



**Verified Carbon
Standard**

ECOHARVEST SUSTAINABLE AGRICULTURE PROJECT



Project title	EcoHarvest Sustainable Agriculture Project
Project ID	5700
Crediting period	01-10-2023 to 30-09-2043
Original date of issue	For pipeline listing, 29-Aug-2025 For registration, 30-Aug-2026
Most recent date of issue	15-Sep-2025
Version	01
VCS Standard Version	V4.7
Prepared by	Taiwan Luboa Development Co.Ltd.

CONTENTS

1	PROJECT DETAILS	1
1.1	Summary Description of the Project	1
1.2	Audit History	2
1.3	Sectoral Scope and Project Type	2
1.4	Project Eligibility	2
1.5	Project Design	6
1.6	Project Proponent	7
1.7	Other Entities Involved in the Project	7
1.8	Ownership	7
1.9	Project Start Date	7
1.10	Project Crediting Period	8
1.11	Project Scale and Estimated GHG Emission Reductions or Removals	8
1.12	Description of the Project Activity	9
1.13	Project Location	11
1.14	Conditions Prior to Project Initiation	12
1.15	Compliance with Laws, Statutes and Other Regulatory Frameworks	13
1.16	Double Counting and Participation under Other GHG Programs	13
1.17	Double Claiming, Other Forms of Credit, and Scope 3 Emissions	14
1.18	Sustainable Development Contributions	15
1.19	Additional Information Relevant to the Project	15
2	SAFEGUARDS AND STAKEHOLDER ENGAGEMENT	22
2.1	Stakeholder Engagement and Consultation	22
2.2	Risks to Stakeholders and the Environment	22
2.3	Respect for Human Rights and Equity	23
2.4	Ecosystem Health	23
3	APPLICATION OF METHODOLOGY	24
3.1	Title and Reference of Methodology	24
3.2	Applicability of Methodology	24
3.3	Project Boundary	30

3.4	Baseline Scenario	30
3.5	Additionality	34
3.6	Methodology Deviations	34
4	QUANTIFICATION OF ESTIMATED GHG EMISSION REDUCTIONS AND REMOVALS	35
4.1	Baseline Emissions	35
4.2	Project Emissions	35
4.3	Leakage Emissions	35
4.4	Estimated GHG Emission Reductions and Carbon Dioxide Removals	35
5	MONITORING	35
5.1	Data and Parameters Available at Validation	35
5.2	Data and Parameters Monitored	35
5.3	Monitoring Plan	35
	APPENDIX 1: COMMERCIAL SENSITIVE INFORMATION	37
	APPENDIX X: <TITLE OF APPENDIX>	38

1 PROJECT DETAILS

1.1 Summary Description of the Project

The project is located in Akmola Oblast in northern Kazakhstan, which is one of the country's important agricultural areas, mainly used for grain production, especially wheat cultivation. However, due to long-term traditional farming practices, the region faces serious problems such as soil degradation, wind and water erosion, and loss of soil organic matter. Traditional farming practices include continuous cropping systems (such as monoculture of wheat), deep tillage, bare fallow, and monoculture¹.

Before the implementation of the project, the region mainly relied on intensive tillage and monoculture, leading to severe soil erosion, a decline in soil organic carbon content, and increased greenhouse gas emissions from soil disturbance. This traditional farming method has exacerbated land degradation, reduced the resilience of the agricultural system, and also limited the region's carbon sequestration capacity.

To address these issues, the project will implement conservation tillage measures, key agricultural practices promoted by Project include, but are not limited to the following:

- **Improved fertilizer (organic or inorganic) management;**
- **Reduced tillage/improved residue management;**

The start date of the project activity is 01-10-2023, since the start date, the following conservation tillage measures have been taken:

Straw return creates a surface residue cover that curbs wind and water erosion while directly adding organic matter.

Reduced synthetic fertilizer application and improved organic fertilizer application. Improves soil structure and fertility, reduces soil erosion and nutrient loss, enhances soil biological activity, promotes crop growth and quality, strengthens crop stress resistance, while lowering greenhouse gas emissions, thereby supporting sustainable agricultural development.

The project includes a total of around 17 commercial farms encompassing approximately 220,437 ha of land. The crops include wheat, barley etc.

This will result in an initial GHG emission reduction of 881,748 tCO₂e/year. The project is expected to capture an estimated 17,634,960 tCO₂e by the end of the crediting period (20 years).

¹ https://ec.europa.eu/programmes/erasmus-plus/project-result-content/7f3ef19e-feb1-47e0-a6a6-47bb1859423c/IUCLAND_baseline_study_CHINESE.pdf

1.2 Audit History

Audit type	Period	Program	Validation/verification body name	Number of years
Validation/verification	01-10-2023-30-09-2025	VCS	Carbon Check (India) Private Ltd.	2

1.3 Sectoral Scope and Project Type

Sectoral scope	14. Agriculture, forestry and other land use (AFOLU)
AFOLU project category ²	Agricultural Land Management (ALM) Improved Cropland Management (ICM)
Project activity type	This project is not a grouped project.

1.4 Project Eligibility

1.4.1 General eligibility

EcoHarvest Sustainable Agriculture Project: regenerative agriculture in Kazakhstan - the project is not a grouped project classified under the ALM category within the AFOLU sectoral scope (Agriculture, Forestry, and Other Land Uses). This project's activities focus on reducing and removing greenhouse gases (GHGs) from croplands by enhancing soil carbon stocks, adhering to the requirements of VM0042 V2.1: Methodology for Improved Agricultural Land Management, and VMD0053 V2.1: Model Calibration, Validation, and Uncertainty Guidance for the Methodology for Improved Agricultural Land Management.

The project's eligibility within the VCS Program is defined and justified according to the criteria outlined in Section 2.1 of the VCS standard, V4.7, with further details provided in Table 1.

Table 1 :Project eligibility and justification

VCS Program scope	Fulfilled (Yes/NA)	Justification
-------------------	--------------------	---------------

² See Appendix 1 of the VCS Standard

The seven Kyoto Protocol greenhouse gases.	Yes	The proposed project results in GHG removals through soil carbon sequestration, removing CO ₂ from the atmosphere and storing it as soil carbon.
Ozone-depleting substances (ODS).	Not Applicable	The proposed project activity does not involve any Ozone depleting substances.
Project activities supported by a methodology approved under the VCS Program through the methodology development and review process.	Yes	The proposed project is supported by the VCS Methodology VM0042: Methodology for Agricultural Land Management (Version 2.1), which has been approved within the VCS Program through its methodology approval process.
Project activities supported by a methodology approved under an approved GHG program, unless explicitly excluded (see the Verra website for exclusions).	Yes	The proposed project does not fall under any project category that the VCS excludes from participation in the VCS program.
Jurisdictional REDD+ programs and nested REDD+ projects as set out in the Jurisdictional and Nested REDD+ (JNR) Requirements.	Not Applicable	This is not a Jurisdictional REDD+ program nor a nested REDD+ project, hence this eligibility criterion is not applicable.
The scope of the VCS Program excludes projects that can reasonably be assumed to have generated GHG emissions primarily for the purpose of their subsequent reduction, removal, or destruction.	Not Applicable	The project is designed to promote the uptake and expansion of regenerative agriculture practices that emphasize keeping organic carbon in the soil. It doesn't aim to produce GHG emissions just so they can be reduced, removed, or destroyed later. Rather, the project's activities are intended to naturally lower emissions by improving soil health and carbon retention. This fully aligns with the goals of the VCS Program and doesn't fall into the exclusions mentioned.
The VCS Program also excludes the following project activities under the circumstances described in table 1 of section 2.1.3 of the VCS Standard v4.7	Not Applicable	The project excludes all activities listed in Table 1 of Section 2.1.3 of the VCS Standard v4.7, ensuring full compliance with the VCS Program's eligibility requirements.

As established by the VCS, AFOLU projects shall initiate the pipeline listing process (as set out in the Registration and Issuance Process) within three years of the project start date. All other AFOLU projects shall complete validation within five years of the project start date.

With the project start date on 01/10/2023, the deadline to initiate the pipeline listing is 30/09/2026. the deadline to complete validation is 30/09/2028. Thus, the project complies with the VCS timeline requirements for AFOLU projects, as the listing process was initiated within this three-year period.

The project uses the VM0042 V2.1 methodology, approved under the Verra VCS Program, and complies with its eligibility criteria. This methodology was specifically developed for improved agricultural land management practices, aligning with the program's objectives to reduce and remove greenhouse gas (GHG) emissions in croplands and grasslands. As such, it meets the VCS eligibility requirements and is applicable to the scope of activities proposed by the project.

1.4.2 AFOLU project eligibility

The project falls under the Agricultural Land Management (ALM) category, aiming to reduce GHG emissions and increase soil carbon stocks through regenerative agricultural practices. These practices include crop rotation, Straw return to the field.

According to the VCS Standard v4.7, the project encompasses the eligible activities within the ALM category: Improved Cropland Management (ICM): Improvements in agricultural management practices, such as crop rotation, no-till farming, and cover cropping, will be implemented to enhance soil carbon retention and contribute to GHG emission reductions.

With further details provided in Table 2 AFOLU-Specific Matters.

Table 2: AFOLU-Specific Matters

AFOLU-Specific Matters	Fulfilled (Yes/NA)	Justification
There are currently six AFOLU project categories eligible under the VCS Program, as defined in Appendix 1 Eligible AFOLU Project Categories below: afforestation, reforestation and revegetation (ARR), agricultural land management (ALM), improved forest management (IFM), reduced emissions from deforestation and degradation (REDD), avoided conversion of grasslands and shrublands (ACoGS), and wetland restoration and conservation (WRC).	Yes	The proposed project falls under the ALM project category and is therefore eligible under Appendix 1 of the VCS Standard, version 4.7. The project activities reduce net GHG emissions on croplands by increasing carbon stocks in the soil.

Where projects are located within a jurisdiction covered by a jurisdictional REDD+ program, project proponents shall follow the requirements in this document and the requirements related to nested projects set out in the Jurisdictional and Nested REDD+ Requirements.	Not Applicable	This is not a Jurisdictional REDD+ program nor a nested REDD+ project, hence this eligibility criterion is not applicable.
Where an implementation partner is acting in partnership with the project proponent, the implementation partner shall be identified in the project description. The implementation partner shall identify its roles and responsibilities with respect to the project, including but not limited to implementation, management, and monitoring of the project, over the project crediting period.	Yes	The implementation partner, its roles and responsibilities, are identified and described in Section 1.7 of this document.
The project proponent shall demonstrate that project activities that lead to the intended GHG benefit have been implemented during each verification period in accordance with the project design. Where no new project activities have been implemented during a verification period, project proponents shall demonstrate that previously implemented project activities continued to be implemented during the verification period (e.g., forest patrols or improved agricultural practices of community members).	Yes	The project activities will be monitored and reported for each verification period. The project proponent will maintain records of all project activities, including agricultural practices, dates, inclusion of new activities and evidence through KML.
The project area has not been cleared of native ecosystems within the 10-year period prior to the project start date.	Yes	Farmer's statements and remote sensing imagery, from Sentinel and Google Earth, will be used to ensure that the project area has not been cleared of native ecosystems within the 10-year period prior to the project start date.
For ALM project types, the project proponent shall, for the duration of the project, reassess the baseline every ten years and have this validated at the same time as the subsequent verification.	Yes	Every 10 years the baseline will be analyzed for instances of the grouped project. The reassessment will be updated and reported in the project description and monitoring report

		documents.
Where ARR, ALM, IFM or REDD project activities occur on wetlands, the project shall adhere to both the respective project category requirements and the WRC requirements, unless the expected emissions from the soil organic carbon pool or change in the soil organic carbon pool in the project scenario is deemed below de minimis or can be conservatively excluded as set out in the VCS Methodology Requirements, in which case the project shall not be subject to the WRC requirements.	Not Applicable	The Project doesn't include areas on wetlands.
The project boundary for a WRC project shall include CH ₄ emissions sources for all WRC activities and N ₂ O emissions sources for RWE activities, unless deemed de minimis or evidence is provided that it is conservative to exclude these sources.	Not Applicable	The Project doesn't include areas on wetlands.

1.4.3 Transfer project eligibility

There are no transfer projects or CPAs seeking registration within this project. Consequently, there is no requirement to address eligibility conditions or justify criteria related to Appendix 2 and Section 3.23 (Double Counting and Participation under Other GHG Programs) of the VCS Standard, as these do not apply.

1.5 Project Design

- ☐ Single location or installation
- ☒ Multiple locations or project activity instances (but not a grouped project)
- ☐ Grouped project

1.5.1 Grouped project design

The project is not a grouped project.

1.6 Project Proponent

Organization name	Horizon Carbon Technology Kazakhstan co. Ltd.
Contact person	Aruzhan
Title	Manager
Address	Zhumeken Nazhimedenov Street, Saryarka District, Astana City, Kazakhstan
Telephone	+8-776-679-6668
Email	horizonco2@yahoo.com

1.7 Other Entities Involved in the Project

Organization name	Taiwan Luboa Development Co.Ltd.
Role in the project	Project Developer
Contact person	Chiu Lin Chin
Title	Director
Address	1F, NO.6 LN.14, Heping Rd., PingZhen Dist.Taoyuan City, Taiwan (ROC)
Telephone	+886-908-110806
Email	admin@taiwanluboa.com

1.8 Ownership

The project proponent retains full ownership of this VCS project, including all verified emission reductions and removals (VCUs) generated.

All participating farmers implementing Improved Agricultural Land Management (IALM) activities have executed legal attestations confirming their tenure rights to the project lands. Through binding agreements with the project proponent, these farmers grant exclusive rights to all VCUs produced by the project. In return, they receive an equitable share of the carbon credit sale proceeds, as stipulated in their respective contracts.

1.9 Project Start Date

Project start date	01-10-2023
Justification	The justification for this chosen date is that it is the date that the initial project instances provided the data required for the quantification of greenhouse gas emissions removals and/or reductions as per the applied quantification methodology VM0042. As this date marks the implementation of straw return on this plot of land.

1.10 Project Crediting Period

Crediting period	☐ Seven years, twice renewable ☐ Ten years, fixed ☒ Other (20 years)
Start and end date of first or fixed crediting period	01-10-2023 to 30-09-2043

1.11 Project Scale and Estimated GHG Emission Reductions or Removals

Indicate the estimated annual GHG emission reductions/removals (ERRs) of the project:

- ☐ < 300,000 tCO_{2e}/year (project)
☒ ≥ 300,000 tCO_{2e}/year (large project)

Complete the table below for the first (if renewable) or fixed crediting period:

Calendar year of crediting period	Estimated GHG emission reductions or removals (tCO _{2e})
01-Oct-2023 to 31-December-2023	220,437
01-January-2024 to 31-December-2024	881,748
01-January-2025 to 31-December-2025	881,748
01-January-2026 to 31-December-2026	881,748
01-January-2027 to 31-December-2027	881,748

01-January-2028 to 31-December-2028	881,748
01-January-2029 to 31-December-2029	881,748
01-January-2030 to 31-December-2030	881,748
01-January-2031 to 31-December-2031	881,748
01-January-2032 to 31-December-2032	881,748
01-January-2033 to 31-December-2033	881,748
01-January-2034 to 31-December-2034	881,748
01-January-2035 to 31-December-2035	881,748
01-January-2036 to 31-December-2036	881,748
01-January-2037 to 31-December-2037	881,748
01-January-2038 to 31-December-2038	881,748
01-January-2039 to 31-December-2039	881,748
01-January-2040 to 31-December-2040	881,748
01-January-2041 to 31-December-2041	881,748
01-January-2042 to 31-December-2042	881,748
01-January-2043 to 30-Sep-2043	661,311
Total estimated ERRs during the first crediting period	17,634,960
Total number of years	20 years
Average annual ERRs	881,748

1.12 Description of the Project Activity

1.12.1 Conservation, management and planting activities

The project is located in Kazakhstan. Its objective is to introduce sustainable agricultural management practices across the area, as detailed in the table below.

Table 1.12- Sustainable agricultural management practices

ALM Measures	Description
Optimization of fertilizer application	Optimize the application of organic fertilizers like

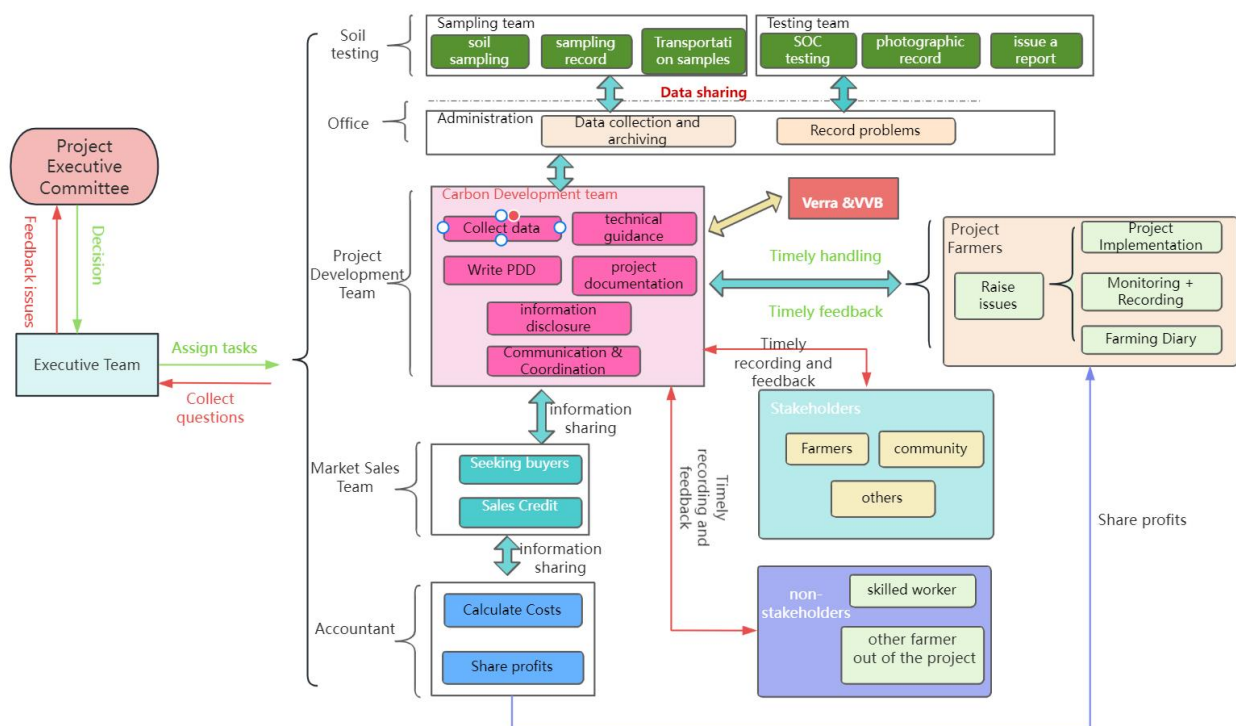
manure and compost to improve soil fertility and crop yield.

Crop residue retention

Retain crop residues to help maintain soil structure and fertility, reducing erosion.

1.12.2 Implementation is governed by a tripartite structure:

The project is set to be directed by the Carbon Project Team and will be carried out with the support of PP's local farming partners. Our joint efforts will focus on practices about crop residue retention and optimization of fertilizer application, which are designed to boost soil organic carbon levels and crop productivity. PP will be responsible for delivering all technical assistance, and the project tasks will be implemented in collaboration between PP and its partners. Contracts have been established between PP and the local farmers, outlining the respective roles and obligations of each party. The organizational framework outlined below is intended to facilitate the project's execution and monitoring.



1.12.3 Jurisdictional REDD+ coverage

The project is located in Akmola region, Kazakhstan. At present, Akmola is not included in any jurisdictional REDD+ programme, and no sub-national REDD+ strategy has been formally approved by the Republic of Kazakhstan.

1.13 Project Location

The scope of the project is Akmola region in northern Kazakhstan. The project is located at 69°16'43" east longitude, 52°33'22" north latitude.

The location of the project activity in Akmola region which is illustrated in Figure 1. And the KML file³ has also been submitted. The project area does not overlap with the project area of another VCS AFOLU project which can be checked through the VCS website. And the project proponent has control over the entire project area according to the agreements between the project proponent and local farmers within the project area.



Figure 1- 1 Project location

³ Through the ESA website, the satellite images from Sentinel 2 Earth Observation Satellite was used. According to the crop area and inflection point coordinates of each household who participated in the project activity, a vector layer is created and finally overlaid with the images by Sentinel 2 to obtain the project plot boundary.

1.14 Conditions Prior to Project Initiation

The conditions existing prior to the project activity is the same as baseline scenario, please refer to Section 3.4 (Baseline Scenario). The project activity has not been implemented to generate GHG emissions for the purpose of their subsequent reduction, removal or destruction.

Ecosystem type

The project area is situated in the forest-steppe zone of Akmola Region, central-northern Kazakhstan, and consists of large-scale cereal croplands (primarily spring wheat and barley) interspersed with remnant patches of feather-grass steppe and shelterbelt plantings.

Current and historical land-use

At present, the 220,437 ha are operated by 17 commercial farms that practice continuous cereal cropping. Historically, the area was dominated by pristine feather-grass steppe until the 1950s, after which the Virgin Lands Campaign converted most of the region to intensive rain-fed wheat production, leading to widespread soil degradation and wind erosion by the 1990s.

This project does not affect the environmental conditions, including climate, hydrology, topography, soils, relevant historical conditions, type of vegetation, ecosystems, etc., so, the present and prior environmental conditions of this project are the same.

Conditions	Description
Climate	Temperate continental, semi-arid to arid. Long, cold winters (January mean -19 to -4 °C) and short, warm summers (July mean 19 – 26 °C); annual mean ≈ 3 °C. Average precipitation 240 – 270 mm/y (300 mm in the north, <200 mm in the south). Potential evapotranspiration $>2\,000$ mm/y creates a large moisture deficit. Frost-free period 105 – 135 days; accumulated temperature $\approx 1\,900$ °C, suitable for single-crop spring wheat.
Hydrology	Located in the Irtysh River economic zone. Surface water is scarce; the Ishim River and its minor tributaries are the main sources. Agriculture relies on spring snowmelt and shallow groundwater. Small freshwater lakes and artificial reservoirs (e.g., Sergeyevka Reservoir) supply rural and urban water needs.
Topography	Predominantly flat to gently rolling plains (300 – 500 m a.s.l.), transitioning from northern lowlands to the Kazakh Hills in the south. The highest point is Kokshetau Peak (947 m) in the Kokshetau Mountains, often called “Little Switzerland of Kazakhstan”.
Soils	Zonal sequence north to south: • Chernozems (north): organic matter $>4\%$⁴, very fertile.

⁴ adb.org/sites/default/files/project-documents/51353/51353-001-tacr-en.pdf

	• Dark Chestnut soils (central): 2–4 % organic matter, moderate fertility. • Chestnut soils (south): <2 % organic matter, prone to wind erosion; irrigation required for cereals. Local areas exhibit salinisation and alkalisation, needing reclamation before cultivation.
Relevant historical conditions	Late 19th–early 20th c.: Tsarist settlers began large-scale spring-wheat farming. • Soviet period (1930–1991): mechanised, fertiliser-intensive agriculture; oblast became national breadbasket; irrigation systems and state farms established. • Post-1991: economic transition led to fallow land in the 1990s; since 2000s, conservation tillage have been re-introduced and expanded. • Satellite data (2022) show annual September mechanical hay harvest for winter fodder; agriculture and livestock remain dominant.
Type of vegetation	Zonal grasslands: • Northern chernozem belt: meadow steppe with Stipa–Leymus communities; isolated birch–pine forest islands. • Central dark chestnut belt: typical steppe dominated by feather grass (Stipa) and wheatgrass (Agropyron). • Southern chestnut belt: desert steppe with drought-tolerant Stipa spp. and Ceratoides. Cropland is dominated by spring wheat intercropped with rapeseed, barley and pulses. Shelterbelts and re-vegetated fallow land add landscape heterogeneity.
Ecosystems	• Temperate grasslands (high-productivity meadow steppe → desert steppe). • Riparian wetlands and reservoir freshwater ecosystems (important stop-over sites for migratory birds). • Agro-pastoral mosaic (cropland and grazing land intermixed). Key ecological pressures: periodic droughts, wind and water erosion, salinisation and land degradation. Recent adoption of conservation tillage, crop rotation and residue mulching is gradually restoring SOC stocks and grassland functions.

1.15 Compliance with Laws, Statutes and Other Regulatory Frameworks

The project activity complies with all applicable laws and regulatory frameworks. Currently no laws or regulations prevent the continuation of the practices prior to the project activity. Government programs encourage and promote various practices, but there are no laws or regulations mandating the adoption of the new practices involved in the project activity. The following laws or regulations are considered for the project activity:

Law of the Republic of Kazakhstan on Land Code⁵: The law stipulates the principles, objectives, and specific regulations for land relations, aiming to regulate land relations, ensure the rational use and protection of land, and protect the land rights of individuals, legal entities, and the state. For example, it restricts the access of foreign - funded entities to agricultural land. As stipulated in the amendment to the "Land Code" in 2021, agricultural land cannot be provided to foreign citizens, foreign companies, Kazakhstani companies with foreign investment, stateless persons, international research centers, etc.

1.16 Double Counting and Participation under Other GHG Programs

1.16.1 No Double Issuance

Is the project receiving or seeking credit for reductions and removals from a project activity under another GHG program?

☐ Yes ☒ No

If yes, provide required evidence of no double issuance as outlined by the VCS Standard.

1.16.2 Registration in Other GHG Programs

Has the project registered under any other GHG programs?

☐ Yes ☒ No

Is the project active under the other program?

☐ Yes ☒ No

1.16.3 Projects Rejected by Other GHG Programs

Has the project been rejected by any other GHG programs?

☐ Yes ☒ No

1.17 Double Claiming, Other Forms of Credit, and Scope 3 Emissions

1.17.1 No Double Claiming with Emissions Trading Programs or Binding Emission Limits

Are project reductions and removals or project activities also included in an emissions trading program or binding emission limit? See the *VCS Program Definitions* for definitions of emissions trading program and binding emission limit.

⁵ https://adilet.zan.kz/kaz/docs/K030000442_

☐ Yes

☒ No

1.17.2 No Double Claiming with Other Forms of Environmental Credit

Has the project activity sought, received, or is planning to receive credit from another GHG-related environmental credit system? See the *VCS Program Definitions* for definition of GHG-related environmental credit system.

☐ Yes

☒ No

If yes, provide all required evidence of no double claiming as outlined by the VCS Standard.

1.17.3 Supply Chain (Scope 3) Emissions

Do the project activities specified in Section 1.12 affect the emissions footprint of any product(s) (goods or services) that are part of a supply chain?

☐ Yes

☒ No

1.18 Sustainable Development Contributions

1.18.1 Sustainable Development Contributions Activity Description

The project is located in Akmola region and aims to achieve anticipated sustainable development benefits through activities such as adopting conservation tillage to replace traditional cultivation, using organic fertilizers, reduced synthetic fertilizer, crop residue retention.

Kazakhstan has adopted the 2030 Agenda for Sustainable Development and announced that the country will achieve carbon neutrality by 2060, with peak emissions expected before 2030. According to its latest Voluntary National Review, Kazakhstan will actively integrate the 2030 Agenda with the Kazakhstan 2050 Strategy⁶, the National Development Plan to 2025, and other national strategies, focusing on high-quality economic diversification, social cohesion, and harmony between people and nature across innovation, well-being, and green growth.

The proposed project activity will advance Kazakhstan's sustainable development goals as follows:

- **SDG 2 – Zero Hunger:** The project will promote climate-smart agriculture and restore soil fertility in northern and central Kazakhstan. By conservation tillage, yields of wheat and other cereals are projected to rise 5%. Yield gains will be verified through harvest records submitted to local akimats (municipal authorities) and annual farmer questionnaires.

⁶ <https://policy.thinkbluedata.com/node/4025>

- **SDG 4 – Quality education:** The project will help those farmed acquire the knowledge and skills needed to promote sustainable development, Including sustainable agricultural farming, balanced fertilizer application, soil-beneficial planting methods, and other measures.
- **SDG 8 – Decent Work and Economic Growth:** To ensure activities follow the approved design, the project proponent will engage local residents—especially women and youth—as field supervisors, extension agents, and data enumerators.
- **SDG 9 – Industry, Innovation and Infrastructure:** Agricultural Technology Application & Infrastructure Upgrade, to increase coverage rate of smart cultivation technology, utilization rate of new fertilizers .
- **SDG 12– Responsible Consumption and Production:** Ecological Responsibility Practices in Food Production. the project will help to achieve the sustainable management and efficient use of natural resources and substantially reduce waste generation through prevention, reduction, recycling and reuse .
- **SDG 13 – Climate Action:** The project will increase soil organic carbon stocks and cut greenhouse-gas emissions by employing the measures described in Section 1.12.1 Over the first crediting period, the activity is expected to generate an average annual reduction of 881,748 tCO₂e, validated and verified under the Kazakhstan Carbon Units Pilot Program.
- **SDG 15 – Life on Land:** Historical over-reliance on synthetic fertilizers has accelerated soil degradation and biodiversity loss on the Kazakh steppe. The project will train farmers in balanced fertilization, and Incorporation of fungal/microbial inoculants or other soil probiotics, preventing further land degradation across 220,437 ha. The total project area and land-use changes will be monitored annually using high-resolution satellite imagery and ground-truthed by the Ministry of Ecology and Environment.

Goal 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Type of Impact	The impact is positive impact as the crop yields will be increased in the project activity.
Provisions for Monitoring and Reporting the Goal	The percentage of increase in crop yields is monitored by logbooks/questionnaires and interviews with farmers for achieving this Goal 2.
Affected Stakeholder Group(s)	All the farmers enrolled in the project

Expected achievement	Crops are important for the farmers, and higher yields could solve the hunger problem to some extent.
-----------------------------	---

Goal 4	Quality education
Type of Impact	The impact is a positive impact as the project will provide education opportunities.
Provisions for Monitoring and Reporting the Goal	Training documents.
Affected Stakeholder Group(s)	All the farmers enrolled in the project
Expected achievement	Ensure that all learners acquire the knowledge and skills needed to promote sustainable development.

Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Type of Impact	The impact is a positive impact as the project will provide more job opportunities.
Provisions for Monitoring and Reporting the Goal	Recruitment contracts or payroll of the workers or other relevant documents.
Affected Stakeholder Group(s)	All the farmers enrolled in the project
Expected achievement	More job opportunities will be provided to the local people.

Goal 9	Industry, Innovation and Infrastructure: Agricultural Technology Application & Infrastructure Upgrade.
Type of Impact	The impact is a positive impact as the project will provide new fertilizers.

Provisions for Monitoring and Reporting the Goal	Purchase of fertilizers documents.
Affected Stakeholder Group(s)	All the farmers enrolled in the project
Expected achievement	coverage rate of smart cultivation technology, utilization rate of new fertilizers will be increased firmly.

Goal 12	Responsible Consumption and Production: Ecological Responsibility Practices in Food Production.
Type of Impact	The impact is a positive impact as the project will provide ecological responsibility practices in food production..
Provisions for Monitoring and Reporting the Goal	Recruitment contracts or payroll of the workers or other relevant documents.
Affected Stakeholder Group(s)	All the farmers enrolled in the project
Expected achievement	Achieve the sustainable management and efficient use of natural resources and substantially reduce waste generation through prevention, reduction, recycling and reuse in Agriculture.

Goal 13	Take urgent action to combat climate change and its impacts
Type of Impact	The impact is a positive impact as the CO ₂ and N ₂ O emissions will be reduced and soil organic carbon sequestration will increase in the project activity.
Provisions for Monitoring and Reporting the Goal	The relevant parameters will be monitored according to the monitoring plan and the emission reductions and removals will be calculated and reported according to the applied methodology.
Affected Stakeholder Group(s)	All the farmers enrolled in the project
Expected achievement	The agricultural land management practices implemented in the project reduce CO ₂ and N ₂ O emissions and enhance soil carbon sequestration, and it is expected to achieve 881,748 tCO ₂ e GHG emissions and removals

	annually for the project.
--	---------------------------

Goal 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
Type of Impact	The impact is a positive impact as the implementation of the project activity will prevent the agricultural land degrading.
Provisions for Monitoring and Reporting the Goal	The project area involved in the project will be monitored and reported.
Affected Stakeholder Group(s)	All the farmer enrolled in the project
Expected achievement	The initial project will prevent 220,437 ha agricultural land to be degraded.

1.18.2 Sustainable Development Contributions Activity Monitoring

The project is located in Akmola region. During the monitoring period from 01 Oct, 2023, to 30, Sep 2025, by employing the measures described in Section 1.12.1 within the project area. The activities of this project have contributed to the following sustainable developments during this monitoring period.

Table 1: Sustainable Development Contributions

Row number	SDG target	SDG indicator	Net impact on SDG indicator	Current project contributions	Contributions over project lifetime
1)	2.3	2.3.1 Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size	Implemented activities to increase	By adoption of the agricultural land management practices in the project activity, the annual yields of crops were increased by averagely 5% during this monitoring period compared to the baseline scenario.	Over the project lifetime, the annual yields of crops will be increased by averagely 5% in comparison with the baseline scenario.
2)	4.4	Substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	Implemented activities to increase	Invited local teachers to train females and males during the monitoring period.	Provided training opportunities for locals over the project lifetime.
3)	8.0	Job opportunities	Implemented activities to increase	Employed locals as supervisors, including females and males during the monitoring period.	Provided job opportunities for locals over the project lifetime.
4)	9.5	Industry, Innovation and Infrastructure: Agricultural Technology Application & Infrastructure Upgrade.	Implemented activities to increase	Increased the utilization rate of new fertilizers.	coverage rate of smart cultivation technology, utilization rate of new fertilizers will 被 increased.

5)	12.2	Responsible Consumption and Production: Ecological Responsibility Practices in Food Production.	Implemented activities to increase	In food production, adopted water-saving irrigation, reduced chemical fertilizer usage, and implement crop rotation on farmland to improve the utilization efficiency of water, soil, and fertilizer resources	Achieve the sustainable management and efficient use of natural resources and substantially reduce waste generation through prevention, reduction, recycling and reuse .
6)	13.2	13.2.1 Number of countries with nationally determined contributions, long-term strategies, national adaptation plans and adaptation communications, as reported to the secretariat of the United Nations Framework Convention on Climate Change	Implemented activities to increase	By introducing a set of improved agricultural land management practices to farmers, the project activity has removed or reduced 1,983,933 tCO ₂ e of GHG emissions during this monitoring period.	By introducing a set of improved agricultural land management practices to farmers, the project activity has removed or reduced 1,983,933 tCO ₂ e of GHG emissions during this monitoring period. Over the project lifetime 17,634,960 tCO ₂ e GHG emission reductions/removals will be expected to be achieved.
7)	15.0	Combat and reverse land degradation	Implemented activities to increase	During the monitoring period, the project area covers 220,437 ha, which is prevented to be degraded.	The project implements measures such as reduced chemical fertilizer straw return by employing the measures described in Section 1.12.1 to prevent during the monitoring period and over the project lifetime, the project area covers 220,437 ha, which can effectively reduce soil degradation.

1.19 Additional Information Relevant to the Project

1.19.1 Leakage Management

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

1.19.2 Commercially Sensitive Information

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

1.19.3 Further Information

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

2 SAFEGUARDS AND STAKEHOLDER ENGAGEMENT

2.1 Stakeholder Engagement and Consultation

2.1.1 Stakeholder Identification

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

2.1.2 Stakeholder Consultation and Ongoing Communication

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

2.1.3 Free Prior and Informed Consent

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

2.1.4 Grievance Redress Procedure

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

2.1.5 Public Comments

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

2.2 Risks to Stakeholders and the Environment

2.2.1 Management Experience

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

2.2.2 Risk Assessment

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

2.3 Respect for Human Rights and Equity

2.3.1 Labor and Work

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

2.3.2 Human Rights

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

2.3.3 Indigenous Peoples and Cultural Heritage

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

2.3.4 Property Rights

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

2.3.5 Benefit Sharing

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

2.4 Ecosystem Health

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

2.4.1 Rare, Threatened, and Endangered Species

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

2.4.2 Introduction of Species

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

2.4.3 Ecosystem Conversion

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

3 APPLICATION OF METHODOLOGY

3.1 Title and Reference of Methodology

Type (methodology, tool or module).	Reference ID, if applicable	Title	Version
Methodology	VM0042	VM0042 Methodology for Improved Agricultural Land Management	2.1
Module	VMD0053	VMD0053 Model Calibration, Validation and Uncertainty Guidance for Biogeochemical Modeling for Agricultural Land Management Projects	2.1
Tool	/	AFOLU Non-Permanence Risk Report Excel Calculation Tool	4.2
Tool	/	Standard for Sampling and Surveys for CDM project activities and Programme of Activities	9.0

3.2 Applicability of Methodology

Methodology ID	Applicability condition	Justification of compliance
VM0042	Projects must introduce or implement one or more new changes to pre-existing agricultural management practices which: a) Improve fertilizer (organic or inorganic) management; b) Improve water management/irrigation; c) Reduce tillage/improve residue management;	The project activity will introduce or implement combined practices listed in the methodology to change pre-existing agricultural management practices, which include improved fertilizer (organic or inorganic) application and improved residue management and by employing the measures described in Section 1.12.1.

	d) Improve crop planting and harvesting (e.g., improved agroforestry, crop rotations, cover crops); and/or e) Improve grazing practices. Appendix 1 provides a non-exhaustive list of eligible ALM practices. A change in practice constitutes adoption of a new practice, cessation of a pre-existing practice or adjustment to a pre-existing practice that results in GHG emissions reduction or removal.	
VM0042	Projects that introduce or implement quantitative adjustments (e.g., decrease in fertilizer application rate) must exceed five percent of the pre-existing value, calculated as the average value over the historical look-back period, developed for the baseline schedule of activities (see Section 6). Appendix 1 gives additional details and guidance on practices and on determining practice change.	In the project activity, the synthetic fertilizer have been reduced by around 20% comparison to the pre-existing value, which is calculated as the average value over the historical three years' look-back period, for the baseline schedule of activities.
VM0042	Project activities must be implemented on land that is either cropland or grassland at the project start date and remains cropland or grassland throughout the project crediting period. However, land use change (i.e., conversion from cropland to grassland or vice versa) may be allowed under the following scenarios:	The fields in the project activity are cropland at the project start date and the land will remain cropland throughout the project crediting. No land use change will happen in the project.

	• Introduction of temporary grassland into cropland is allowed where it can be credibly demonstrated prior to project validation that the integration of perennial crops (e.g., grasses, legumes) into annual crops is planned as part of a long-term agricultural management system (e.g., Integrated CropLivestock System). In this case, projects must provide documentation on the long-term management plans that cover the duration of the proposed project. • Conversion from grassland to cropland or vice versa where it can be credibly demonstrated prior to project validation that project lands in the baseline scenario are degraded and the introduction of improved practices involving land use change would lead to significant improvements in soil health and associated socioenvironmental benefits. In this case, projects must provide documentation demonstrating that lands are degraded at the start of the project and degradation will continue in the baseline scenario due to the presence of degradation drivers or pressures in the baseline scenario. See Appendix 2 for procedures on how to propose this type of land use change.	
VM0042&VMD	Empirical or process-based	a) The project intends to use one or a

0053	models used to estimate stock change/emissions via Quantification Approach 1 must be: a) Publicly available, though not necessarily free of charge, from a reputable and recognized source (e.g., the model developer's website, IPCC or government agency). Sufficient conceptual documentation of inputs, outputs and information on how the model functionally represents SOC dynamics must be accessible to the public. Providing the source code or an API for independent replication of calculations is not required; b) Shown in peer-reviewed scientific studies to successfully simulate changes in SOC and trace gas emissions resulting from the changes in ALM practices included in the project description; c) Able to support repetition of the project model simulations. This includes clear versioning of the model used in the project and stable software support, as well as fully reported sources and values for all parameters used with the project version of the model. Where multiple sets of parameter values are used in the project, clearly identify the sources of varying parameter sets and how they were applied to estimate stock change/emissions in the project. Acceptable sources	combination of the following process-based models—DNDC, RothC, APSIM and DayCent—to simulate future soil organic carbon (SOC) stocks in the project area; the final model selection will be confirmed at a later stage. • DNDC(DeNitrification-DeComposition) – developed by the University of New Hampshire; simulates C and N biogeochemical cycles, crop growth, SOC dynamics, N₂O/CH₄/CO₂ emissions and N leaching for cropland, grassland and other agro-ecosystems. Public download: https://www.dndc.sr.unh.edu/ • RothC (Rothamsted Carbon Model) – developed by Rothamsted Research; a monthly time-step model that simulates SOC turnover under varying climate, soil and vegetation conditions. Free download: https://www.rothamsted.ac.uk/rothc • APSIM (Agricultural Production Systems sIMulator) – led by CSIRO, Australia; an open-source modular platform integrating crop, soil, climate and management modules to assess the impacts of rotations, fertilisation and residue management on SOC and greenhouse-gas emissions. Download: https://www.apsim.info/ • DayCent – developed by Colorado State University; a daily time-step biogeochemical model that simulates crop growth, SOC, N leaching and emissions of N₂O, CH₄ and CO₂ for cropland, grassland and forest systems. Latest version and user
------	---	---

include peer-reviewed literature and statements from appropriate expert groups that demonstrate evidence of expertise with the model via authorship of peer-reviewed model publications or authorship of reports for entities supporting climate-smart agriculture. These sources must describe the datasets and statistical processes used to set parameter values; d) Validated per datasets and procedures detailed in Section 5.2 of VMD0053 Model Calibration and Validation Guidance for the Methodology for Improved Agricultural Land Management. Model prediction error must be calculated using datasets as described in Section 5.2.5 of VMD0053 and must use the same parameters or sets of parameters applied to estimate stock change/emissions in the project; and e) Using the same model version in the baseline and project scenarios. Further, the same parameters/parameter sets must be used in the baseline and project scenarios. Model input data must be derived following guidance in Table 6 and Table 8. Model uncertainty must be quantified following guidance in Section 8.6. Models may be recalibrated or revised based on new data, or a new model may be applied, provided the above	guides are available at: https://www.nrel.colostate.edu/projects/daycent/. b) Peer-reviewed studies have demonstrated that DNDC, RothC, APSIM, and DayCent can all reliably simulate soil organic carbon (SOC) changes under conservation tillage practices in the context of Kazakhstan. Gas emissions resulting from changes in agricultural management included in the project description will use quantification approach 3, not the model. c) The models used in the project activity will be able to support repetition of the project model simulations. This includes clear versioning of the model use in the project (latest version), stable software support of that version, as well as fully reported sources and values for all parameters used with the project version of the model. Where multiple sets of parameter values are used in the project, full reporting includes clearly identifying the sources of varying parameter sets as well as how they were applied to estimate stock change/emissions in the project. Acceptable sources include peer-reviewed literature and statements from appropriate expert groups, and must describe the data sets and statistical processes used to set parameter values. d)The validation of the project model will be carried out as per VMD0053
--	---

	requirements are met.	version 2.1, with model prediction error calculated using datasets as detailed in the same module, using the same parameters or sets of parameters applied to estimate stock change/emissions in the project. e) The same model version will be used in the baseline and project scenarios. And the same parameters/parameter sets will be used in the baseline and project scenarios. Model input data will be derived following the guidance in the VM0042 Table 6 and Table 8. Model uncertainty will be quantified following guidance in section 8.6. Models may be re-calibrated or revised based on new data, or a new model may be applied, provided the above requirements are met.
VM0042	The methodology is not applicable under the following conditions: 1) The project area has been cleared of native ecosystems within the 10-year period immediately prior to the project start date.	The fields in the project activity are cropland at the project start date and within ten years prior to the project start date, and it was not cleared of native ecosystems within the 10-year period prior to the project start date.
VM0042	2) The project activity is expected to cause a sustained reduction in productivity of greater than 5 percent, as demonstrated by peer-reviewed and/or published studies on the activity in the region or a comparable region.	The project activity will not lead a sustained reduction of greater than 5% in productivity. Published studies, where the region referred is in the same region as the project area, have demonstrated that these improved agricultural land management practices aim to enrich the soil which in turn result in improved plant growth and crop yield. This will be monitored throughout the project crediting period.

VM0042	3) The project activity is biochar application. Biochar may be applied as a soil amendment in the project area provided that the total organic carbon content ² of the biochar applied is subtracted from the estimated SOC stock change in the project scenario at each verification event.	No biochar is involved in the project activity.
VM0042	4) The project activity cannot occur on a wetland. Note that this condition does not exclude crops subject to artificial flooding where it can be demonstrated that crop cultivation does not impact the hydrology of any nearby wetlands.	The project activity will occur on a cropland, not a wetland.

3.3 Project Boundary

As per the methodology VM0042, the spatial extent of the project boundary encompasses all lands subject to implementation of the proposed improved agricultural land management practices. The spatial extent of the project boundary encompasses all lands within Akmola Oblast subject to implementation of the proposed improved agricultural land management practices.

The project boundary is shown in the figure 2.

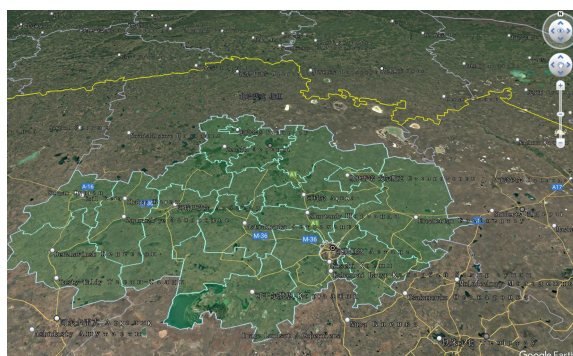


Figure 2 Project boundary

The selected carbon pools included in the project boundary in the baseline and project scenarios are listed in Table 3-1 below.

Table 3-1 Selected Carbon Pools in the Baseline and Project Scenario

Source	Included?	Justification/Explanation
Aboveground woody biomass	No	The project does not promote agroforestry as one of the project activities.
Aboveground non-woody biomass	No	As per VM0042, carbon pool does not have to be included because it is not subject to significant changes, or potential changes are transient in nature, per the VCS rules.
Belowground woody biomass	No	The project does not promote agroforestry as one of the project activities.
Belowground non-woody biomass	No	As per VM0042, carbon pool does not have to be included because it is not subject to significant changes, or potential changes are transient in nature, per the VCS rules.
Dead wood	No	As per VM0042, carbon pool does not have to be included because it is not subject to significant changes, or potential changes are transient in nature, per the VCS rules.
litter	No	As per VM0042, carbon pool does not have to be included because it is not subject to significant changes, or potential changes are transient in nature, per the VCS rules.
Soil organic carbon	Yes	Major carbon pool affected by the project activity that is expected to increase in the project scenario.
Wood products	No	Carbon pool is optional for ALM project methodologies and may be excluded from the project boundary per the VCS rules.

Table 3-2 GHG sources included in or excluded from the project boundary in the baseline scenario and project scenario as per VM0042.

Source		Gas	Included?	Justification/Explanation
Baseline	Soil carbon organic	CO ₂	Yes	Major source. Quantified as stock change in the pool, rather than an emissions source.
		CH ₄	No	Not applicable as per VM0042
		N ₂ O	No	Not applicable as per VM0042
	Fossil fuel	CO ₂	Yes	The sources of fossil fuel emissions are vehicles

Source	Gas	Included?	Justification/Explanation
			(mobile sources, such as trucks, tractors, etc) and mechanical equipment required by the ALM activity. Farmers are envisaged to reduce/minimize the use of fossil fuels in vehicles and mechanical equipments in the project activity.
	CH ₄	No	Not applicable as per VM0042
	N ₂ O	No	Not applicable as per VM0042
Soil methanogenesis	CH ₄	No	It is excluded from the baseline and project scenario. The project area involved in the project activity are dry cropland, the project activity will not significantly increase emissions compared to the baseline scenario and will not reduce emissions compared to the baseline scenario.
Enteric fermentation	CH ₄	No	There is no livestock present in the project or baseline scenario.
Manure deposition	CH ₄	No	There is no livestock present in the project or baseline scenario.
	N ₂ O	No	There is no livestock present in the project or baseline scenario.
Use of nitrogen fertilizers	N ₂ O	Yes	Major source. Farmers involved the project activity will reduce the use of nitrogen fertilizers.
Use of nitrogen fixing species	N ₂ O	Yes	If nitrogen fixing species are planted in the project, N ₂ O emissions from nitrogen fixing species will be included in the project boundary.
Biomass burning	CO ₂	No	It is excluded from the baseline scenario and project scenario, as burning of crop residue is prohibited by law and regulation.
	CH ₄	No	It is excluded from the baseline scenario and project scenario, as burning of crop residue is prohibited by law and regulation.
	N ₂ O	No	It is excluded from the baseline scenario and project scenario, as burning of crop residue is prohibited by law and regulation.
Woody biomass	CO ₂	No	It is excluded from the baseline scenario and project scenario, as agroforestry and other tree plantations are not part of the project activity.
Project Soil carbon organic	CO ₂	Yes	Major source. Quantified as stock change in the pool, rather than an emissions source.

Source	Gas	Included?	Justification/Explanation
	CH ₄	No	Not applicable as per VM0042
	N ₂ O	No	Not applicable as per VM0042
Fossil fuel	CO ₂	Yes	The sources of fossil fuel emissions are vehicles (mobile sources, such as trucks, tractors, etc) and mechanical equipment required by the ALM activity. Farmers are envisaged to reduce/minimize the use of fossil fuels in vehicles and mechanical equipments in the project activity.
	CH ₄	No	Not applicable as per VM0042
	N ₂ O	No	Not applicable as per VM0042
Soil methanogenesis	CH ₄	No	It is excluded from the baseline and project scenario. The project area involved in the project activity are dry cropland, the project activity will not significantly increase emissions compared to the baseline scenario and will not reduce emissions compared to the baseline scenario.
Enteric fermentation	CH ₄	No	There is no livestock present in the project or baseline scenario.
Manure deposition	CH ₄	No	There is no livestock present in the project or baseline scenario.
	N ₂ O	No	There is no livestock present in the project or baseline scenario.
Use of nitrogen fertilizers	N ₂ O	Yes	Major source. Farmers involved the project activity will reduce the use of nitrogen fertilizers.
Use of nitrogen fixing species	N ₂ O	Yes	If nitrogen fixing species are planted in the project, N ₂ O emissions from nitrogen fixing species will be included in the project boundary.
Woody biomass	CO ₂	No	It is excluded from the baseline scenario and project scenario, as agroforestry and other tree plantations are not part of the project activity.
Biomass burning	CO ₂	No	It is excluded from the baseline scenario and project scenario, as burning of crop residue is prohibited by law and regulation.
	CH ₄	No	It is excluded from the baseline scenario and project scenario, as burning of crop residue is prohibited by law and regulation.
	N ₂ O	No	It is excluded from the baseline scenario and project scenario, as burning of crop residue is

Source	Gas	Included?	Justification/Explanation
			prohibited by law and regulation.

3.4 Baseline Scenario

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

3.5 Additionality

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

3.5.1 Regulatory Surplus

Is the project located in an UNFCCC Annex 1 or Non-Annex 1 country?

☐ Annex 1 country ☒ Non-Annex 1 country

Are the project activities mandated by any law, statute, or other regulatory framework?

☐ Yes ☒ No

If the project is located inside a Non-Annex 1 country and the project activities are mandated by a law, statute, or other regulatory framework, are such laws, statutes, or regulatory frameworks systematically enforced?

☐ Yes ☒ No

3.5.2 Additionality Methods

This section has been omitted in accordance with the VERRA Registration and Issuance process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

3.6 Methodology Deviations

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

4 QUANTIFICATION OF ESTIMATED GHG EMISSION REDUCTIONS AND REMOVALS

4.1 Baseline Emissions

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

4.2 Project Emissions

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

4.3 Leakage Emissions

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

4.4 Estimated GHG Emission Reductions and Carbon Dioxide Removals

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

5 MONITORING

5.1 Data and Parameters Available at Validation

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

5.2 Data and Parameters Monitored

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

5.3 Monitoring Plan

This section has been omitted in accordance with the VERRA Registration and Issuance Process v4.6 16 October 2024 - §3.1.3 – Pipeline Listing Process.

APPENDIX 1: COMMERCIALLY SENSITIVE INFORMATION

Use the table below to describe the commercially sensitive information included in the project description to be excluded in the public version.

Section	Information	Justification

APPENDIX X: <TITLE OF APPENDIX>

Use appendices for supporting information. Delete this appendix (title and instructions) where no appendix is required.