitoring period

8. Stakeholder Engagement

Stakeholder engagement is central to the Carbonsafe Carbon Farming Project – North Bulgaria , ensuring that participating farmers and affected communities are actively involved, informed, and supported throughout the project cycle. Engagement activities during the current monitoring period confirmed strong cooperation, transparency, and responsiveness between the project developer (Carbonsafe JSC) and the farmers.

8.1. Trainings and Consultations

Individual Strategies: Each farm received tailored strategies outlining the adoption of regenerative practices, crop rotation adjustments, and soil management techniques.

Annual agronomic recommendations: Detailed recommendations were issued for the 2023–2024 and 2024–2025 seasons, providing guidance on fertilizer use, cover cropping, tillage reduction, and biostimulant application.

Workshops and technical sessions: Carbonsafe agronomists conducted on-site visits and consultations, helping farmers interpret soil test results and optimize practices.

Continuous support: Farmers had access to Carbonsafe staff for clarification, troubleshooting, and adaptation of practices in response to local climatic conditions.

Farmer Consultations

Structured farmer engagement activities were conducted during the monitoring period in line with the PDD stakeholder engagement commitments.

Table 12 Farmer Consultations

Date	Location / Format	Target Group	Topic / Purpose
29/04/2024 01/05/2025	Annex I / 24.04.29-PR0103- Individual strategy _v1_22.06.23- APLEND BULGARIA EOOD Annex I / 25.05.01-PR0103-Individual strategy_v1_22.06.23_APLEND BULGARIA EOOD	APLEND BULGARIA EOOD	Individual Strategy/ Regenerative agriculture principles
Agronomic recommendations 23-24	Annex I / Agronomic recommendations from 955 to 961, from 966 to 970, from 984 to 1032 in pdf format	APLEND BULGARIA EOOD	Plot performance evaluation and nutrient efficiency
Agronomic recommendations 24-25	Annex I / Agronomic recommendations from 1860 to 1906 in pdf format	APLEND BULGARIA EOOD	Plot performance evaluation and nutrient efficiency
29/04/2024 01/05/2025	Annex I / 24.04.29-PR0103- Individual strategy_v1_22.06.23-SEKAPP BULGARIA EOOD Annex I / 25.05.01-PR0103-Individual strategy_v1_22.06.23_SEKAPP BULGARIA EOOD	SEKAPP BULGARIA EOOD	Individual Strategy/ Regenerative agriculture principles
Agronomic recommendations 23-24	Annex I / Agronomic recommendations from 1065 to 1069 in pdf format	SEKAPP BULGARIA EOOD	Plot performance evaluation and nutrient efficiency
Agronomic recommendations 24-25	Annex I / Agronomic recommendations from 1842 to 1846 in pdf format	SEKAPP BULGARIA EOOD	Plot performance evaluation and nutrient efficiency
18/10/2023 29/11/2024	Annex I / 23.10.18-PR0103-Individual strategy_v1_22.06.23_ZK BEZMER Annex I / 24.11.29-PR0103-Individual strategy_v1_22.06.23_ZK BEZMER	ZK BEZMER	Individual Strategy/ Regenerative agriculture principles

Date	Location / Format	Target Group	Topic / Purpose
Agronomic recommendations 22-23	Annex I / Agronomic recommendations from 812 to 817 in pdf format	ZK BEZMER	Plot performance evaluation and nutrient efficiency
Agronomic recommendations 23-24	Annex I / Agronomic recommendations from 1426 to 1431 in pdf format	ZK BEZMER	Plot performance evaluation and nutrient efficiency
06/03/2024 17/03/2025	Annex I / 24.03.06-PR0103-Individual strategy_v1_22.06.23_APIS AGRO 98 OOD Annex I / 25.03.17-PR0103-Individual strategy_v1_22.06.23_APIS AGRO 98 OOD	APIS AGRO OOD	Individual Strategy/ Regenerative agriculture principles
Agronomic recommendations 23-24	Annex I / Agronomic recommendations from 818 to 820 in pdf format	APIS AGRO OOD	Plot performance evaluation and nutrient efficiency
Agronomic recommendations 24-25	Annex I / Agronomic recommendations from 1785 to 1787 in pdf format	APIS AGRO OOD	Plot performance evaluation and nutrient efficiency
14/02/2024 01/04/2025	Annex I / 24.02.14-PR0103-Individual strategy_v1_22.06.23_MAPI 96 EOOD Annex I / 25.04.01-PR0103-Individual strategy_v1_22.06.23_MAPI 96 EOOD	MAPI 96 EOOD	Individual Strategy/ Regenerative agriculture principles
Agronomic recommendations 22-23	Annex I / Agronomic recommendations from 821 to 829 in pdf format	MAPI 96 EOOD	Plot performance evaluation and nutrient efficiency
Agronomic recommendations 23-24	Annex I / Agronomic recommendations from 1331 to 1333, from 1788 to 1793 in pdf format	MAPI 96 EOOD	Plot performance evaluation and nutrient efficiency
15/03/2024 01/04/2025	Annex I / 24.03.15-PR0103-Individual strategy_v1_22.06.23_ET TIASO-DOBROMIR VALCHEV Annex I / 25.04.01-PR0103-Individual strategy_v1_22.06.23_ET TIASO-DOBROMIR VALCHEV	ET TIASO-DOBROMIR VALCHEV	Individual Strategy/ Regenerative agriculture principles
Agronomic recommendations 23-24	Annex I / Agronomic recommendations from 869 to 872 in pdf format	ET TIASO-DOBROMIR VALCHEV	Plot performance evaluation and nutrient efficiency
Agronomic recommendations 24-25	Annex I / Agronomic recommendations from 1643 to 1646 in pdf format	ET TIASO-DOBROMIR VALCHEV	Plot performance evaluation and nutrient efficiency
29/03/2024 01/05/2025	Annex I / 24.03.29-PR0103-Individual strategy_v1_22.06.23_ET RUMEN NATSEV	ET RUMEN NATSEV	Individual Strategy/ Regenerative agriculture principles

Date	Location / Format	Target Group	Topic / Purpose
	Annex I / 25.05.01-PR0103-Individual strategy_v1_22.06.23_ET RUMEN NATSEV		
Agronomic recommendations 23-24	Annex I / Agronomic recommendations from 971 to 978 in pdf format	ET RUMEN NATSEV	Plot performance evaluation and nutrient efficiency
Agronomic recommendations 24-25	Annex I / Agronomic recommendations from 1847 to 1854 in pdf format	ET RUMEN NATSEV	Plot performance evaluation and nutrient efficiency
15/03/2024 01/05/2025	Annex I / 24.03.15-PR0103-Individual strategy_v1_22.06.23_NATSEVI 2019 OOD Annex I / 25.05.01-PR0103-Individual strategy_v1_22.06.23_NATSEVI 2019 OOD	NATSEVI 2019 OOD	Individual Strategy/ Regenerative agriculture principles
Agronomic recommendations 23-24	Annex I / Agronomic recommendations from 979 to 983 in pdf format	NATSEVI 2019 OOD	Plot performance evaluation and nutrient efficiency
Agronomic recommendations 24-25	Annex I / Agronomic recommendations from 1855 to 1859 in pdf format	NATSEVI 2019 OOD	Plot performance evaluation and nutrient efficiency

Farmer training support is developed through the established Farmer Training Policy.

8.2. On-Site Inspections and Monitoring visits

Carbonsafe conducted systematic on-site inspections across all participating farms, producing monitoring reports that documented compliance with Individual Strategies. These inspections verified the accuracy of self-reported data and provided corrective feedback to ensure consistency with methodology requirements. Farmers received follow-up recommendations on maintaining soil cover, and optimizing tillage operations.

Table 13 On-Site Inspections Conducted

Date	Participant	Purpose of Visit	Key Findings	Corrective Action (if any)	Evidence Reference
24.01.2025	Aplend / Agro Kim (GF)	Assessment of the actual condition of the areas participating in the program.	In line with its individual strategy, the farm implements sustainable practices, including minimal tillage, strip-till, and the use of microbial fertilizers. To build on these results, it is recommended to incorporate annual cover	None required	Monitoring report from an on-site inspection, including photos from the visit and software

Date	Participant	Purpose of Visit	Key Findings	Corrective Action (if any)	Evidence Reference
			crops to ensure continuous plant protection of the soil layer throughout the year.		
24.01.2025	Sekapp Bulgaria	Assessment of the actual condition of the areas participating in the program.	Deviations from the prescribed agricultural practices have been identified—plowing has been carried out, and there is a lack of ground cover. The farm is partially implementing the recommended measures.	Increase the amount of plant residues, limit intensive tillage, and perform it as close to sowing as possible. Establish year-round soil cover through catch crops and cover crops.	Monitoring report from an on-site inspection, including photos from the visit and software
14.10.2024	ZK Bezmer	Assessment of the actual condition of the areas participating in the program.	The farm follows its own plan—minimal tillage and strip-till technology for corn. The main recommendations focus on improving soil health by ensuring year-round plant cover and transitioning to organic fertilizers and biostimulants.	None required	Monitoring report from an on-site inspection, including photos from the visit and software
29.11.2024	Apis Agro 98 OOD	Assessment of the actual condition of the areas participating in the program.	The lavender cultivation process is carried out using certified organic methods. This involves minimal tillage of the soil, combined with the management of plant residues in the row spaces	None required	Monitoring report from an on-site inspection, including photos from the visit and software

Date	Participant	Purpose of Visit	Key Findings	Corrective Action (if any)	Evidence Reference
29.11.2024	Mapi 96 EOOD	Assessment of the actual condition of the areas participating in the program.	The lavender plantations are managed in accordance with the principles of organic farming. Minimal tillage practices are employed, and plant residues are left in the rows to serve as natural mulch.	None required	Monitoring report from an on-site inspection, including photos from the visit and software
17.12.2024	ET Tiasso-Dobromir Valtchev	Assessment of the actual condition of the areas participating in the program.	The farm follows established practices, such as reduced tillage and the use of microbial fertilizers. In addition, it is recommended to keep the soil covered throughout the year.	None required	Monitoring report from an on-site inspection, including photos from the visit and software
13.01.2025	ET Rumen Natsev	Assessment of the actual condition of the areas participating in the program.	The farm strictly follows its established individual strategy. Reduced tillage and the use of microbial fertilizers are employed. The recommendations focus on improving soil fertility by introducing annual cover crops for continuous soil protection.	None required	Monitoring report from an on-site inspection, including photos from the visit and software
13.01.2025	Natsevi 2019 OOD	Assessment of the actual condition of the areas participating in the program.	The farm strictly follows its established individual strategy. Reduced tillage and the use of microbial fertilizers are employed. The recommendations focus on improving soil fertility by introducing annual cover crops for continuous soil protection.	None required	Monitoring report from an on-site inspection, including photos from the visit and software

8.3. Communication and Transparency

All participating farms had access to the ISACO2 platform, where their sampling results, , and performance indicators were uploaded. This transparency built trust and allowed farmers to track their progress in near-real time. Periodic updates were communicated to farmers regarding project status, registry procedures, and timelines for credit issuance.

The project applies a combination of internal and external communication channels to ensure transparency and stakeholder engagement, in line with the PDD commitments. Internal communication with participating farmers is conducted through:

- The ISACO2 digital platform (data access, monitoring updates, and project-related information);
- Direct email/phone communication;
- On-site monitoring visits.

External communication and public disclosure are ensured through the official Carbonsafe website, where non-confidential project information is publicly available, including:

- Public consultation of Project Design Documents (PDDs);
- Project summaries and registration details, including links to the carbon registry;
- Applicable governance framework and standards;
- Key project documentation such as:
- Dispute Resolution Policy and Procedure;
- Mechanism for receiving and reviewing complaints and grievances;
- Stakeholder Engagement Policy;
- Applied methodology.

All publicly disclosed information is accessible to external stakeholders without restriction via the project website.

Stakeholder Notification and Regulatory Engagement

Carbonsafe has undertaken a structured stakeholder notification process in relation to the implementation of its projects across the territory of the Republic of Bulgaria. Official notifications have been submitted to the respective municipalities and local city halls in the project areas, informing them of the nature, scope, and activities of the projects.

These notifications are publicly disclosed through placement on the official notice boards of the respective city halls for a period of fourteen (14) days, ensuring transparency and accessibility to local stakeholders. Each notification includes a designated feedback channel through which interested parties may submit comments, opinions, or concerns within the disclosure period.

In parallel, Carbonsafe formally notified the Ministry of Environment and Water to determine whether the implementation of the respective plan, program, or project is subject to environmental assessment requirements under applicable national legislation.

Following this notification, an official response was received from the Ministry of Environment and Water confirming that the implementation of the respective projects does not require an environmental assessment.

8.4. Grievances and Complaints

A grievance mechanism was in place, allowing farmers and stakeholders to raise concerns with Carbonsafe. During the monitoring period, no formal grievances or complaints were reported. Informal feedback was provided during inspections and consultations and was addressed promptly.

Carbonsafe maintains a formal grievance mechanism, as described in the “Mechanism for Receiving and Reviewing Complaints and Grievances” document located at https://carbonsafe.bg/en/documents/ , to ensure transparent, accessible, and consistent handling

of concerns related to project activities. Stakeholders — including participating farmers, landholders, local community members, and other interested parties — may raise grievances related to project implementation, social impacts, or compliance with contractual commitments.

Grievances may be submitted in writing via email, postal mail, or through designated contact channels provided by Carbonsafe (e.g. grievances@carbonsafe.bg) as documented in the grievance mechanism procedure. Upon receipt, grievances are recorded in the grievance register, assigned a unique reference number, and acknowledged in writing within a defined timeframe.

Each grievance is assessed for eligibility and completeness. Where required, Carbonsafe may request additional information from the complainant to clarify the matter. The grievance is then reviewed by the designated grievance focal point or committee, evaluated based on the available information, and, where appropriate, subject to fact-finding or consultation with relevant parties.

Carbonsafe provides a written response outlining findings, corrective actions (if any), and proposed resolution steps. For grievances that cannot be resolved at the operational level within the set response timeframe, escalation to senior management is available. Records of grievances, assessments, decisions, and closures are maintained to ensure traceability and continuous improvement.

The grievance mechanism is designed to align with the Do-No-Harm principles of the project and to ensure that risks of displacement, conflicts, or adverse social impacts are identified, mitigated, and addressed in a timely and equitable manner.

Table 14 Grievance Record

Grievance ID	Date Received	Complainant	Nature of Complaint	Status	Resolution
N/A	—	—	—	—	**No grievances reported during the monitoring period**

8.5. Stakeholder Inclusiveness

Participation was open to all eligible farms in North Bulgaria that met the project criteria. Small and medium-sized farms were represented alongside larger enterprises, ensuring a balanced and inclusive project structure. Farmers confirmed that participation was voluntary and based on transparent contractual agreements.

The stakeholder engagement process during the monitoring period demonstrated strong farmer participation, transparent communication, and responsive project management. Farmers were not only beneficiaries of the carbon credit revenues but also active partners in implementing regenerative agriculture. The absence of grievances, coupled with high adoption rates of recommended practices, highlights the effectiveness of Carbonsafe's engagement strategy and the trust established with local stakeholders.

9. QA/QC and Data Management

Ensuring data integrity is critical to the credibility of the Carbonsafe Carbon Farming Project – North Bulgaria . The monitoring period applied a comprehensive Quality Assurance/Quality Control (QA/QC) framework and a robust data management system that together guarantee transparency, reliability, and readiness for third-party verification.

9.1. Field data QA/QC

- Standardized procedures: All sampling teams followed protocols outlined in the methodology and PDD, including 25 stiches per depth per monitoring cell.
- Geo-referencing verification: GPS coordinates and sampling traces were uploaded into ISACO2 and cross-checked against cadastral maps.

Table 15 Field QA/QC Control Table

Check Type	Description	Responsible	Frequency
Verification of land areas for project participation (ref: MRV Protocol)	Each area is reviewed through the ISACO2 ERP system. Overlapping areas are checked, and it is verified that the areas fall within the project boundaries.	MRV Team	When applying to participate in the project
Soil sampling check (ref: MRV Protocol)	The assigned sampling is reviewed through the ISACO2 ERP system; the cell ID, the generation of the sampling report, and the coordinates of the sampling polyline are checked; a report is downloaded from the system and archived in each farmer's file.	MRV Team	Periodically
Error checking (ref: MRV Protocol)	Error checking in the event of a power outage, internet outage, or technical issues.	MRV Team	Each sampling campaign
Laboratory test results check (ref: MRV Protocol)	Check for technical errors in the ISACO2 ERP system. A check is performed to ensure consistency between the data in the system and the original laboratory test report.	MRV Team	When entering data into the system.

9.2. Laboratory / third-party quality control

All soil samples were analyzed in accredited labs using the dry combustion method for SOC determination.

Each sample was barcoded and tracked from field collection to lab processing and final data entry.

All soil analyses are conducted by independent accredited laboratories operating under ISO/IEC 17025 standards, ensuring technical competence, method validation, and traceability of results.

Compliance with QA/QC requirements during the monitoring period is demonstrated through:

- the valid ISO/IEC 17025 accreditation certificate of the laboratory;
- the laboratory soil sampling and analysis reports

These documents constitute the primary evidence supporting the application of QA/QC measures and are available for verification. (Annex III)

9.3. Data Processing and Calculation QA/QC

SOC results were entered into the ISACO2 platform. Agronomists cross-checked results against original laboratory protocols and field records before final aggregation.

Data Processing QA/QC Workflow

Data processing, validation, and reporting follow a structured QA/QC workflow defined in the internal MRV Protocol – Processes, Governance and Accountability.

The workflow ensures traceability, separation of duties, and controlled approval prior to final reporting and issuance decisions.

The process includes the following steps:

Data entry and compilation: Laboratory results and project data are entered into the MRV system (ISACO2) and linked to parcel and project identifiers.

Agronomic validation: The agronomic team reviews soil organic carbon results and associated data for consistency, plausibility, and alignment with field conditions.

Document and data verification: Administrative and IMS functions perform cross-checks of input data against source documentation (e.g. laboratory reports, project records).

Data undergoes internal review by designated responsible roles, ensuring:

- consistency of input data;
- correctness of calculations;
- traceability of results to source records.

Separation of duties: Responsibilities are distributed across different roles (agronomic, administrative, and IMS functions), ensuring independent review and avoiding single-point control.

Version and data control: All data and records are maintained within controlled systems and internal registries, ensuring traceability and preventing unauthorized modification.

Final approval: Results are reviewed and approved by the Executive Drector prior to aggregation and inclusion in the Monitoring Report, in accordance with the defined governance structure.

This framework ensures that no issuance-relevant data is processed without validation, review, and approval, as defined in the MRV Protocol.

9.4. Data Archiving and Traceability

All sampling protocols, lab certificates, agronomic recommendations, monitoring reports, and annual farm reports were archived digitally.

Each dataset was time-stamped and assigned a version number, ensuring full traceability from field to final Monitoring Report.

Data were made available to farmers for transparency and to the Validation and Verification Body (VVB) for audit and verification.

Table 16 Data Archiving and Traceability

Data Category	Storage Location / System	Minimum Retention Period
Project Design Document (PDD)	Digitally stored on server	40 years
Monitoring Reports (MR)	Digitally stored on server	40 years
Verification Reports, including Final Verification Reports (FVR)	Digitally stored on server	40 years
Soil sampling data and laboratory results	Digitally stored on server	40 years
Activity data and calculation records used for emission reductions and removals	Digitally stored on server	40 years
Records related to the issuance, transfer, and retirement of carbon credits.	Digitally stored on server	40 years

Data are stored within a controlled MS SQL database environment hosted on internal servers, with access restrictions and automated backup procedures (weekly full backups and daily differential backups), in accordance with the Data Retention Policy.

9.5. Corrective Actions

Feedback from monitoring cycles could lead to platform upgrades, including direct integration of laboratory results to minimize data entry delays.

Where minor deviations from Individual Strategies are observed, adjustments can be made based of the laboratory results and agronomic recommendations.

The QA/QC and data management processes implemented during this monitoring period provide high confidence in the accuracy and reliability of reported SOC removals. By combining field-level controls, laboratory quality standards, digital platform integration, and corrective feedback mechanisms, the Carbonsafe Carbon Farming Project ensures that its results are transparent, verifiable, and ready for third-party validation.

Corrective Actions and QA/QC Integration

QA/QC findings identified during data validation and internal review trigger corrective actions in accordance with the internal Corrections Mechanism Policy.

Identified issues are classified based on their nature and materiality, and addressed through appropriate measures, including data correction, recalculation, exclusion of non-compliant data, or application of reserve and buffer mechanisms, where applicable.

All corrective actions are subject to internal review and approval within the MRV governance structure and are documented and archived to ensure full traceability and auditability.

Where relevant, root causes are assessed and additional controls are implemented to prevent recurrence.

Table 17 Corrective Actions and QA/QC Integration

Issue ID	Description	Corrective action	Date closed
No 1/09.02.2026	Request for Corrective Action	1. Implementation of Stakeholder engagement policy.	02/04/2026

Issue ID	Description	Corrective action	Date closed
		2. Implementation of N_2O emissions calculations. 3. Implementation of Leakage framework and calculations. 4. Implementation of Correction Mechanism Policy. 5. Implementation of Remote Sensing (RS). 6. Implementation of Farmer Training Policy. 7. Specification of monitoring periods and verification deadlines in accordance with the Registry's guidelines. 8. Implementation of Data Retention Policy	
No 1/09.02.2026	Request for improvements	1. Improvment of BD measurement process 2. Improvement of Issuance Policy 3. Implementation of uncertainty quantification	02/04/2026
No 2/27.04.2026	Request for improvements	1. Benefit-sharing mechanism document 2. Correction of the identified topological errors in polygon geometries	05/05/2026

10. Verification Readiness

The Carbonsafe Carbon Farming Project – North Bulgaria has been prepared with full readiness for independent third-party verification. All required evidence has been compiled, organized, and

archived to ensure that the Validation and Verification Body (VVB) can efficiently assess the accuracy, conservativeness, and transparency of the reported results.

10.1. Evidence and Documentation Prepared

- Soil sampling records: GPS traces, sampling logs, photographs of sampling activities, and barcoded chain-of-custody forms for all farms.
- Laboratory certificates: Official SOC analysis protocols from accredited laboratories.
- Bulk density data: Original field core sampling records and applied values. Official BD analysis protocols from accredited laboratories.
- Fuel consumption: Ministry of Agriculture standard coefficients.
- ER Calculation files: SOC change spreadsheets, CO_2 conversion tables, and final aggregation sheets (PR0205-ER calculation_SOC_v3).

Table 18 Verification readiness table

Evidence Type	Storage Location / Reference	Availability (Y/N)
GeoJSON files Sampling maps and coordinates	Annex I	Y
Farmers contracts	Annex I	Y
Sampling and testing laboratory protocols	Annex I/ Annex III	Y
Agronomic recommendations	Annex I	Y
Individual Strategies	Annex I	Y
Technological Maps	Annex I	Y
Monitoring reports from on-the-spot inspection	Annex I	Y
ER calculation sheets	Annex I	Y
Annual Periodic Reports	Annex I	Y
Safeguards	Annex IV	Y
Other documents	Annex V	Y

10.2. Site-level Evidence

- Individual Strategies: Issued to each farm and tailored to the 2023–2025 period (PR0103-Individual strategy).
- Agronomic recommendations: Annual guidance for 2023–2024 and 2024–2025, demonstrating continuous farmer support and compliance tracking.
- On-site inspection reports: Documented visits confirming adherence to regenerative practices and highlighting corrective measures (PR0107-Monitoring report from on-the-spot inspection).
- Annual farm reports: Prepared for each participant, summarizing progress and readiness for credit issuance (PR0211-Annual_Periodic Report).

10.3. System and Platform Readiness

- ISACO2 integration: All field and laboratory data uploaded into ISACO2 with cross-referenced IDs, enabling easy internal verification of sampling-to-calculation traceability.
- Registry alignment: The monitoring data is prepared for compatibility with the Balkan Carbon Credits Registry (BCCR), ensuring transparent tracking of credits.

The platform operates under a role-based access control framework, ensuring that data access and modification rights are restricted according to user responsibilities.

The ERP ISACO2 platform implements role-based access control to ensure secure and controlled data handling. Different user roles (e.g., administrator, agronomist, data operator) are assigned predefined permissions, restricting access strictly to relevant functions and datasets.

All system activities are recorded through timestamps, user identification, data entries, edits, and document uploads. This ensures full traceability, accountability, and reproducibility of all MRV data and processes, demonstrating complete system readiness for verification.

10.4. Updates to MRV Protocol

In the year 2025 started the migration of data from the projects to a new highly specialized software. The project developer will gradually transfer all information, strictly monitoring and complying with the project requirements. If differences are identified in the migration process for each individual case, a deviation protocol will be prepared. Data migration does not affect the results reported in this document.

The software migration is classified as a non-material MRV update, as it relates solely to improvements in data management, system integration, and processing efficiency. It does not introduce any changes to the applied methodology, calculation approaches, emission factors, or quantification logic as defined in the validated PDD.

The migration process is conducted under controlled conditions, with continuous oversight during data transfer. In cases where any discrepancies are identified, they are addressed through a documented deviation protocol, as already referenced above, ensuring that any differences are assessed, resolved, transparently recorded, and verified for consistency with the PDD and MRV framework.

No deviations affecting the integrity, accuracy, or reproducibility of results have been identified.

10.5. Registry Compliance Statement

The Carbonsafe Carbon Farming Project – North Bulgaria is fully compliant with the technical and procedural requirements of the Balkan Carbon Credits Registry (BCCR):

- All participating farms and monitoring plots (cells) are digitized and geo-referenced in ISACO2 and cross-checked with cadastral records, consistent with BCCR's transparency requirements.

- Credits are calculated, aggregated, and documented in alignment with BCCR issuance rules.

- Project related documents and calculation files are archived and prepared for the project account in BCCR.

- The project is therefore verification-ready and fully aligned with registry protocols for subsequent issuance.

10.6. Consistency with Methodology and PDD

- Monitoring adhered strictly to the CSBG-AGRI methodology (v3.1/22.08.2025) and the PDD Project ID CSBG-BG-N

- Conservative treatment of uncertainty, , and buffer deductions ensures credibility.

10.7. Anticipated Verification Process

- The VVB will be provided with full access to the ISACO2 platform / for review during the site visit/ and supporting archives.

- Field visits are anticipated to re-check sampling procedures and confirm that laboratory analyses comply with accreditation standards.

- The structured documentation package reduces transaction costs and ensures a streamlined verification timeline.

The verification is expected to be conducted by an accredited VVB following submission of the Monitoring Report, covering the monitoring period 23.03.2024-15.05.2025, and is anticipated to take place within the standard verification timeline in accordance with BCCR requirements.

The anticipated verification scope includes:

- Review of the Monitoring Report and underlying MRV methodology;
- Assessment of soil organic carbon (SOC) calculations and uncertainty treatment;
- Verification of soil sampling procedures and spatial traceability (GIS data);
- Review of laboratory analyses and compliance with applicable standards;
- Cross-check of farm-level activity data and implementation of regenerative practices;
- Consistency between reported results and supporting datasets.

Verification activities are expected to include risk-based sampling, comprising:

- Selection of a representative subset of farms;
- Review of selected plots and associated sampling data;
- Cross-check of digital records (e.g. GIS data, soil sampling, and calculations) against source documentation;
- Field visits, where applicable, to confirm sampling procedures and project implementation.

The structured documentation package reduces transaction costs and supports an efficient and transparent verification process.

The project is fully prepared for verification, with comprehensive documentation, transparent data systems, and alignment with BCCR requirements, ensuring a robust and auditable evidence base for carbon credit issuance.

11. Summary of Results

The Carbonsafe Carbon Farming Project – North Bulgaria achieved substantial, measurable, and verifiable climate benefits during the current monitoring period. Across eight participating farms and group farms, regenerative practices contributed to significant soil organic carbon (SOC) gains, translating into net verified CO_2 removals after deduction of, uncertainty farm fuel emissions, leakage emissions, N_2O emissions and and allocation to the buffer pool.

The quantification of the summary of results is expressed in Section *6.1. Net verified removals / reductions.*

Environmental and social safeguards were applied throughout the project implementation, with no evidence of activity displacement, and permanence risks are conservatively managed through the application of buffer allocations, sub-project reserves, and conservative issuance rules, as reflected in the monitoring results .

The project is fully verification-ready, with complete supporting evidence, established MRV systems, and full alignment with the BCCR registry requirements.

Farms with zero or negative net GHG balances (e.g., SEKAPP BULGARIA EOOD) were excluded from issuance in accordance with the PDD and applied methodology .

All reported results have been calculated and monitored in full compliance with the validated PDD and the applied methodology.

The monitoring period demonstrates the project's ability to deliver large-scale, high-integrity carbon removals, alongside significant environmental and socio-economic co-benefits.

12. Annexes

Annex I– Detailed data tables

2-MR-CS-BG-NORTH_ANNEX I-FARMS_v2_08.05.26

Annex II - Maps and coordinates

2-MR-CS-BG-NORTH_ANNEX II_v1_08.05.26

Annex III - Laboratory reports (list or index)

2-MR-CS-BG-NORTH_ANNEX III_v1_08.05.26

Annex IV - Safeguards and stakeholder evidence (index)

2-MR-CS-BG-NORTH_ANNEX IV_v1_08.05.26

Annex V - Other supporting documentation

2-MR-CS-BG-NORTH_ANNEX V_v1_08.05.26