AGREENACARBON PROJECT

Document Prepared by Earthood Services Private Limited

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Report Title	VCS Validation Report of AgreenaCarbon Project
Client	Agreena ApS
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Prepared By	Earthood Services Private Limited
Contact	Physical address: 1203-1205,12th Floor, Tower B, Emaar Digital Greens, Sector 61, Gurugram, Haryana, India 122011 Telephone: +911244204599 Email: info@earthood.in

	Website: https://www.earthood.in/
Approved by	Ashok Kumar Gautam
Work carried out by	Team Leader (New): Kaviraj Singh Team Leader (Old): Shreya Garg Technical Area (14.1) Expert (New): Sadaf Nazneen Technical Area (14.1) Expert (Old): Parul Srivastava Validator: Riya Sharma Validator (Trainee): Rahi Sarkar Local Expert (UK): Zacc Farodoye Local Expert (Ukraine): Oleksandra Shcherbakova Local Expert (Romania): Carolina Tapoc GIS & Remote Sensing Expert: Waris Hooda Technical Reviewer: Ashok Kumar Gautam TA (14.1) Expert to TR: Nepolion Borah

Summary:

- A brief description of the validation and the project

Earthood Services Pvt. Ltd. (Earthood) has carried out the validation assessment of the project activity "AgreenaCarbon Project" VCS 4022. The project activity falls under sectoral scope 14, Agriculture Forestry and Other Land Use (AFOLU) type and category Agriculture Land Management (ALM) and eligible ALM activity being Improved Cropland Management (ICM) as per the VCS Standard, v4.5. This is a large-scale project which involves implementation of improved agricultural land management activities that will lead to emission reductions and removals. The project is being implemented by Agreena ApS and supported by contractors and advisors. The latest version of approved VCS methodology VM0042, v2.0 has been applied to quantify the amount of greenhouse gas reductions and removals achieved through this project. The calculations of emissions reductions and removals have been carried out in a transparent and conservative manner and were made available in emission reductions and removals calculations spreadsheets for the validation assessment.

- The purpose and scope of validation

This assignment is an independent assessment by a Third Party (Earthood) of the proposed "AgreenaCarbon Project" VCS 4022 against all defined criteria set for the registration under the VCS Standard, Version 4.5. Validation is conducted using Earthood procedures which are developed in line with the requirements specified in the VCS Validation and Verification Manual v3.2. The purpose of the Validation is to confirm that the project

and all related project documentation are in accordance with all rules and requirements of the VCS Standard v4.5, applied methodology (VM0042, v2.0) and its associated tool VMD0053, v1.0.

- The method and criteria used for validation

The validation team has reviewed the project activity in accordance with the rules and requirements specified in the latest versions of VCS standard and checked the applicability of the project against the applied methodology and tools which includes the following:

VCS Standard, Version 4.5

VCS Program Guide, version 4.3

VCS Program Definitions, version 4.3

VCS Validation and Verification Manual, version 3.2

AFOLU Non-Permanence Risk Tool, version 4.0

The project activity is found to be appropriately eligible under Project Scope 14 "Agriculture, Forestry, and Other Land Use (AFOLU) and Improved Cropland Management (ICM) of category Agriculture Land Management (ALM).

- The number of findings raised during validation

During the validation process 10 clarifications, 62 corrective actions were raised and successfully resolved. 03 FARs have been raised. All the findings raised along with validation team's response have been included in the report in appendix IV.

- Any uncertainties associated with the validation

There were no uncertainties associated with the validation process.

- Summary of the validation conclusion

In conclusion, it is Earthood's opinion that the project activity "AgreenaCarbon Project" VCS 4022, meets all relevant requirements for VCS standards and guidelines, and correctly applies the methodology VCS VM0042, version 2.0 for the calculation of baseline, for determining additionality and to monitor emission reductions. The implementation of the project activity is resulting in total emission reduction of 10,867,398.91 tCO2e and annual average emission reductions of 543,369.95tCO2e/ year over its entire crediting period of 20 years spanning from 15/09/2021 to 15/09/2041. The total Project to be Verified Carbon Units calculated is 9,734,251.15 tCO2e and average Project Verified Carbon Units calculated is 486,712.56 tCO2e/ year till the project lifetime.

CONTENTS

1 INTRODUCTION

1.1 Objective

Earthood was contracted by Agreena ApS to undertake the validation of the project activity "AgreenaCarbon Project" (VCS ID 4022) which is under the VCS validation /12/.

The objective of the validation is to undertake an independent third-party assessment and to approve that AgreenaCarbon Project and all the related project documentation & supporting documents are in accordance with the rules and requirements of the VCS Standard v4.5 /4/.

Especially the project's baseline, monitoring plan, and the quantification of emission reduction & removal and non-permanence risk analysis is in line with relevant VCS requirements and host Country criteria are validated to confirm that the project design, as documented, is comprehensive and practical and meets the identified criteria. Independent third-party validation is a requirement for all VCS projects and is mandatory to provide assurance to the Verra and other stakeholders of the quality of the project and its projected Verified Carbon Units (VCUs) generation.

1.2 Scope and Criteria

The scope of the services provided by the Earthood for the project is to perform VCS validation of the project AgreenaCarbon Project (VCS 4022). The scope of validation is to assess the claims and assumptions made in the project description (PD) against the VCS Standard Version 4.5, applied methodology VM0042 and its associated tool and other relevant rules and requirements established for VCS project activities.

Validation Process and Methodology

The validation process is undertaken by a competent validation team and involves the following:

- the desk review of documents and evidence submitted by the project participant in context of the reference VCS guidelines issued by Verra

- validate whether the project activity meets the requirements of VCS Standard v4.5, VCS program guide v4.4 & VCS program definition v4.4

- evaluate whether the baseline and monitoring plan are in conformance with the applied VCS methodology VM0042, v2.0

- undertaking/conducting site visit, interview, or interactions with the representative of the project participant,

- reporting audit findings with respect to clarifications and non-conformities and the closure of the findings, as appropriate and

- preparing a draft validation opinion based on the auditing findings and conclusions

- technical review of the draft validation opinion along with other documents as appropriate by an independent competent technical review team

- finalization of the validation opinion (this report)

- an independent technical review team reviews the validation report made by the validation team. After the final report is accepted by the technical reviewer it is then approved by Earthood which is processed further according to the VCS procedures

Earthood has performed validation based on a risk-based approach focusing mainly on the significant risks to meet the qualification criteria and the ability to generate VCUs. The validation is not meant to provide any consulting towards the client. However, stated request for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 Reasonableness of Assumptions

In accordance the VCS Standard v4.5 para 4.1.2 and 4.1.8, the level of assurance of this validation report is reasonable. VVB has reviewed sufficient evidence to verify the project design, ex-ante and monitored parameters, monitoring plan and estimation emission reductions and removals calculations. Further clarifications were asked, and all the discrepancies found during the validation assessment have been raised as audit findings, and successfully closed.

1.4 Summary Description of the Project

AgreenaCarbon project focusses on helping the farmers to shift from conventional agricultural practices to regenerative agricultural practices. The practices introduced through this project are reduced or no tillage, residue management, planting cover crop and reduction in application of synthetic fertiliser and nitrification inhibitors. The current scope of work includes validation of claims made in the PD with respect to the implementation of these activities by the farmers. The project is reducing GHG emissions, helping in restoring degraded farmlands by enhancing soil organic carbon and providing with better crop yields. Overall, the project is enhancing soil productivity and ensuring food security in the identified project locations. In addition to its contribution to preventing the release of greenhouse gas (GHG) emissions, the project is contributing to SDGs 2 (Zero Hunger), 13 (Climate Action) and 15 (Life on land).

The project is a grouped project and is being implemented in the European continent. The fields included in each country are identified as Project Activity Instances (PAI). There are 10 countries included in this project at this validation stage, namely, Bulgaria, Denmark, Estonia, Latvia, Lithuania, Romania, UK, Moldova, Ukraine, and Spain. The addition of the fields (PAIs) of each country was found to be completed in different years. Currently, the fields are included in years 2021 and 2022 were included for validation assessment. VVB has checked the KML file to confirm the countries added and area of each field. The field is a demarcated crop area that is defined by the farmer and VVB confirmed that PP has sufficiently described the project location and context of fields in section 1.1.1 of the PD.

The implementation of the project activity is resulting in total emission reduction of 10,867,398.91 tCO2e and annual average emission reductions of 543,369.95tCO2e/ year over its entire crediting period of 20 years spanning from 15/09/2021 to 14/09/2041. The total Project to be Verified Carbon Units calculated is 9,734,251.15tCO2e and average Project Verified Carbon Units calculated is 486,712.56 tCO2e/ year till the project lifetime.

Detailed assessment of project activity is provided in following section 3.

2 VALIDATION PROCESS

2.1 Method and Criteria

The validation process involves the following.

•A review of the data and information presented submitted by the project proponent in context of the reference VCS rules and guidelines to verify their completeness.

•Undertaking site visit, interview, or interactions with the representative of the project proponent, project employees and local stakeholders,

•A review of the monitoring plan, the monitoring methodology including applicable tool(s) and, where applicable, the applied standardized baseline, and the quality assurance and quality control procedures.

•A review of calculations and assumptions made in determining the GHG data and emission reductions.

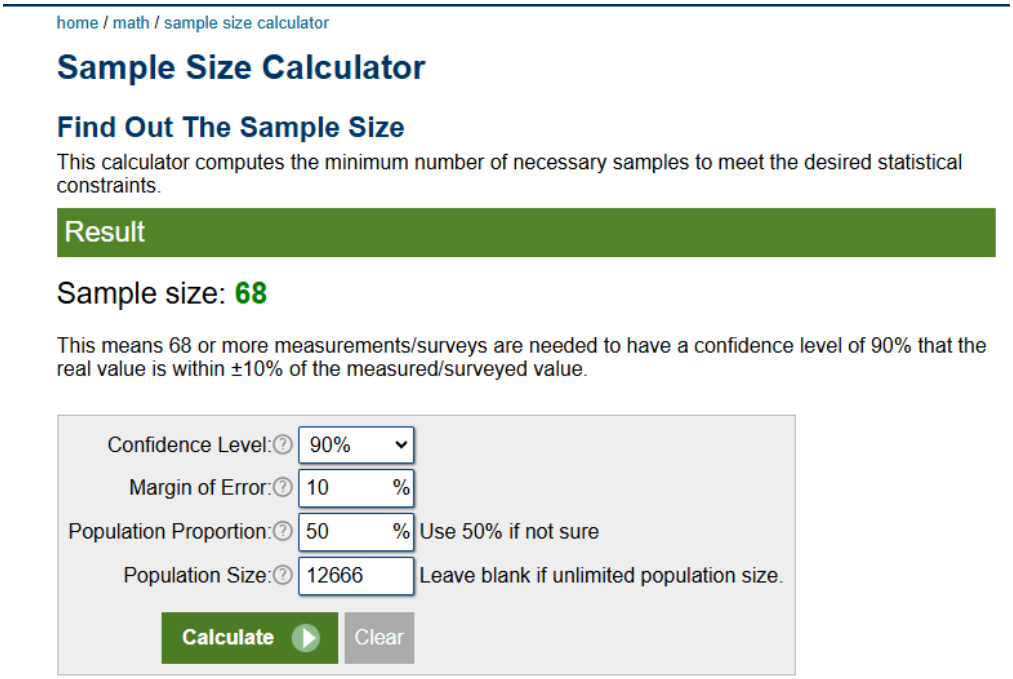
•An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.

•Site inspections were carried out including interviews with representatives of PP. Sampling approach followed by the validation team has been given in 2.4 of this report.

2.2 Document Review

The VCS validation of the project was performed by Earthood through the document review and on-site visit completed in line with the requirements specified in the VCS standard, VVB manual and applied methodology VM0042 and other VCS documents. Additionally, cross checks were performed for information provided in the project description (PD) using other independent source of information. The list of documents reviewed during the validation process is provided under appendix III of this validation report. Project compliance with national laws and regulations were reviewed following VCS standard and applied methodology. On-site inspection was carried out by Team Members that covered interviews with PP and relevant stakeholder, physical inspection of sampled farmers. Local Expert confirmed the project details against the local rules and regulations. Below is the details of validation team members and technical reviewer.

In terms of sampling applied for the document review, VVB has checked entire dataset provided for ERR quantification. However, sampling has been applied for the review of ownership documents. The contracts for farmers across the AgreenaCarbon project have been provided by PP for cross-verification while under validation process which has been thoroughly checked by VVB. VVB has applied 90/10 CI and checked the ownership documents randomly. The total fields are 12,616 and total ownership documents checked are 68. Below is the screenshot of sample size calculator. It is to be noted that VVB covered the site visit of this project through two means – on-site and remote audit (virtual zoom call). Please refer to the section 2.4 of this report for site visit sampling plan. VVB has checked the ownership documents on site for all the fields covered through on-site visit which is 30. Additionally, VVB checked the 70 ownership documents (beyond 68 sample number) through desk review for remote audit famers and non-site visit farmers.



Validation team members

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection/RSV	Interviews	Validation findings
1.	Team Leader (New)	IR	Singh	Kaviraj	Central Office	Y	Y	Y	Y
2.	Team Leader	IR	Garg	Shreya	Central	Y	N	N	Y

	(Old)				Office				
3.	TA Expert (14.1) (New)	IR	Nazneen	Sadaf	Central Office	Y	N	N	Y
4.	TA Expert (14.1) (Old)	IR	Srivastava	Parul	Central Office	Y	N	N	Y
5.	Validator	IR	Sharma	Riya	Central Office	Y	N	N	Y
6.	Validator (Trainee)	IR	Sarkar	Rahi	Central Office	N	N	Y	N
7.	Local Expert (UK)	EI	Farodoye	Zacc	Central Office	Y	Y	Y	Y
8.	Local Expert (Ukraine)	EI	Shcherbakova	Oleksandra	Central Office	Y	N	Y	Y
9.	Local Expert (Romania)	EI	Tapoc	Carolina	Central Office	Y	N	Y	Y
10.	RS & GIS Expert	IR	Hooda	Waris	Central Office	Y	N	N	Y

Technical reviewer and approver of the validation report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)
1.	Technical Reviewer	IR	Gautam	Ashok Kumar	Central Office
2.	TA Expert (14.1) to TR	IR	Borah	Nepolion	Central Office
3.	Approver	IR	Gautam	Ashok Kumar	Central Office

2.3 Interviews

Team members of the validation team visited the project site and conducted the site inspection in two phases. In accordance with VCS Standard version 4.5 section 4.1.11, VVB conducted physical site visit. Few of the samples were covered remotely due to unrest situation and security concerns. The physical site visit has been conducted by TL and Local Expert on dates 30/05/2023, 31/05/2023, 01/06/2023 and 06/06/2023. Further samples were covered in the month of May and June 2023. The selection of samples have been explained in following section 2.4 of this validation report.. The interviews were carried out with the PP, implementing partners, representatives from farmers associations sampled for the site visit, and other relevant stakeholders. The Following is the list of people interviewed.

No.	Interviewee			Date*	Subject	Team member(s)
	Last name	First name	Affiliation			
1.	Kowalczewski	Tomasz	Agreena	30/05/2023	Project design and implementation, documentation and management, objectives, project additionality	Kaviraj Singh, Zacc Farodoye
2.	Kenney	Karolina	Agreena	30/05/2023	Project design and implementation, documentation and management, objectives, project additionality. Roles and responsibilities of PP team, baseline identification, additionality of the project, monitoring plan, start date of the project, local stakeholder consultation, and monitoring activities, advisory company	Kaviraj Singh, Zacc Farodoye
3	Castosholo	Christina	Herbygaard	30/05/2023	Project design and implementation, documentation and management, objectives, project additionality. Roles and responsibilities of PP team, baseline identification, additionality of the project, monitoring plan, start date of the project, local stakeholder consultation, and monitoring activities, advisory company	Kaviraj Singh, Zacc Farodoye

4	Kunsdson	Kim	London APS	30/05/2023	Project design and implementation, documentation and management, objectives, project additionality. Roles and responsibilities of PP team, baseline identification, additionality of the project, monitoring plan, start date of the project, local stakeholder consultation, and monitoring activities, advisory company	Kaviraj Singh, Zacc Farodoye
5	Stouguard	Haus Gouger	Stouguard	30/05/2023	Project design and implementation, documentation and management, objectives, project additionality. Roles and responsibilities of PP team, baseline identification, additionality of the project, monitoring plan, start date of the project, local stakeholder consultation, and monitoring activities, advisory company	Kaviraj Singh, Zacc Farodoye
6	Larsen	Niels	-	30/05/2023	Project design and implementation, documentation and management, objectives, project additionality. Roles and responsibilities of PP team, baseline identification, additionality of the project, monitoring plan, start date of the project, local stakeholder consultation, and monitoring activities, advisory company	Kaviraj Singh, Zacc Farodoye

7	Gyymuel	Peter	-	30/05/2023	Project design and implementation, documentation and management, objectives, project additionality. Roles and responsibilities of PP team, baseline identification, additionality of the project, monitoring plan, start date of the project, local stakeholder consultation, and monitoring activities, advisory company	Kaviraj Singh, Zacc Farodoye

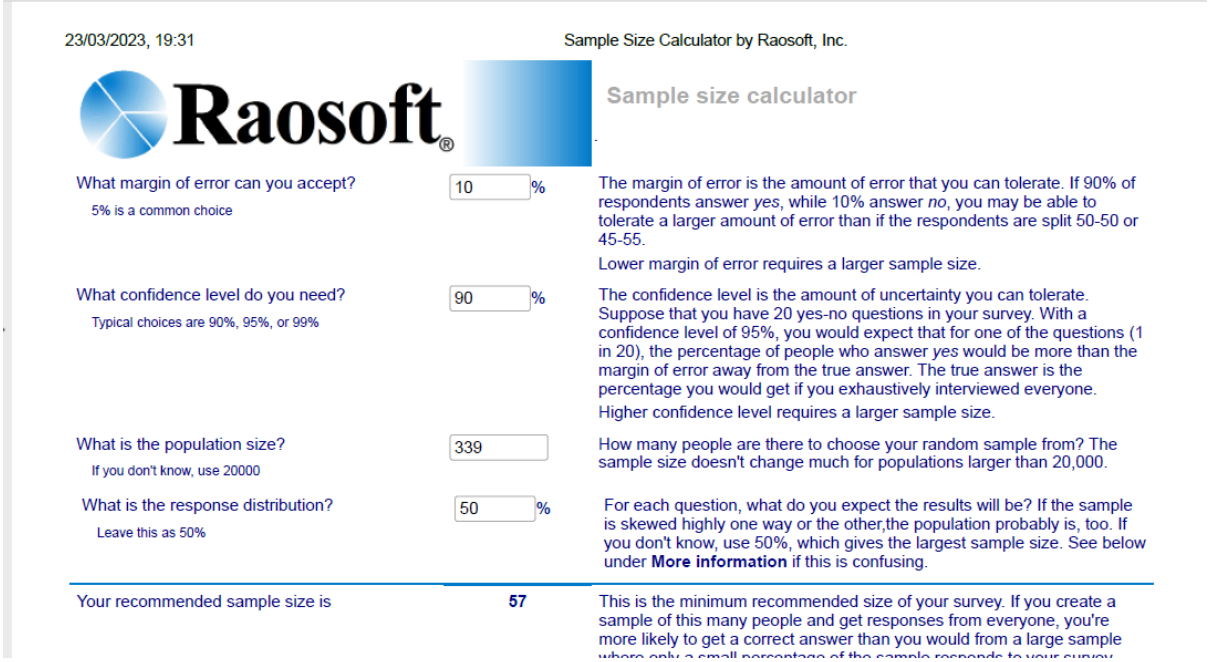
*The above date indicates that opening meeting has been completed on 30/05/2023. Dates of farmers interviews and other site visit has been mentioned above table.

2.4 Site Visits

VCS standard and applied methodology VM0042 does not instruct to use particular sampling approach, rather it is mentioned in the VCS standard that Where, due to the number of project activity instances, it is unreasonable to undertake an individual assessment of each initial or new instance, the validation/verification body shall document and explain the sampling methods employed for the validation of such instances. Such sampling methods shall be statistically sound (para 4.1.23 VCS standard, Version 4.5).

The following sampling approach has been taken from CDM Standard Sampling and surveys for CDM project activities and programmes of activities, version 9.0 to identify the no. of samples (farmers) to be visited (on -site as well as remotely) for the validation of the project. According to para 27 of the standard, When the project participants or the coordinating/managing entity have not applied a sampling approach, the DOE may apply a sampling approach, choosing a different confidence/precision than the ones indicated in paragraph 11 above, provided that samples are randomly selected and are representative of the population. Para 11 says Where there is no specific guidance in the applied methodology, the project participants or the coordinating/managing entity shall use 90/10 confidence/precision as the criteria for the reliability of sampling efforts for small-scale CDM project activities and 95/10 for largescale CDM project activities.6 Where two or more project activities, CPAs or PoAs are grouped for undertaking a common survey it shall be ensured that a confidence/precision of 95/10 is achieved for each of the project activity, CPA or PoA that is included in the group for the survey. VVB has applied 90/10 confidence/precision for the population size 339. out of total population size, 57 samples randomly selected and proportionally divided to cover all PAIs (each field is a PAI, will be included for site visit surveys. VCS standard and applied methodology VM0042 does not instruct to use particular sampling approach, rather it is mentioned in the VCS standard that Where, due to the number of project activity instances, it is unreasonable to undertake an individual

assessment of each initial or new instance, the validation/verification body shall document and explain the sampling methods employed for the validation of such instances. Such sampling methods shall be statistically sound (para 4.1.23 VCS standard, version 4.5). Attached is the sample calculator with this sampling approach sheet.



23/03/2023, 19:31 Sample Size Calculator by Raosoft, Inc.

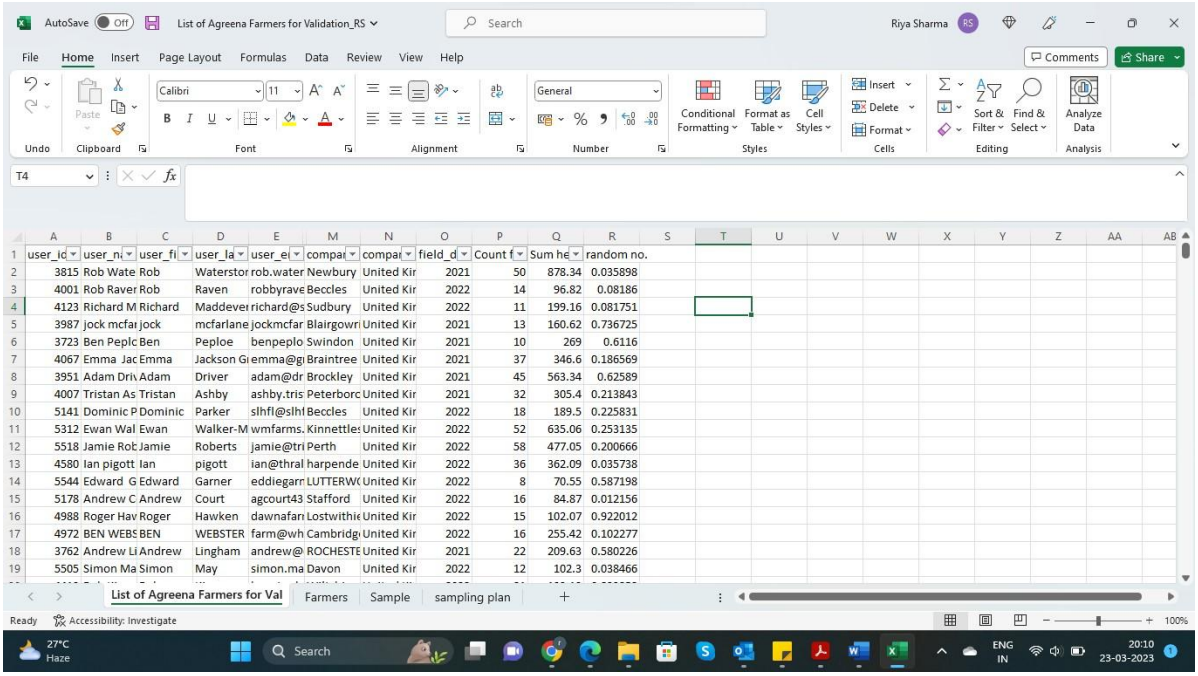
Raosoft®

Sample size calculator

What margin of error can you accept? 5% is a common choice	10 %	The margin of error is the amount of error that you can tolerate. If 90% of respondents answer *yes*, while 10% answer *no*, you may be able to tolerate a larger amount of error than if the respondents are split 50-50 or 45-55. Lower margin of error requires a larger sample size.
What confidence level do you need? Typical choices are 90%, 95%, or 99%	90 %	The confidence level is the amount of uncertainty you can tolerate. Suppose that you have 20 yes-no questions in your survey. With a confidence level of 95%, you would expect that for one of the questions (1 in 20), the percentage of people who answer *yes* would be more than the margin of error away from the true answer. The true answer is the percentage you would get if you exhaustively interviewed everyone. Higher confidence level requires a larger sample size.
What is the population size? If you don't know, use 20000	339	How many people are there to choose your random sample from? The sample size doesn't change much for populations larger than 20,000.
What is the response distribution? Leave this as 50%	50 %	For each question, what do you expect the results will be? If the sample is skewed highly one way or the other,the population probably is, too. If you don't know, use 50%, which gives the largest sample size. See below under **More information** if this is confusing.
Your recommended sample size is	**57**	This is the minimum recommended size of your survey. If you create a sample of this many people and get responses from everyone, you're more likely to get a correct answer than you would from a large sample

By other means, for AFOLU projects, the field inspection of 15-20% samples are considered reasonable and realistic to attain confidence over entire population size. Considering population of 339, 15-20% would be 50 to 68 samples. As discussed in above para, 57 samples are qualifying as per standard approach of sampling, and it was also found to be falling in the range of 15-20% sampling approach. VVB validated through random sampling and professional judgement that 57 samples are sufficient to check and validate for site visit. As mentioned above, these samples would further be divided into equal proportion for on-site inspection of selected countries (UK and Denmark) and for remote audit (Ukraine and Spain). Please see below the proportion table. Buffer samples are also provided in case of unavailability of main samples during audit. VVB has randomly selected the farmers using randomiser in the excel sheet.

Mode of SV	On-site			Remote
Country	Denmark	UK	Romania	Ukraine
Sample farmers no. (57)	06	10	14	27



Then the samples from each country have been chosen based on different factors viz., number of farmers enrolled in each country, years of enrolment, total area of farms available for project in each country and area owned by farmer individually. These factors played major role is selecting the samples required to cover during site visit. Along with this, VVB tried to capture the different climatic regime and agricultural practices. Considering that the scope of the assessment is validation, VVB conducted physical site visit. However, since the travel to Ukraine was not safe considering then existing political conditions, VVB opted to carry our remote audit especially with Ukrainian farmers. During the on-site visit, interviews with PP and implementing partners were conducted to discuss and confirm project details, implementation plan, monitoring plan, baseline scenario and other project details. The list of people interviewed are provided in section 2.4 of the validation report. The interactions included assessment of project development and design, implementation, and operation as per the PD /1/. The reviewed evidence along with other supporting documents were also provided to the validation team for assessment by the PP as listed in appendix III. The records of interview conducted has been maintained in the form, photographs taken at project site and attendance sheets /62//63//64/.

The onsite visit was performed in order:

- To understand and evaluate the project area/boundary, project additionality and expected outcomes

- Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the Monitoring Plan

- To validate the carbon pools identified in this project and to calculate carbon stock

- To interact with the farmers and their advisors to perceive their understanding of project

- To check the project management, meet the management team, check the monitoring plan and it's on ground implementation practices

•To verify the project documentation including project maps, etc.

Conclusion

Monitoring of the project activity were also discussed, and it was found that the monitoring plan given in PD is consistently followed on site. It was confirmed that data are captured and stored electronically and digitized onto GIS layers where applicable.

The validation team has reviewed the shared evidence and considered all the responses of the interviewees during site visit. The site visit was completed for the project in compliance with the VCS VVB Manual, v3.2 /5/.

CAR#19 was raised and successfully closed. Refer Appendix IV for details.

2.5 Resolution of Findings

The process for raising the findings (corrective actions, non-conformities, or other findings) by the validation team is carried out after thoroughly reviewing supporting documents shared by project proponent. Observations of site visit inspection was also raised as findings. As an outcome of the validation process, the validation team can raise different types of findings as per the following understanding:

A Clarification Request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met

Where a non-conformance arises the team leader shall raise a Corrective Action Request (CAR). A CAR is issued, where:

•The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions.

•The VCS standard, methodology and modules requirements have not been met; - there is a risk that emission reductions cannot be monitored or calculated.

•The validation process may be halted until this information has been made available to the team leader's satisfaction. Information or clarifications provided as a result of a CL may also lead to a CAR.

A Clarification Request (CL) will be issued where information is insufficient, unclear or not transparent enough to establish whether a requirement is met.

A Forward Action Request (FAR) will be issued when certain issues related to project implementation should be reviewed during the following verification assessment.

During the validation process, total 10 CLs and 62 CARs were raised and resolved satisfactorily. The list of CARs/CLs raised, and the response provided, the mean of validation, reasons for their closure and references to correction in the relevant documents are provided in Appendix IV of this report. 03 FARs have been raised.

2.5.1 Forward Action Requests

FAR#01

VVB has raised one forward action request that shall be addressed in the first verification assessment. The FAR is raised on the tillage model. As part of Earthood's assessment, the model's outputs are undergoing further cross-validation within each respective climatic region, in strict accordance with the QA/QC procedures outlined in the PD.

Agreena will continue to invest in ground truth data collection across all regions that the models will be applied to. Models will be retrained on a yearly basis before being used to verify a specific harvest year. The retraining of the data is occurring now and will be completed throughout September and October 2023 prior to verification completed. More information is provided in FAR table under appendix IV section of this validation report.

FAR#02

The next verifying VVB shall check how the recommendation provided by IME in the Third review Model Validation reprot Agreena V4.0 dated Sept 2023 Chapter: Outlook have been addressed by PP in the Model Validation Report, in the verification assessment. Below are the recommendations provided by IME in the IME Evaluation report.

1. We recommend to extend the data sources now in the CVD. We advise to consider the following data resources on long-term changes in soil carbon; the Catch-C project (http://www.catch-c.eu/), the long-term Rothamsted soil carbon experiments (https://www.era.rothamsted.ac.uk/), and the Swiss Agroscope long-term agriculture experiments (https://www.agroscope.admin.ch/agroscope/en/home/topics/environment-resources/monitoring-analytics/long-term-trials/zofe.html). Adding this data may also improve upon the uncertainty ranges. In particular the work could benefit from the inclusion of the wealth of soil data from the United Kingdom.

2. Considering the practise change and requirements under VM0042, it is crucial that the PC included in this project be fully additional, also in the context of European Agricultural requirements.

3. The scale of the model applicability is key to consider. As per Verra VMD0053 the model needs to be provided at least for each unique combination of CZ, PC and CFG. It could be investigated how representative a regional, broad model is on a farm level. In regional models, extremes (low, high) are often averaged out. However, each individual farm may be on a more variable spectrum, which the regional model does not capture. Considering this element, enhancing the resolution of the modelling may enhance the applicability of the modelling and may reduce the uncertainty.

FAR#03

During the initial assessment of project validation, PP has made the model validation report as per version 1,0 of VMD0053. However, the latest and applicable version of module VMD0053 has been version 2.0 at the time of final submission. Therefore, VVB and IME have reviewed the requirement of VM0042 and VMD0053 version 2.0 and it was confirmed that the project model is in conformance with

VMD0053 version 2.0. A gap assessment has been completed by IME between Version 1 and Version 2 and has been completed by the IME confirming that Agreena can be assessed under Version 2.0 . Moreover, in the IME Evaluation version migration report, IME informed that IME will also review the updates Agreena has made to the existing model in order to evaluate and close outstanding recommendations. This shall be addressed by verifying VVB in the first verification.

3 VALIDATION FINDINGS

3.1 Project Details

Project type, technologies and measures implemented, and eligibility of the project

Agreena project focusses on helping the farmers to shift from conventional agricultural practices to regenerative agricultural practices. The practices introduced through this project are reduced or no tillage, residue management, planting cover crop and reduction in application of fertiliser. The current scope of work includes validation of claims made in the PD with respect to the implementation of these activities by the farmers. The project is reducing GHG emissions, helping in restoring degraded farmlands by enhancing soil organic carbon and providing with better crop yields. Overall, the project is enhancing soil productivity and ensuring food security in the identified project locations. In addition to its contribution to preventing the release of greenhouse gas (GHG) emissions, the project is contributing to SDGs 2 (Zero Hunger), 13 (Climate Action) and 15 (Life on land).

Project design, including eligibility criteria for grouped projects

The validation team validated the project design against the VCS requirements and applied methodology. The eligibility criteria as mentioned in sections 2 and 3 of the PD has been verified against the following requirements:

The eligibility criteria of grouped projects in line with VCS Standard 4.5, para 3.6.16 and 3.6.17 have been checked. The means of validation has been summarised in below table.

1. Project Activity Instances (PAIs) must meet the applicability conditions set out in the methodology applied to the project. Each new PI must demonstrate compliance with the applicability conditions set out in the employed methodology: VM0042.

VVB assessment: It was confirmed that first PAI meets the applicability criteria of applied methodology /8/. Please refer 3.3.2 section of this report. Furthermore, PP has confirmed in the PD section 1.4 that PI1 has also complied with all the applicability conditions of the applied model VMD0053.

2. Use the technologies or measures specified in the project description. Only measures specified in the project description are to be employed in new instances.

VVB assessment: The technology identified in this project is the regenerative agricultural practices namely, reduced or no tillage, residue management, planting cover crop and reduction in application of chemical fertiliser/46/. The PAIs introduced in the validation stage applies the defined technology. The site visit observations /63/ confirmed that the included PAI is in conformance of this eligibility criterion.

3. Apply the technologies or measures in the same manner as specified in the project description. Adopt three or more activities outlined in Section 1.11 PD, including, inter alia:

VVB assessment: It was confirmed through evidence /32//39//41//42//46/ and site visit observations /63/ that the activities adopted in first PAI were establishment of community associations, co-development and adoption of improved grazing plan, and implementation of grazing plan.

The validation team has checked the eligibility criteria as mentioned in sections 2 and 3 of the PD against following requirements:

☐ AFOLU specific requirements of Section 3.1 and Section 3.2 of the VCS Standard v4.5

☐ This baseline conforms to the methodological requirements and Section 3.12.1 of the VCS Standard, v4.5

☐ The project crediting period chosen is as per Section 3.8.3 of the VCS Standard, v4.5

☐ The project validation is according to Section 3.7.3 VCS Standard, v4.5

☐ The Project has used a current and valid, approved, and up-to-date methodology to calculate its greenhouse gas emissions (GHG) reductions and removals in a conservative manner including the full application of any tools or modules referred to by a methodology as required by Section 3.1.1 & 3.1.2 of the VCS Standard, v4.5

☐ The Project has demonstrated its additionality requirements as set forth in section 3.13.1(1) of the VCS Standard, v4.5

☐ Detailed assessment has been provided in following sections of this report.

The validation team confirms the project activity conformance with VCS standard as follows:

☐ AFOLU specific requirements of Section 3.1 and Section 3.2 of the VCS Standard v4.5

☐ The Project falls under the ALM category in accordance with Section 3.2.1, Section 3.2.8, Section 3.5.1, and appendix point numbers A1.2 of the VCS Standard, v4.5

☐ This baseline conforms to the methodological requirements and Section 3.12.1 of the VCS Standard, v4.5.

☐ The project crediting period chosen is as per Section 3.8.3 of the VCS Standard, v4.5

☐ The project validation is according to Section 3.7.3 VCS Standard, v4.5

The Project has used a current and valid, approved, and up-to-date methodology to calculate its greenhouse gas emissions (GHG) reductions and removals in a conservative manner including the

full application of any tools or modules referred to by a methodology as required by Section 3.1.1 & 3.1.2 of the VCS Standard, v4.5

The Project has demonstrated its additionality requirements as set forth in section 3.13.1(1) of the VCS Standard, v4.5

Project proponent and other entities involved in the project.

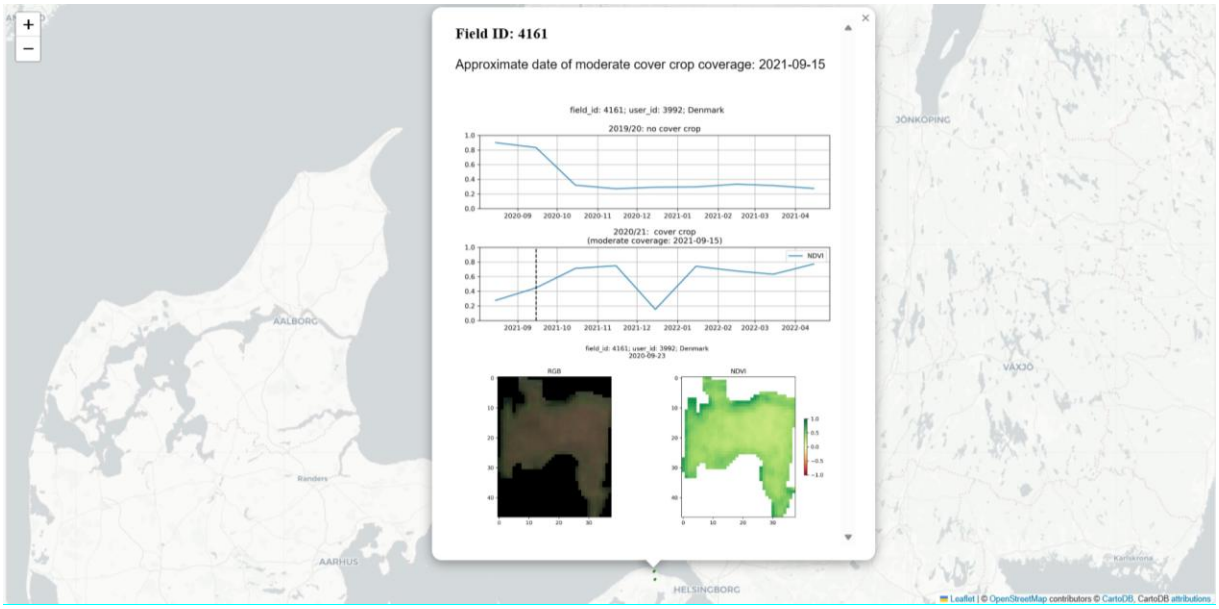
The project proponent is Agreena ApS and is responsible for project design, implementation and monitoring. There is no entities involved in this project, however, the implementation of the project is being carried out with the help of advisory companies and contractors.

Ownership

PP has attained the ownership of the project by signing contract with the farmers. The evidence named "Benefit Contract" and "Farmers information in the Agreena platoform" were checked to confirm the ownership. The Benefit contract has the information of farmer including name, assigned User ID, address and contact information. It has all the terms and conditions required to be informed including project details, effective date of contract and harvest years schedule. VVB has checked the uniqueness of the contract and farmers details with the corresponding details of farmers in the Agreena platform. The user ID, field size and contact details were the basis to identify the correct farmer in the Agreena platform. Screenshots of filled details in the platform of sampled farmers were checked. VVB confirmed that this is in line with the VCS Standard section 3.7 that requires PP to demonstrate that they have the legal right to control and operate project or program activities. The requirement has been fulfilled in accordance with the section 3.7.1 (6) and the ownership of project had been discussed and confirmed with the PP and farmers.

Project start date

In PD section 1.8.1, it is explained that the start date in the project has been identified from the implementation of project activity cover crop. The method of identification used by PP is NDVI analysis. The project was officially initiated on 15/09/2021, with the primary aim of identifying winter cover crops planted in the preceding year, which is 2021. This identification process heavily relies on the incorporation of NDVI satellite data within Agreena's cover crop detection model. Agreena's model is built upon an extensive dataset that encompasses data from both Sentinel-1 and Sentinel-2 imagery, along with various vegetation indices. The model plays a central role in achieving accurate cover crop identification. The measurement of vegetation coverage, a critical aspect of the project's objectives, is derived from NDVI values obtained from cloud-free imagery. To effectively detect moderate vegetation cover, a threshold value of 0.33 is applied /86/. These project activities commenced in 2021, aligning with the initiation of harvest activities, particularly the planting of winter cover crops. This timing coincided with the signing of the initial contract in July 2021. It's important to emphasize that this approach underwent comprehensive testing and validation subsequent to the implementation of the underlying code. This rigorous process culminated in a live demonstration, ensuring the method's accuracy and reliability. In the PD, PP has correctly provide the timeframe in which a subset of fields were identified where cover crops were not planted in 2019/20, but were subsequently planted in 2020/21. VVB checked the filed ids provided in appendix 10. The procedure mentioned in PD appendix 10 has also been checked and found complete. VVB confirmed that PP has correctly identified that start date of the project.



VVB has confirmed the accuracy and conservativeness of the selected Project start date (i.e., 15th September 2021) and the approach of using NDVI analysis for the start date is as follows.

The method of start date identification used by PP is NDVI analysis. VVB checked the NDVI satellite data within Agreena's cover crop detection model. The measurement of vegetation coverage, a critical aspect of the project's objectives, is derived from NDVI values obtained from cloud-free imagery. These project activities commenced in 2021, aligning with the initiation of harvest activities, particularly the planting of winter cover crops. This timing coincided with the signing of the initial contract in July 2021. It is to be reiterated that VVB checked the filed ids provided in appendix 10. The procedure mentioned in PD appendix 10 has also been checked and found complete. VVB confirmed that PP has correctly identified that start date of the project. VVB has accepted this approach as the independent desk review confirmed the appropriateness of this application. Various studies, one of them is quoted here. "NDVI can also be used in precision agriculture, which is the use of technology to optimize crop management decisions. NDVI values can be used to identify variations in crop growth and health, and to target specific management practices, such as fertilization and irrigation, to areas of the field that need it most. This can lead to more efficient use of resources and can improve crop yields and quality." /89/ Research papers /90//90/ also confirmed that "NDVI holds good performance to classify vegetation over TDVI and SAVI with respect to overall accuracy". Considering the project activity and its wide extend to multiple country farmers, the approach of using NDVI was found appropriate.

Project crediting period

The crediting period of the project starts from 15/09/2021 and ends on 15/09/2041, the total year of crediting is 20 years. PP has correctly identified project crediting period in line with Section 3.9.3. of the VCS Standard, v4.5.

Project scale and estimated GHG emission reductions or removals

The project is a large-scale project. total emission reduction of 10,867,398.91 tCO2e and annual average emission reductions of 543,369.95 tCO2e/ year over its entire crediting period of 20 years spanning from 15/09/2021 to 15/09/2041. The calculations have been checked from submitted ER calculation sheets.

Project location

The project is a grouped project and is being implemented in the European countries. The fields included in each country are identified as Project Activity Instances (PAI). There are 10 countries included in this project at this validation stage, namely, Bulgaria, Denmark, Estonia, Latvia, Lithuania, Romania, UK, Moldova, Ukraine, and Spain. The addition of the fields (PAIs) of each country was found to be completed in different years. Currently, the fields are included in years 2021 and 2022 were included for validation assessment. VVB has checked the KML file to confirm the countries added and area of each field. The KML was also used for confirming the details of each farmer. VVB has checked the PD and project KML file submitted for the area assessment. The PD section 1.1.1 includes clear description of project geographic area. The geographic area of the first activity instances covers 10 countries. It has been cleared in the PD that the initial project instances cover 10 countries, the project boundary is pan-European. The total area mentioned in the updated PD section 1.1.1 is 479,834.11 ha and is correctly calculated by KML file also. 3. Updated PD section 1.1.1, table 1-2 List of countries, fields and hectares that define the first project activity instances consists of information of number of fields and no. of hectare country wise which are involved in the initial activity instances. The total area is 479,834.11 ha and number of fields involved in the first PAI is 12,616. The area and fields are verified from KML file. In line with the VCS Standard v4.5, section 3.11.1 and 3.11.2, it was found that the PAIs included in this project are clearly delineated in the map and non-eligible areas within the boundary of the KML files are excluded from the area calculation. It has been assessed and confirmed that the submitted KML file consists of polygons demarcating areas where actual project activities are to be implemented for the initial project instance with area attribute added for verification. Furthermore, this has been confirmed that the non-eligible areas are not accounted in ERRs calculation.

PD section 3.3 consists of map of project activity locations. Multiple geographic areas are defined for the initial PAIs and this has been expressed in the PD including through 'initial instances' specification. Thorough description of the geographical location and boundaries of the AgreenaCarbon Project has been included in section 3.3 and 3.4 of the PDD. In the PD, baseline scenario is directly linked to geographic and climatic area (per VCS Standard 3.6.11) as well as pre-project agricultural management practices (see section 3.4.2 for a detailed table). As for the additionality 3-steps assessment, it is available in sections 3.4.4, 3.4.5, and 3.4.6. The assessment of project location is updated in section 3.1 of the validation report.

Conditions prior to project initiation

As given in the section 1.1.2 of the PD, the baseline scenario in the project area involved intensive tillage, no cover cropping, removing, or burying crop residues, and using synthetic fertilizers, herbicides and pesticides. VVB has done the literature survey to confirm the baseline scenario and it was confirmed that the introduced regenerative agricultural practice through this project is not common. Further, the baseline scenario was re-confirmed from farmers and PP during site visit. The results of the farmers interviews confirmed that the introduced practices are helping them to achieve soil productivity and increased yields of the crops.

Project compliance with applicable laws, statutes and other regulatory frameworks

The project complies with the legal compliance requirements of the VCS Standards v4.5 Section 3.1.4, which states, "Projects and the implementation of project activities shall not lead to the violation of any applicable law, regardless of whether or not that law is enforced."

The Project has been designed and implemented to comply with the applicable national laws and regulations of the European Union. This includes the relevant laws, acts and regulations concerning relevant aspects of carbon emission and carbon offsetting and is clearly presented in section 1.14 of the PD/1/.

VVB has reviewed the updated PD section 1.14. In this project, the project's compliance on laws and regulations has been captured in the Benefits Contract signed between farmers and PP. VVB has reviewed the Benefit contract which include appropriate requirements under 17.5 and 17.6 of the contract. This approach found to be appropriate considering this is a multi-country project. Hence, it has been concluded that the project is implemented and adhere to the respective laws and regulations of the project area. Hence, it was concluded that the project is in line with the section 3.1.4 of the VCS Standard v4.5.

Participation under other GHG programs:

The Project has not sought to generate any other type of GHG carbon credits other than VCUs and has never received any other form of GHG-related environmental credit (mentioned in section 1.15.1 of PD) and has not applied for validation under any other GHG programme, nor has it been rejected for by any other GHG programmes (mentioned in section 1.15.2 of PD). Additionally, the project is not generating emission reduction credits in a country or region with any type of compliance mechanism (mentioned in section 1.16.1) and has not sought any other type of environmental credit. The declaration of the AgreenaCarbon project dates 23/02/2023 states the project is not located within a jurisdiction covered by a jurisdictional REDD+ program; has not been registered nor is seeking registration under any other GHG Program1; has not been rejected by any other GHG program; and is not part of an emissions trading program or any other mechanism and has not sought or received another form of GHG related credit. The additional information to be noted here which has also been provided in the declaration is that the AgreenaCarbon has quality certification under the ISO 14064-2 specifications for the quantification of GHG reductions and removals, which has been verified by the verification body. No certificates have been issued under the verification process and a thorough process for prevention of double counting is in place in the AgreenaCarbon Project. The complete information provided by PP ensures that there is no double counting incidence in this project.

In summary, Section 1.16.1 of the PD confirms that the project does not participate in any emissions trading programs as well as the project has not sought or received another form of GHG-related credit, including renewable energy certificates. Regarding double counting under other GHG programs, PP has clarified in section 1.15.1 that the project has not credited any farms under ISO. AgreenaCarbon has stated in the PD in section 1.16 regarding the ISO program and steps taken to ensure there is no overlap with the Verra project.

The details are mentioned in section 1.5 and 1.16 of the PD/1/. The PP has also submitted declarations /73/ to confirm the above statements. The validation body has crosschecked the

documents and declarations and found that the claim is in line with the Sections 3.19 and 3.20 of VCS Standards v4.5.

Other forms of credit and supply chain (Scope 3) emissions

The supply chain emissions are the condition introduced in new versions of PD and Validation report. PP has mentioned in that PD section 1.16.2 that the scope 3 emissions are not tracked currently. Moreover, as per the clarification to VCS program rules and requirements released on 31/05/2023, effective date for the Scope 3 emissions double claiming provisions in Sections 3.23.7, 3.23.8, and 3.23.9 of the VCS Standard, v4.5 has been delayed, therefore no further assessment has been carried out in this regard.

Sustainable development contributions

In section 1.17 of the PD/1/, the PP has provided the sustainable development contributions of the project. PP claims the following sustainable development contributions:

SDG 2 Zero Hunger

SDG 13 Climate action

SDG 15 Life on land

Validation team finds the information in the sections 1.17 of the PD /1/ is consistent with the observation of audit team and outcome of the interviews with local communities and PP during the site visit. PP has provided the monitoring plan for each targeted SDGs in table 5 of PD which was found complete and achievable.

Additional information relevant to the project, including:

Leakage management for AFOLU projects

The potential leakage area identified and accounted in this project is the market leakage and manure leakage. The details of the leakage management plan and implementation of leakage and risk mitigation measures is given in section 4.3 of the PD/1/. Validation team finds the information in the sections 1.18 and 4.3 of the PD /1/ is consistent with the observation of audit team and outcome of the interviews with local communities and PP during the site visit. Further assessment of leakages ae provided in following sections of this report.

Commercially sensitive information

Commercially sensitive information in this project is the information of farmers and the financial information. This information has not been provided in the public version of PD and not presented the public version of validation report also. PD follows the definition of sensitive information ‘commercially sensitive information’ as per VCS Program definition v4.4. For instance, PD Appendix 5 clearly demonstrate the common practice analysis as part of additionality which does not fall under commercially sensitive information.

PD section 1.18 provided the information of commercially sensitive information which is assessed in below table.

Section/ Document	Information	Justification and VVB assessment

Section 2.2.4 Stakeholder Engagement and Consultation	Four Bullet points have been removed which contain names of companies with which Agreena is affiliated.	Contractual and business senstive information. The information qualified as commercial sensitive information as per the VCS Program Definition v4.4 which defines - Trade secrets, financial, commercial, scientific, technical or other information whose disclosure could reasonably be expected to result in a material financial loss or gain, prejudice the outcome of contractual or other negotiations or otherwise damage or enrich the person or entity to which the information relates.
Appendices 1-11	Additional project evidence related to various sections of the PD is considered supplementary material.	As stated in the PD, it is not directly tied to the quantification or the definition of the baseline or additionality tests. All requirements laid out in VCS version 4.5 are answered in the body of the PD.
KML File	KML file with coordinates is submitted to Verra for review. The file itself contains farmer field locations for all farmers in the AgreenaCarbon Project.	Containing exact coordinates of Agreena affiliated farmers, putting privacy concerns at risk.
Supplementary Calculation Material	Calculation step-by-step supplementary material contains code from RothC and model-building information.	As per the definition of sensitive information given in VCS Program Definition v4.4
Supplementary Uncertainty Material	Steps taken to calculate the uncertainty of the AgreenaCarbon Project.	As per the definition of sensitive information given in VCS Program Definition v4.4

CL#01, CL#02, CL#05, CL#06, CL#07, CL#08, CL#10, CAR#01, CAR#02, CAR#03, CAR#04, CAR#05, CAR#06, CAR#07, CAR#09, CAR#19, CAR#20 and CAR#51 were raised and successfully closed. Refer Appendix IV for details.

3.2 Safeguards

3.2.1 No Net Harm

As described in section 2.1 of the PD/1/, the project does not expect any negative environmental impacts. Agreena project focusses on helping the farmers to shift from conventional agricultural practices to regenerative agricultural practices. The practices introduced through this project are reduced or no tillage, residue management, planting cover crop and reduction in application of fertiliser. The same has been confirmed from PD and submitted evidence and verified during on-site visit. Also, no further justification on the use and effect of all applied agricultural or forestry products

(chemical or biological) are required. The project is in conformance with VCS Standard v4.5, section 3.17.16.

PD section 2.2 Local Stakeholder Consultation to include the required information of stakeholder consultation input received from client and how the inputs are considered in the project design. PP with the help of engaged partners conducted the local stakeholder engagement sessions. The Partner agreements established between PP and various entities who entered AgreenaCarbon Programme have been reviewed. The purpose of these partners is to help onboarding and contracting the farmers. There are different partners for each country added in this project and they are referred as Lead Partner or Sales Partner. VVB has reviewed the signed partner agreement for all the countries added in the validation stage. These partners are responsible for farmers engagement, account creation, gathering of field data from farmers, conduct validation meetings, confirming the farmers onboarding and contracting. Once the farmers get onboarded, they help in providing actual field data to the project database and verify the values required for input parameters for ERR calculations. They are also the first point of contact for farmers and helps them to update about the project steps and outcomes. Internally, the partners conduct weekly or bi-weekly meeting to discuss farmers status and overall progress. /24//25//26//27//28/

The Validation team on the basis of site visit and interviews with farmers and PP concluded that there is no negative impact of project activities on the environment and the communities. The validation body finds that it will provide positive environmental, social, and biodiversity benefits and hence is in accordance with section 3.16.1 of the VCS Standard v4.5.

3.2.2 Local Stakeholder Consultation

PP has carried out series of stakeholder consultation through workshops, focus group meetings, stakeholder engagement meeting. Section 2.2 of the PD explained the local stakeholder consultation process and provided stakeholder engagements in tabulated forms. The dates and number of attendees provided in PD are verifiable. Stakeholder engagement procedures have been accomplished in lines with the VCS standard requirements. The categories of stakeholders included are Board of Directors, Carbon Advisory Board, established markets in Denmark and UK and local stakeholders including farmers. PP has conducted series of meeting before the start of the project. The physical person meetings were also held in different countries. All the feedback received from stakeholder meetings are well recorded and submitted by PP for this validation assessment. Ongoing communication channels have been established through advisory board and market. Records of project level meetings (online and offline), local level meetings (invitation proof and invitee list) and farmers feedback and responses were checked. /56//57//58//59//60/. PD section 2.1 and it was found that PP has explained about both co benefits and negative impacts of the project.

It was confirmed that the stakeholder agreed to the project design and showed enthusiasm to implement the project. Mechanism of ongoing communication has been mentioned through identified themed meetings. Also, the project conforms with the 3.16.2, 3.16.3 and 3.16.4 of the VCS Standard v4. VVB checked that PP has provided local stakeholders information in subsections. General provisions section provide identification and engagement with different stakeholders viz., local farmers and their representatives, NGOs and agricultural associations, academia (universities, institutes, etc.), agriculture experts and advisors, agricultural suppliers, governmental representatives, policy leaders,

carbon and soil science experts, and business leaders across the agriculture supply chain. Farmers across the pan-European region are the main stakeholders. Farmer Socio-Economic and Cultural Diversity has been clearly provided in section 2.2.2 of the PD. Further sections in PD provide mechanism of ongoing communication which are appropriate and provide complete description. Agreena's activities are founded on our Code of Conduct and the respect of international provisions against discrimination and sexual harassment. VVB has checked this evidence. It was confirmed that no conflict and grievance was raised with regards to the AgreenaCarbon project, including on topics related to property rights.

The PD section 2.2.4 "stakeholder engagement and consultation" provided the information of stakeholder groups identified and maintained in the project. These stakeholder groups are farmers, agricultural cooperatives and associations; agricultural industry actors and trade associations from the agri-food sector; technical, scientific and policy experts; research and academic bodies; and NGOs. A thorough description of each stakeholder category has been provided in the PD. During the initial assessment of project, VVB has reviewed the stakeholder consultation records and identified the dates as mentioned in the PD. It was identified that the PP has conducted stakeholder consultations as per the VCS requirements. The VCS Standard, v4.5, section 3.18.2 (1-7) has been met. The representative from each stakeholder group has been clearly identified and all project related details have been well discussed and informed with stakeholders and as confirmed through the submitted document. Stakeholder Engagement and Risk Analysis document /40/ and other documents /24//25//26//27//28//34/ provided VVB assurance of the procedure followed on site. VVB cross-check the stakeholder engagement procedure with PP during site visit discussion and observations.

CAR#08,CAR#10 and CAR#56 were raised and successfully closed. Refer Appendix IV for more details.

3.2.3 Environmental Impact

This is described in detail in section 2.3 of the PD/1/. Since, there is no anticipated negative environmental impacts of the project. Hence no environmental impact assessment was undertaken by the project. Also, the planned changes to be made in the project area do not have any foreseeable negative environmental or socioeconomic impacts that would permit any activities impacting the environment negatively.

Validation team finds the information in the sections 2.3 of the PD /1/ is consistent with the observation of audit team and outcome of the interviews with local communities and PP during the site visit.

3.2.4 Public Comments

In accordance with the requirement in para 3.17.6 of the VCS standard v4.5 "All projects are subject to a 30-day public comment period. The date on which the project is listed on the project pipeline marks the beginning of the project's 30-day public comment period".

This project was open for public comment for 30 days from 20/01/2023 to 19/02/2023/12/ for public comments. Comment received during the commenting period, as evident from the VCS pipeline in the web interface was addressed by PP in the audit finding rounds.

CAR#17 and CAR#18 were raised and successfully closed. Refer Appendix IV for details.

3.2.5 AFOLU-Specific Safeguards

The local stakeholder identification process has been clearly given in section 2.5 of the PD. Assessment has been provided in above section. VVB concluded that the project is in compliance with the requirements of the VCS Standard Version 4.5 section 3.18.15. Please refer section 3.2.2 for complete assessment of LSC and AFOLU-Safeguards topics. The validation team finds the information in the sections 2.5 of the PD /1/ is consistent with overview of substantive updates to VCS rules & requirements /3//4//5//6/.

3.3 Application of Methodology

3.3.1 Title and Reference

Title and reference of the applied methodology and tools in the project has been given below.

VM0042: Methodology for Improved Agricultural Land Management, v2.0 /8/

VMD0053: Model Calibration, Validation, and Uncertainty Guidance for the Methodology for Improved Agricultural Land Management, v1.0 /9/

The validation team confirms that PP has provided correct references of the applied methodology and tools in the section 3.1 of the PD /1/ and correctly applied the methodology. Applicability criteria has been checked and validated in next section of this report. The validation team confirms that the methodology and tools, and the specific versions of them applied by the project, were valid at the time of validation.

CAR#06 was raised and successfully closed. Refer appendix IV for details.

3.3.2 Applicability

The validation team has checked the applicability condition of applied methodology and tools for the grouped project and first PAI and the same has been justified as follows:

Applicability Conditions	AgreenaCarbon Fulfilment of Conditions	Means of Assessment
VM0042, version 2.0		
Projects must introduce or	AgreenaCarbon requires that	The applicability criterion has

implement one or more new changes to pre-existing agricultural management practices which: • Improve fertilizer (organic or inorganic) management; • Improve water management/irrigation; • Reduce tillage/improve residue management; • Improve crop planting and harvesting (e.g., improved agroforestry, crop rotations, cover crops); • Improve grazing practices	farmers begin one of the following activities, in line with the applicability condition: 1. Reduce soil disturbance through, e.g. reduced tillage 2. Apply cover crops/catch crops 3. Mulch and distribute the crop residues 4. Apply organic fertilizers 5. Apply nitrification inhibitors	been met by the project as it was confirmed from site visit /62//63//64/ that the project is introducing regenerative agricultural practices provided in the applied methodology.
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.	All land entering the Project is arable land.	The project is implemented on croplands (farmers field) and this has been verified through KML files of project zones and geodetic coordinates. Validation team checked the area and geodetic coordinated through google earth /65/. Global map of land use/land cover (LULC) derived from ESA Sentinel-2 imagery at 10m resolution was used to confirm the same /69/. Hence, the project meets the applicability criteria.
The project area must not have been cleared of native ecosystems within the 10-year period prior to the project start date.	AgreenaCarbon uses farmer attestation, regional data or remote-sensing to check whether land has been cleared of native ecosystem. In addition, the Project checks that the land has not been deforested in the last 20 years.	The project is implemented on croplands (farmers field) and this has been verified through KML files of project zones and geodetic coordinates. The validation team checked the area and geodetic coordinated through google earth /65/. Global map of land use/land cover (LULC) 2022 derived from ESA Sentinel-2 imagery at 10m

		resolution was used to confirm the same /69/. Hence, the project meets the applicability criteria.
The project activity is not expected to result in a sustained reduction of greater than 5% in productivity, as demonstrated by peer-reviewed and/or published studies on the activity in the region or a comparable region	In Section 4.3 on Leakage of this PD, the Project demonstrates that there will not be a loss in productivity or yield greater than 5% due to the implementation of Project measures	The project meets the criteria as the project activity helps to increase the productivity and soil organic carbon stock. Relevant published literature also confirmed that the introduced practices are helpful in enhancing the productivity of the soil.
If the project activity involves the application of biochar, it must be produced using feedstock that would otherwise have been left to decay in aerobic or anaerobic conditions or been burned in an uncontrolled manner. Eligible feedstocks include one or more of the following categories of biomass: • Crop residues; • Material from pruning or thinning of woody vegetation (not including merchantable timber) in agricultural systems such as shade trees, orchards, windbreaks, stream buffers, silvopasture, or invasive removal on rangeland; • Off-cuts, sawdust, and other material produced as a by-product of forest management or harvesting operations;	The production and/or application of biochar is not included as one of the project activities.	Not applicable as the project does not include application of biochar.

• Diseased trees or deadwood felled during plantation or woodland management; and/or • Residential, commercial, or industrial organic food or yard waste. There may not be any other carbon incentive awarded for the production of biochar applied on the project area.		
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 is implemented on croplands and this has been verified through KML files of project zones and geodetic coordinates. Global map of land use/land cover (LULC) derived from ESA Sentinel-2 imagery at 10m resolution was used to confirm the same /69/. Hence, the project meets the applicability criteria. VVB has checked the project KML file and field boundaries. None of the field occur on wetlands. Moreover, the procedure followed by PP to ensure no farmers field occur on wetlands has been validated. It was found that project has demonstrated the compliance with the justification of compliance of project with the methodology requirement "Applicability condition – 8: The project activities occur on a wetland this condition does not exclude crops subject to artificial flooding where it is demonstrated that crop cultivation does not impact the

		hydrology of any nearby wetlands appropriately.
VMD0053, version 1.0		
Publicly-available	-	The model used in this project is ROTHC model. The validation team did independent literature review and therefore confirmed that the model is publicly available, reliable, can incorporate project parameters to produce required outcomes, and used among researchers.
Shown in peer-reviewed scientific studies to successfully simulate changes in soil organic carbon and trace gas emissions resulting from changes in agricultural management included in the project description;		The model used in this project is ROTHC model. The validation team did independent literature review and therefore confirmed that the model is publicly available, reliable, can incorporate project parameters to produce required outcomes, and used among researchers.
Able to support repetition of the project model simulations. This includes clear versioning of the model use in the project, 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 (i.e., that can demonstrate evidence of expertise		The model used in this project is ROTHC model. The validation team did independent literature review and therefore confirmed that the model is publicly available, reliable, can incorporate project parameters to produce required outcomes, and used among researchers.

with the model via authorship on peer-reviewed model publications or authorship of reports for entities supporting climate smart agriculture, such as FAO or a comparable organization), and must describe the data sets and statistical processes used to set parameter values (i.e., the parameterization or calibration procedure); and		
Validated per datasets and procedures detailed in VMD0053 "Model Calibration and Validation Guidance for the Methodology for Improved Agricultural Land Management", 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.	-	The model used in this project is ROTHC model. The validation team did independent literature review and therefore confirmed that the model is publicly available, reliable, can incorporate project parameters to produce required outcomes, and used among researchers.
The same model version and parameters/parameter sets must be used in both the baseline and project scenarios. Model input data must be derived following guidance in Table 6 (Section 8.2) and Table 7 (Section 8.3). Model uncertainty must be quantified following guidance in Section 8.5. Models may be recalibrated or revised based on new data, or a new model may be applied, provided the above requirements are met.	-	The version of the model ROTHC used in this project will be same for both baseline and project scenarios.

The current project activity only included the regenerative agricultural management practices. All the applicability conditions of VM0042 and VMD0053 have been met by the project. Furthermore, it has

been confirmed that the project does not involve plantation activities and therefore no mitigation measures are required.

PP has applied VM0042 methodology /8/ and its associated tool VMD0053 /9/. The validation team has provided assessment of each of the applicability conditions above. It has been assessed that the project meets all the applicability conditions of all the methodology and tool applied,

AgreenaCarbon Fulfilment of Conditions require reduced soil disturbance i.e. tillage and cover crop. The initial cover crop and tillage data provided by the farmer are subjected to cross-validation using this model as an additional layer of validation. The cover cropping and tillage practices data generated by employing an artificial intelligence model that relies on Sentinel-1 and Sentinel-2 satellite data & ground truthing for different zones of Europe. The model's source code underwent an extensive review, followed by a rigorous live demonstration for testing purposes. The data collection process includes a quality assurance/quality control (QA/QC) examination employing pattern analysis and remote sensing techniques as outlined in section 5.3 of PD /1/. Any data and parameters identified as non-compliant during the QA/QC assessment will be subject to an in-depth communication process with the participant to ascertain the origin of the discrepancy and determine whether the project instance can remain within the program.

FAR#01 was raised in this validation assessment to be addressed at first verification.

3.3.3 Project Boundary

The project is implemented in European continent. There are 10 countries included in this project at this validation stage, namely, Bulgaria, Denmark, Estonia, Latvia, Lithuania, Romania, UK, Moldova, Ukraine, and Spain.

The Carbon Pools and GHG sources included in the project are mentioned in the table below:

Source	Included?	Justification/Explanation	Validation team conclusion
Aboveground woody biomass	No	Aboveground woody biomass pool is not expected to significantly change compared to the baseline. It is also not present in the project area as the project is only implemented on arable land.	In line with applied methodology /8/
Aboveground non woody biomass	No	Carbon pool does not have to be included because it is not subject to significant changes, or potential changes are transient in nature.	In line with applied methodology /8/
Belowground woody biomass	No	Belowground woody biomass pool is not expected to significantly change	In line with applied

		compared to the baseline. It is also not present in the project area as the project is only implemented on arable land.	methodology /8/
Belowground non woody biomass	No	Carbon pool does not have to be included because it is not subject to significant changes, or potential changes are transient in nature.	In line with applied methodology /8/
Dead wood	No	Carbon pool is not included because it is not subject to significant changes or potential changes are transient in nature.	In line with applied methodology /8/
Litter	No	Carbon pool is not included, because it is not subject to significant changes or potential changes are transient in nature.	In line with applied methodology /8/
Soil organic carbon	Yes	Major carbon pool affected by project activity that is expected to increase in the project scenario.	In line with applied methodology /8/
Wood products	No	Carbon pool is optional for ALM project methodologies and may be excluded from the project boundary.	In line with applied methodology /8/

Source	Gas	Included?	Justification/Explanation	Validation team conclusion
Soil organic carbon	CO_2	Yes	Quantified as stock change in the pool, rather than an emissions source (see Table 2)	In line with applied methodology /8/
Fossil fuel	CO_2	Yes	The sources of fossil fuel emissions from vehicles (mobile sources, such as trucks, tractors, etc.) and mechanical equipment required by the ALM activity are included in the project boundary in the baseline and project scenario using Eq. 7 and Eq.	In line with applied methodology /8/

			8 in VM0042.	
Liming	CO_2	Yes	Application of limestone or dolomite as soil amelioration may represent a significant source of CO2.	In line with applied methodology /8/
Soil methanogenesis	CH_4	No	Soil Methanogenesis is not included in the project boundaries. The source is not expected to change in the project scenario relative to the baseline scenario, as the project does not include PAIs with temporary or permanent waterlogged soils.	In line with applied methodology /8/
Enteric fermentation	CH_4	No	Livestock is not included in the project and therefore the source is not included in the project boundary in the baseline and project scenario.	In line with applied methodology /8/
Manure deposition	N_2O	No	Livestock is not included in the project and therefore the source is not included in the project boundary in the baseline and project scenario.	In line with applied methodology /8/
	N_2O	No	Livestock is not included in the project and therefore the source is not included in the project boundary in the baseline and project scenario.	In line with applied methodology /8/
Use of nitrogen fertilisers	N_2O	Yes	Nitrous oxide (N2O) from use of nitrogen fertilisers and nitrogen fixing species within the project boundaries will be calculated according to methodology VM0042 (V.2), section 8.2.9 and quantified under Quantification approach 3, using Equations 17 to 26	In line with applied methodology /8/
Use of nitrogen fixing species	N_2O	Yes	Nitrogen fixing species are planned to be planted in the project, therefore nitrous oxide (N2O) emissions from nitrogen fixing	In line with applied methodology /8/

			species will be included in the project boundary in the baseline and project scenario.	
Biomass burning	CO_2	No	Carbon stock decreases due to burning are accounted as a carbon stock change.	In line with applied methodology /8/
	N_2O			In line with applied methodology /8/
	N_2O			In line with applied methodology /8/
Woody biomass	CO_2	No	See Table 3-4 above.	In line with applied methodology /8/

By checking the information and evidence available during on-site observation /62//63//64/ and by the supporting documents submitted by the PP, the audit team concluded that the appropriate carbon pools and GHG emissions sources have been considered and the description in the PD is accurate and complete, and also the selected carbon pools are justified for the proposed project activity. The project boundary has been verified and the relevant carbon pools has been considered by PP.

CAR#12 was raised and successfully closed. Refer Appendix IV for details.

3.3.4 Baseline Scenario

The baseline scenario has been given in section 3.4 of the PD. As per the applied methodology VM0042, the quantification approach used to determine the values of the parameters are quantification approach 1: measure and model for soil organic carbon and soil methanogenesis, and quantification approach 3: default for the parameters applied in this project which required to be quantified using approach 3.. The baseline scenario assessment has been done in line with the VM0042 requirements given in section 6 /8/.

Agricultural Management Practice		Qualitative	Quantitative	Data Source	VVB Assessment
1	Crop Type(s)	• Approx. date(s) planted Approx. date(s) harvested / terminated	• Farmer attestation • Regional data on approx. harvest time per geography	Crop planting and harvesting	VVB has checked the crop list, emission reduction calculation sheet to confirm the crop type and further verified from farmers during site visit interviews. All the information were found consistent and complete.

Agricultural Management Practice		Qualitative	Quantitative	Data Source	VVB Assessment
			as per Box 1, VM0042 v2.0 Point 4		
2	• Manure (Y/N) • Compost (Y/N) Synthetic N fertilizer (Y/N)	• Manure type application rate • Compost type application rate N application rate in synthetic fertilizer	• Regional data sources as per Box 1, VM0042 v2.0 Point 4	Nitrogen fertilizer application	Crop production and nitrogen fertilizer application as agricultural management practice were checked from farmers interviews and included in parameters for ER calculation.
3	• Tillage (Y/N) Crop residue removal	• Depth of tillage • Frequency of tillage • Percent of soil area disturbed Percent of crop residue removed	• Farmer attestation • Crop residue comes from regional data sources as per Box 1, VM0042 v2.0 Point 4	Tillage and/or residue management	VVB has checked the KML file which serves as project database, emission reduction calculation sheet to confirm the tillage and crop residue management practices and further verified from farmers during site visit interviews. All the information were found consistent and complete.
4	• Irrigation (Y/N) Flooding (Y/N)	Irrigation rate	Not included in the Project	Water management / irrigation	The included PAIs do not include irrigation or water management practices as agricultural management practice, and therefore not included in parameters for ER calculation.
5	• Grazing (Y/N) Animal type	Animal stocking rate, i.e. number of animals and length of time grazing in a	Not included in the Project	Grazing practices	The included PAIs do not include grazing practices as agricultural management practice, and therefore not included in parameters for ER calculation.

Agricultural Management Practice	Qualitative	Quantitative	Data Source	VVB Assessment
	given area annually			

VVB has checked the baseline scenario of the project as follows. Following the applied methodology VM0042 and as per the PD section 3.4, the schedule of activities has been determined at field or sample unit level. Since the project activity involves implementation of combinations of practices at a single farm, these combinations have been clearly presented in the PD appendix 1 include such combinations of baseline for project activity viz., tillage, residue management, cover crop, and fertilizer. The identification of the baseline scenario for each farm included in this project is checked from the Agreena platform. The complete baseline scenario has been validated using KML file which include details of farmers and schedule of activities. Further, the change in practices have been confirmed with samples farmers at the time of site visit. Overall, the procedures for identifying the baseline scenario have been correctly followed and identified without project scenario is reasonably expected to occur.

PD "Table 3-4 minimum specifications for ALM practices and data collection for the baseline schedule of activities for each PAI" presents the data for practice change and its collection from farmer signed attestation. However, where farmer attestation is missing for any year(s) within the baseline schedule of activities, such values are obtained from FAO (faostat_qcl). Wheat is no longer the crop type for all baselines. Instead, farmer attested data are used or, if unavailable, a regional default obtained from FAO. The definition of synthetic fertilizers (quantitative information) also comes from FAO. As per the section 3.4 of the PD, In the revised approach, for a 5-year historic look-back period, when possible attested farmer data are used to create a schedule of baseline activities for each PAI that follows the pattern of pre-project ALM practices. In the case of missing data, PP has utilised regional average values which is confirmed to follow the requirements of Box 1 in VM0042.

In terms of assessment carried out by VVB, it has been confirmed that VVB also confirmed the onboarding procedure and baseline data collection as given in table 1-8.The list of activities have been confirmed as given in PD table 1-9 List of Project Activities from Table 1-1 including more detailed descriptions, as well as associations with Applicability Condition 1 in VM0042 v2.0, section 4. The details are found to be complete and collected as per the Project Activity listed in Table 1-1. It is to be noted that the project baseline scenario has been determined for every geographic area which is country in this project case. However, as mentioned in the PD section 3.4, the baseline schedule of activities has been determined for each PAI management practices for the 5 years prior to participation, repeating the pattern of practices in the historic look-back period forward to represent each PAI's baseline scenario for the first 10 years of the project. According to the applied methodology VM0042, section 6 "Continuation of pre project ALM practices is the most plausible baseline scenario." This has been clearly presented in the PD. the pre-project ALM practices have been identified. The development of Schedule of Activities in the Baseline Scenario has been demonstrated as per the methodology requirement. VVB checked the Table 4: Minimum specifications for ALM practices in the baseline scenario from the methodology which is corresponding in the PD section 3.4, table 3-4. Following methodology requirements, the schedule of activities in the baseline scenario will be valid until re assessment is required as per the latest version of the VCS Standard. The project has demonstrated the compliance with VCS standard v4.5, section 3.6.11 "Determination of baseline scenario and demonstration of additionality are based upon the initial project activity instances" as well as section

3.6.13 "The baseline scenario for a project activity shall be determined for each designated geographic area, in accordance with the methodology applied to the project." As per PD section 1.4, the Project delineates 10 Geographic Areas within the pan-European geography, corresponding to the 10 different countries containing the initial PAIs accompanying the submission of this project for validation. VVB found that the PP has sufficiently described the baseline scenario as per the VCS Standard and applied methodology VM0042 requirements.

VVB assessed that the baseline scenario for each Geographic Area that is determined by PAI and the specific ALM specifications. The geographic area has been checked in PD section 3.4.1 and Table 3-4 Minimum specifications for ALM practices and data collection for the baseline schedule of activities for each PAI. Country level geographic area has been the basis of demonstration of information in the table 3-4. The crop planting and harvesting category has been included in the crop functional type. For the assessment, VVB has cross-checked the information and its appropriateness from the submitted ERR spreadsheet as the spreadsheet consists information of all variables listed in the PD. Further, the assessment of correctness of data added in the PD has been performed by revisiting the farmers attestation wherever it has been used. The assessment also includes checking the crop functional type and its data from the site visit sample record as well. VVB ensured the correctness of data by randomly identifying one country, at first, and follows the value applied for each ALM practice. Similarly, the data has been checked in the ERR spreadsheets for all the countries. VVB provides reasonable level of assurance for the demonstration of baseline scenario.

The audit team with the provided data (ERR sheets, spatial/ remote sensing data and other evidence) and assumptions concludes that the identification of the baseline scenario is justified appropriately, supported by evidence and can be deemed reasonable. The procedures for identifying the baseline scenario have been correctly followed and the identified scenario reasonably represents what would have occurred in the absence of the project. The audit team concludes that procedures for determining the baseline are appropriate, adequate, and in compliance with section 3.13 of the VCS standard, v4.5 and section 6 of the applied meth VM0042.

CAR#13 and CAR#52 were raised and successfully closed. Refer Appendix IV for details.

3.3.5 Additionality

The project activity is using project method as its additionality criteria. Following steps were used to check the additionality of the project.

1. The demonstration of a regulatory surplus

For the validation assessment of demonstration of regulatory surplus, VVB has checked the evidence /71/. The evidence and the links provided of governmental websites for each country has specified that legislations for each activity planned to be implemented in this project. This includes tillage, cover cropping, organic fertilisers, and residue management. The database also provided the access to relevant references that confirms that regulatory surplus requirements in each country. The practices introduced in this project are not mandated by any law, statute or other regulatory requirements in the project area. /72//73//74//75//76//77//78/ The validation team checked the national acts, rules and regulations and confirmed that the project activity is not mandated in project region. These

national regulations were also discussed with VVB's local expert, and it was ensured that the project activity is not a mandate in defined project region.

For the assessment of common practice in the project area, VVB has also conducted the desk review to identify the procedure and requirements for farmers in the identified countries added in project as first PAI. In the PD section 3.5 'additionality' VVB PP has explained As per the definition of Geographic Areas specified in Section 1.4 and in alignment with VCS v4.5 3.6.10-3.6.16, The Project has assessed additionality on a per-country, i.e. per Geographic Area, level and therefore each geographic area has one additionality assessment relevant to it. EU common agricultural policy (CAP) has been studied. The CAP is a common policy for all EU countries, and it is managed and funded at European level from the resources of the EU's budget. As stated in the PD, "it is compulsory for EU countries to provide these payments, they are often referred to as obligatory payments. Eco-schemes are obligatory for EU countries to provide to farmers, but voluntary for farmers to participate." Following desk review, European Commission /94/ website was referred to study the EU income support program. As per the conditionality explained, rules farmers are expected to comply with include:

statutory management requirements (SMRs), these apply to all farmers whether or not they receive support under the common agricultural policy (CAP);

good agricultural and environmental conditions (GAECs), these apply only to farmers receiving support under the CAP.

VVB further reviewed the GAEC definition and corresponding project requirements. Since, there are no regulatory requirements from GAEC to perform improved agricultural land management practices, the requirements laid down as project activity in this project become additional. Table 3-7. GAECs across the countries in the AgreenaCarbon Project added in the PD cover the details of GEAC 5 which is tillage and GEAC 6 which is ground cover (cover crop or minimum soil cover). /93/

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

PP has appropriately identified the barriers in the project location and provided sufficient evidence. The identified barriers are investment, technological, and institutional. Step 1 of the methodology has been completely justified in the section 3.5 of the PD. These barriers have been discussed and confirmed during on-site visit. Relevant evidence was also cross-checked. /46//49//63/

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

PP has provided justification for the common practice in section 3.5 of the PD. Section 3.5 of the PD included the demonstration of common practice as per the applied methodology VM0042. Since there are combinations of activities that are implied in the farm under this project, the determining activity to establish the additionality argument is tillage activity. As per the PD, the shift from either a) conventional to reduced tillage or b) reduced tillage to no-till is consider while onboarding the farms of farmers in this project. Therefore, the common practice has been performed to determine the practice for tillage activity. PP has used EuroStat data to determine the tillage practice across European countries. VVB has checked the EU legislation, i.e. CAP and the UK, Moldova and Ukrainian country specific legislation and confirmed that the reduced tillage and no till is not the mandated project

activity in all the 10 countries included in the validation. For future PAI's countries, PP shall provide the literature study to confirm the common practice. Further, VVB also confirmed the common practice test for other activities included in the project i.e., for cover crops, fertiliser management and residue management. VVB confirmed that the demonstration and calculation of adoption rate has been done correctly.

Following the requirements of VM0042, v2.0 section 7; Step 3 : Demonstrate that adoption of the suite of proposed project activities is not common practice; PP has clearly explained the common practice calculations. The summary of the assessment is as follows.

As per the methodology requirement, "Common practice is defined as greater than 20 percent adoption. To demonstrate that a project activity or suite of activities is not common practice, the project proponent must show that the weighted mean adoption rate of the two (or more) predominant proposed project activities within the project spatial boundary is below 20 percent". VVB has checked the application of equation 1 as given in the PD. Supporting evidence Appendix 9: Common Practice Calculation Supplementary Material /92/

has been reviewed to extract the value of each agricultural practice change in each country added as PAI in this project. The sources utilised Eurostats for tilling and residue/cover crops and FAO for fertiliser were reviewed. /95//96//97/ The calculation provided in the Appendix 9 sheet is correct and as per the methodology requirement. VVB confirmed that values added in Table 3-9. Results from common practice assessment across initial project instances are correct and traceable. The table added in section 3.5.3.1 of the PD providing the results from Equation 1 VM0042 v2.0 of adoption rate of suite of at least two practices in the AgreenaCarbon Project, is also correct and traceable.

The assessment of the PD section 3,5 under all steps viz., regulatory surplus, barrier analysis and common practice analysis has been done and provided in VR section 3.3.5 and the project has demonstrated the compliance with VM0042 methodology requirements of additionality.

The additionality approach used in this project has been checked in line with section 7 of the methodology /8/. It was confirmed that PP has appropriately demonstrated the additionality of the project.

CAR#14 and CAR#53 were raised and successfully closed. Refer appendix IV for details.

3.3.6 Quantification of GHG Emission Reductions and Removals

The proposed project activity has applied VCS VM0042, v2.0 methodology /8/. The project is using quantification approach 1 and 3, which has been clearly given in section 3 of the PD /1/.

Quantification of baseline emissions

Baseline scenario in line with the applied methodology /8/ has been checked. As per the methodology /8/, continuation of pre-project agricultural management practices is the most plausible baseline scenario. PP has modelled the baseline emissions and stock changes using ROTHC model. Values of all the parameters applicable in the project activity has been correctly done and the same has been clearly presented in baseline emission calculation excel sheet /13/. The validation assessment of the data

and parameters have been provided in section 3.3.8 of this report. Baseline scenario has been quantified using below equations from the applied methodology /8/. The validation team checked the approach and use of equations from figure 1. equation map of the Methodology for Improved Agricultural Land Management given on page number 22 of the applied methodology /8/. PP has applied equation 6 to calculate soil organic carbon stocks as per the methodology section 8.2.1. For CO2 from fossil fuel, equation 7 and 8 were used. Equation 17 to 24 was used for quantifying N2O from use of nitrogen fertilizers and nitrogen fixing species. Equations 21, 22, 23, 24, 25, 26, 27 used for nitrous oxide emissions from manure deposition. The application of equations applied in this project was checked by reviewing the submitted emission reductions calculation sheets /18/. The values of the parameters used in the calculation was found correct and valid. Detailed assessment of the data and parameter values is provided in section 3.3.8 of this report.

Quantification of project emissions

Quantification of project emissions in this project are done by either through calculation or modelling. As mentioned in the PD, for Quantification Approach 1, model inputs will be collected following the guidance in Error! Reference source not found. below. For Quantification Approach 3, project emissions are calculated for each sample field using applicable default values and any monitored parameters. The application of equations applied in this project was checked by reviewing the submitted emission reductions calculation sheets /18/. The values of the parameters used in the calculation was found correct and valid. Detailed assessment of the data and parameter values is provided in section 3.3.8 of this report. /.

Quantification of leakage

In line with section 8.4 of the applied methodology /8/, leakage emission from the project are determined. Leakage from organic amendments outside the project area is accounted. The calculations were found correct and done completely. Section 4.3.4 of the PD include the accounting for leakage from diversion of biomass residues used for energy applications in the baseline scenario. PP has calculated the leakage as per CDM Methodological Tool: Project and leakage emissions from biomass. Data inputs and outputs for calculating the leakage from the diversion of biomass residues used for energy applications in the baseline scenario has been provided in PD table 4-14. These details could be verified in the ERR sheet as well.

ERR spreadsheet calculation review

AgreenaCarbon VCS PD_4022_24OCT2024_ERRs_2022_PRR R2 /18/ has been checked the calculation approach, baseline, project and leakage emissions, application of correct sources of parameters and methodological equations. Worksheet "Key" has been referred to initiate the assessment and identification of all parameters and equation involved. In the ERR worksheet, VVB initially checked the uniqueness of User ID, Field ID, Field Size (ha), and Field Definition Country Name. This has been initially checked with signed farmers contract, Agreena platform and further cross-checked during site visit and remote call interviews with farmers. The procedure of farmers onboarding

has also been checked to assess the uniqueness of farmers and farmer onboarding system. The source of data column in "key" worksheet has been referred and validated from the details of parameters provided in the PD. For calculative data entered into the ERR spreadsheet, VVB checked the supplementary materials provided for the calculations of RothC, application of IPCC values, Leakage, and uncertainty /85//86//87//88/

Summary of net GHG emission reductions or removals

Net GHG emission reductions and removals are quantified using equation 31 as described in section 8.5 of the applied methodology. The application of equations applied in this project was checked by reviewing the submitted emission reductions calculation sheets /18/. The values of the parameters used in the calculation was found correct and valid. Detailed assessment of the data and parameter values is provided in section 3.3.8 of this report.

Baseline emissions or removals (tCO2e)	Project emissions or removals (tCO2e)	Leakage emissions (tCO2e)	Estimated uncertainty deduction (t CO2e)	Net GHG emission reductions or removals (tCO2e)
12,676,641.20	-742,116.10	87,250.58	2,464,107,81	10,867,398.91

Net GHG Emission reductions and removals

Number of Unverified Carbon units CUs is calculated using equation 53 of the applied methodology VM0042

	Ex ante net anthropogenic GHG emission reductions	Ex ante VCUs tradable (to be verified)	Ex ante buffer credits
Total	10,867,398.91 tCO2e	9,734,251.15 tCO2e	1,133,147.76 tCO2e
Average	543,369.95 tCO2e/ year	486,712.56 tCO2e/ year	56,657.38 tCO2e/ year

The equations provided above have been used for ER estimation for the first year of crediting period. In order to assess the correctness and validity of the calculations and assumptions made, PP has shared the ER calculations spreadsheets with the validation team.

As per updated PD section 4.1.1, Changes in soil organic carbon (SOC) stocks will be modelled by the Project using SoilR (RothC model). PP has updated table 4-1 in the same section of PD which provides the complete details of mode input category, timing of data collection and approach used for each model input category. Table 4-2. Model input values utilised to calculate 0t for i = field ID 19726, and t = 0 provides complete details of parameters utilised for one of the project field. All required model

input related to agricultural management practices that will be recorded and monitored for each project year VVB has checked the sources of each model parameter from table 4-2 and table 4-4 and verify it with the source provided. The assessment of all the input variable assessed for the model is provided by IME in IME evaluation report.

On thorough assessment of the calculations made and assumptions taken for the project activity, the validation team finds that these are correct and deemed valid for the project activity. The validation team confirms that the project activity complies with the specified requirements and formulae used to determine emission reductions as discussed above. The assessment team also confirms that:

All assumptions and data used by the project participants are listed in the VCS PD, including their references and sources.

All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the VCS PD /1/, and ER estimation & calculation sheets /18/.

All values used in the VCS PD /1/ and ER estimation & calculation sheets /18/ are considered reasonable in the context of the proposed project activity.

The baseline methodology and corresponding tool(s) (wherever applicable) have been applied correctly to calculate project emissions, leakage emissions, baseline emissions and emission reductions.

All estimates of the baseline emissions can be replicated using the data and parameter values provided in the VCS PD /1/, and ER estimation & calculation sheets /18/. This leads the VVB team to conclude that the ER calculations made for the project are verifiable and correct, following the methodological requirements, and are in-line with the GHG calculations provided in the PD.

CAR#15 and CAR#54 were raised and successfully closed. Refer Appendix IV for details.

3.3.7 Methodology Deviations

PP has sought deviation related to the project's approach of utilising the data from box 1 options for the liming parameter was studied. As mentioned in the PD section 3.6 "the AgreenaCarbon Project utilises Box 1 for both the baseline and the Project data (actuals) for the emission parameter Liming". It is said that "In the absence of farmer reported data, the project activity emissions were quantified based on the regional data provided by countries based on the National Inventory Reports submitted to the United Nations Convention on Climate Change (UNFCCC." Since, PP is utlising the data from regional data which is one of the options from the Box1 approach from VM0042 methodology, therefore the devation was found to be accepted..

In the section 3.6 of the PD, PP has taken one methodology deviation for the quantification of carbon dioxide emissions from liming. As per PD, "For the carbon dioxide emissions from liming, the AgreenaCarbon Project utilizes Box 1 for both the baseline and the Project activity data ,as a methodology deviation."

VVB checked the deviation as follows. As per VM0042, V2.0 section 8.2.4, the quantification in the baseline scenario under Quantification Approach 3 using Equations 9 and 10. In the project scenario,

methodology provides equation 44. Through this deviation, PP has calculated the project emissions from regional data provided by countries for the National Inventory Reports submitted to the United Nations Convention on Climate Change (UNFCCC). This is because at the start of the project when VM0042 version 1.0 was valid and applicable, the lack of requirement of liming parameter data affected the data collected procedure at PP's end and therefore, PP is taking regional data instead of farmers reported data. VVB found that regional data are more conservative and does not negatively affect the ERR calculations. The calculation sheets provided for assessment have been thoroughly checked. References of the values taken in project emission calculations can be verified. VVB confirmed the appropriateness of the deviations sought for the liming parameter. The methodology deviation is conservative and does not impact the project demonstration of baseline and additionality. Moreover, the approach found to be more accurate and complete of using regional data than using any data from unknown source or different from the options provided in methodology.

CAR#38 was raised and successfully closed. Refer Appendix IV for details.

3.3.8 Monitoring Plan

Data and Parameters available at validation

Data/ Parameter	Unit	Description	VVB assessment
AR	Percent	Weighted average adoption rate	Measured and calculated according to VM0042 equation 1/8/. PP has calculated this based on a per-country basis and further monitored as written in the Monitoring section of Appendix 2: Additionality. The validation team confirmed that the value of the parameter is determined in line with applied methodology /8/.
EA_{ay}	Percent	Adoption rate of the *y* largest most common proposed project activity in the region	The assessment of the parameter has been done based on the details provided in PD annexure 1. The source of the parameter have been clearly provided in the parameter table. The value applied has been tabulated country and agricultural practice wise. The appropriateness of value for the adoption rate parameter had already been described and validated in section 3.3.5 of the validation report.
$Area_{ay}$	Hectares	Area of proposed project-level adoption of	The value of the parameter comes from farmers input data. VVB has checked the

		each activity *ay*	data entered by PP in ERR spreadsheet, KML file and further cross-checks carried out during on-site visit and RSV interviews with farmers.
ay	unitless	Proposed project activity commitments to *a1* to *ay* where *a1* covers the largest area in the project region.	In this project, the ay parameter denotes which activity is implemented on the project activity area. The source of data comes from farmers data as documented for each PAI by PP.
j_{bsl} / j_{wp}	Dimensionless	Type of fossil fuel combusted	The source of data is farm attestation records. VVb has cehcekd the farm attestation records and also checked the procedure of collecting data and providing input for ERR spreadsheet. The procedure and calculation approach found appropriate and as per the applied methodology.
$FFC_{bsl,j,i,t}$	Liters	Consumption of fossil fuel type *j* (gasoline or diesel) for sample unit *i* in year *t*	Source of the value was checked and found correct. The source of value chosen is as per the requirements of methodology Box 1.
$Pop_{bsl,l,i,t,P}$	Head	Population of grazing livestock of type *l* in the baseline scenario in sample unit *i* for productivity system *P* in year *t*	The parameter is not relevant and therefore not further assessed.
GWP_{CH4}	t CO_2e/t CH_4	Global warming potential for CH_4	The parameter is not relevant and therefore not further assessed.
$W_{bsl,l,i,,Pt}$	Kg animal mass/head	Average weight in the baseline scenario of livestock type *l* for sample unit *i* in productivity system *P* in year *t*	The parameter is not relevant and therefore not further assessed.
$MB_{bsl,c,i,t}$	Kilograms	Mass of agricultural residues of type *c* burned in the baseline scenario for sample unit *i* in year *t*	The parameter is not relevant and therefore not further assessed.
GWP_{N2O}	t CO_2e / t N_2O	Global warming potential for N_2O	The value of the parameter is265 t CO_2e / t N_2O, sourced from IPCC fifth assessment

			report/67/. The value is latest, valid, considered as per the applied methodology /8/ and correctly applied in the ER calculation sheet /16/.
$MS_{bsl,SF,i,t}$	t fertilizer	Mass of baseline N containing synthetic fertilizer SF applied for sample unit *i* in year *t*	Measured and calculated according to VM0042 equation 1/8/. PP has sourced the value from farmers data. /18/ The validation team confirmed that the value of the parameter is determined in line with applied methodology /8/.
$M_{bsl,OF,i,t}$	t fertilizer	Mass of baseline N containing organic fertilizer OF applied for sample unit i in year *t*	Measured and calculated according to VM0042 equation 1/8/. PP has sourced the value from farmers data. /18/ The validation team confirmed that the value of the parameter is determined in line with applied methodology /8/.
$MB_{g,bsl,i,t}$	t dm	Annual dry matter, including aboveground and below ground of N-fixing species g returned to soils for sample unit i at time	Measured and calculated according to VM0042 equation 1/8/. PP has sourced the value from farmers data. /18/ The validation team confirmed that the value of the parameter is determined in line with applied methodology /8/.
$MS_{bsl,l,i,t}$	Fraction of N deposited	Fraction of nitrogen excretion of livestock type *l* that is deposited on the project area	The parameter is not relevant and therefore not further assessed.
$P_{bsl,p}$	Productivity (e.g., kg) per hectare	Average productivity for product p during the historical baseline period	Measured and calculated according to VM0042 equation 1/8/. PP has sourced the value from farmers data. /18/ The validation team confirmed that the value of the parameter is determined in line with applied methodology /8/.
$RP_{bsl,p}$	Output kg/ha	Average regional productivity for product *p* during the same years as the historical baseline period	Measured and calculated according to VM0042 equation 1/8/. PP has sourced the value from farmers data. The validation team confirmed that the value of the parameter is determined in line with applied methodology /8/.
A_{bsl} / A_{wp}	Hectare	Project area	Measured PAI values and field boundaries are determined through the utilization of high-resolution satellite imagery (Sentinel-2),

			in strict accordance with the quality control protocols stipulated in Section 5.3 of the Monitoring Plan. The initial prerequisite for this procedure necessitates input from the farmers. This is further validated using the KML area assessment.
$DPM_{bsl,i,t}$,$RPM_{bsl,i,t}$, $HUM_{bsl,i,t}$, $BIO_{bsl,i,t}$, $IOM_{bsl,i,t}$ $DPM_{wp,i,t}$, $RPM_{wp,i,t}$, $HUM_{wp,i,t}$, $BIO_{wp,i,t}$, $IOM_{wp,i,t}$	tC/ha	The five soil carbon pools as defined by the RothC (Rothamsted Carbon) model. These pools represent different forms of organic matter in the soil, each playing a distinct role in the carbon cycle. Presented here are brief descriptions of the pools.	The description of parameters has been clearly provided in the PD Section 5.1 adequately. The source of the parameter is values derived from soilgrids for the ex-ante calculations.
Green Cover$_{bls,\ i,t}$ / *Green cover*$_{wp,\ i,t}$	Number of green cover months / year	This parameter represents the number of months an area is covered by green vegetation throughout the year.	Measured and calculated according to VM0042 equation 1/8/. PP has sourced the value from farmers attestion data. /18/ The validation team confirmed that the value of the parameter is determined in line with applied methodology /8/.
ks_{bsl} / ks_{wp}	Unitless	The parameter *ks* represents the decomposition rate constants for different soil carbon pools in the RothC model. It determines how quickly organic matter decomposes and transitions between pools.	The ks values are derived from long-term experimental data collected at Rothamsted Research in the UK, which includes field experiments and laboratory studies. The values provided in the PD section 5.1 table have been cross-check from the source provided and its application in ERR spreadsheet.
$M_{Limestone,bsl,i,t}$ *and* $M_{Dolomite,bsl,i,t}$ / $M_{Limestone,wp,i,t}$ *and*	Tonnes/year	Amount of calcitic limestone and dolomite applied to PAI *i* in year *t*.	VVB has reviewed and validated the methodology deviation sought in the section 3.6 of the PD. The values for the parameter has been taken from the National Inventory Reports, countries submit data on the quantity of lime (MLimestone,bsl,i, MDolomite,bsl,i as well as MLimestone,wp,i, MDolomite,wp,i, t/yr), the emission factors (t CO2-C/t) and the total emissions (kt CO2e) from

$M_{Dolomite,wp,i,t}$			liming activity for the agricultural sector (Table 3.G-1). The CO2 emissions from liming (CO2_limebsl,i,t as well as CO2_limewp,i,t; equation 9 in VM0042 v2.0) are calculated by dividing the total emissions (kt CO2e) by the the actual agricultural land area (k ha; Table 4.B) to obtain the CO2 emissions per unit area for each country (t CO2e/ha). The absence of local data for the country Moldova has been identified through conducting independent desk review. The project uses National Inventory Reports (NIR), however, as mentioned in the PD, NIR submitted by Moldova to the UNFCCC in 2023 does not contain information on CO2 emissions from liming. PD appendix 11 provided the rationale for using data from Romania. VVB assessment included the review of the references provided in the PD and additional checks performed to identify why Romania is appropriate country out of all countries under this project. The literature underline the similarity and comparison of soil, climate, crops, agricultural scenario and socio-economic review in Romania and Moldova. VVB identified that these elements are relevant in the project context considering that the project activity involves the agricultural practices and land management description, which ensures to provide the scientific judgement and complete analysis of limestone application data. Therefore the use of Romanian data has been found conservative for the context of Moldova. VVB assessed the justification provided by PP and based on all the checks and review of data it is confirmed that the project, in the context of the usage of liming data, demonstrates the conservativeness and accuracy. VVB has checked the latest version of PD and found that the justification of data sources have been provided in PD section 5.1 under parameter table MLimestone,bsl,i,t and MDolomite,bsl,i,t / MLimestone,wp,i,t and MDolomite,wp,i,t and appendix 11. /99//100//101//102//103//104//105/ The validation team confirmed that the value of the parameter is determined in line with applied methodology /8/.

There are other parameters used for the Data inputs and outputs for calculating N2O emissions from nitrogen fertilizers and nitrogen-fixing species for the project emissions in the PAI. Parameters Ai,

Organic N fertiliser name, Mwp,OF, Mwp,SF,i,t, NCSF, FSNwp utilises values from the farm attestation data. For other parameters – NCOF, FONwp, GWPN2O, EFNdirect, the value is sourced from literature which also found to be correct and as per the methodology requirements.

Data and Parameters monitored.

Data/ Parameter	Unit	Description	Frequency of monitoring	VVB assessment
MDD	t CO_2e/unit area	Minimum detectable difference of SOC stocks between two points in time	NA	The parameter is not relevant and therefore not further assessed.
S	dimensionless	standard deviation of the difference in SOC stocks between *t0* and t_1	NA	The parameter is not relevant and therefore not further assessed.
n	dimensionless	Number of samples required to detect a minimum difference	NA	The parameter is not relevant and therefore not further assessed.
n - 1	dimensionless	Degrees of freedom for the relevant t-distribution	NA	The parameter is not relevant and therefore not further assessed.
$t_{x,u}$	dimensionless	Values of the t-distribution given a certain power level (1-b) and a level (i.e., significance level)	NA	The parameter is not relevant and therefore not further assessed.
$M_{n,dl,SOC}$	kg/ha	SOC mass in soil sample n in depth layer *dl*	The data is monitored prior to each verification event.	The value of the parameter is to be calculated soil sample analysis. Measuring and reporting frequency is in accordance with monitoring plan, as documented in the PD/1/ and methodology/8/. The validation team confirmed that the value of

				the parameter to be determined is in line with applied methodology /8/. This has been verified by the validation team during the on-site visit /63/, hence considered valid.
$M_{n,dl,Sample}$	g	Soil mass in sample n in depth layer *dl*	The data is monitored prior to each verification event.	The value of the parameter is to be calculated soil sample analysis. Measuring and reporting frequency is in accordance with monitoring plan, as documented in the PD/1/ and methodology/8/. The validation team confirmed that the value of the parameter to be determined is in line with applied methodology /8/. This has been verified by the validation team during the on-site visit /63/, hence considered valid.
D	mm	Inside diameter of probe or auger	The data is monitored prior to each verification event.	The value of the parameter is to be calculated soil sample analysis. Measuring and reporting frequency is in accordance with monitoring plan, as documented in the PD/1/ and methodology/8/. The validation team confirmed that the value of the parameter to be determined is in line with applied methodology /8/. This has been verified by the validation team during the on-site visit /63/, hence considered valid.
N	Unitless	Number of cores sampels	The data is monitored prior to each verification event.	The value of the parameter is to be calculated soil sample analysis. Measuring and reporting frequency is in accordance with monitoring

				plan, as documented in the PD/1/ and methodology/8/. The validation team confirmed that the value of the parameter to be determined is in line with applied methodology /8/. This has been verified by the validation team during the on-site visit /63/, hence considered valid.
$OC_{n,dl}$	g/kg	Organic carbon concentration in sample n from depth layer dl	The data is monitored prior to each verification event.	The value of the parameter is to be calculated soil sample analysis. Measuring and reporting frequency is in accordance with monitoring plan, as documented in the PD/1/ and methodology/8/. The validation team confirmed that the value of the parameter to be determined is in line with applied methodology /8/. This has been verified by the validation team during the on-site visit /63/, hence considered valid.
BD_{corr}	g/cm^3	Corrected bulk density of the fine soil fraction (after subtracting the mass proportion of the coarse fragments)	The data is monitored prior to each verification event.	The value of the parameter is to be calculated soil sample analysis. Measuring and reporting frequency is in accordance with monitoring plan, as documented in the PD/1/ and methodology/8/. The validation team confirmed that the value of the parameter to be determined is in line with applied methodology /8/. This has been verified by the validation team during the on-site visit /63/, hence considered valid.
d	cm	Soil depth	The data is	The value of the parameter is

			monitored prior to each verification event.	to be calculated soil sample analysis. Measuring and reporting frequency is in accordance with monitoring plan, as documented in the PD/1/ and methodology/8/. The validation team confirmed that the value of the parameter to be determined is in line with applied methodology /8/. This has been verified by the validation team during the on-site visit /63/, hence considered valid.
$\int(SOC_{bsl,l,t-1})$	T CO_2e/hectare	Modeled soil organic carbon stocks in the baseline scenario for sample unit i at time t, calculated by modeling SOC stock changes over the course of the preceding year	The data is monitored prior to each verification event.	The value of the parameter is to be calculated soil sample analysis. Measuring and reporting frequency is in accordance with monitoring plan, as documented in the PD/1/ and methodology/8/. The validation team confirmed that the value of the parameter to be determined is in line with applied methodology /8/. This has been verified by the validation team during the on-site visit /63/, hence considered valid.
i	Dimensionless	Sample unit, defined area that is selected for measurement or monitoring such as a field.	-	Measured field boundaries are determined through the utilization of high-resolution satellite imagery (Sentinel-2) over entire growing season, in strict accordance with the quality control protocols stipulated in Section 5.3 of the Monitoring Plan. The initial prerequisite for this procedure necessitates input from the farmers.
A_i	Unti area	Area of sample	-	Measured field boundaries

		unit *i*		are determined through the utilization of high-resolution satellite imagery (Sentinel-2) over entire growing season, in strict accordance with the quality control protocols stipulated in Section 5.3 of the Monitoring Plan. The initial prerequisite for this procedure necessitates input from the farmers.
j	Dimensionless	Type of fossil fuel combusted	The data is monitored prior to each verification event	The value of the parameter is sourced from farmers data. Measuring and reporting frequency is in accordance with monitoring plan, as documented in the PD/1/ and methodology/8/. The validation team confirmed that the value of the parameter to be determined is in line with applied methodology /8/. This has been verified by the validation team during the on-site visit /63/, hence considered valid.
$EF_{CO2,j}$	T CO_2e/liter	Emission factor for the type of fossil fuel *j* (gasoline or diesel) combusted	Every 5 years	The value of the parameter is sourced from Table 3.3.1 Chapter 3 Volume 2 - Energy of the "2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories"/79/. Measuring and reporting frequency is in accordance with monitoring plan, as documented in the PD/1/ and methodology/8/. The validation team confirmed that the value of the parameter to be determined is in line with applied methodology /8/. This has been verified by the validation team during the

				on-site visit /63/, hence considered valid.
$FFC_{wp,j,i,t}$	Liters	Consumption of fossil fuel type j in the project for sample unit *i* in year *t*	Monitoring must be conducted at least every five years or prior to each verification event if less than five years	The value of the parameter is sourced from IPCC. Measuring and reporting frequency is in accordance with monitoring plan, as documented in the PD/1/ and methodology/8/. The validation team confirmed that the value of the parameter to be determined is in line with applied methodology /8/. This has been verified by the validation team during the on-site visit /63/, hence considered valid.
$EF_{limestone}$ *and* $EF_{limestone}$	T C/t (limestone or dolomite)	Emission factor for the application of calcitic limestone and dolomite	5 years	The value of the parameter is sourced from IPCC. Measuring and reporting frequency is in accordance with monitoring plan, as documented in the PD/1/ and methodology/8/. The validation team confirmed that the value of the parameter to be determined is in line with applied methodology /8/. This has been verified by the validation team during the on-site visit /63/, hence considered valid.
$fCH_4soil_{bsl,l,t}$	t CH_4/unit area	Modeled methane emissions from the soil organic carbon pool in the baseline scenario for sample unit *i* at time *t*	The data is monitored prior to each verification event	The assessment of the modelled has been done by approved IME and found correct and sufficient. /70/.
$EF_{ent,l}$	Kg CH_4/(head*year)	Enteric emission factor for livestock type l	NA	NA

$Pop_{wp,l-,i,P}$	Head	Population of grazing livestock of type l in the project scenario in sample unit i for productivity system P in year t	NA	NA
l	Dimensionless	Type of livestock	NA	NA
P	Unitless	Productivity system	NA	NA
$AWMS_{l,i,t,P,S}$	Dimensionless	Productivity system	NA	NA
$EF_{CH4,md,l}$	G CH4/(kg volatile solids)	Emission factor for methane emissions from manure deposition for livestock type l	NA	NA
S	Unitless	Manure management system	NA	NA
$VS_{rate,l}$	Kg volatile solids/(1000 kg animal mass*day)	Default volatile solids excretion rate for livestock type l	NA	NA
$W_{wp,l,i,t}$	Kg animal mass/head	Average weight in the project scenario of livestock type l for sample unit i in year t	NA	NA
CF_c	Proportion of pre-fire fuel biomass consumed	Combustion factor for agricultural residue type c	NA	NA
$\Delta \bullet_{,t}$ *and* $\bullet_t$	t CO2e/unit area	Average emission reductions from pool or source •, or stock of pool •, in year t	-	The parameter value has been checked in the ERR sheet and found correct and consistently with the applied methodology VM0042.

$Buffer_{,t}$	tCo2e	Number of buffer credits to be contributed to the AFOLU pooled buffer account in year t	-	The parameter value has been checked in the ERR sheet and found correct and consistently with the applied methodology VM0042.

The emission reductions calculated estimated for the project activity, have been verified against different literature and evidence. For some ex-ante parameters, IPCC default values were used, and they were found to be appropriate. For few parameters monitored, values were determined through GIS data, and was verified. The data assessed was found valid, and the calculations made were correct for baseline as well as project emissions.

VVB further confirmed that section 5.3.1 of the PD describes the monitoring team structure under table 5-4 and the responsibilities of each team. This also include the activities carried out in line with the requirement of methodology section 9.3. Parameters to be measured, including any parameters required for the selected model (additional to those specified in this methodology) have been provided. Data to be collected and data collection techniques and sample designs for directly sampled parameters have also been provided. All these data have been checked and covered under model validation report and supporting evidence for which the assessment. PP has also confirmed that the baseline will be reassessed according to VCS Standard v4.5 in Section 3.2.7 under ALM baseline reassessment. Quality assurance and quality control (QA/QC) procedures to ensure accurate data has been thoroughly checked following the information provided in figure 5-4 and 5-5 in the PD. The same QA/QC procedures were checked by reviewing the data collection procedures, KML file and ER calculation sheet. Modelling plan for the model RothC applied following the Quantification Approach 1 of the methodology has been provided in the PD section 5.3.3. Appendix 9 and 10 provided the information on soil sampling protocol and stratification which has been checked and confirmed through desk review and site visit observations.

Appendix 6: soil sampling protocol in the PD now include the description of sampling design, minimum data collection requirements of soil sample, measurement of SOC and bulk density along with statistical analysis approach adopted in this project. Appendix 9: soil sampling stratification include the complete details of how the size of each stratum is defined. In this project, VVB checked that PP has done the stratification which was checked from table 5-5 and created the homogenous area. The field classification has been done and for 1000 ha of area, more than 20 ha of area is taken as per sampling. In appendix 9 section, PP has elaborated the approach for sampling adopted that consider the wider geography of the project. Sampling design was found to be complete. It has been confirmed from PD section 5.3.2 that the soil sampling has been done randomly in the first PAI. The stratification plan described in the PD has been checked and it was found that the monitoring plan is complete and provide required details as per the VMM0042 methodology requirements. It is stated in PD that “Agreena is not avoiding sampling of fields receiving organic amendments, but Agreena will not be soil sampling in fields that have received organic amendments until at least 3 months after application.”. The procedure does not deviate from the requirements of VM0042 Section 8.2.1.1 (p. 26) and therefore found to be complete and appropriate.

Monitoring plan of the soil disturbance has been provided as separate evidence Appendix 11. Standard Operating Procedure Monitoring and Accounting for Soil Disturbance in the AgreenaCarbon Project. The

document provided the data inputs, complete monitoring procedure, description of tillage model and QA/QC procedures and its results. The model has been tested by VVB and QA/QC procedure was found to be complete and as per the requirement of VM0042 methodology. Data is organized within the QA/QC system with the flagging system shown in our Project Description under Section 5.3: Monitoring Plan which has also been verified. Monitoring of residue management is now added in the PD section 5.3. As mentioned in the PD, Monitoring of residue is Quality Controlled in a variety of ways. For the assessment, VVB has followed the flagging system adopted in this project and given in the section 5.3 of the PD. The same flagging system and its functioning has been checked in the data provided in ERR sheet. Supporting records i.e., farmers data was also used to cross-verify and it was found that complete monitoring system for residue management. For its QA/QC procedure, VVB discussed and verified the QA/QC chart that includes residue management in figure 5-4 and figure 5-5. Liming application is not being monitored in the baseline and PP has sought the deviation in section 3.6 of the PD. For the project monitoring, it is clearly given in PD that the data provided from the relevant sources are monitored and will be checked from updated version prior to every verification. AgreenaCarbon uses remote sensing data to check that whether agricultural fields have not been converted from native ecosystems boundaries include forested area as described in the Monitoring Chapter 5 of this PD. The monitoring check has been clarified in the sub-section 'Clearing of native ecosystems (and deforestation)' of section 5.3 in the PD. VVB checked the PD section 5.3 which states that the stratification is based on key factors for explaining variation such as soil type, geological parent material and topography. These variables are congruous with the similarity criteria listed in Table 7 of Section 8.2 in VM0042 V.2. It was found to be justified and complete. PP in the PD section 5.3 added model inputs related to ALM practices will be monitored and recorded for each project year t. VVB confirmed that section 5.3 of the PD is complete as per VCS PD template requirements and include sufficient project details in conformance to VM0042 v2.0, Sections 8.2.1 and 9.3. 1

The validation team confirms that appropriate methods and formulae for calculating baseline and project emissions have been followed. The assumptions, emission factors and default values that were applied in the calculations are justified. The approach and explanation of ERR calculations, values and results for key components of baseline, project and leakage emissions are thoroughly explained in the PD section 4. VVB confirmed that the ERR calculations are reproducible and clearly given in PD.

CAR#09, CAR#55, CAR#58, CAR#60, and CAR#61 were raised and successfully closed. Please refer to the appendix IV for more details.

3.4 Non-Permanence Risk Analysis

The non-permanence risk report and risk calculation sheet /15//98/ are provided by PP, the risk assessment was conducted according to the VCS “AFOLU Non-Permanence Risk Tool” v4 /7/. Each risk category was calculated based on the VCS guidance. The information was validated and cross-checked through document review, onsite visits of the project area and interviews conducted. Details of the assessment are provided as follow.

Risks	Assessment of the risk factor justification	Risk rating
Internal risks		
Project	The validation team completed the project risk analysis in line	Risk rating: -4

management (PM)	with AFOLU Non permanence risk tool. This is a grouped project which involves improved agricultural land management practices. The first PAI includes implementation of agricultural practices in the identified project region. As per section 2.2.1 of tool /7/ and table 1. Project management, species planted, ongoing enforcement to prevent encroachment by outside actors rated NA as it does not apply to the project. Management team is located less than a day travel from the site, however, it lacks the individuals with significant experience in AFOLU project design and implementation, carbon accounting and reporting under the VCS Program or other approved GHG programs, therefore risk is rated in this section. The risk has been rated -2 as a part of the adaptive management plans.	
Financial viability (FV)	The applicable financial viability risk categories are (d) and (h). Based on the FV analysis (attached as a separate excel), the project cash flow breakeven point is 4 years or less, and the project has secured 80% or more of funding needed to cover the total cash out before it reaches breakeven. The risk is rated 0 as the risk factor does not apply to project.	Risk rating: 0
Opportunity costs (OC)	The applicable category is (d) under this risk rating which implies NPV from the most profitable alternative land use is expected between 20% more than and up to 20% less than from project activities. The risk is rated 0.	Risk rating: 0
Project longevity (PL)	The project longevity is 40 years and renewable till 100 years. The ownership of the project resides with PP. The project falls under tool project longevity category (a) without legal agreement or requirement to continue the management practice.	= 24 – (project longevity/ 5) Considering the above equation Risk rating: 16
Internal risk rating	PM + FV + OC + PL	score is -4 + 0 + -0 + 16= 12 but in accordance with the Tool, total may not be less than zero **Internal risk score = 12**
External risks		
Land Tenure and	The conditions (a) of the Land Tenure and Resource Access/	Risk rating: 2

Resource Access/ Impacts (LT)	Impacts table is rated 0 for the risk factor (a) and the justification provided in the NPR was checked. However, the risk rating for (b) factor is 2 as the Contracts in Bulgaria are often with the government and therefore this risk is accounted for across the whole project. These risk factors have been rated as per the Table 6: Land Tenure and Resource Access/Impacts of the NPR tool v4.0 and has been provided consistently in the NPR report and NPR excel calculation sheet.	
Community engagement (CE)	The farmer's community are directly involved in this project. The risk rating is provided on category mitigation - the project generates net positive impacts on the social and economic well-being of the local communities who derive livelihoods from the project area.	Risk rating: 0
Political risk (PC)	Following the requirements of applied NPR tool, external risks - section 2.3.3 Political risk (PC), VVB has reviewed the political risk rating as follows. As per Section 2.3.3 (1), a governance score (of between -2.5 and 2.5) shall be calculated from the mean of Governance Scores across the six indicators of the World Bank Institute's Worldwide Governance Indicators (WGI)/80/. In the project NPR report, PP has provided the WGI scores and indicators of all countries added in first PAI in this validation. VVB checked Table 3-1: Worldwide Governance Indicators (WGIs) and mean governance scores across the years 2017-2021 for the ten countries in which the AgreenaCarbon Project takes place. Since this is a multiple country project, the approach identified for the identification of political score all countries and taking the highest score amongst all countries. This approach is found to be conservative in calculating the risk score. For Political Risk, the most conservative value is that of Ukraine, whose WGIs five-year average amounts to –0.65 for overall country score. The Governance score falls between -0.79 to less than -0.32 which is the (b) risk category. This risk rating has been calculated following the table 8: political risk provided in NPR tool v4.0. Further, PP has applied (-2) as the mitigation score as country has an established national FSC or PEFC standards body .	Risk rating: 2
External risk	LT + CE + PC	score is 2 + 0 + 2 = 4 but in accordance with the Tool, total may not be less than zero. External score = 4

Natural risks		
Fire (F);	Incidences of wildfire in the project is categorised as insignificant. However, the likelihood of fire more than once every 10 years is estimated in the general trends of fire risk levels in the long-term. Thus, risk scoring is 2 and mitigation score is 0.5	Risk rating: 1
Pest and Disease outbreaks (PD)	The risk category was found to be not applicable as the pest and disease outbreaks are highly uncertain. The likelihood is less than very 10 years. Thus, risk scoring is 2 and mitigation score is 0.5	Risk rating: 1
Extreme Weather (W)	As per the literature review, Extreme Weather (EW) events include phenomena such as storms, floods, and droughts are significant, however, it depends on the type of event as well as numerous circumstantial factors, as depicted in PD. Thus, risk scoring is 5 and mitigation score is 0.5	Risk rating: 2.5
Geological risk (G)	Risks such as drought and erosion are rated 0.	Risk rating: 0
Other natural risk (ON)	Through site visit inspection and interview with PP it was confirmed that chances of occurrence of other risks are not applicable	Risk rating: 0
Natural risks	F + PD + W + G + ON	Score is 1 + 1 + 2.5 + 0 + 0 = 4.5 (5) but in accordance with the Tool
Overall risk rating	Internal risk + external risk + natural risk	12 + 4 + 5 = 21 (PP has taken 21)

CAR#47, CAR#57 and CAR#62 were raised and successfully closed. Please refer to the Appendix IV for further details.

4 VALIDATION OPINION

Earthood Services Private Limited has been contracted by Agreena ApS Ltd to validate the project activity AgreenCarbon Project (VCS ID 4022). The validation assessment has been completed and concluded after thorough assessment of PD, ER calculation sheet, evidence in line with the requirements of VCS Standard, v4.5 and applied methodology VM0042, v2.0.

During the validation, 10 Clarification requests (CLs) and 62 Corrective Action Requests (CARs) were raised and successfully closed. The review of the revised PD versions, the supporting documents and subsequent follow-up discussions provided adequate evidence to conclude the closure of specified CARs and CLs. 03 Forward Action Requests (FARs) have been raised to be addressed at the time of verification.

No limitations or doubts were identified related to the validation of the project. The conservative approach and methodological choices used in the project design make it very likely that the project will meet the projected emissions reduction target.

Earthood Services Private Limited has reviewed the project description documents and subsequently carried out site visit interviews to confirm the fulfilment of stated criteria. The project activity has correctly applied the baseline and monitoring methodology VM0042: Methodology for Improved Agricultural Land Management, v2.0 which is an approved methodology under the VCS programme and is acceptable under VCS Standard, version 4.5. The baseline has been determined in accordance with the stated approved baseline methodology.

As summary the validation team able to conclude that:

The project is in line with all relevant host countries' criteria and all relevant VCS version 4 program guidelines requirements.

The project additionality is sufficiently justified in the VCS PD.

The monitoring plan is transparent and adequate and in line with applied baseline and monitoring methodology of VM0042, version 2.0 and all the related tool VMD0053, version 1.0.

The calculation formulae and use of parameters for the project emission reductions estimation are transparent and in line with the requirement of the applied methodology. The ex-ante projection of emission reductions given is found to be appropriate, conservative and in line with the requirement. The estimated Emission Reduction- during the crediting period by the Project is expected to be 10,867,398.91 tCO2e over the 20-year project lifetime.

The conclusions of this report show that the project, as it was described in the project documentation, is in line with all criteria applicable for the validation as outlined under VCS Standard v4.5.

VVB declared that the validation and/or verification of the GHG statement was conducted in accordance with ISO 14064-3: 2019. Earthood here concluded that the PD and its estimated emissions reduction calculations are in with all criteria applicable for the validation against the VCS standard v4. The Project activity is found to be eligible under Sectoral Scope 14. A reasonable level of assurance has been attained in this validation assessment. PP has provided sufficient evidence and applied valid versions of VCS documents. The AFOLU non permanence risk report applicable to calculating buffer credits. The NPR report and calculation tool has been prepared in line with the guidance of VCS NPR tool. It is concluded that the project is likely to achieve estimated GHG emission reduction or removals. Therefore, Earthood

certify that the project meets all relevant requirements of the above-defined criteria and recommend registration of the project activity.

Validation period must be broken down into calendar year vintages: From 15-September-2021 to 14-September-2041.

Validated GHG emission reductions and removals in the above period:

Year	Estimated GHG emission reductions or removals (tCO_2e)
15th September 2021- 31st December 2021	21,231.79
1st January 2022- 31st December 2022	547,456.91
1st January 2023- 31st December 2023	543,554.32
1st January 2024- 31st December 2024	542,106.78
1st January 2025- 31st December 2025	541,894.34
1st January 2026- 31st December 2026	541,985.70
1st January 2027- 31st December 2027	547,456.91
1st January 2028- 31st December 2028	543,554.32
1st January 2029- 31st December 2029	542,106.78
1st January 2030- 31st December 2030	541,894.34
1st January 2031- 31st December 2031	541,985.70
1st January 2032- 31st December 2032	547,456.91
1st January 2033- 31st December 2033	543,554.32
1st January 2034- 31st December 2034	542,106.78
1st January 2035- 31st	541,894.34

December 2035	
1st January 2036- 31st December 2036	541,985.70
1st January 2037- 31st December 2037	547,456.91
1st January 2038- 31st December 2038	543,554.32
1st January 2039- 31st December 2039	542,106.78
1st January 2040- 31st December 2040	541,894.34
1st January 2041- 14th September 2041	520,160.62
Total estimated ERs	10,867,398.91
Total number of crediting years	20 years
Average annual ERs	543,369.95 tCO2-eq

Approved by

Ashok Kumar Gautam

Director

Earthood Services Private Limited

Date: 20 December 2024

Place: Gurugram, Haryana

APPENDIX I: ABBREVIATIONS

Abbreviations	Full texts
GENERAL	
AFOLU	Agriculture, Forestry and Other Land Use
BE	Baseline Emission
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification Request
CO2	Carbon di oxide
CO	Conservation Outcomes
CP	Crediting Period
DR	Desk Review
EI	External Individual
ER	Emission Reductions
ESPL	Earthood Services Private Limited
FAR	Forward Action Request
GHG	Green House Gas
GPS	Global Positioning System
Ha	Hectares
NGO	Non-Governmental Organization
PAI	Project Activity Instances
PD	Project Description
PP	Project Proponent
RS	Remote Sensing
SDG	Sustainable Development Goals
SOP	Standard Operating Protocol
tCO_2e	tonnes (t) of carbon dioxide (CO2) equivalent (e)
UNFCCC	United Nations Framework Convention on Climate Change
V	Version
VCS	Verified Carbon Standard
VCUs	Verified Carbon Units
VER	Verified Emission Reduction
VVB	Validation and Verification Body
VVS	Validation and Verification Standard

APPENDIX II: COMPETENCE OF TEAM MEMBERS AND TECHNICAL REVIEWER

Competence Statement			
Name	Kaviraj Singh		
Education	Ph.D. (Environmental Engineering), IIT Delhi Masters (Energy & Environmental), DAVV Indore		
Experience	15 Years +		
Field	Climate Change & Environment		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.D., AMS-II.D., ACM0006, AMS-I.A., AMS-I.C., AMS-II.B., AMS-III.H, ACM0002, ACM0001, AM0080, ACM0018, AM0056, AM0073, AMS-III.AU. VM0042		
Local expert	YES (India)		
Financial Expert	YES		
Technical Reviewer	YES		
TA Expert (X.X)	YES (TA 1.1, TA 1.2, TA 3.1, TA 13.1, TA 13.2)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	13/07/2022
Approved by	Deepika Mahala (Technical Manager)	**Date**	13/07/2022

Competence Statement			
Name	Shreya Garg		
Country	India		
Education	M.Sc. (Climate Science & Policy), TERI University		
Experience	9 Years +		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS.I.A., AMS.I.C., AMS.I.D., AMS.I.F., AMS.II.D., AMS.II.G., AMS.II.J., AMS.III.AV., AMS.III.BL, ACM0002, ACM0012		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (TA 1.2, TA 3.1)		
Reviewed by	Shifali Guleria	**Date**	26/04/2022
Approved by	Deepika Mahala	**Date**	26/04/2022

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

Competence Statement			
Name	Parul Srivastava		
Education	PhD Forest Ecology and Environment M.Sc. Botany B.Sc. Botany and Chemistry		
Experience	20 years		
Field	Forestry		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (14.1)	YES		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	13/04/2023
Approved by	Deepika Mahala (Technical Manager)	**Date**	13/04/2023

Competence Statement (ISO 14065)	
Name	Riya Sharma
Education	M.Sc. Biodiversity & Conservations

Experience	2+ years		
Field	Climate Change & Environment, Forestry		
Approved Roles			
Team Leader	YES (VM)		
Validator	YES (VM)		
Verifier	YES (VM)		
Local expert	YES (INDIA)		
Financial Expert	NO		
Technical Reviewer	YES (VM)		
TA Expert (X.X)	YES (TA 14.1, 15.1)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	10/05/2024
Approved by	Deepika Mahala (Technical Manager)	**Date**	16/05/2024

Competence Statement			
Name	Rahi Sarkar		
Education	M.Sc. Ecology and Environmental Studies B.Sc. Forestry		
Experience	NA		
Field	NA		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Trainee	YES		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	31/10/2022
Approved by	Deepika Mahala (Technical Manager)	**Date**	31/10/2022

Competence Statement	
Name	Zacc Farodoye
Education	BA(Hons) Economics

Experience	5 Years		
Field	Renewable Energy, Utilities, Property, and Finance.		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	YES (United Kingdom)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Trainee	YES		
Reviewed by	Shifali Guleria (Quality Manager)	Date	30/03/2023
Approved by	Deepika Mahala (Technical Manager)	Date	30/03/2023

Competence Statement			
Name	Carolina Tapoc		
Education	Bachelor's and Master's in Dental Medicine		
Experience	1 years		
Field	Dentist		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	YES (Romania)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	17/07/2023
Approved by	Deepika Mahala (Technical Manager)	**Date**	17/07/2023

Competence Statement	
Name	Waris Hooda
Education	Master of Science (Geo-Information Science and Earth Observation) Bachelor of Engineering (Computer Engineering)
Experience	1+ years
Field	Geo-Information Science and Earth Observation (Specialization: Geo-informatics)

Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Trainee	Yes		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	08/12/2022
Approved by	Deepika Mahala (Technical Manager)	**Date**	15/12/2022

Competence Statement			
Name	Ashok Gautam		
Country	India		
Education	M. Sc. (Environmental Sciences) M. Tech. (Energy & Environmental Management)		
Experience	16 Years +		
Field	Energy, Climate Change & Environment		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.D., AMS-I.A., AMS-I.C., AMS-I.E, AMS-II.D., AMS-II.G., AMS-III.E., AMS-III.H., AMS-III.Q, AMS-III.Z., AMS-III.AV., AMS III.AR, AM0029, AM0025, AM0056, ACM0001, ACM0002, ACM0004, ACM0012, ACM0006, AM0018, ACM0017, ACM0009, AM0034, AMS.I.B, ACM0016, AMS-III.BL, AMS-II.L, AMS-I.I., AMS-III.A.O., ACM0010, ACM0025		
Local expert	YES (India)		
Financial Expert	YES		
Technical Reviewer	YES		
TA Expert	YES (TA 1.1, TA 1.2, TA 3.1, TA 13.1)		
Reviewed by	Shifali Guleria	**Date**	06/03/2023
Approved by	Deepika Mahala	**Date**	06/03/2023

Competence Statement	
Name	Dr. Nepolion Borah
Education	M.Sc. in Ecology & Environmental Science,

	Ph.D. in Forest Ecology		
Experience	13 Years (4 years in Measuring and Monitoring Forest Carbon Stocks)		
Field	Forest Ecology and Climate Change		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	YES (TA 14.1)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	08/08/2023
Approved by	Deepika Mahala (Technical Manager)	**Date**	08/08/2023

APPENDIX III: LIST OF DOCUMENTS REFERRED

Ref no.	Author	Title	Reference to the document	Provider
1	PP	VCS Project Description (PD)	Version 1.3 dated 09/12/2024	PP
2	VCS	VCS Project Description template	Version 4.2	Others
3	VCS	VCS Program Guide	Version 4.3	Others
4	VCS	VCS Standard	Version 4.5	Others
5	VCS	VCS Validation and Verification Manual	Version 3.2	Others
6	VCS	VCS Program Definitions	Version 4.3	Others
7	VCS	VCS AFOLU Non-Permanence Risk Tool	Version 4.0	Others
8	VCS	VM0042 Methodology for Improved Agricultural Land Management	Version 2.0	Others
9	VCS	VMD0053 Model Calibration Validation and Uncertainty Guidance for the Methodology for Improved Agricultural Land Management	Version 1.0	Others
10	UNFCCC	CDM Standard: Sampling and surveys for CDM project activities and programmes of	Version 9.0	Others

		activities		
11	UNFCCC	CDM Guideline: Sampling and surveys for CDM project activities and programmes of activities	Version 4.0	Others
12	VERRA	VCS Project webpage https://registry.verra.org/app/projectDetail/VCS/4022	Last accessed on 22/10/2023	Others
13	VERRA	VCS Project Description template	Version 4.2	Others
14	VERRA	VCS Non-Permanence Risk Report template	Version 4.0	Others
15	PP	VCS Non-Permanence Risk report	Version 4.0 dated 29/09/2024	PP
16	PP	Net GHG Emission Reductions and Removals spreadsheet AgreenaCarbon VCS PD_4022_29OCT2024_ERRs_2022_PRR R2	-	PP
17	PP	KML file of project boundary	-	PP
18	PP	Separate KML files of field boundaries of included countries Bulgaria, Denmark, Estonia, Latvia, Lithuania, Romania, UK, Moldova, Ukraine, Portugal, and Spain	-	PP
19	PP	Benefit contract	-	PP
20	PP	Benefit contract terms and conditions	-	PP
21	Agreena	https://agreena.com/	Last accessed on 01/08/2023	PP
22	PP	AgreenaCarbon Platform IT Environment of the Agreena Carbon Platform		PP
23	PP	Declaration of the AgreenaCarbon Porject	23/02/2023	PP
24	PP	Partner Agreement between PP and Danish Agro A.M.B.A	11/10/2022	PP
25	PP	Partner Agreement between PP and Asociación agrupación de producción integrada Galpagro (Balam)	30/06/2022	PP
26	PP	Consultant Agreement between Agreena ApS and Global Carbon Initiatives Limited	16/08/2022	PP
27	PP	Sales Partner Agreement between PP and Sisteme Agro Digitale (Tudor Sales) (Romania)	06/09/2022	PP
28	PP	Partner Agreement between PP and Proteh-Agro, SRL (Moldova)	16/09/2021	PP
29	Ministry of Foreign Affairs of Denmark, The Trade Council	Market Search Hungary, Proposal Prepared for Agreena ApS	12/09/2022	PP
30	Ministry of	Market Search Go-to-Market and	05/09/2022	PP

	Foreign Affairs of Denmark, The Trade Council	Expansion/ Poland		
31	Ministry of Foreign Affairs of Denmark, The Trade Council	Partner Search in Romania	13/09/2022, 04/11/2022	PP
32	PP	Farmer journey document	-	PP
33	PP	AgreenaCarbon Help center screenshot	-	PP
34	PP	Farmer Onboarding flow document	-	PP
35	PP	Field validation process document	-	PP
36	DNV	Agreena Carbon Validation Audit	17/01/2022	PP
37	PP	Screenshot of filled farmers information in Agreena Platform	-	PP
38	PP	Recruitment Process		PP
39	PP	Tillage Manual presentation		PP
40	PP	Stakeholder Engagement and Risk Analysis document	-	PP
41	PP	Terms of reference for Advisory Board	-	PP
42	PP	Implementation of Remote-Sensing Technology document	-	PP
43	VERRA	Comments received by Verra during the public comment period 20 January – 19 February 2023 of the AgreenaCarbon Project (project ID4022)	20/02/2023	PP
44	PP	AgreenaCarbon Risk Tool_Financial_Viability_Assessment-Model	-	PP
45	PP	AgreenaCarbon_Risk Tool_Adaptive Management Plan	-	PP
46	PP	KML file of Baseline data for PAIs under first validation	-	PP
47	PP	Cover Crop Transition from 2019/20 to 2020/21 document	-	PP
48	PP	Carbon removals calculation tutorial	-	PP
49	PP	Python files – IPCC carbon calculator main	-	PP
50	PP	Farmers signed contracts	Various	PP
51	PP	Screenshots of farmers information in Agreena website dashboard with user ID	-	PP
52	PP	Model Calibration validation report	-	PP
53	PP	Responses received from PP against IME's comment	-	PP
54	PP	Agreena Field description table	-	PP
55	PP	Agreena SOC Monitoring Protocol	-	PP
56	PP	Records of project level meetings (online and offline)	-	PP
57	PP	Records of local level meetings (invitation proof and invitee list)	-	PP
58	PP	Records of farmers feedback and responses	-	PP
59	PP	Agreena Supplier code of conduct	-	PP

60	PP	Agreena Grievance and Complaints Procedure	-	PP
61	PP	Crop list	-	PP
62	Earthood	On-site photographs and audit records		Others
63	Earthood	Filled attendance lists		Others
64	PP	Recording received of Ukrainian farmers' field	-	PP
65	Google earth	https://www.google.com/earth	Last accessed on 22/10/2023	Others
66	IPCC	2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories Volume 4 Agriculture, Forestry and Other Land Use https://www.ipcc-nggip.iges.or.jp/public/2019rf/vol4.html	Last accessed on 01/08/2023	Others
67	IPCC	IPCC Fifth Assessment Report https://www.ipcc.ch/report/ar5/wg1/	Last accessed on 01/08/2023	Others
68	Agreena	Start date HTML file	-	PP
69	EO Browser	https://apps.sentinel-hub.com/eo-browser/?zoom=9&lat=42.37797&lng=12.18274&themeId=DEFAULT-THEME&visualizationUrl=https%3A%2F%2Fservices.sentinel-hub.com%2Fogc%2Fwms%2F963c9e66-1271-4862-82ab-3457709f4237&datasetId=IO_LULC_10M_ANNUAL&fromTime=2022-01-01T	Last accessed on 01/08/2023	Others
70	IME	Approved IME Model Validation Report	-	Others
71	PP	Appendix 3- Regulatory Surplus Internal Policy Tracker	-	PP
72	Official publication, Republic of Bulgaria	State Gazette Държавен вестник (parliament.bg)	Last accessed on 24/02/2024	PP
73	Retsinformation	Legal information https://www.retsinformation.dk/	Last accessed on 24/02/2024	PP
74	N-Lex	National law of EU countries	Last accessed on 24/02/2024	PP
75	Diario Da Republica	diariodarepublica.pt/dr/en	Last accessed on 24/02/2024	PP
76	Romania	Legislative portal https://legislatie.just.ro/	Last accessed on 24/02/2024	PP
77	Government of UK	https://www.legislation.gov.uk/	Last accessed on 24/02/2024	PP
78	Legislation of	https://zakon.rada.gov.ua/laws/main/a#Fin	Last accessed	PP

	Ukraine	d	on 24/02/2024	
79	IPCC	Table 3.3.1 Chapter 3 Volume 2 - Energy of the "2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories" (https://www.ipcc-nggip.iges.or.jp/public/2019rf/vol2.html) (IPCC 2019).	Last accessed on 22/10/2024	Others
80	World Bank Group	Worldwide Governance Indicators https://www.worldbank.org/en/publication/worldwide-governance-indicators	Last accessed on 22/10/2024	Others
81	PP	AgreenaCarbon Project Adaptive Management Plan	Version 1.0 dated 27/09/2024	PP
82	UNFCCC	https://cdm.unfccc.int/DNA/DNA/view.html?CID=176	Last accessed on 22/10/2024	Others
83	UNFCCC	https://cdm.unfccc.int/Projects/DB/SGS-UKL1216031019.22/view	Last accessed on 22/10/2024	Others
85	PP	Supplementary material 2 - RothC	-	PP
86	PP	Supplementary material 3 - IPCC	-	PP
87	PP	Supplementary material 4 - Leakage	-	PP
88	PP	Supplementary material 5 - uncertainty	-	PP
89	Cropin	https://www.cropin.com/blogs/ndvi-normalized-difference-vegetation-index	Last accessed on 22/10/2024	Others
90	Hasim, S., & Bhar, K. K. (2020).	Hasim, S., & Bhar, K. K. (2020). Seasonal cropping pattern extraction using ndvi from irs liss-iii image of kangsabati commanded area. *Procedia Computer Science*, *167*, 900-906.	Last accessed on 22/10/2024	Others
91	University of Tehran	https://jdesert.ut.ac.ir/article_90834.html#:~:text=Then%2C%20using%20the%20most%20optimal,and%20overall%20accuracy%20of%2080.86%25.	Last accessed on 22/10/2024	Others
92	PP	Appendix 9: Common Practice Calculation Supplementary Material	-	PP
93	Scottish Government Riaghaltas na h-Alba gov.scot	https://www.ruralpayments.org/topics/inspections/all-inspections/cross-compliance/detailed-guidance/good-agricultural-and-environmental-conditions/	Last accessed on 22/10/2024	Others
94	European Commission	https://agriculture.ec.europa.eu/common-agricultural-policy/income-support/conditionality_en	Last accessed on 22/10/2024	Others
95	Eurostats	Eurostats tilling https://ec.europa.eu/eurostat/databrowser/view/ef_mp_prac/default/table?lang=en&category=agr.ef.ef_mp	Last accessed on 22/10/2024	Others

96	Eurostats	Eurostats residue/cover crops https://ec.europa.eu/eurostat/databrowser/view/ef_mp_soil/default/table?lang=en&category=agr.ef.ef_mp	Last accessed on 22/10/2024	Others
97	FAO	FAO fertilizer https://www.fao.org/faostat/en/#data/ESB	Last accessed on 22/10/2024	Others
98	PP	AgreenaCarbon_29OCT2024_AFOLU Risk Tool Excel Tool	PP	Others
99	-	https://www.worlddata.info/country-comparison.php?country1=MDA&country2=ROU#google_vignette	Last accessed on 17/12/2024	Others
100	-	https://rses.ince.md/server/api/core/bitstreams/a19e50dc-664e-426c-b46d-0f8c14400833/content	Last accessed on 17/12/2024	Others
101	-	https://managementjournal.usamv.ro/pdf/vol.15_4/Art51.pdf	Last accessed on 17/12/2024	Others
102	-	https://www.trade.gov/country-commercial-guides/moldova-agriculture	Last accessed on 17/12/2024	Others
103	-	https://blacksea-cbc.net/wp-content/uploads/2022/01/BSB861_BRIDGES_-_Study-of-international-trade-of-agricultural-and-connected-products-in-the-Romania_EN.pdf	Last accessed on 17/12/2024	Others
104	-	(PDF) Soil databases of Bulgaria, Moldova, Romania and Ukraine, and their participation in the European soil information continuum	Last accessed on 17/12/2024	Others
105	NIR	NIR Romania https://unfccc.int/documents/627662; NIR Moldova https://unfccc.int/documents/627101	Last accessed on 17/12/2024	Others

APPENDIX IV: CLARIFICATION REQUESTS, CORRECTIVE ACTION REQUESTS AND FORWARD ACTION REQUESTS

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

FAR ID		**Section no.**		**Date :** DD/MM/YYYY
Description of FAR				
The scope of the assessment if validation, therefore this section is not relevant.				
Project participant response				**Date :** DD/MM/YYYY

NA
Documentation provided by project participant
NA
VVB assessment | **Date:** DD/MM/YYYY
NA

Table 2. CL from this validation

CL ID	01	**Section no.**	3.1	**Date :** 01/02/2023
Description of CL				
1. VVB has checked the project details given in the section 1.1 of the PD. It is clear that the project is helping farmers to make a shift from conventional agricultural practices to sustainable agricultural land management (SALM) practices. However, the details were found incomplete as per the VCS PD template. Section 1.1 of the PD requires PP to provide. (a) location of the project, (b) explanation of how the project is expected to generate GHG emission reductions or removals, (c) an estimate of annual average and total GHG emission reductions and removals. Kindly address. 2. Also, section 1.1 requires PP to provide brief description of the scenario existing prior to the implementation of the project. It is given in the PD that "the farmers joining the AgreenaCarbon programme are primarily practicing conventional farming with intensive tillage, no cover cropping, removing or burying crop residues, and using synthetic fertilizers, herbicides and pesticides". However, it is not clear whether it is implying for the project region or entire European Union. Along with this, it is required to identify and delineate the region considered under this project and identify the instances included during validation. 3. In section 1.1 of the PD, it is mentioned that there is a platform called AgreenaCarbon which is used to collect data from farmers. Please clarify (a) How the platform made available to farmers and what stage? (b) How are farmers made acquainted with the platform? (c) Do farmers themselves operate and provide farm details or are there are field management team?				
Project participant response				**Date :** 24/02/2023
1. Input provided in section 1.1 of the PD in Section 1.1.1 Project Location and 1.1.2 GHG Emission Reductions and Removals *2. KML File provided separately with field locations as well as KML file of all country locations.* *3. (a) Qualified leads can join the programme either through the Self-service model (where farmers upload their data manually) or through the Agreena-assisted model (where their Agreena contact person collects field data files from the farmer and uploads them to the platform).* *A Qualified lead is a lead that has been successfully engaged following a connection via a farmer or via word-of-mouth connection to Agreena.* *(b) Our onboarding follows two tracks:* - *Self service: The videos linked in the documentation show step-by-step guides for the self-service model. The first step of the self-service model is the creation of their free user profile. From there the farmer can proceed to enter their farm data directly in the Agreena platform.* - *Agreena-assisted: Through phone calls and/or video calls with Key Account Managers and/or the Agreena Growth team.* *In addition, the Agreena HelpDesk is available through the Agreena platform (app.agreena.com) and Agreena website (agreena.com). Link to Help Center: http://help.agreena.com/en/ See*				

screenshots of Help Center and where to access it.

(c) Farmers are always able to access the Agreena platform themselves. Our onboarding flow follows two tracks:

- *Self service: Farmers operate within the platform independently. However Key Account Managers and Customer Success Managers are always at disposal to assist.*
- *Agreena-assisted: Farmers are assisted by Key Account Managers throughout. However, farmers have their personal log-in and can review or edit all information at any time.*

Documentation provided by project participant

No 4_KML File of Project Boundary
No 5_KML File of Project Activity Instances Included at Validation
CL ID 1.3_Platform_Demo_Videos_(to_send_to_farmers).pdf (this pdf includes direct links to self-service onboarding videos)
CL ID 1.3_Farmer Journey.pdf
CL ID 1.3_Help Center - Agreena
CL ID 1.3_Help Center - Agreena App
CL ID 1.3_Help Center - Agreena Website

VVB assessment	**Date:** 14/03/2023

1. VVB has checked the project details added in the revised PD section 1.1. PP has added the details of project location, lists of technologies used employed in the project, and explanation of how the project is expected to generate GHG emission reductions or removals. PP has also added the total estimated ERs and average annual ERs. Since information added in the PD is sufficient and complete, finding stands closed.

2. The validation team has checked the revisions made in section 1.1 of PD. KML file of each PAI is okay, however, it still does not provide clarification brief description of the scenario existing prior to the implementation of the project. PP has also mentioned about internal Tillage Manual, please submit the copy of it for assessment. Finding stands open.

3. The validation team has reviewed the responses and submitted evidence. PP has clarified about Agreena platform and onboarding procedures Finding stands closed.

Since all findings are not closed, CL#01 stands open.

Project participant response	**Date :** 21/06/2023

2. The tillage manual has been provided in previous documentation under the ID listed below for CAR 5.1. Project proponent will provide again. In addition, the conditions prior to the project scenario are added in the tracked changes version of the PD in section 1.13 regarding soil and ecosystem characteristics as well as scenarios prior to the initiation.

Documentation provided by project participant

CAR ID 5.1_Tillage Manual

VVB assessment	**Date:** 05/07/2023

2. The submitted tillage manual has been reviewed and it was found that the manual is sufficient to describe the tillage activities proposed in this project. Section 1.1 of the PD also includes the tillage practices applied in this project, the section was found to be completely filled in line with the VCS PD template requirements and the project details were found sufficient. CL#01 stands closed.

CL ID	02	**Section no.**	3.1, 3.2.1	**Date :** 01/02/2023

Description of CL

1. PD section 2.1 mentions that "Both co benefits and negative impacts should be taken into consideration". Clarification is needed on what are the positive and negative impacts of project are referred here. As per VCS PD template, PP is required to summarize any potential negative environmental and socio-economic impacts and the steps taken to mitigate them.

2. It is also stated in the same section that "Agreena Carbon, through the contracting and onboarding sessions, provides farmers with the relevant information on compliance with the program and national regulations." Please elaborate on the contracting and onboarding sessions conducted by PP.
   (a) Who conducted the sessions and what were the objectives?
   (b) Were there any SOP considered and who were the target audience?
   (c) Who were the participants and what were the responses?
   (d) (d) Lastly, substantiate these details by providing sufficient evidence.

Project participant response	**Date :** 24/02/2023

1. *Input provided in PD Section 2.1 No Net Harm.*

2. *(a) Contracting and onboarding sessions are held by Key Account Managers (KAM), Growth Specialists (GS) and Customer Success Managers (CSM). The objectives are to ensure that all farmers interested in joining the programme are eligible and have understood the terms and conditions of joining the Agreena programme. The onboarding sessions ensure that the farmers entering the Project are equipped with the same level of knowledge and understanding of the responsibilities and benefits across the entire geographical breadth of the Project.*

   (b) The attached documentation showcases Agreena's SOP for onboarding and validation. The target audience is the farmers interested in joining the Agreena programme.

   (c)The participants of the onboarding sessions are the respective KAM or CSM and the farmer. The provided SOP showcases how each KAM or CS makes sure to go through all aspects of the programme, contract, and data requirements making sure each farmer understands their participation in the Agreena programme. During every session there is always time and space for farmers to ask in-depth questions they may have around the Agreena programme.

   (d) Please see the documentation attached.

Documentation provided by project participant
CL ID 2.2_Farmer_Onboarding_Flow.pdf *CL ID 2.2_Farmer_Recruitment_pipeline_stages__rules.pdf* *CL ID 2.2_Field Validation Process.pdf*

VVB assessment	**Date:** 14/03/2023

1. The validation team has checked the revised PD section 2.1 and it was found that PP has explained about both co benefits and negative impacts of the project. Finding stands closed.

2. The validation team has reviewed the responses and submitted evidence. PP has clarified about Agreena platform and onboarding procedures Finding stands closed.

Since all findings are addressed, CL#02 stands closed.

CL ID	03	**Section no.**	3.3.4	**Date :** 01/02/2023

Description of CL

Section 1.13 of PD is the condition prior to project initiation.
As per the VCS PD template, it is guided that "where the baseline scenario is the same as the conditions existing prior to the project initiation, there is no need to repeat the description of the scenarios (rather, just state that this is the case and refer the reader to Section 3.4 (Baseline Scenario)." However, it is unclear whether the condition prior to project initiation is the same as baseline scenario.

Project participant response	**Date :** 24/02/2023

1. *The existing conditions prior to the project initiation are the same as the baseline scenario. Statement is provided in the PD Section 1.13 Condition Prior to Project Initiation with reference to Section 3.4.*

Documentation provided by project participant	
Additional input has been provided in the PD in track changes in Section 1.13. The detail provided here describes the scenarios prior to the project implementation in order to justify that the conditions prior to project initiation are the same as the baseline conditions. Additional input has also been provided in the form of ecological features prior to the baseline scenario.	
VVB assessment	**Date:** 14/03/2023
VVB has reviewed the revised PD section 1.13 and the section has been revised to clearly mention that the condition prior to the project scenario is the same as the baseline scenario. CL#03 stands closed.	

CL ID	04	**Section no.**	3.3.1	**Date :** 01/02/2023
Description of CL				
1. Section 3.1 of the PD mentioned that project is applying VM0042: Methodology for Improved Agricultural Land Management, Version 2.0. In contrast, latest and valid version of methodology applicable in the VERRA website is version 1.0. Please clarify. 2. PP has used RothC model of SOC modelling. However, the relevant module VMD0053 is not mentioned in PD.				
Project participant response				**Date :** 24/02/2023
1. *Inquiry to Verra sent on 13 February 2023. Expected publication of Version 2.0 is end of March: https://verra.org/verra-announces-planned-inactivation-of-sustainable-agricultural-land-management-methodology-vm0017/* 2. *Input provided in Section 1.4 Table 4 under Project Design and Eligibility Criteria contain reference to VMD0053 and Section 3.1 of the PD contains the statement that we are utilizing VMD0053 v1.0. Revision to the VMD0053 is under development but no expected publication date.*				
Documentation provided by project participant				
VVB assessment				**Date:** 14/03/2023
1. PP has confirmed that the project is applying version 2.0 of VM0042 methodology. The reference of the methodology has been consistently given in the PD, therefore finding stands closed. 2. PP has included the reference of applied module VMD0053 in the PD. Finding stands closed. CL#04 stands closed as all the findings have been addressed.				

CL ID	05	**Section no.**	3.1	**Date :** 01/02/2023
Description of CL				
VVB would like to seek clarification on what validation and verification activities are referred in sections 2.2 of PD. In section 2.2, table 3, it is mentioned that based on the monitoring and validation report, validation of processes and systems (RP510), an independent verifier must verify all validated net GHG effects prior to issuance. What activities are referred in this section and at what stage is it performed?				
Project participant response				**Date :** 24/02/2023
1. *In this section, the validation and verification undertaken as a part of the ISO 14064-2 certification process such that the program was assessed for the way in which GHG removals and reductions are quantified in the year 2021. The audit was taken according to 14064-3 rules. The calculations were used to calculate how many certificates could potentially be generated from the first year of activities. The validation and verification was done by an ISO certified verifier, DNV. This was in order to get an ISO certification. The RP510 process was an integral piece assessing the data flow of the program. The documentation provided as proof of this is CL ID 5_ISO Validation Audit 17 February 2022*				
Documentation provided by project participant				
CL ID 5_ISO Validation Audit 17 February 2022				

VVB assessment	Date: 14/03/2023
The clarification was raised to understand and confirm the validation and verification activities is being carried out for this project in order to avoid the double counting of carbon credits generated from the implementation of this project. Since this project is getting ISO certification and not registering in other GHG program, VVB found no discrepancy in this case as there were no GHG credits sought as part of this process and there was no issuance of credits on these estimated reductions. PP response was found sufficient, and the evidence was checked. CL#05 stands closed.	

CL ID	06	Section no.	3.1	Date : 21/06/2023
Description of CL				
In section 5.3 Page 121 of PD, the utilization of NDVI>0.33 for detecting cover crops is mentioned. The basis for determining this threshold value is missing and required to be provided by PP. NDVI is a suitable indicator for identifying vegetation and inferring the probable presence of crops. However, it is also noted that the ideal threshold value for crop detection may differ due to various factors such as the specific crop type, growth stage, season, environmental conditions, and the sensor or data source employed. PP is expected to provide justifications or evidence to support the selection of the threshold value and its calibration. Also, PP shall clarify if any machine learning model is used to detect and classify the crops.				
Project participant response				**Date :** 04/07/2023
Agreena's cover crop detection model uses a time-series of all bands available from Sentinel-1[1] (radar) and Sentinel-2[2] (optical) imagery, and a number of vegetation indices; NDVI statistics form only a small part of this dataset. The model outputs a binary classification of whether or not a cover crop was present in the field. As a secondary output, the model provides a monthly measure of vegetation coverage in the field. This is based on NDVI values calculated from cloud free imagery, and a threshold of 0.33. This is an appropriate general threshold for detecting moderate vegetation cover (https://eos.com/blog/ndvi-faq-all-you-need-to-know-about-ndvi/). NDVI does vary according to crop type, growth stage, season, environmental conditions and the sensor used for collection. However each of these factors are accounted for in our system: ● Crop type and growth stage: Different crops may have different NDVI values at different stages of their growth, but at the coarse pixel resolution of satellite imagery, NDVI can be thought of as either a measure of how likely a given pixel is vegetated, or as a measure of how dense the vegetation is. Cover crop planting practices, particularly the density of planting, can vary greatly between farmers. So we consider it a reasonable approach to use a general threshold for detecting moderate vegetation coverage. ● Season and environmental conditions: Cloud cover does affect NDVI, however, cloudy images are excluded before we run our MRV capabilities, so our cover crop detection results are based only on cloud free images. Subsequently, the NDVI values used for comparison with farmer reported data are based only on cloud free imagery. ● Sensor used for collection: Agreena currently only use Sentinel-2 optical data to calculate NDVI. Sentinel-2 imagery is passed through a stringent set of cleaning and calibration procedures before being made available. In the future we may use additional optical satellite data sources. If we include other optical satellite data in the future, we will reassess if our approach is still suitable across multiple sensors.				

[1] Sentinel-1 is the first of the Copernicus Programme satellite constellation conducted by the European Space Agency

[2] Sentinel-2 is an Earth observation mission from the Copernicus Programme that systematically acquires optical imagery at high spatial resolution (10 m to 60 m) over land and coastal waters. The mission is currently a constellation with two satellites, Sentinel-2A and Sentinel-2B; a third satellite, Sentinel-2C, is currently undergoing testing in preparation for launch in 2024

It is important to note that the NDVI>0.33 there's quality control (QC) process to determine when the cover crop is active in the field, i.e. present for the entire period or has been terminated or failed at some point during the cover cropping period. Agreena continuously puts in efforts to collect more data, we will reassess the use of different NDVI thresholds in our QC process, validated against our ground truth data from different crop types and regions. This part of the PD may have been confusing as it suggested that our cover crop model is based on NDVI only - this has now been corrected. As stated above, the model uses much more than just NDVI. If the cover crop detection model classifies a field as "no cover crop" in a specific year, but the farmer reported that they planted a cover crop, then a member of our team will utilize the NDVI threshold of 0.33 conservatively e.g. multiple months of NDVI values above the threshold to confirm or amend the length in which the cover crop is growing for, for example until spring sowing or until winter (failed or terminated). It should be noted that the final decision is also driven by analyzing the crop types reported by the farmer. If the main cash crop grown is a winter variety, the cover crop data will be amended to no cover crop. If the crop variety could be both a winter, spring or perennial further farmer consultation occurs.
Documentation provided by project participant

VVB assessment	**Date:** 10/07/2023
The provided rationale for setting the NDVI threshold value above 0.33 appears to be reasonable and acceptable. However, the VVB would require to conduct a code review to verify the implementation of the threshold and ensure its accuracy and adherence to the procedure stated.	
Project participant response	**Date :** 04/10/2023
Project participant led a code review of the start date NDVI analysis on 25 July 2023. VVB project team including the GIS expert attended the code demonstration with the Data Science expert from the PP side. In the session, the VVB was shown the run through of the analysis where all of the questions regarding the NDVI and start date were answered. This is provided in the document Agreena Project_NDVI Start Evidence that was provided to the VVB via email on 31 July 2023. The document is also attached for this TR and recorded below.	
Documentation provided by project participant	
CL ID 6_TR_Justification for the AgreenaCarbon Project Start Date.pdf *CL ID 6_TR_Agreena Project_NDVI Start Date Evidence.pdf* *CL ID 6_TR_agreena-project-start-date.zip* *CL ID 6_TR_Code Demo Meeting Invite July 25 2023*	
VVB assessment	**Date:** 10/10/2023
The code demonstration took place on July 25, 2023, during which the start date that is August 15, 2021, was verified. The code was thoroughly examined, with a particular focus on the implementation of the NDVI threshold of 0.33, which serves as an indicator of moderately healthy vegetation. This threshold can be considered strong evidence of the start date. Additionally, the cloud cleaning procedures were scrutinized during the assessment process. The results obtained from this assessment were found to be consistent with the brief summary provided in the justification. As a result of this successful evaluation, CL#06 is now closed.	

CL ID	07	**Section no.**	3.1	**Date :** 21/06/2023
Description of CL				

In section 5.3, page 121 of the Project Document (PD), soil disturbance is categorized into three types: (1) Conventional tillage, (2) Reduced tillage, and (3) No-tillage. The PD states that in the event of a yellow flag, the project proponent is consulted. However, the specific criteria for flagging soil disturbances are not provided. Additionally, the PD does not elaborate on the methodology or approach used for retrospectively measuring soil disturbances.
Project participant response **Date :** 04/07/2023
The quality control process that is implemented in the Agreena programme is mainly based on the comparison between the inputs from the farmers and the outputs from the remote sensing-based assessment. Any discrepancies between their two points would generate the flag that would create action for the MRV team. The criteria to flag the type of the soil disturbance relies on a difference between the remote sensing model detection output when compared to the farmer reported data (field actuals) on the soil disturbance category. To illustrate this by example of action the farmer reports conventional tillage and the model output equals reduced tillage, yellow flag is created, triggering further farmer consultation. The consultation is based on the video or regular call between the customer success expert and the MRV expert and the farmer. Consultation includes confirming the understanding of the definitions of the soil disturbance practice as defined by the program in the tillage manual. The consultation resulted in confirmation or amendment of reported data. In case the results of consultation are inconclusive, a practice of higher disturbance is selected. Retrospective defining of the soil disturbance occurs by utilizing the remote sensing tillage detection model to indicate the soil disturbance in the 5 years prior to joining the program. This process is a critical element of defining the base line as defined in chapter 3.3 of the PD. If the reported baseline elements related to the soil disturbance matches the model output, no flag is created. If not, then a yellow flag occurs, the resulting action is further consultation with the project proponent (farmer) to clarify and potentially amend the baseline data.
Documentation provided by project participant
VVB assessment **Date:** 10/07/2023
The provided explanation regarding the quality control process in the Agreena program appears to be reasonable. It involves comparing inputs from farmers with outputs from remote sensing-based assessments to identify any discrepancies and trigger appropriate actions by the MRV team. The criteria for flagging soil disturbances rely on comparing the remote sensing model's detection output with the farmer-reported data on soil disturbance categories. The VVB requires to conduct a thorough code review, data samples and examine sample outputs for soil disturbances. It is important for the VVB to assess the code and outputs to provide confidence in the accuracy and integrity of the data used for baseline definition and subsequent monitoring activities.
Project participant response **Date :** 04/10/2023
In response to the CL ID 07 there were three live code demonstrations in which both the VVB and the project participant data science experts were present. The meetings took place on 25/07/2023, 27/07/2023 and 08/08/2023. The tillage model was presented and 36 sample fields were initially sent to the VVB and the model for the Danish fields was presented. In further meetings a country comparison was provided for Denmark, UK, Ukraine, and Spain such that VVB determined an FAR would be necessary. The models are improving in accuracy, which has been included as Future Action Request 01 and improved models with higher accuracy scores meeting the VVB threshold of 0.6 will be available before the finalization of verification. The zip file attached for the TR and documented below contains files from UK, Spain, Ukraine, and Denmark on tillage.

Documentation provided by project participant	
CL ID 7_TR_Agreena Tillage Validation Files.zip (shared August 2023) *CL ID 7_TR_AgreenaCarbon_Standard Operating Procedure_Tillage 28082023* (shared August 2023) *CL ID 7_TR_Meeting Invites for Tillage Live Code Demonstration Meetings*	
VVB assessment	**Date:** 10/10/2023
The remote sensing-based tillage model underwent a comprehensive evaluation. Multiple regional models were created to improve estimation accuracy, following the quality assurance and quality control procedures outlined in the Procedure Document. The consistency of the dataset used for model training was meticulously verified, and error metrics such as the F1 score, along with other pertinent information, are documented in CL ID 7_TR_AgreenaCarbon_Standard Operating Procedure_Tillage 28082023, which was scrutinized during the demonstration. It should be noted that the performance of the Iberian Peninsula model was suboptimal for remote sensing, prompting the raising of FAR#01. Therefore CL#07 is closed.	

CL ID	08	**Section no.**	3.1, 3.3.8	**Date :** 21/06/2023
Description of CL				
In Section 3.2, page 38, the Project Proponent (PP) states that a combination of approaches, including calculations, soil sampling, and modeling, is being implemented to ensure the best available practices for Monitoring, Reporting, and Verification (MRV) and data accuracy checking. The PP mentions the utilization of in-house remote-sensing-based technology to verify the accuracy of data input by farmers in the AgreenaCarbon project. This is achieved through field boundary detection and delineation to track the accuracy of PAI boundaries. The PP asserts that metrics related to catch and cover crop presence/absence are used, with a claimed accuracy of 95% for cover crop detection. Aerial imaging is employed to detect tillage practices and classify crop types. The PP further claims that the combination of robust MRV practices using remote sensing, along with desk reviews, field inspections, and soil sampling, results in accurate data input and verification. However, substantiation of this claim is requested from the PP.				
Project participant response				**Date :** 04/07/2023
VVB omitted PP's response following the definition of commercially sensitive information given in VCS Program Definitions v4.4				
Documentation provided by project participant				
VVB omitted the documentation details following the definition of commercially sensitive information given in VCS Program Definitions v4.4				
VVB assessment				**Date:** 10/07/2023
VVB omitted the assessment of the CL#08 following the definition of commercially sensitive information given in VCS Program Definitions v4.4				
Project participant response				**Date :** 04/10/2023
VVB omitted PP's response following the definition of commercially sensitive information given in VCS Program Definitions v4.4				
Documentation provided by project participant				
CL ID 8.1_TR_Standard Operating Procedure_Cover Crops Model CL ID 8.2_TR_AgreenaCarbon SOC Soil Monitoring Protocol_20230713 CL ID 8.4_TR_AgreenaCarbon 2023-09-06_uncert_deduction_proj.zip				
VVB assessment				**Date:** 10/10/2023
1. Thee primary basis of this model's operation is NDVI-based classification, although it also incorporates other derived features. Since optical data can be impacted by cloud cover, a comprehensive discussion on the cloud cleaning procedure was held on July 25, 2023. During this discussion, selected sites were				

tested to assess the model's performance under conditions affected by cloud cover. The model demonstrated decent performance under these circumstances. For a more detailed overview of the model and its specifications, please refer to CL ID 8.1_TR_Standard Operating Procedure_Cover Crops Model as evidence.
2. Finding stands closed as the soil sampling protocol has been provided.
3. The Image Classification System was assessed and determined to be performing effectively.
4. Related to RothC which was assessed by IME and has been reported in IME model validation report.
CL#08 stands closed. The complete details of clarification raised, and PP's response are provided in confidential version of final validation report. VVB omitted the assessment of the CL#08 following the definition of commercially sensitive information given in VCS Program Definitions v4.4.

CL ID	09	**Section no.**	3.3.4	**Date :** 21/06/2023
Description of CL				
In Section 1.13, Page 17, the Project Proponent (PP) states that the condition prior to the project scenario is identical to the baseline scenario. The PP refers to Section 3.4 (Baseline Scenario) for further details. According to the VM0042 requirements, projects must not have undergone the clearance of native ecosystems within 10 years prior to the project start date. The PP asserts that AgreenaCarbon ensures compliance with this requirement through farmer attestation and the utilization of remote-sensing data. However, the PP is requested to substantiate this claim with supporting evidence or documentation especially in context of remote sensing data. Similarly on page 121 of the project document (PD), the Project Proponent (PP) states that a red flag is triggered if the percentage of canopy cover loss falls below 20%. The PP is requested to provide supporting evidence in the form of the code used to derive the results and the dataset utilized to substantiate this claim. This information is necessary for the auditing process to ensure transparency and accuracy in the evaluation of the reported canopy cover loss.				
Project participant response				**Date :** 04/07/2023
Agreena programme is offering the carbon project that is focusing on the enhancement of the soil organic carbon in the agricultural soils that encompass into the land category of the arable lands across the European continent. The farmers that are mainly subscribing to the program are the farmers who were farming for entries in their life on the land that are either owned or leased from other farmers or agricultural governmental agencies. Therefore, it can be assumed that the Agreena program is not impacting the clearance of the native Ecosystem. However, to address the requirement coming from the VM 42 related to ensuring that projects have not undergone the clearance of native ecosystems within 10 years prior to the project start date, the check for potential of establishing the agricultural land by change of the land use category from the forest land have been applied. Therefore, the deforestation checks have been established. The results from the deforestation model leads to a QA process where the flagged fields are inspected via the use of base maps by the team responsible for processing farmer reported data. If during this QA process a field has a potential of deforestation due to it appearing in close proximity to dense vegetation, further consultation with the landowner is initiated. Agreena's approach to measure deforestation is derived from the Global Forest Change dataset. This dataset is created through a collaboration between the GLAD (Global Land Analysis & Discovery) lab at the University of Maryland, Google, USGS, and NASA. It provides a measure of tree cover loss globally at 30 x 30 m resolution. The Global Forest Change dataset provides data for "tree cover in 2000" and "tree loss" annually. We use this data to calculate the percentage area of trees lost per field each year since the year 2000.				
Documentation provided by project participant				
VVB assessment				**Date:** 10/07/2023

It has been determined that the PP implemented a deforestation model utilizing the Global Forest Change dataset to facilitate the evaluation of the native ecosystem. Furthermore, as part of the QA process, consultations were initiated with landowners situated in proximity to areas of dense vegetation. While these measures are deemed satisfactory, it is essential for the PP to furnish additional clarification regarding the measures taken by Agreena to ensure the preservation and non-disruption of hydrological functions. This shall be verified once the revised/ updated KML file is provided.
Project participant response **Date :** 04/10/2023
The AgreenaCarbon Project focuses on supporting and motivating farmers to change their farming practices that are implemented on particular and dedicated arable fields. The project can only be implemented on the arable lands that were arable lands before enrolment into the project. This is also required by the VM0042 methodology in the section related to project eligibility where the lack of clearing of the native ecosystem in the last 10 years must be ensured. The Project is strictly being implemented on arable land which remains arable land. Land use change in the EU is marginal in the regions where Agreena is operating and beyond. Farmers are required, when entering the project to attest on the online platform and during validation meetings that their farm is not on land that has been deforested over the past 20 years. Along with the KML showing the baseline field boundaries, every field is checked off as a means to ensure that farmers are not converting their land in recent years from native vegetation to arable land (farmer attestation is provided as documentation).The information received from farmers related to deforestation is checked by remote sensing and further described in the Chapter 5.1 Monitoring Plan in the PD. In terms of arable lands that might be created from wetlands, we base our verification on farmers' statements. In addition, under the principle of no-net harm and by the requirements by the EU, farmers are not to have their land within a certain distance of a water body that may impact the water body's nitrogen content, according to the EU Water Framework Directive (https://environment.ec.europa.eu/topics/water/water-framework-directive_en) In addition, the AgreenaCarbon Project is operating under VCS 4.4 and the requirements on hydrology and wetlands are dictated under VCS 4.5. However, the project still does not contain activities related to wetlands.
Documentation provided by project participant
TR_AgreenaCarbon_Field Boundaries and PAI data_20231004.geosjon TR_AgreenaCarbon_Field Boundaries and PAI data_20231004.kml CL ID 9_TR_Agreena Farmer Deforestation Attestation.png TR_AgreenaCarbon_Field Boundaries and PAI data_20231004.geosjon TR_AgreenaCarbon_Field Boundaries and PAI data_20231004.kml
VVB assessment **Date:** 10/10/2023
Agreena has been diligently gathering a history of deforestation data from farmers, and this information has been verified with attestations, as substantiated in CL ID 9_TR_Agreena Farmer Deforestation Attestation.png. Additionally, these details have been incorporated into the KML (Keyhole Markup Language) files for each farmer and each field. Furthermore, to ensure a comprehensive assessment, the clearance of native ecosystems has been rigorously examined using Land Use and Land Cover (LULC) maps spanning a 10-year period, aligning with the requirements specified in Verra VM0042. In addition, the Global Forest Change dataset has been consulted to cross-verify deforestation alerts. Notably, the information collected through farmer attestations has been found to align consistently with the forest change alerts, with no discrepancies identified within the KML files details. During the LULC mapping process, no waterbody classes were identified, with the exception of a few fields, which upon visual inspection though satellite imagery were confirmed to be cropland. Therefore, CL#09 is closed.

CL ID	10	**Section no.**	3.1	**Date :** 21/06/2023
Description of CL				

In section 5.3, page 125, the Project Proponent (PP) mentions that internal farm inspections serve as an on-the-ground monitoring approach for a specific subset of the program. These inspections aim to provide ground-truth data for the remote sensing model, enhance the logic for data analytics, verify real-world practices on contracted projects, and strengthen relationships and integrity with the project proponents. The inspections are conducted twice a year, during Autumn and Spring, by a third-party local agricultural expert or practitioner. The PP is requested to provide substantiation for these claims, particularly regarding the accuracy of the reports and the performance of the remote sensing model for a few farms. This evidence is necessary for the auditing process to ensure the reliability and effectiveness of the monitoring activities and data analysis.
Project participant response **Date :** 04/07/2023
As discussed in the Project Description, we conduct internal farm inspections which are an on-the-ground approach for a subset of the farms on our program. These inspections are separate to our ground truth collection campaign and are tailored towards practices that we cannot monitor remotely such as fertilizer and pesticide management plans, and towards the farmer's experiences using the Agreena Platform. Internal farm inspections collect soil sample data, so have a much slower collection process than for our ground truth. Tillage and cover crop information are also collected during farm inspections, although we keep this data separate from our model training data because it is independently collected and contains different information (such as the machinery used). In terms of remote sensing, our farm inspection data is intended to be used as an additional validation data set. It is kept separate from our model training data because of differences in collection objectives. The aim of our ground truth campaign is to collect as much cash crop, cover crop and tillage data as possible throughout the season and across our target regions to give us a dataset that is spatially stratified and representative of all field practices and conditions in which we need to verify agricultural practices. The aim of our farm inspections is to collect a subset of soil sample data which is used to calculate uncertainty reductions for our certificates, and to receive feedback from farmers on their experiences with the Agreena program.
Documentation provided by project participant
VVB assessment **Date:** 12/07/2023
Noted and it is confirmed that internal farm inspections and on-ground truthing activities have distinct purposes and objectives. Internal farm inspections are conducted to assess practices that cannot be monitored remotely, gather feedback from farmers about their experiences with the Agreena Platform, and collect specific data such as fertilizer and pesticide management plans. On the other hand, the on-ground truthing campaign aims to collect a comprehensive dataset of cash crop, cover crop, and tillage data throughout the season and target regions, ensuring spatial stratification and representation of field practices for verification purposes. PP is requested to provide this clarification in the project document.
Project participant response **Date :** 04/10/2023

The following input has been provided in the PD in Chapter 5.3 Monitoring Plan under Data Collection: Field Inspections Spring and Autumn field inspections are a key process of the AgreenaCarbon monitoring procedures. The aim of the inspections is to validate and verify the uploaded data required for QA and QC. The inspections will be performed by a team composed of an agronomist and/ or an Agreena customer success employee. The first step in determining the field for inspection is to first determine the square root of the total portfolio of fields at the time of the inspection period. Following the field calculations, the weighted average of each geography is applied to the number of fields to calculate the number of fields required to be inspected in each geography, with a threshold of above 10% to initiate inspections. Once finalised, a season appropriate selection process is applied. The selection will group fields by project participants to ensure logistical appropriateness. During the spring inspection period, the “Flagged” selection of fields is calculated through selecting project participants that have registered fields, with a submitted strategy. In spring, 70% of selected fields or project participants are chosen using the Spring flagging system and 30% selected at random for the given geography. Ground-Truthing The aim of our ground truth campaign is to collect as much cash crop, cover crop and tillage data as possible throughout the season and across our target regions to give us a dataset that is spatially stratified and representative of all field practices and conditions in which we need to verify agricultural practices. The ground-truthing campaign collects points across Europe and abroad as a means to support the remote sensing models for verification and QC and QA processes.
Documentation provided by project participant
VVB assessment — **Date:** 10/10/2023
The necessary revisions have been effectively implemented within the PD, specifically within Chapter 5.3, under the Data Collection section of the Monitoring Plan. Consequently, CL#10 can now be marked as closed.

Table 3. CAR from this verification

CAR ID	01	**Section no.**	3.1	**Date :** 01/02/2023
Description of CAR				
In the section 1.2 of the PD, Sectoral scope 14 and AFOLU category ALM, however, AFOLU activity type is missing. As per VCS Standard v4.4, section A1.2 (page no. 61), there are three eligible activities under ALM. Kindly refer. VCS PD template requires to indicate the sectoral scope(s) applicable to the project, the AFOLU project category and activity type (if applicable), and whether the project is a grouped project in section 1.2.				
Project participant response				**Date :** 24/02/2023
1. Input provided in the PD in Section 1.2 under Eligible ALM Activity.				
Documentation provided by project participant				
VVB assessment				**Date:** 14/03/2023
The validation team has checked the section 1.2 PD revisions and found that Pp has provided the AFOLU activity type which is Improved Agricultural Land Management (ICM) correctly. CAR#01 stands closed.				

CAR ID	02	**Section no.**	3.1	**Date :** 01/02/2023
Description of CAR				

PP is requested to refer VCS Standard v4.4 to complete the section 1.3 'project eligibility'. In this section, project eligibility against the following criteria of VCS Standard (a) scope of the VCS program (given in section 2.1.1 of VCS standard) (b) VCS General requirements (given in section 3.1) (c) AFOLU-Specific matter (given in section 3.2)	
Project participant response	**Date :** 24/02/2023
1. Input provided in Section 1.3 of the PD under Project Eligibility.	
Documentation provided by project participant	
-	
VVB assessment	**Date:** 14/02/2023
The validation team has checked the PD section 1.3 and found that PP has added the explanation of project eligibility, which was found complete. CAR#02 stands closed.	

CAR ID	03	**Section no.**	3.1	**Date :** 01/02/2023
Description of CAR				
1. In continuation of above clarification request, PP is also required to complete the section 1.4 by providing justification on grouped project eligibility. Grouped project eligibility criteria are given in VCS standard starting from section 3.6.16, also 3.6.22. As per the VCS PD template section 1.4, PP shall explain and justify with sufficient evidence as how the project is meeting each criterion of grouped project. Currently, the PD only included the criterion. 2. Also, provide relevant and accessible links in the footnote of the PD for the project details. For instance, it is mentioned that "project proponents must, at all times, adhere to all laws, regulations, and other binding mandates enforced by national legislation". However, it is not clear what are laws and regulations applicable to this project and how is the project abiding to them. 3. In table 1 (page no. 7 of PD), it is mentioned that “project participants shall provide a statement confirming that they have the right to cultivate the land and participate in the programme (by signing documents of Good Faith). Disregarding the land ownership, the project proponent must have operational right to the enrolled land”. How will it be ensured that the land was not under any other carbon project prior to this project activity.				
Project participant response				**Date :** 24/02/2023

1. *Input provided in Section 1.4 Project Design, Project Eligibility.*

2. *The project participants are required to follow the national laws as per Clause 17.6 in the Benefit Contract. In addition to this, Agreena has a regulatory screening process managed by the Regulatory and Policy Assessment Team such that they can provide advisory services to the farmers. The team is updating the regulatory repository system which is created by the team and support project participants. The repository system contains regulations related ot agri-environmental topics including water, soil, land-use and climate change which are in power in every country in the program. According to Clause 17.6, Agreena has a right to suspend or cancel the issued certificates in case there is evidence of non-compliance with national law. Further elaborations on national law are presented in CAR ID 6.*

3. *Input provided in Section 1.4 Project Design, point 3. The Good Faith document has been edited to say the Benefit Contract.*
   There are three checks in place that ensure farmers agree that they have the right to cultivate the land and participate in the programme: during onboarding, when submitting their Actuals, and in the contract.

   ***During onboarding,** farmers are always asked to agree with the following statements: Agree with the following:*
   - *I agree that I have the right to land use of the requested fields*
   - *I agree that I have the right to sign and enter long-term agreements for this property*
   - *I agree that if needed, the Agreena team or a representative is allowed to do onsite visits and audits to*
   - *verify my data inputs.*
   - *I agree that I have not already sold my GHG reductions for these fields in any other carbon program.*
   - *I agree that the information I have provided concerning my fields is true and correct. I also understand that any dishonesty may render to the refusal of this validation*

   ***For Validation & Actuals:** The same is asked again natively in the Agreena platform, when the farmer requests for Validation, and when the farmer submits their Actuals data after harvest. Actuals is the data used for MRV and certificate issuance. Hence, farmers must give written agreement once more before submitting their data. Please see attached screenshots from the Agreena app showcasing this.*

   ***In the Benefit Contract:** As stated in Agreena's Terms & Conditions, which are required to be signed by each program participant, we specify in Clause 4.2: "The Participant is required to attest on the Platform, if the Participant plans to apply, or has applied for and been listed, registered and/or been issued GHG emission reduction or removal credits, biodiversity credits or any other ecological credit through any other GHG emissions programme, biodiversity programme or any other sustainability-focused certification programme for the Area(s) to be enrolled or enrolled in the Programme. The Participant must include detailed information on any such credit issuances and/or information on any rejections of applications with other registries/programmes. Agreena will review the information provided by the Participant and approve or reject concurrent registration of Area(s) with other registries/programmes."*

Documentation provided by project participant

CAR ID 3.3_Checkboxes farmers need to tick before validation (1).png
CAR ID 3.3_Checkboxes farmers need to tick before validation (2).png
CAR ID 3.3_Checkboxes farmers need to tick before validation (3).png
CAR ID 3.3_Checkboxes farmers need to tick before submitting Actuals.png
Documentation attached to other sections:
No 1.2_Benefit Contract 23-11-2022_Terms and Conditions (see Section 4.2 and 17.6)
CL ID 2.2_Field Validation Process.pdf (see slide 9)

VVB assessment	**Date:** 14/03/2023

1. Section 1.4 of the PD was checked, and it was found that PP has added the justification on grouped project eligibility section 3.6.16, also 3.6.22. Finding stands closed. 2. PD was checked and now include weblinks of relevant rules and regulation in footnote. Finding stands closed. 3. The evidence provided were checked and found sufficient to confirm the terms informed and agreed by farmers before joining this program. Finding stands closed. CAR#03 stands closed.

CAR ID	04	**Section no.**	3.1	**Date :** 01/02/2023
Description of CAR				
1. Start date of the project is not clearly stated in the PD section 1.8. Start date identified is September 2020, when the farmers began activities for harvest in 2021 which were the first project activities. As per the VCS PD section 1.8 template requirement, it is to indicate, and provide justification for, the project start date, specifying the day, month and year. 2. Also, the context given in section 1.8 required clarity. It is stated that "this is when the Project recruitment process began to encourage farmers to begin implementing sustainable practices and transition to conservation agriculture". What recruitment process refer to? kindly clarify. 3. It is given in section 1.8 that “the project activities and project data were validated and verified at the end of 2021 according to ISO Standard 14064-2”. Please clarify what activities were included in the validation and verification of the project and project data, and how were they quantified? Who validated and verified the project activities and for what purpose? Were there any sort of GHG emission reductions or environmental credits sought from the implementation of this project earlier.				
Project participant response				**Date :** 24/02/2023
1. *The start date of the project is September 1, 2020 which according to the VCS Standard is the date at which the project began generating GHG emission reductions or removals. Farmers were started to be onboarded for the programme starting in the period after harvest in order to capture the farmers that were willing to implement regenerative activities such as winter cover crops already in 2020. The seeding for cover crops began at this time and therefore the start date is set to ensure that farmers that started regenerative activities already in 2020 are included in the Project. In line with the requirements, the Project is initiating the pipeline listing within 3 years of the start date.* *Input provided in Section 1.8 Project Start Date.* 2. *The recruitment process referenced in Section 1.8 refers to the process of generating leads and following up on leads to recruit additional farmers to the AgreenaCarbon project and promote the work that is done to regenerate the soil. The marketing team in Agreena ApS combines awareness, engagement, leads and advocacy to encourage farmers to begin implementing regenerative practices on their farm. The evidence for this is provided in CAR 4.2_Recruitment Process.* a. *Awareness is typically fuelled by PR and press articles as well as posts, webinars, and all other activities. These are the ways in which the knowledge of the existence of the program comes about and generates legitimacy for Agreena. In addition print ads are used in magazines and newspapers.* b. *Engagement is more face-to-face interaction with farmers where they can talk closely to partners and members of the customer success team. It is typically done through posts and engagement on social media channels and news about webinars as well as putting on events, trade shows, seminars, webinars etc.*				

c. *Leads are generated through a combination of different activities including through the ambassador program, sponsorships, collaborations and more. These leads are then followed up on in order to recruit farmers in different geographies.*

3. *The project activities that were validated and verified according to this section were done so in line with ISO 14064-2. The activities in question are the same as the activities presented in the PD v1.2 but have been made more precise in line with the VM0042 requirements. The previously specified activities were verified and validated by DNV. The validation report is submitted as documentation under CL ID 5_Audit Validation Report 17 February 2022. There were no GHG credits sought as part of this process and there was no issuance of credits on these estimated reductions.*

Documentation provided by project participant

CAR 4.2_Recruitment Process
Documentation attached from other sections:
CL ID 5_Audit Validation Report 17 February 2022

VVB assessment	**Date:** 14/03/2023

1. For the justification of start date, it is stated that "*The seeding for cover crops began at this time and therefore the start date is set to ensure that farmers that started regenerative activities already in 2020 are included in the Project."* Would there be any evidence to confirm the same? It is required to check the project supporting document to confirm the start date 01/09/2020. Finding stands open.

2. Recruitment procedures are described sufficiently. Finding stands closed.

3. The clarification provided by PP is sufficient. Finding stands closed.

Since all findings are not addressed, CAR#04 stands open.

Project participant response	**Date : :** 21/06/2023

Project has provided an NDVI analysis which shows that there was a difference in cover crops from 2020 to 2021 and that the first instances of change of practices was September 15, 2021. Input has been provided in the PD in Section 1.8 as well as in the document *CAR 4.1_Justification for the AgreenaCarbon Start Date* along with the zip file *agreena-project-start-date*

Documentation provided by project participant

CAR 4.1_Justification for the AgreenaCarbon Start Date
agreena-project-start-date.zip

VVB assessment	**Date:** 04/09/2023

PP submitted NDVI analysis as evidence for the initial dataset. NDVI, a remote sensing index that indicates changes in vegetation, was employed. In this case, a conservative threshold of 0.33 for NDVI was applied, which is a standard representation of healthy vegetation. Image classification system is used for cloud cover related issues. A code demonstration was also conducted to support this analysis. For further clarification on NDVI-related matters, please refer to CL#06. The start date, which is September 2021 is confirmed in code demonstration.
CAR#04 stands closed as the analysis of the NDVI confirmed the start date of the project.

CAR ID	05	**Section no.**	3.1	**Date :** 01/02/2023

Description of CAR

VVB found following inconsistencies/ observations in section 1.11 of the PD

1. VCS PD template requires to describe the project activity or activities (including the technologies or measures employed) and how it/they will achieve net GHG emission reductions or removals. PP has described the project objectives; however, it is not clearly linked to technologies implemented in identified project region.
2. It is also not clear whether the List and description of the methodology's project activities given in table 2 is for all the project activity instances (PAIs) to be included in this project or for the first PAI. Please specify the instances included at the time of validation.

3. PP shall add the reference of the statement added in the PD either in the footnote or at the end of the PD in section appendix. For instance, it given that reduced mechanical soil disturbance decreases the emissions of carbon dioxide (CO2), nitrous oxide (N2O) and methane (CH4) by preventing further plant and microbial decomposition. However, no reference or supporting data is provided in PD. Kindly check and clarify for other description also.
4. VCS PD template also required PP to include information on any conservation, management or planting activities, including a description of how the various organizations, communities and other entities are involved in the PD section 1.11. These information are not provided in PD.

Project participant response	**Date :** 24/02/2023

1. *Input provided in PD in Section 1.1 Table 1. Documentation provided on the technologies in the tillage manual as documentation item CAR 5.1_Tillage Manual.*

2. *Input provided in PD Section 1.1.1 Project Location in PAI table.*

3. *Input provided as references in PD Section 1.11 Description of Project Activity, Table 6*

4. *Input provided in PD Section 1.11 Description of Project Activity.*

Documentation provided by project participant

CAR ID 5.1_Tillage Manual

VVB assessment	**Date:** 14/03/2023

1. The validation team has checked the details provide in PD section 1.1 related to technologies implemented in identified project region. PP has provided sufficient information in the PD and the submitted evidence tillage manual confirmed the same. Finding stands closed.

2. It is still not clear what countries/ region/ farms are included as the first PAI. Please specify the instances. Findings stands open.

3. Reference links added in the footnote were checked and found active and accessible. Finding stands closed.

4. PP has added the description of how the various organizations, communities and other entities are involved in the PD section 1.11. Finding stands closed.

Since all findings are not addressed, CAR#05 stands open.

Project participant response	**Date : :** 21/06/2023

Has provided the KML file with all field boundaries which is under development.

Documentation provided by project participant

VVB assessment	**Date:** 28/08/2023

The updated PAI numbers and field numbers, which have been incorporated into Section 1.1 Summary Details of the Procedure Document, were not found or executed in KML.

Project participant response	**Date :** 04/10/2023

KML File will be provided with PAIs linked to the KML. Updated PAI numbers and field numbers have been included into the PD in Section 1.1 Summary Details.

Documentation provided by project participant

TR_AgreenaCarbon_Field Boundaries and PAI data_20231004.geosjon

TR_AgreenaCarbon_Field Boundaries and PAI data_20231004.kml

VVB assessment	**Date:** 10/10/2023

The updated PAI numbers and field numbers, which were integrated into Section 1.1 Summary Details of the Procedure Document, were thoroughly checked and found implemented in the KML file. Consequently, CAR#05 is considered closed.

CAR ID	06	**Section no.**	3.1	**Date :** 01/02/2023
Description of CAR				
It is mentioned in section 1.14 of PD that "there are no laws that prevent the implementation of these practices in Europe. Agreena is aligned with national policies along with farmers who as part of the program work closely with advisors and stakeholders". Kindly list down the national policies applicable in this project and share weblinks in the footnote. Also, please clarify will these be different for different country to be added in this project.				
Project participant response				**Date :** 24/02/2023
1. Input provided in Section 1.14 of the PD Compliance with Laws, Statutes and Other Regulatory Frameworks				
Documentation provided by project participant				
VVB assessment				**Date:** 14/03/2023
The validation team has checked the PD section 1.14 and found that all the relevant regulations links are added. CAR#06 stands closed.				

CAR ID	07	**Section no.**	3.1	**Date :** 01/02/2023
Description of CAR				
Section 1.17 of the PD listed the SDGs targeted in this project. However, the section lacks the following information required to be included as per the VCS PD template. (a) An explanation of how project activities will result in expected SD contributions. (b) Describe how the project contributes to achieving any nationally stated sustainable development priorities, including any provisions for monitoring and reporting same.				
Project participant response				**Date :** 24/02/2023
1. Input provided in Section 1.17 of the PD Sustainable Development Contributions				
Documentation provided by project participant				
VVB assessment				**Date:** 14/03/2023
The added details for each SDG provided the SDG target and indicator, intention to include the particular SDG and its importance. However, explanation on how project activities will result in expected SD contributions (quantitively) and what parameters or measures are designed to continue monitoring throughout whole crediting period is still missing. CAR#07 stands open.				
Project participant response				**Date : :** 21/06/2023
Input provided in Section 1.17 of the PD.				
Documentation provided by project participant				
VVB assessment				**Date:** 05/07/2023
CAR#07 stands closed as the details of each SDG has been provided in the PD.				

CAR ID	08	**Section no.**	3.2.2	**Date :** 01/02/2023
Description of CAR				
Section 2.2 of the PP consists of information of local partners and other collaborations for the implementation of this project, however, it lacks the information required as per the VCS PD section 2.2 template. 1. PP shall describe the process for, and the outcomes from, the local stakeholder consultation				

conducted prior to validation. Include details on the following:
The procedures or methods used for engaging local stakeholders (e.g., dates of announcements or meetings, periods during which input was sought).
The procedures or methods used for documenting the outcomes of the local stakeholder consultation.
The mechanism for on-going communication with local stakeholders.
How due account of all and any input received during the consultation has been taken. Include details on any updates to the project design or justify why updates are not appropriate.
For AFOLU projects, also demonstrate how the project has or will communicate the following:
The project design and implementation, including the results of monitoring.
The risks, costs and benefits the project may bring to local stakeholders.
All relevant laws and regulations covering workers' rights in the host country.
The process of VCS Program validation and verification and the validation/verification body's site visit. Also provide sufficient evidence to review the same.

2. In the same section, it is given that local partners are engaged in this project. Are they considered as other entities? Please specify their roles, responsibility and engagement under this project.
3. Similarly, AgreenaCarbon has also engaged a Carbon Advisory Board as an external counsel of experts working in soil science, European and global climate policy and land use. Are they considered as other entities?

Project participant response	**Date :** 24/02/2023

1. *In development. Documentation provided in CAR ID 8.1 and 10_Stakeholder Engagement and Risk Analysis*

2. *The partners in AgreenaCarbon Project are not considered 'other entities' by the VCS Standard and are sub-contracted by us to support farmers and have not been involved in the 'project development.' They act as liaison between farmers and Agreena to bring the needs of farmers closer and also recruit more farmers to the programme. The AgreenaCarbon partners can be out into two categories:*
    a. *Lead Partner who gives a 1-to-1 intro of the programme and educates farmers on the benefits of carbon farming.*
    b. *Sales Partner who onboards farmers and acts as a support system throughout the entire sign-up with Agreena.*

   Further documentation for this is provided in CAR ID 8.2_Partner Roles and Responsibilities

3. *The Carbon Advisory Board is not considered as 'other entities' as they were not involved in project decision making or creation. They provided consulting services to advise, but do not have a stake in the direction or success of the AgreenaCarbon Project. The terms and references for the CAB are provided as additional documentation, CAR ID 8.3_Carbon Advisory Board Terms of Reference.*

Documentation provided by project participant
CAR ID 8.1 and 10_Stakeholder Engagement and Risk Analysis *CAR ID 8.3_Carbon Advisory Board Terms of Reference*

VVB assessment	**Date:** 14/03/2023

1. The validation team has checked the PD section 2.2 and found that PP has added the no revisions were made to address the following points:
The procedures or methods used for engaging local stakeholders (e.g., dates of announcements or meetings, periods during which input was sought).
The procedures or methods used for documenting the outcomes of the local stakeholder consultation.
The mechanism for on-going communication with local stakeholders.
How due account of all and any input received during the consultation has been taken. Include details on any updates to the project design or justify why updates are not appropriate.
For AFOLU projects, also demonstrate how the project has or will communicate the following:
The project design and implementation, including the results of monitoring.
The risks, costs and benefits the project may bring to local stakeholders.
All relevant laws and regulations covering workers' rights in the host country.

The process of VCS Program validation and verification and the validation/verification body's site visit. Also, evidence CAR ID 8.1 and 10_Stakeholder Engagement and Risk Analysis was checked. Please share evidence of feedback received from local stakeholders. Finding stands open. *2. CAR ID 8.3_Carbon Advisory Board Terms of Reference* evidence was checked and found sufficient to satisfactorily close the finding. Since all findings are not addressed, CAR#08 stands open.
Project participant response **Date : :** 21/06/2023
Extensive input has been provided in the PD in Section 2.2 Stakeholder Engagement and in Appendix 4 of the PD
Documentation provided by project participant
VVB assessment **Date:** 12/07/2023
CAR#08 stands closed as the explanation provided by PP was found to be appropriate and could be verified from farmers.

CAR ID	9	**Section No.**	3.3.8	**Date :** 22/06/2023
Description of CAR				
It has been identified that the equations utilized in the code and documented in the Project Document (PD) do not align with the latest version of VM0042, v2.0. Additionally, the equation employed to determine ER, as per the provided code on 14/06/2023, deviates in sequencing from the prescribed methodology. For instance, Applied_synthetic_fertilizer in the code, currently, it still refers to equation 15 of VM0042, v2.0, which pertains to synthetic fertilizer usage. However, as outlined in the methodology on page 38, the equation should be used to calculate methane emissions instead.				
Project participant response				**Date :** DD/MM/YYYY
Email was sent to the VVB on 27/06/2023 with code that has been updated and improved referring to the correct equations. Code is reattached per the TR with correct equations.				
Documentation provided by project participant				
CAR ID 19_TR_Agreena Project-ipcc-carbon-calculator-Version-2.zip				
VVB assessment				**Date:** 04/09/2023
The code underwent a comprehensive review, and the equations implemented in the code have now been aligned with VM0042, v2.0, and the PD version 1.2. As a result, CAR#9 is closed.				

CAR ID	10	**Section no.**	3.2.2	**Date :** 01/02/2023
Description of CAR				

PP has mentioned in the section 2.5 that AgreenaCarbon programme's advisers are on call with the farmers participating in the programme, and included email and telephone number for farmers to contact the advisors. However, the information was found incomplete as the PD does not include all required details as per VCS PD template. Please mention the following: • Local stakeholder identification process and a description of results. • Risks to local stakeholders due to project implementation and how the project will mitigate such risks. • Risks to local stakeholder resources due to project implementation and how the project will mitigate such risks, including the plans to ensure the project will not impact local stakeholder's property rights without the free, prior and informed consent. •Grievance redress procedure to resolve any conflicts which may arise between the project proponent and local stakeholders. For AFOLU projects with no impacts on local stakeholders, provide evidence of such. Also, substantiate with sufficient evidence to confirm the same.
Project participant response **Date :** 24/02/2023
1. *Response is provided in the documentation CAR 8.1 and 10_Stakeholder Engagement and Risk Analysis*
Documentation provided by project participant
CAR ID 8.1 and 10_Stakeholder Engagement and Risk Analysis
VVB assessment **Date:** 14/03/2023
VVB has checked the revised PDD section 2.5 and cross-verified the project details provided in the PD through the submitted evidence, since the details were found to be complete and in line with the requirements of VCS standard and PD template, CAR#10 stands closed.

CAR ID	11	**Section no.**	3.3.8	**Date :** 01/02/2023
Description of CAR				
Section 3.2 of the PD required to demonstrate and justify how the project activity(s) meets each of the applicability conditions of the methodology(s), and tools (where applicable) applied by the project. Please address. The section also provide details of the project implementation part for which VVB would like to seek clarification. (a) PP are implementing the best available practices for MRV and checking data accuracy. Please explain more about the best practices adopted in this project in the relevant section fo the PD. (b) The AgreenaCarbon project utilizes remote sensing to verify that the data input by farmers is accurate. Please elaborate on the specifics of remote sensing techniques, what are the data planned to be extracted and how these techniques will be employed? Also, how this would be monitored under the project? (c) Through field boundary detection and delineation, accuracy of PAI boundaries is tracked. How is this planned to be executed in this project?				
Project participant response				**Date :** 24/02/2023
1. *Input provided in Section 3.2 in a footnote stating that the information on best practices is business proprietary. The business proprietary information is provided in the documentation presented in CAR 11_Implementation of Remote-Sensing Technology.*				
Documentation provided by project participant				
CAR ID 11_Implementation of Remote-Sensing Technology				
VVB assessment				**Date:** 14/03/2023
1. The validation team has checked the PD section 3.2. PP has added the applicability conditions of the methodology(s), however found incomplete. VM0042 methodology section 4 point 5 is not addressed. Also, other condition (wetland) and additional conditions wherein model is applied is not addressed. The VCS PD also required to demonstrate project compliance with applied model too. However, the same was missed in the PD. Also, it is stated in the same section that "AgreenaCarbon uses farmer attestation, regional data or				

remote-sensing to check whether land has been cleared of native ecosystem". Please provide evidence to confirm the same. Findings stands open. Evidence *CAR ID 11_Implementation of Remote-Sensing Technology* was checked and found complete to provide project details. CAR#11 stands open.
Project participant response **Date :** 21/06/2023
Input has been provided in Section 3.2 of the PD
Documentation provided by project participant
VVB assessment **Date:** 28/08/2023
The necessary amendments have been integrated into the relevant section of the PD. Please explain how the PP ensures the verification of these changes, specifically regarding the monitoring of wetland and deforestation.
Project participant response **Date :** 04/10/2023
The AgreenaCarbon Project focuses on supporting and motivating farmers to change their farming practices that are implemented on particular and dedicated arable fields. The project can only be implemented on the arable lands that were arable lands before enrolment into the project. This is also required by the VM0042 methodology in the section related to project eligibility where the lack of clearing of the native ecosystem in the last 10 years must be ensured. The Project is strictly being implemented on arable land which remains arable land. Land use change in the EU is marginal in the regions where Agreena is operating and beyond. Farmers are required, when entering the project to attest on the online platform and during validation meetings that their farm is not on land that has been deforested over the past 20 years. Along with the KML showing the baseline field boundaries, every field is checked off as a means to ensure that farmers are not converting their land in recent years from native vegetation to arable land (farmer attestation is provided as documentation).The information received from farmers related to deforestation is checked by remote sensing and further described in the Chapter 5.1 Monitoring Plan in the PD. In terms of arable lands that might be created from wetlands, we base our verification on farmers' statements. In addition, under the principle of no-net harm and by the requirements by the EU, farmers are not to have their land within a certain distance of a water body that may impact the water body's nitrogen content, according to the EU Water Framework Directive (https://environment.ec.europa.eu/topics/water/water-framework-directive_en) In addition, the AgreenaCarbon Project is operating under VCS 4.4 and the requirements on hydrology and wetlands are dictated under VCS 4.5. However, the project still does not contain activities related to wetlands.
Documentation provided by project participant

TR_AgreenaCarbon_Field Boundaries and PAI data_20231004.geosjon *TR_AgreenaCarbon_Field Boundaries and PAI data_20231004.kml*
VVB assessment **Date:** 10/10/2023
The PP has provided an adequate explanation of the process chosen for the requested clarification. Therefore, CAR#11 is now considered closed.

CAR ID	12	**Section no.**	3.3.3	**Date :** 01/02/2023
Description of CAR				
In the section3.3 of PD, carbon pools are not clearly reported. Please refer table 1 of the applied methodology VM0042 v1.0 (page no. 10). Also, some of the GHG sources are missing from the PD table 6, for instance, soil organic carbon and CO2 gas, fossil fuel, soil methanogenesis, enteric fermentation, etc. Please refer table 3 of VM0042 v1.0				
Project participant response				**Date :** 24/02/2023
1. Input provided in Section 3.3 of the PD.				
Documentation provided by project participant				
VVB assessment				**Date:** 14/03/2023
PP has provided the correct details and inclusion of carbon pools and GHG sources in the PD. CAR#12 stands closed.				

CAR ID	13	**Section no.**	3.3.4	**Date :** 01/02/2023
Description of CAR				
1. In the section 3.4, VVB could not confirm the baseline scenario in line with the applied methodology. Please clarify following: What is the schedule of activities determined in the baseline scenario? How is the sampled unit is determined? How is the baseline data collected and considered in this project? Most importantly, what are the quantification approaches identified for each GHG gases estimation of ERRs? 2. Also, please refer Table 4: Minimum specifications on agricultural management practices for the baseline scenario and provide sufficient information in the PD.				
Project participant response				**Date :** 24/02/2023
1. Input provided in the PD in Section 3.4 on the baseline scenario and referenced to Section 4 on Quantification of GHGs. *2. Input provided in the PD in Section 3.4 on the baseline scenario.*				
Documentation provided by project participant				
VVB assessment				**Date:** 14/02/2023
PP has provided complete information of baseline scenario in the PD. CAR#13 stands closed.				

CAR ID	14	**Section no.**	3.3.5	**Date :** 01/02/2023
Description of CAR				

Please address the followings from the section 3.5 of the PD (a) Please provide list of relevant laws and regulations applicable to this project under the regulatory surplus sub-section (b) Under the sub-section "identify barriers" PP has identified several barriers. Please substantiate with sufficient literature and relevant studies to confirm the same, wherever lacks. (c) For the institutional barriers, PP has taken consultation. Please provide proof of consultation. (d) It is mentioned in the same section of PD that "Interviews with farmers revealed that the lack of certainty about how policies will change has impacted their decision making". Please provide the evidence of interviews conducted and the responses received from the farmers. Lastly, it is not clear how the calculation of adoption rate is carried out in this project. PP has provide an example in the PD. In line to the VM0042 v1.0 requirement (page no 15), The project proponent must determine whether the proposed project activity or suite of activities are common practice in each region included within the project spatial boundary.
Project participant response **Date :** 24/02/2023
1. *(a) Input provided in Section 3.5 under Step 1: Regulatory Analysis* *(b) Additional literature added into Section 3.5 in the Step 2: Barrier Analysis* *(c) Additional sources included in Section 3.5 in the Step 2: Barrier Analysis. Input from consultant was from in-house expertise and was misleading. Clarified with additional literature.* *(d) Interviews mentioned are from a peer-reviewed article, clarified in text in Section 3.5 where statement is made.* 2. *Common Practice Test precision is provided as input in PD in Appendix 2: Additionality: Common Practice Test*
Documentation provided by project participant
VVB assessment **Date:** 14/03/2023
PP has provided complete information to demonstrate additionality in the PD. Literature review and common practice test provided in PD were checked. CAR#14 stands closed

CAR ID	15	**Section no.**	3.3.6	**Date :** 01/02/2023
Description of CAR				
Section 4.1 and 4.2 lacks the equations used for the quantification of GHG ERRs. According to the VCS PD template, PP is required to include all relevant equations, and explain and justify all relevant methodological choices (e.g., with respect to selection of emission factors and default values).				
Project participant response				**Date :** 24/02/2023
1. *Input provided in Section 4 of the PD Quantification of GHG ERRs.*				
Documentation provided by project participant				
VVB assessment				**Date:** 14/03/2023
PP has added the applied equations in the section 4.1 only. No equations have been added for leakage accounting in the project. CAR#15 stands closed.				

CAR ID	16	**Section no.**	3.3.8	**Date :** 01/02/2023
Description of CAR				
Section 5.1 and 5.2 related to data and parameters were assessed as per the VM0042, version 1.0. Kindly address the followings: Section 5.1 1. There is no data/parameter "project location", "project boundaries" defined in VM0042, v1.0 methodology. Instead, it is Area/ Ao. Please check all the parameters table and keep the data				

and parameters as per the methodology only.

2. The source of parameter "soil characteristics-soil texture & ph" is data from PP. The source of the parameter is not correctly identified, kindly check.

Section 5.2

3. As requested, to clarify in CAR# 13 also, the schedule of activities in the baseline as well as project scenario is not clearly reported in the PD. Moreover, it has been not defined that which activities are included in first project activity instances. In the same context, monitored parameter, application of fertilizers is not clear. It was not mentioned in the baseline and it could not be confirmed whether the application of fertilizers was checked in the baseline.
4. In the same section, under parameter "Yield", it is not clear what are the crops grown in pre-project scenario and what is planned to be grown in this project, or there has been anu changes in the crops. Furthermore, if there have been any changes in the crop, how is it recorded and quantified.
5. For the parameters "crop type" and "residue management", since sampling plan is not given in the PD, it could not be confirmed whether field inspections conducted includes all fields or not. Kindly clarify.

Project participant response	**Date :** DD/MM/YYYY
Input provided in PD in Monitoring Chapter 5	
Documentation provided by project participant	
VVB assessment	**Date:** 25/07/2023
VVB has checked the revised PD and found the corrections sufficient and complete. CAR#16 stands closed.	

CAR ID	17	**Section No.**	3.2.4	**Date :** 14/03/2023
Description of CAR				

Following the VCS comments received during the public comment period, published on 20/02/2023. PP is requested to provide responses to each of the finding and make the required correction in the PD.

1. The following text presents several concerns identified in the proposed carbon scheme submitted by Agreena. Firstly, it is stated in point 1.8 that Agreena is running a self-certified carbon scheme and issuing credits for sale. Additionally, it is claimed in point 1.15 that the project has not been registered or is seeking registration under any other GHG program, which conflicts with the information available on Agreena's publicly available scheme. Furthermore, in point 4.4, Agreena includes farmers operating under its self-certified GHG program as participants in the proposed project. This presents a significant risk of double issuance, compounded by that Agreena has been self-operating the scheme and could be incentivized to misrepresent its dealings in operating as a registry. No publicly available registry data is available to confirm credits issued, sold, or retired. The VVB assigned to Agreena faces the difficult task of confirming that no double-issuance risks exist.

2. In point 3.5 concerning additionality - perhaps more of a challenge in Verra's own VM0042 methodology, the proposed method for testing common practice involves an option of multiplying two practice numbers together instead of calculating a weighted average of applied practices to argue practice additionality is concerning. Especially if applying one regenerative practice raises the odds of the other practice being applied, given a sample of organizations applying the first practice. This method has the potential to make almost any practice additional if enough practices are applied at the same time. For instance, 'growing crops' (99% of crop fields) and growing cover crops (20% of crop fields) could pass Step 2 of the additionality test if applied together. At its logical extreme, this could lead to the act of *growing crops* becoming additional in a crop farming setting if Step 1 of the additionality test, the barrier analysis, is successfully argued for the intervention. All interventions that can pass Step 1 are likely to pass Step 2 if Step 2 is conducted in this manner instead of as a weighted average, especially if executed in the way the project proponent has outlined. The proponent explicitly describes a method for "gaming

the system" in Step 2, which seems to comply with Verra's guidelines.

3. Concerning 3.4, the Baseline Scenario - the statement "The baseline is calculated on a consistency basis, meaning that if a specific management practice is not implemented consistently, then the most intensive/ energy-demanding practice is registered in the baseline." is extremely worrying, as it quite intentionally inflates baseline energy emissions. This is not in line with broad best practices around conservative baseline accounting. It seems to imply that if a farmer plows a field once every 5 years, the baseline could interpret this as equivalent to the farmer plowing once every year. This, in essence, can show emissions reductions vs. baseline in a scenario where no such change exists in practice. More detail is required to understand how exactly they are applying this "consistency basis", as it might even be broadly interpreted that if a farmer does not plow a specific field at all - if they do it on other fields - this plowing activity could be included in that field's baseline as well as a consistent activity.

4. In point 4.1, it is stated that RothC is used to show soil organic carbon differences. However, if the impact of tillage is a practice that the proponents intend to measure using this model, RothC does not canonically accept tillage as a parameter either directly or indirectly. To my knowledge, the only way tillage is expressed in RothC indirectly is through the reduction in seasonal ground cover. However, these numbers do not directly incorporate the additional soil dynamics introduced through soil disturbance as some other models might. This leads to a question of how the proponents intend to fully quantify the impacts of reduced tillage. If a winter crop is planted immediately after the first harvest, tillage impacts are functionally not picked up by the soil model due to this fact. The same goes for spring crops if the tillage is only done immediately before sowing - functionally maximizing natural ground cover. There is some indication that they have managed to answer this to some degree, as they have provided estimates for previous years before submitting the document.

5. In point 4.3.1, in the absence of evidence to the contrary, I contend that the application of manure produced at a farm to its own fields is a standard practice in Europe. That being said, VM0042 allows for quantitative adjustments. Additionally, leakage occurs due to increased livestock numbers if the farm increases livestock to apply more organic amendments (increasing carbon sequestration against baseline). If this is not accounted for, it presents a form of undocumented leakage against the baseline. If on-farm manure production/application is considered an applicable project activity, it seems logical to also require reporting on how the manure was used before and livestock numbers; otherwise, the accounting approach leads to significant unquantified leakage risks. In other words, if livestock is involved in the measured outcomes, it does not make sense to exclude livestock emissions from how the outcomes are arrived at.

6. In point 5.1, the document does not mention calculating buffer contributions using the VCS AFOLU Non-Permanence Risk Tool as prescribed by VM0042. Based on the information provided in the rest of the document, I strongly suspect that the tool would likely reject this project as the "Project Longevity" section would produce a failure. Without additional documentation and the 10-year crediting period, this project does not appear to implement safeguards to meet minimum permanence requirements.

7. Finally, the document's most significant and concerning point is the lack of major discussion around existing baseline soil organic carbon (SOC) stocks as a parameter that is measured, monitored, or even estimated in points 5.1 and 5.2, or mentioned in point 3.4 Table 7 concerning data collected from the farmer to initiate the project. The model used to estimate the impacts of practice changes, RothC, requires specific detailed SOC input data to function, and there is no mention of any soil sampling practices for the project area for the purposes of baselining. Additionally, in point 4.1 they reference using the "Measure and Model" approach as outlined in VM0042, which still seems to require on-the-ground measurement for initial SOC stocks with practice-based changes being quantified vs. baseline practices via the model. The words "soil sample" appear in the document once, only mentioned in passing to improve some unspecified modeling accuracy estimation, though never to establish an actual baseline associated with any specific piece of land. If, by implication, the proponents intend to use RothC or some other approach to model an estimated baseline, the baseline's uncertainty and the impact resulting from the uncertain baseline must be calculated. Furthermore, if this approach is selected, following VMD0053

guidelines, the proponents should provide a publicly available, peer-reviewed dataset to demonstrate its efficacy; otherwise, it leads to unquantifiable/unauditable outcomes.	
Project participant response	**Date :** 21/06/2023

Following the VCS Standard v4.4 requirements, the following text is AgreenaCarbon's response to the public comments received by Verra during the public comment period 20 January – 19 February 2023 of the AgreenaCarbon Project (project ID4022). The Project received 2 comments for which the project proponent, Agreena, responds to in full. As required, these will be taken into consideration by the VVB during the validation period.

Comment 1
Date: 18 February 2023
Sent by: Al William "Rez" Tammsaar, email: rez@solid.world
Organisation: MTU Solid World DAO
Country: Estonia

The first comment received contains seven (7) paragraphs of concerns, listed by paragraph and therefore each concern will be addressed point by point in the following response. It is important to note, that several of the concerns presented by the commenter are pertaining to the VM0042 methodology itself, not AgreenaCarbon's Project Description and therefore we cannot respond to these in that the Project Proponent does not have control over the revision process of methodologies under Verra.

1. The commenter states that 'Agreena is running a self-certified carbon scheme and issuing credits for sale', 'that the project has not been registered or is seeking registration under any other GHG program', Agreena has been self-operating the scheme and could be incentivized to misrepresent its dealings in operating as a registry.'

   Agreena holds the highest standards of integrity as it pertains to the Voluntary Carbon Market (VCM), and third-party verification and validation. Prior to making the decision to undergo the process of Verra certification under Verra VM0042, Agreena developed a third-party verified AgreenaCarbon programme and has been operating with an accreditation to ISO 14064-2 standard since the onset of the Project and has used it as the basis for its quantification system in order to give farmers joining the program an estimation of their emission reductions and removals and potentials for eventual certificates. The nature of the ISO accreditation is based on the validity of the quantification of GHG emission reductions and removals whether for carbon accounting purposes or the like and is not designed to create a standard for the sole purpose of crediting on the voluntary carbon market.

   Emission estimations are an integral piece to engaging with farmers who may be sceptical of external entities attempting to interfere with their ongoing practices (which is outlined in the barrier analysis portion of the additionality test Section 3.5). With the evolution of VM0042, the company has made a strategic decision to take its Project and certify it to the Verra standard. Agreena has issued no certificates or credits within its programme since the inception of the project and all credits will be issued and transparently recorded in the public registry. The business has generated soil carbon stocks under ISO and has developed an in-depth data management system such that these are tracked but are not brought to issuance in anticipation of the Verra transition. Through several layers of quality checking, as can be seen in the AgreenaCarbon Adaptive Management Plan, the farmer data is stored and captured to avoid double counting,

Agreena does not permit farmers' participation in other competing GHG certification schemes.. In addition, the VVB has access to all of our data and will be the one responsible to cross-check or raise concerns regarding the input of data and are fully aware of the structure of the Program including the documentation.

2. The commenter points out that the system for measuring additionality is problematic and states himself that the concern is 'perhaps more of a challenge in Verra's own VM0042 methodology.' AgreenaCarbon is not responsible for how Verra and VCS determine is the most effective way to conduct the additionality test, which is based on a very thorough evaluation process, third-party audit and years of a deep understanding of the market as a leading crediting standard. In addition the common practice test has been developed under the Clean Development Mechanism, which was the first voluntary crediting program and is found in a majority of methodologies that operate in the voluntary carbon market so it is not up to the Project Proponent to make deviations from these accepted methodologies.

   AgreenaCarbon would still like to respond to the technical aspect of the question regarding the Common Practice Test as step 1 of the VM0042 additionality test. The inherent nature of coupling practices under VM0042 is that more practices implemented on-farm will result in more emission removals and reductions. The commenter has a concern with the project participants all passing the common practice test if they are doing two practices. By simple statistical analysis, the percentage of farmers doing both cover cropping and reduced tillage will be lower than a farmer just doing reduced tillage. These practices require different knowledge and technological requirements. The analysis uses regional data via EuroStat, which is under compliance with VM0042 Box 1 and is up to the VVB to determine and respond to our alignment with the VM0042 requirements.

3. The third paragraph questions AgreenaCarbon's baseline calculation and determination. Following the public comment period, the VVB has requested additional information on the Project Proponent's baseline and therefore we are working closely with the VVB to solve any pieces that would not be in alignment with the VCS requirements. All documentation on baseline has been submitted to the VVB for review.

4. The commenter in the fourth point states that, 'RothC does not canonically accept tillage as a parameter either directly or indirectly.' RothC, like every SOC model, is not perfect or able to capture the entire scenario when it comes to land management. Agreena has assessed many models that are suitable for measuring SOC including DAISY, DayCent, ROTHC, CropSyst, MONICA, STICS, APSIM as well as RothC. By comparing their capabilities, the conclusion was that within the context of the European geography and for the ease of use within the Project, RothC had the highest capacities to generate accurate data within the Project.

   This comment is a criticism of the RothC model as opposed to the AgreenaCarbon Project Description and therefore the project proponent cannot respond directly to it. RothC has been used and accepted by Verra for many years and was the only accepted model under the previous version of the VM0042 methodology, VM0017.

5. In paragraph five, the commenter is checking to ensure that leakage is accounted for in the project as well as how it is accounted for in VM0042. Once again, the commenter is calling into question the way in which the methodology, which is assessed and approved by Verra

operations. This makes it difficult for AgreenaCarbon to respond as it is not involved in the methodological development process. Nevertheless, AgreenaCarbon accounts for leakage and will include the calculations in the monitoring report which will further be assessed at verification by the VVB.

6. In response to paragraph six, AFOLU's Non-Permanence Risk Tool has been submitted to the VVB for evaluation and the crediting period was made in error on the registry and is in reality covering a 20 year time period with 10 year baseline reevaluation as is required in the VCS Standard.

7. In response to paragraph six, the baseline has been taken into consideration alongside the VVB and Agreena has submitted documentation to the VVB regarding the baseline data collection piece. The commenter points out that soil sample is mentioned once in the document, which is incorrect. The Project conducted a soil sampling campaign in 2022 and is using the data in the RothC model and is also reliant on using soil grids as the Project is spread out over such a wide geography.

   With regard to the point on VMD0053, Agreena has written and developed the VMD0053 report and will be submitting to the VVB for assessment as is required and understood by the VM0042 methodology. This report will further be assessed by an Independent Modelling Expert and this analysis will be taken into consideration in the final validation and verification report that the VVB will submit to Verra.

Documentation provided by project participant	
VVB assessment	**Date:** 25/07/2023
Findings responses have been checked and discussed. CAR#17 stands closed.	

CAR ID	18	**Section No.**	3.2.4	**Date :** DD/MM/YYYY

Description of CAR

Following the comments received during the public comment period, published on 20/02/2023. PP is requested to provide responses to each of the finding and make the required correction in the PD.

1. Agreena is a company that cheats farmers to gain customers, because of such companies, confidence in the carbon credit market will fall. As a farmer, I encountered such arguments when acquiring a client: 1. You don't have to do documentation, Verra will not come to you, but we will do it on paper so that you will get money for carbon credits and you will not have to change anything in the crops in your area we will extract 1.5 tons/ha of CO2 - after all, it is impossible! Carbon credits are the same as the CO2 emissions quoted on the New York Stock Exchange, and many other cases.

Project participant response	**Date :** 21/06/2023

Comment 2
Date: 05 February 2023
Sent by: Anonymous

Agreena takes the utmost pride in our conduct, integrity, close relationships with farmers and supporting them with honest and transparent information regarding the process, onboarding and education surrounding their role in the market. We view this comment as a simple act of hate speech and false information, as it cannot be confirmed the source of the comment (anonymous); it is impossible to verify if this is in fact a farmer that has dealt with any of our Farmer Success team.

Documentation provided by project participant	
VVB assessment	**Date:** 25/07/2023
VVB conducted the background information check and reviewed the articles to understand the issues identified in the public comment period. It could not be confirmed whether the allegations are true or not. Moreover, VVB has conducted the site visit and interviewed farmers to understand their knowledge about project activity and their perspective about carbon market and PP, since no concerns or grievances received from farmers, VVB found the PP response sufficient to address the finding. CAR#18 stands closed.	

CAR ID	19	**Section No.**	3.1	**Date :** 25/07/2023
Description of CAR				
Site visit observations 1. VVB has checked the farmers details collected from site visit with the given project details, however, there are inconsistencies between the information collected from sampled farmers and project databased such as no. of farms and fields, etc. Kindly share the correct project database.				
Project participant response				**Date :** DD/MM/YYYY
This has previously been provided under CL ID 01 where onboarding flow was presented and CL ID 02 and documentation relevant to farmer validation and onboarding flow. Site visits are done when the fields are being enrolled into the program in order to collect field actuals data. The data for baseline is not collected during site visits. The terminology presented in this CAR is referring to “Site Visits” which the PP calls “Field Inspections” where data from farmers is verified. This is outlined in detail in Chapter 5.3 of the PD in Monitoring Plan The documentation for this will be resubmitted for TR as well. In addition, input has been provided in the PD in Chapter 5.3 in the Monitoring Plan and Section 1.11 under Project Design. The platform has been shared with the VVB.				
Documentation provided by project participant				
CAR ID 20_TR_CL ID 1.3_Platform_Demo_Videos_(to_send_to_farmers).pdf (this pdf includes direct links to self-service onboarding videos) CAR ID 20_TR_CL ID 1.3_Farmer Journey.pdf CAR ID 20_TR_CL ID 2.2_Farmer_Onboarding_Flow.pdf CAR ID 20_TR_CL ID 2.2_Farmer_Recruitment_pipeline_stages__rules.pdf CAR ID 20_TR_CL ID 2.2_Field Validation Process.pdf				
VVB assessment				**Date:** 04/09/2023
CAR#19 stands closed as the procedure of onboarding has been verified and correctly reported in PD and supporting evidence sufficiently.				

CAR ID	20	**Section no.**	3.1	**Date :** 13/09/2023
Description of CAR				
TR comments				

1. In section 1.1.1, PP is required to briefly describe what "fields" refers to. 2. Section 3.5.3, common practice analysis Cover crop was found to be common practice in Western Europe. How this project is capturing this information and demonstrating the common practice test. Below are the weblinks used to check the information. https://esdac.jrc.ec.europa.eu/content/cover-crops-accross-europe https://www.fao.org/family-farming/detail/en/c/320034/ https://onlinelibrary.wiley.com/doi/10.1111/aab.12488 3. PD section 4 to be revised to include the linkages of equations used and calculation steps. The current details given in section 4 do not provide complete information of basis of using the equations and how it was used in the ER calculations. 4. Please provide the references for the ERR worksheet and other project datasets used for calculations in section 4.4. The current information about GHG ERR calculations given in the PD does not confirm how the PP has established that there is no over-estimation in the project. Also, provide the steps of calculations transparently. 4. In the section 5.3.3, please provide information on the following - model prediction error and its application model uncertainty estimation inputs/parameters/data used in the ROTH C models 5. In the PD, information given in the parameter tables does not clearly state the source of data, value applied and its justification. It is not clear why the parameters are included if they are not applicable. What is rationale behind including the "non applicable" parameters in the PD. Please check and identify the parameters that are relevant to the project and used in the ERR calculations.

Project participant response	**Date :** 04/10/2023
1. Input has been provided in the PD in Section 1.1 Summary Details 2. The main objective of the common practice test as a part of larger Assessment of Project additionality is to assess the level of saturation of the project activity or set of activities at the regional level where the project is being implemented. The assessment shall be based on reliable, accurate and publicly available data.	

The AgreenaCarbon program set an objective to support farmers in the transition from their current cultivation practices towards regenerative agriculture practices aiming to mobilise and enhance the soils as a carbon pool but also to engage farmers more in the soil protection and improvement of the soil health.
The adopted project activities are well known among the farmers however the level of adoption and the continuity of its adoption are very irregular across all of the regions where the Agreena Carbon program is present. The main objective of our programme is to apply all project activities together for a long period of time. Only then the desired effect or increase of carbon sequestration and healthy soils can be achieved.

Across the all regions (countries) where the AgreenaCarbon programme is operational there are no robust data sets available with statistics on application of the practices in the project, including for cover crops. There is the availability of some initial research in this matter aiming to gather the data but the researches are very fragmented with different methodologies of data collection and not comparable. The data that is available is limited and fragmented with different methodologies, as well as definitions of the practices and is therefore not comparable.

It has to be acknowledged that there are some publications available on the application of cover crops by farmers across Europe. However , as mentioned above, they are not giving the basics to be applied for the common practice test for particular regions in the Agreena Carbon Programme. Below is a review of the sources provided by the Technical Review in the project of the available data on cover crop application in the AgreenaCarbon regions.

Based on our research and collected information, countries put effort in to collect the data on the cover crops applied in the field and also provide some incentives for those. However, they are too fragmented and not applicable to the scale of the program.

The available public data sets do not provide complete and accurate data sets characterising the level of adoption of the cover crops for the autumn and spring seasons. The data are collected randomly with different methodologies and with differences across all regions in which Agreena Carbon operates. Therefore, we were not able to utilise the existing datasets covering the cover crops in Europe to conduct the common practice test as the outcome was not accurate enough to support the additionality test. The only data that were found and met the criteria to be used in the VCS program was found in the Europe statistics describing the tillage practices.

Article	Link	Description of Data
'A high-resolution map of cover crops across Europe combining satellite data with statistical surveys'	https://esdac.jrc.ec.europa.eu/content/cover-crops-accross-europe	The presented research engages the remote sensing technology to assess the presence of the cover crops across Europe. After the analysis it can be said that the presented maps shows that the in the majority of the area of europe the fraction of cover crops

			is less 5% Motover the in depth analysis of the models and methods applied shows that the the model applied for detection of the cover copes was trained on the regional aggregate survey data. There the researchers apply the model on high resolution maps. In our opinion such an approach may create a large level of error and uncertainty in the research. Therefore can not be used for the common practice test in Agreena carbon program. Moreover the research papers assess the performance of the model only in one location - France as the only data was available. This also shows that the conclusions of the research are not applicable for the AgreenaCarbon program. Also it supports our assessment that currently there are not datasets available to assess the level of adoption of the cover crops across whole Europe.	
	'A UK survey of the use and management of cover crops'	https://onlinelibrary.wiley.com/doi/10.1111/aab.12488	This article can not be utilised for the bases for assessing the level of application of the cover crops across the United Kingdom. The research paper descript the data gathered based on the 117 surveys across the farmers. The research schools that in this research group the 66% of farmers are applying to the cover corps. In our understanding the outcomes from such a small group of respondents can be	

		extrapolated across the whole country. Moreover the construction of the questionnaire has some element of bias which also disqualifies it from using the outcomes for the common practice test.
Examples of European agricultural practices playing a part in environmental protection	https://www.fao.org/family-farming/detail/en/c/320034/	The research focuses only on the cover crops in the Czech Republic however the methods and scope of collecting data were not provided. Therefore we there it is also not in our opinion taken as bases for the analysts of the additionality in the Agreena Carbon program.

3. Documentation is included in the description here and has been provided to the VVB in the zip file. The Roth C Calculation tutorial has been provided to VVB on August 4th via email with attachments.

4. The specific uncertainty calculations are outlined in a guidance document provided to reproduce the AgreenaCarbon project uncertainty calculations. Some input is also in the PD on uncertainty in the Section 4.4 Net GHG Emission Reductions and Removals.

5. The RMSE values for all combinations are detailed in "Table 3.9 - Summary Statistics for PC/CZ/CFG Combinations" found in the MVR, following the VMD0053 guidelines. To calculate the uncertainty deductions we make use of both the model prediction variance, which is determined using the formulas specified in Section 8.6 of VM0042, and the uncertainty derived from our soil sampling data. Additional information about the uncertainty deduction computations can be found in the documentation included in this response.

6. Parameter tables that are labeled not applicable have been removed from the PD and a description on the not applicable tables has been provided in Chapter 5 Monitoring in order to provide clarity on the parameters not used within this project.

Documentation provided by project participant

CAR ID 21.3_TR_AgreenaCarbon RothC Calculation Tutorial.pdf

CAR ID 21.3_TR_AgreenaCarbon Attachments to RothC Calculation Tutorial.zip *CAR ID 19_TR_Agreena Project_ipcc-calculator-Version-2.0.zip* *CAR ID 21.4_TR_AgreenaCarbon uncert_deduct_proj.zip* *CAR ID 21.3_TR_AgreenaCarbon IPCC Tutorial.pdf*
VVB assessment **Date:** 17/10/2023
TR comments 1. Section 1.1.1 of the PD has been checked and it was found that reference fields have been added. The field is a demarcated crop area that is defined by the farmer and VVB confirmed that PP has sufficiently described the project location and context of fields in section 1.1.1 of the PD. Comment stands closed. 2. PP has sufficiently justified the common practice analysis. Comment stands closed. 3. PD section 4 has been revised by PP to include the linkages of equations used and calculation steps. The current details given in section 4 was found appropriate, comment stands closed. 4.& 5. Parameter tables are now updated in line with the requirements of methodology, comment stands closed. CAR#20 stands closed.

CAR ID	21	**Section No.**	3.1	**Date :** 18/04/2024
Description of CAR				
1. The project claims to remove 517,495.19 tCO2e per year across 517,237 ha of the first instance. Starting from 752,513 tCO2e in the first year up to 3,280,000 tCO2e in the fourth year of the crediting period. However, there is no justification for how the project can realistically achieve up to 6.34 tCO2e/ha/year (in the fourth year). 2. Sections 1.1 and 4.4 of the project description (PD) are to be updated to provide a sufficient description of how the project is expected to increase from 752,513 tCO2e in the first year up to 3,280,000 tCO2e in the fourth to last year of the crediting period. 3. Further justification is required whether such values are realistic (e.g., comparing with other project activities, datasets, literature studies). VM0042, v2.0, Sections 8.3 and 8.5 VCS Standard, v4.5, Section 2.2.1 (Conservativeness)				
Project participant response				**Date :** 04/06/2024
1. The estimations made for the project were made at the beginning of project inception and were not updated to reflect the reality of the expected hectare increase, nor by using the model to do so. To address this, Agreena checked all ERRs estimates, making new estimates of the ERR and re-calculated them with the assumption that the practices remain the same over the course of the next 20 years. Table 1-3 in section 1.1.2 of the PD showcases the new estimations in both yearly ERRs and hectares of arable land enrolled in the project. The latter variable starts at 505,263 ha, and given recent trends, is projected to increase annually by 10%. The new, updated average annual ERRs over the 20 crediting years is calculated to be 1,383,570tCO2 2. Section 1.1 and 4.4 of the PD are updated to reflect the correct projection with justification for the projections and assumptions taken into consideration for the annual estimates of CO2eq. 3. Justification and assumptions are also included in Section 1.1 and Section 4.4 for VVB's assessment.				
Documentation provided by project participant				
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-CommerciallySensitive-20240429_TR1, Section 1.1, 1.1.2 and Section 4.4				
VVB assessment				**Date:** 07/06/2024

PP has made updates in PD section 1.1 and 4.4. In this project, ALM practices introduced are reducing soil disturbance through reduced tillage, cover cropping, catch cropping, mulching of residues, reduced synthetic fertilizer application, and/or applying nitrification inhibitors. Table 1-3 of the PD provides estimated annual emission reductions and removals given an assumed increase of 10% per year in hectares under management. The increase in area under project also affect the estimated GHG ERR value over time. VVB has studied various research paper to compare the trends of GHG removals by ALM practices. Considering the project is implemented in multiple countries and applying quantification approach 1 for soil carbon modelling, it was found that the increase in GHG ERR values is justified. CAR#21 stands closed.

CAR ID	22	**Section No.**	3.1	**Date :** 18/04/2024
Description of CAR				
1. The project geographic area is unclear. a. The geographic area of the project's first activity instances is unclear. b. It is unclear whether it includes all European countries, or the 11 countries listed in Section 1.1.1. 2. It is unclear in Section 1.1.1 and 1.11 how many farmers and fields are involved in the initial activity instances. VCS Standard v4.5, Sections 3.2.4, 3.6.10 Background Grouped projects shall specify one or more clearly defined geographic areas within which project activity instances may be developed. Geographic areas with no initial project activity instances shall not be included in the project unless it can be demonstrated that the same (or at least as conservative) baseline scenario and rationale for the demonstration of additionality is applicable to such an area as a geographic area that does include initial project activity instances. It is unrealistic to expect the whole European Union, or 11 different countries, to have the same baseline scenario and rationale for demonstration of additionality.				
Project participant response				**Date :** 04/06/2024
1. The project initial instances are now clarified in the PD in Section 1.1.1 and made consistent across the PD to further match the KML file. a. The geographic area of the first activity instances covers 11 countries. Maps have been included to provide clarity on this. The geographic area for the baseline has been determined relying on the location of the instances across the four climatic zones. This is further presented in the baseline section of the PD. b. The initial project instances cover 11 countries, the project boundary is pan-European. The codifier 'initial instances' has been added to make it clear where the initial instances are located. 2. Codifier 'initial instances' has been added throughout the PD to make it clear that the assessment and initial instances are across 11 countries. The initial instances cover 505,263 ha.				
Documentation provided by project participant				
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 1.1, subsection 1.1.1 AgreenaCarbon_Project_4022_KML File				
VVB assessment				**Date:** 07/06/2024
1. VVB has checked the revised PD and project KML file submitted for the assessment. The updated PD section 1.1.1 now includes clear description of project geographic area. The geographic area of the first activity instances covers 11 countries. It has been cleared in the PD that the initial project instances cover 11 countries, the project boundary is pan-European. 2. The total area mentioned in the updated PD section 1.1.1 is 479,834.11 ha ha and is correctly calculated by KML file also. 3. Updated PD section 1.1.1, table 1-2 List of countries, fields and hectares that define the first project activity instances consists of information of number of fields and no. of hectare country wise which are involved in the initial activity instances. The total area is 479,834.11 ha and number of fields involved in the first PAI is 17,818. The area and fields are verified from KML file. VVB has also updated section 3.1 of the validation report to include the assessment of project area consistently. CAR#22 stands closed				

CAR ID	23	Section No.	3.1	Date : 18/04/2024
Description of CAR				
Section 1.3 of the PD does not provide evidence to demonstrate that the project meets the following eligibility criteria required for AFOLU projects: a. The project areas were not cleared of native ecosystems to create GHG credits. b. The project area was not drained or converted to create GHG credits. c. Although a rationale was presented in the VR in response to CL09, it focuses on forest conversion and overlooks the potential conversion of non-forest native ecosystems. VCS Standard v4.5, Section 3.2.4 Background The project proponent states that demonstration of no clearance of native vegetation is present in Section 5.3. However, no demonstration is presented in this section.				
Project participant response				**Date :** 04/06/2024
In order to account for other ecosystems beyond forest ecosystems, Agreena has included an additional pre-processing layer to the field check system in order to ensure that all fields are not drained or converted. Content has been placed into the PD in Section 1.3 as well as into Chapter 5, Monitoring. The method for the assessment is as follows: The assessment is based on datasets produced by the Global Land Analysis and Discovery (GLAD) laboratory. In turn, the GLAD datasets are based on Landsat data, and include annual tree deforestation (vegetation greater than 5 metres in height) and 5-yearly land cover change. Each field boundary is assessed against both the GLAD and Landsat datasets to ensure that no fields were created by clearing of native ecosystems within the last 20 years.				
Documentation provided by project participant				
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 1.3, and Section 5.3.1 Quality Assurance (QA), subsection “Clearing of native ecosystems (and deforestation)				
VVB assessment				**Date:** 07/06/2024
VVB confirmed that the above explanation meets the eligibility criteria requirement. CAR#23 stands closed.				

CAR ID	24	Section No.	3.1	Date : 18/04/2024
Description of CAR				
1. Insufficient demonstration and evidence that the newly included Project Activity Instances (PAIs) will have the same baseline scenario and same rationale to demonstrate additionality as the initial PAIs, considering that the project is located across eleven countries. Thus, it is unclear how the set of eligibility criteria presented in Section 1.4.1 of the PD can be applied to all the future project activity instances. [also refer Action Required clause 1 in PRR R1] VCS Standard, v4.5, Sections 3.6.10 to 3.6.16				
Project participant response				**Date :** 04/06/2024
New baseline scenarios have been determined as per VCS requirements 3.6.10 to 3.6.10. We developed eight possible baseline scenarios based on the combination of pre-project agricultural management practices (conventional vs reduced or no tillage) and the four climatic zones present in the project area (Cool Temperate Dry, Cool Temperate Moist, Warm Temperate Dry, Warm Temperate Moist). New and existing PAIs are sorted in one of these eight categories, and then further assessed against eligibility criteria (e.g., additionality of project ALM activities) This expanded approach allows Agreena to capture future project activity instances. New content has also been inserted in Section 1.4.1 of the PD regarding the eligibility of the different baseline scenario combinations.				
Documentation provided by project participant				
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 1.4.1; Section 3.4				
VVB assessment				**Date:** 07/06/2024
PP has updated PD section 1.4.1 which now include explanation on newly included PAIs. “The eligibility				

criteria outlined in PD apply to all 8 baseline scenarios given that the eligibility criteria requires that new project instances be captured through the setting of the baseline (see Section 3.4). AgreenaCarbon specified four geographic areas, defined by climatic zone linked to tillage practice to set 8 baseline scenarios." CAR#24 stands closed.

CAR ID	25	**Section No.**		**Date :** 18/04/2024
Description of CAR				
1. Insufficient evidence that the project proponent (PP) has the legal right to control, operate, and implement the project activities and carbon credits rights, considering that the PP is not the owner of the lands. a. It is unclear how farmers with leased land (from other farmers or government) have transferred project ownership to the PP. b. The existence of agreements between the PP and the farmers is unclear. c. It is unclear who owns the land where the practices are being implemented. For example, on leased land. 2. It is unclear whether the PP has control of at least 80% of the first instance of the project activity. 3. Section 1.7 of the PD is to be updated to demonstrate that the project proponent holds the rights of project ownership and carbon credits. Including: a. Demonstration of how the project guarantees the ownership and permanence of the leased farms. b. Demonstration of how the agreements between the PP and the farmers have been made and their longevity. c. Demonstrate that the PP has control of 80% of the first instance of project activity. Otherwise, Section 3.11.4(3) of the VCS Standard, v4.5 must be followed. VCS Standard, v4.5, Section 3.7 and 3.11.4				
Project participant response				**Date :** 04/06/2024
1. This flexibility is embedded in the VCS Program Definitions document (v4.5), which provides that the Project Proponent is defined as "the individual or organization that has overall control and responsibility for the project, or an individual or organization that together with others, each of which is also a project proponent, has overall control or responsibility for the project". This definition is consistent with that of "Project Ownership", which includes in its scope the control and responsibility of the project. But the same VCS Program Definitions clarify that the implementation of the project activities may rest with the Implementing Partner, "the individual or organization operating the project or program activity (or activities) in partnership with the project or jurisdictional proponent, respectively". Sec. 3.7 of the VCS Standard (Ownership) confirms the distinction between project ownership and project implementation as it requires Project Proponents to "demonstrate that they have the legal right to control and operate project or program activities". Sec. 3.7.1. offers flexibility in how a Project Proponent can present evidence of project ownership. For instance, project ownership can be demonstrated through the production of an "enforceable and irrevocable agreement with the holder of the statutory, property or contractual right in the land, vegetation or conservation or management process that generates GHG emission reductions or carbon dioxide removals which vests project ownership in the project proponent. Agreena ApS holds enforceable agreements (Benefits Contracts) with all of the farmers enrolled in the AgreenaCarbon Program. These Benefits Contracts unequivocally delineate the respective responsibilities of enrolled farmers and those of Agreena (see excerpts below). "1.1. Agreena has developed and operates a sustainability-benefits related payment programme (the "Programme"), which may be referred to as a grouped project under a Standard, with the objective of creating a payment and co-funding mechanism for farmers, landowners, and other types of programme participating members to enable their transition towards sustainable agricultural practices." "3.1. As the developer and manager of the Programme, Agreena will provide the below services, as part of the Programme, to allow the Participant to take part in the Programme. These services are: a. Design and development of the Programme […] b. Establishment and continuous development of the Methodology including, but not limited to, the GHG reduction and removal, and sustainability related benefits quantification and coverage. c. Develop and operate the MRV-framework (Monitoring, Reporting and Verification) utilising technology in combination with on-site inspections.				

d. Organise third party verification of the Programme."
Similarly, project ownership is traditionally distinct from land ownership, carbon right ownership, carbon credit ownership1. A project proponent may hold rights in the land that generates GHG mitigation outcomes, but these rights may also belong to a third party. It is worth noting in that respect that the definition of "Project Proponent" explicitly excludes "Proof of Right" in the VCS Program Definitions (i.e. the document(s) demonstrating the entity's right to all and any GHG emission reductions or removals generated by the project). And that Proof of Right is not needed where the project proponent is initiating the project registration process.
The Benefits Contracts entered into between Agreena and enrolled farmers put VCU ownership with farmers:
"6.4. The Farmer Certificates are owned by the Participant with the rights and obligations contained in the Agreement."
Agreena merely acts as custodian of the VCUs on behalf of those farmers who do not hold an account in the Verra Registry. Farmers are obligated to make all transfers of credits in the Verra registry to account holders in the registry.
a) See Agreena's response to a). Farmers have transferred project ownership by virtue of the Benefit Contracts, which places the responsibility to control and operate the project with Agreena.
b) Agreena holds agreements with every farmer enrolled in the AgreenaCarbon Programme. c) The AgreenaCarbon Programme does not restrict admission to landowners only. Admission is open to farmers holding farm leases.

2. Agreena controls 100% of the project by virtue of the Benefits Contracts signed with participating farmers, including for the first harvest season and expected issuance.

3. (a-c) Project ownership is the legal right to control and operate the project activities, VVBs are not expected to provide an opinion on the legal ownership of GHG emission reductions and removals3. Besides, project ownership and carbon credits ownership can be dissociated. In the case of Agreena's project, project ownership rests with Agreena while participating farmers own the carbon credits generated by the project.
● "Demonstration of how the project guarantees the ownership and permanence of the leased farms". Farm leasing is by essence temporary as it does not involve a transfer of the land title to the leaseholder. This is not in itself an obstacle to the implementation of the project, which can be conducted by farmers who are either landowners or leaseholders. When a farm is leased, it often remains so for the entirety of that leaseholder's lifetime as land leases are typically renewed.
● "Demonstration of how the agreements between the PP and the farmers have been made and their longevity": Each and every farmer enrolled in the AgreenaCarbon Program has entered into an agreement with Agreena ApS transferring project ownership to Agreena. The duration of these agreements is not limited in time, although participating farmers remain free to end their participation "with a minimum of six (6) months written notice before the beginning of the following Harvest Year". Any potential ensuing reversal of emission removal would be monitored and accounted for, as described in the PD.
● "Demonstrate that the PP has control of 80% of the first instance of project activity": Agreena controls 100% of the first instance of the project.

Documentation provided by project participant

Excerpt to the Benefits Contract and its Terms and Conditions
Benefits Contract

VVB assessment | **Date:** 07/06/2024

Section 1.7 of the PD clearly states that Agreena ApS is the project proponent and has laid out the ownership of the carbon credits through contracts with the farmers, which explains that project proponent (PP) has the legal right to control, operate, and implement the project activities and carbon credits rights. VVB checked the project ownership in Benefits Contracts. As per PP, Agreena controls 100% of the project by virtue of the Benefits Contracts signed with participating farmers, including for the first harvest season and expected issuance. Project ownership rests with Agreena while participating farmers own the carbon credits generated by the project. CAR#25 stands closed.

CAR ID	26	Section No.		Date : 18/04/2024
Description of CAR				
1. Section 1.8 of the project description is updated to justify the project start date against the definition in Section 3.8 of the VCS Standard, v4.5, specifically on: a. The type of activities that each of the instances did to determine that the date becomes the project start date. b. Demonstration that the project start date is the day when agricultural activities have changed. 2. Table 1-7 is to be updated to align the years and total number of years with the selected length of the credit period, taking into account that the credit period must begin on the same day as the start date. Background The evidence that is used to demonstrate the project start date is the detection of cover crops through NDVI analysis. This is not sufficient evidence since the NDVI analysis only detects where the cover crops are growing, but NDVI analysis cannot detect when the change of agricultural practice starts. VCS Standard, v4.5, Section 3.8 VCS Program Definitions, v4.4				
Project participant response				**Date :** 04/06/2024
1. The selection of the project start date is not based solely on NDVI analysis; our cover crop verification mode, based on a range of vegetation indices and bands, is used. Cover crop verification determines which fields have cover crops growing, then NDVI analysis is used to identify when the cover crops were first visible. The process for selecting the project start date was as follows: The first 15 farmers to join the Agreena program (in July 2021) were selected and cover crop verification was performed for all fields in these farms. Agreena's cover crop verification model uses a range of radar and optical satellite data to classify presence/absence of cover crops, and also provides a monthly time-series of field level NDVI. These NDVI values are mean monthly calculations, so the middle date of each month is used. A subset of fields were identified where cover crops were not planted in 2019/20, but were subsequently planted in 2020/21. The NDVI time-series was then used as an indicator of when cover crops were first visible (from remote sensing) in each field. The project start date was defined as the median date when cover crops were first visible in these fields in 2021. This date was 15th September 2021. 2. The Table 1-7 in Section 1.10 has now been updated to reflect the dates with the starting date and crediting period, although the emission reductions and removals are primarily generated in the year following as the activities occur on an annual basis. Then vintages in the AgreenaCarbon Project are structured in such a way that they are determined by harvest period, i.e. September - September.				
Documentation provided by project participant				
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 1.7, 1.8, 1.9, 1.10.				
VVB assessment				**Date:** 07/06/2024
Starting from revised PD section 1.8.1, it is explained that the start date in the project has been identified from the implementation of project activity cover crop. The method of identification used by PP is NDVI analysis. VVB checked the NDVI satellite data within Agreena's cover crop detection model. The measurement of vegetation coverage, a critical aspect of the project's objectives, is derived from NDVI values obtained from cloud-free imagery. These project activities commenced in 2021, aligning with the initiation of harvest activities, particularly the planting of winter cover crops. This timing coincided with the signing of the initial contract in July 2021. In the PD, PP has correctly provide the timeframe in which a subset of fields were identified where cover crops were not planted in 2019/20, but were subsequently planted in 2020/21. VVB checked the filed ids provided in appendix 10. The procedure mentioned in PD appendix 10 has also been checked and found complete. VVB confirmed that PP has correctly identified that start date of the project. CAR#26 stands closed.				

CAR ID	27	Section No.		Date : 18/04/2024
Description of CAR				
1. Section 1.14 of the project description is unclear on whether project activities contain outlawed activities in the EU, UK and other non-EU countries. Section 1.14 of project description is to be updated to				

provide clarification on whether the outlawed or banned practices and substances will be used as part of the project activities. 2. PP shall provide clarification in the PD for the outlawed activities: a. Section 3.5 of the project description states that several farmers cited the potential ban of glyphosate in some countries, which is currently integral to clearing weeds in reduced/no-tillage systems. However, it is unclear whether the application of such substance will be applied in the project activity. b. Section 1.14.1 states that EU outlaws almost all genetically modified crops and pesticides. It is unclear how the project meets these regulations.
Project participant response **Date :** 04/06/2024
1. The contracts held by AgreenaCarbon and the project participants stipulate that farmers must comply with local regulation. Compliance with national regulation is defined in Section 1.14 of the PD, and project participants are required to comply with national regulation. The following clauses, an exact excerpt from the Benefits Contract signed as farmers join the protect, are provided as further evidence of this: '17.5. The Participant shall comply with all laws and regulations related to the activities of the Programme. Agreena is neither responsible nor liable for the Participant's non-compliance with regulatory requirements for which the Participant is or become responsible or liable due to the signing or completion of your obligations under the Agreement.' '17.6. The Participant is required to provide attestation of regulatory compliance in connection with enrolment to the Programme and during the yearly verification. The attestation criteria are found on the Platform. Agreena may decide on a case-by-case basis that the Participant's regulatory non-compliance or the reasonable suspicion of the Participant's regulatory non-compliance triggers the cancellation or suspension of the Participant's participation in the Programme or the cancellation of issued Certificates.' 2. Please see points above regarding Benefits Contract as this will determine compliance with national regulation as per VCS requirements. a. In some of the countries of operation, there are discussions ongoing for the ban of glyphosate. In case any of these bans go into implementation, farmers would not be able to access glyphosate as this is a banned substance. The EU has explored this option as well, yet has continuously pushed back any wide reaching bans as it is still a widely used substance on cover crops to prepare soil for harvest. The list of countries where glyphosate is banned can also be found here: https://www.wisnerbaum.com/toxic-tort-law/monsanto-roundup-lawsuit/where-is glyphosate-banned-/ In addition, in the case of national regulation, farmers are bound by strict contracts. b. The project participants are bound by contract to abide by local and national regulation (see point 1 above). Moreover, Agreena provides a list of admissible crop types for farmers, to ensure compliance with legislations and that no genetically modified or otherwise outlawed crops are used by project participants .
Documentation provided by project participant
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 1.14 Attachment to report: AgreenaCarbon_Crop Type List_2022_Verification Period 1
VVB assessment **Date:** 07/06/2024
VVB has reviewed the updated PD section 1.14. In this project, the project's compliance on laws and regulations has been captured in the Benefits Contract signed between farmers and PP. VVB has reviewed the Benefit contract which include appropriate requirements under 17.5 and 17.6 of the contract. This approach found to be appropriate considering this is a multi-country project. CAR#27 stands closed.

CAR ID	28	**Section No.**		**Date :** 18/04/2024
Description of CAR				
Section 1.16.1 of the PD is to be updated to indicate whether the project has sought or received another form of GHG-related environmental credit. The section must include all relevant information about the GHG-related environmental credit and the related program. PP shall submit required evidence to substantiate the same.				
Project participant response				**Date :** 04/06/2024
Input has been provided in Section 1.16 of the PD about other forms of credit, and section 1.15 with				

information on the ISO related credits. The VVB has previously been provided with the ISO validation report as evidence to ensure that although there was a validation process under ISO, Agreena would not be seeking out certificates under both standards using the same field areas. The following steps are indicated to ensure that no double issuance will occur: ● A subset of Agreena outcomes, representing one metric tonne of carbon removed or reduced, are set aside for sale with key characteristics of the farmer field, transition etc. for full traceability. ● These fields are marked as ISO fields and removed through the fallow classification from the list of fields entering into the upcoming verification period. This ensures that these fields are still accounted for but earn zero VCUs. ● Fields are continuously monitored to ensure that no reversals occur. Farmer data is collected for the following verification for project activities and fields are entered into the next monitoring/verification period. ● A special write-up related to these fields will be included in the monitoring report to ensure full traceability that the data is properly collected.
Documentation provided by project participant
VVB assessment — **Date:** 07/06/2024
Section 1.16.1 of the PD includes that statement that the project does not participate in any emissions trading programs as well as the project has not sought or received another form of GHG-related credit, including renewable energy certificates. Regarding double counting under other GHG programs, PP has clarified in section 1.15.1 that the project has not credited any farms under ISO. CAR#28 stands closed.

CAR ID	29	**Section No.**		**Date :** 18/04/2024
Description of CAR				
1. Section 1.18.2 and Appendix 5 of the project description states that the demonstration of additionality, specifically, common practice analysis, was considered as commercially sensitive information. However, demonstration of additionality shall not be considered commercially sensitive. PP is to update Appendix 5 to clearly demonstrate the common practice analysis as part of additionality. Background Section 1.18.2 of the project description states that the following information are considered commercially sensitive: a. Contractual matters, including management data, soil sampling and financial information. b. Methodological approaches to analyses related to AgreenaCarbon IP c. Annexes d. Farmer location data and KML				
Project participant response				**Date :** 04/06/2024
Re-assessment of the commercially sensitive information has been provided as part of the Project Description. As per VCS Standards, the additionality and baseline sections (see section 3.4 and 3.5) cannot be considered commercially sensitive. Therefore the common practice assessment (section 3.4.6) is updated in full as well with data to substantiate the assessment and will not be treated as commercially sensitive. Please refer to the relevant sections in Chapter 3 of the updated PD for further details on the outcome of Agreena's common practice assessment.				
Documentation provided by project participant				
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 3.4.6 "Common Practice Test".				
VVB assessment				**Date:** 07/06/2024
PP has revised the information categorization and which now follows the definition of sensitive information 'commercially sensitive information' as per VCS Program definition v4.4. CAR#29 stands closed.				

CAR ID	30	**Section No.**		**Date :** 18/04/2024
Description of CAR				
PP is to update section 2.4 of the PD as PD has not provided information on how the project takes due account of all comments received during the public comment period. VCS Standard, v4.5, Section 3.18.12 and 3.18.15				

Project participant response	**Date :** 04/06/2024
Section 2.4 has been updated with response to the comments. VVB has confirmed that the comments cannot be verified by the source of the comments. This has been confirmed in the VR but is further supplemented by content in the PD in Section 2.4,	
Documentation provided by project participant	
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 1.1 and Section 2.4	
VVB assessment	**Date:** 07/06/2024
VVB has earlier discussed public comments in CAR#17 table and it has been confirmed that the comments cannot be verified by the source of the comments. CAR#30 has been closed based on the update made in section 2.4 of the PD.	

CAR ID	31	**Section No.**		**Date :** 18/04/2024
Description of CAR				
1. Sections 2.1 and 2.2 of the PD is updated to include all information regarding no-net harm and AFOLU Safeguards. The following elements of stakeholder engagement and consultation are missing: a. Description of the social, economic, and cultural diversity within local stakeholder groups and the differences and interactions between the stakeholder groups. b. Any significant changes in the makeup of local stakeholders over time. c. Location of communities, local stakeholders and areas outside the project area that are predicted to be impacted by the project. d. No explanation of how communication and consultation are performed in a culturally appropriate manner, including language and gender sensitivity, directly with local stakeholders or their legitimate representatives when appropriate, considering that the project is located in eleven different countries. e. No description of (or justification for the lack of) any project design changes made in response to stakeholder comments received during consultation. 2. It is unclear how the results of the stakeholder consultation are representative of the entire project area, given that the project will be implemented across Europe. The project has initial project activity instances in 11 countries, but local stakeholder consultation has only taken place in 6 countries. Insufficient description of the risks to local stakeholder resources due to project implementation: a. No discussion of risk of loss of yields due to project activity and no monitoring and mitigation plans designed. No discussion of risk from excess fertilizer use and other bio/chemical inputs from crops due to project activity. No monitoring and mitigation plans designed. 3. PP is to provide evidence that the PP or any other entity involved in the design or implementation of the project are be involved in any form of discrimination or sexual harassment. 4. PP shall revise the section 2.1 and 2.2 to explain whether the project has followed FPIC process from relevant stakeholders and if there a transparent agreement including provisions for just and fair compensation. 5. PP shall revise the section 2.1 and 2.2 to explain whether there are any ongoing or unresolved conflicts over property rights. Furthermore, there is no explanation of how the project will mitigate/take into account these conflicts, and how it will not impact the implementation of the project, considering that project is implemented in farms leased from the government or other farmers. VCS Standard, v4.5, Sections 3.18 and 3.19				
Project participant response				**Date :** 04/06/2024
In response to this, Agreena has updated section 2.2 and 2.3 of the PDD with a more thorough discussion of stakeholder diversity, engagement & communication processes, integration of stakeholder feedback into project design and operations, transparent agreement and property rights conflict, and environmental impacts. Please find here a summary of the ways in which we have addressed the 5 points of this CAR. 1. Farmers across the pan-European region display both differences and similarities in terms of economic and sociocultural characteristics, such as the reliance on social learning and a generally aging, declining composition. Agreena communications outputs and engagement processes have a dual focus, considering both inter-regional similarities at the grouped-project level, and sociocultural characteristics at the country-level. The latter are guided by the input of Key Account Managers and Customer Success personnel who are familiar with the culture, customs and context of each market.				

2. This is addressed in section 2.2. subsection “Stakeholder Engagement & Consultation” and “Farmers onboarding process”, detailing the process of stakeholder representatives mapping and involvement in the consultations and potential risks to project participants. 3. Agreena’s activities are founded on our Code of Conduct and the respect of international provisions against discrimination and sexual harassment, and we expect project participants to uphold the same principles. Agreena makes available channels for whistleblowing and grievance reporting to employees, farmers, and partners. So far, no complaint, grievance or breach of our behavioural conduct has been reported. Please refer to section 2.2 subsection “Code of Conduct, Grievance & Complaints Procedure” for more details. 4. Key Account Managers and Customer Success personnel spearhead the “Farmers onboarding process” (see section 2.2), whereby they ensure that all prospective project participants are made aware of what joining the AgreenaCarbon project entails in terms of, among others, responsibilities and potential benefits and impacts. 5. Thus far, no conflict and grievance was raised with regards to the AgreenaCarbon project, including on topics related to property rights. The AgreenaCarbon Project area corresponds to the collection of PAIs distributed across 11 countries in pan-European geography. During the onboarding process and prior to officially joining the project, farmers are asked to provide a statement confirming that they own and/or have operational rights over the fields they wish to enroll for the duration of their participation in the programme. Due to the inherent nature of land rights in European countries, no property rights dispute has or is expected to arise as a result of project activities, nor shall the project activities infringe on property rights. Indeed, the AgreenaCarbon project takes place in privately owned or leased arable land, solely impacting in situ natural resources. QA/QC mechanisms such as remote sensing and field-inspections are used to ascertain the exact boundaries and location of each field and PAI. Any discrepancy between what is reported by farmers and what is found through satellite imagery or ground auditors is promptly addressed. Were they to occur, Agreena’s QA/QC would reliably pick up any unlawful encroachment or expansion of the project area. Furthermore, within the geographical boundaries of the project there are no indigenous people and no local communities with customary and/or legal rights to the land and resources affected by the AgreenCarbon project, nor any local community whose livelihood hinges from the project area and affected resources. Our farmers can flag any unlawful activity going against property rights through the Grievance Procedure, while employees can use the Whistleblowing Channel. Additionally, key regional partners regularly monitor and communicate to Agreena whether impacts to local communities should be considered. If any conflict were to arise, Agreena shall promptly, effectively and fairly address them through conflict de-escalation and peaceful resolution while maintaining a neutral stance, following our Grievance & Complaints Procedure and its regular farmer support channels. Altogether, these equip Agreena with the tools and information necessary to not exacerbate land use and access conflict.
Documentation provided by project participant
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 2.2 and 2.3 AgreenaCarbon_Project_4022_KML File
VVB assessment **Date:** 07/06/2024
Sections 2.1 and 2.2 of the PD is updated now to include all information regarding no-net harm and AFOLU Safeguards. CAR#31 stands closed.

CAR ID	32	**Section No.**		**Date :** 18/04/2024
Description of CAR				
PP is to update Section 3.1 of the PD and use latest version of the VMD0053, version 2.0				
Project participant response				**Date :** 04/06/2024
PP has assessed Version 1.0 and 2.0 and determined that the procedure for assessment as per Version 2.0 was used and the assessment has been shared with the IME. The following procedure was followed, dependent on a meeting and re-evaluation plan with the IME: 1. According to section 5.2.6 Review and Approval of Model Validation Reports of VMD0053 version 2.0, ‘An MVR following the above requirements and guidance must be submitted with each monitoring report. Model validation requirements, including approval of MVRs, must be satisfied and confirmed at the latest				

prior to the completion of project verification activities. However, it is recommended that MVRs are submitted for IME assessment at project validation.' Therefore, Agreena will be submitting the final VMD0053 report (version 2.0) following the requirements in VMD0053 and submit as part of the first verification. 2. A gap assessment has been completed between Version 1 and Version 2 and has been completed by the IME confirming that Agreena can be assessed under Version 2.0 3. IME will also review the updates Agreena has made to the existing model in order to evaluate and close outstanding recommendations. 4. VMD0053 Final report will be submitted under verification.
Documentation provided by project participant
IME Evaluation Version Migration
VVB assessment **Date:** 07/06/2024
VVB and IME have reviewed the requirement of VM0042 and VMD0053 version 2.0 and it was confirmed that the project model is in conformance with VMD0053 version 2.0. IME Evaluation version migration report has been shared with VVB which is also submitted to VERRA for review. Moreover, in the IME Evaluation version migration report, IME informed that IME will also review the updates Agreena has made to the existing model in order to evaluate and close outstanding recommendations. This has been highlighted as FAR which shall be addressed by verifying VVB in the first verification. Please refer appendix IV of validation report for more details about FAR. CAR#32 stands closed.

CAR ID	33	**Section No.**		**Date :** 18/04/2024
Description of CAR				
1. PP is to demonstrate how the project adheres to applicability conditions (2) (3) (4) (7) (8) of the applied methodology VM0042. a. Clarify whether the project introduces or implements quantitative adjustments and demonstrate how the project adheres to the applicability condition (2) of the methodology. b. Demonstrate how the project adheres to the applicability conditions (3) (4) (7) (8) of the methodology.				
Project participant response				**Date :** 04/06/2024
1. Applicability conditions have been updated in the PD, section 3.2, to clarify on how quantitative adjustments are made and how these are accounted for. a. The project does introduce quantitative adjustment and does demonstrate in the PD how the project adheres to the applicability condition of the methodology (Table 3-1). b. Content in the PD is placed in relation to the applicability conditions specific to the AgreenaCarbon project.				
Documentation provided by project participant				
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 3.2				
VVB assessment				**Date:** 07/06/2024
Table 3-1 in the section 3.2 of the PD has been updated by PP to include projects conformance with applicability conditions of (2) (3) (4) (7) (8). The validation report section 3.3.2 has been updated to include its corresponding assessment. CAR#33 stands closed.				

CAR ID	34	**Section No.**		**Date :** 18/04/2024
Description of CAR				
1. It is unclear what are the required model inputs related to agricultural management practices that will be monitored and recorded for each project year. 2. It is unclear how the collection of biophysical model inputs for the baseline scenario and project scenario occurred. 3. PP is to update sections 4.1 and 4.2 of the PD and provide clarification of the choice of approach for each of the model input categories, a demonstration of how those inputs meet with the methodology requirements set out in Table 6. 4. Sections 4.1 and 4.2 of the PD, Sections 5 is to be updated to include parameter tables for all model input variables (un-defined in the methodology) using the tables formats. VM0042, v1.0, Sections 8.2 and				

8.3	
Project participant response	**Date :** 04/06/2024
1. All required model input related to agricultural management practices that will be recorded and monitored for each project year are described in the PD in Chapters 4 as follows: a. Tables 4-2 & 4-8: Data inputs for calculating SOC in baseline and project scenarios respectively. b. Table 4-4 & 4-10: Data inputs for calculating CO2 emissions from fossil fuel combustion in baseline and project scenarios respectively. c. Table 4-5 & 4-11: Data inputs for calculating CO2 emissions from liming in baseline and project scenarios respectively. d. Table 4-6 & 4.12: Data inputs for calculating N2O emissions from nitrogen fertilizers and N-fixing species in baseline and project scenarios respectively. 2. Updates have been made for all model inputs listed above in Chapter 4 in tables 4-2 through table 4-12 3. Tables 4-1 and 4-7 in the PD sections r 4.1 and 4.2, respectively, have been developed to document the model inputs related to agricultural management practices that will be monitored and recorded for each project year and demonstrate how those inputs meet with the methodology requirements set out in Table 6. 4. All tables in Chapter 4 have been updated and all references and inputs and reproduction of calculations of ERRs is placed into Chapter 4 of the PD. Furthermore, Parameter tables in PD Sections 5.1 and 5.2 are updated to include all required parameters and coefficients that are utilized in the models	
Documentation provided by project participant	
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Chapter 4 sections 4.1 and 4.2 and Chapter 5, Sections 5.1 and 5.2	
VVB assessment	**Date:** 07/06/2024
1 and 2. As per updated PD section 4.1.1, Changes in soil organic carbon (SOC) stocks will be modelled by the Project using SoilR (RothC model). PP has updated table 4-1 in the same section of PD which provides the complete details of mode input category, timing of data collection and approach used for each model input category. Table 4-2. Model input values utilised to calculate 0t for i = field ID 19726, and t = 0 provides complete details of parameters utilised for one of the project field. All required model input related to agricultural management practices that will be recorded and monitored for each project year 3. VVB has checked the sources of each model parameter from table 4-2 and table 4-4 and verify it with the source provided. The assessment of all the input variable assessed for the model is provided by IME in IME evaluation report. CAR#34 stands closed.	

CAR ID	35	**Section No.**		**Date :** 18/04/2024
Description of CAR				
1. Section 3.3 of the PD is incomplete because no diagram(s) or map(s) are provided that show the location of the activities. 2. It is unclear whether a single geographic area or multiple geographic areas are defined for the initial PAIs. 3. Section 3.3 of the PD is to be updated to include diagram(s) or map(s) showing the project geographic area. a. The project area must include all the geographic areas where project instances are located. 4. Demonstration of baseline scenario and criteria for demonstrating additionality must be demonstrated for all the project instances.				
Project participant response				**Date :** 04/06/2024
1. A map has now been included with location of project activities 2. Multiple geographic areas are defined for the initial PAIs and this has been expressed in the PD including through ‘initial instances’ specification. 3. A more thorough description of the geographical location and boundaries of the AgreenaCarbon Project has been included in section 3.3 and 3.4 of the PDD. Please find below the newly included map, defining climatic zones and location of project activity instances (i.e., the cross symbols). f. The baseline scenario is directly linked to geographic and climatic area (per VCS Standard 3.6.11) as well as pre-project agricultural management practices (see section 3.4.2 for a detailed table). As for the additionality 3-steps assessment, it is available in sections 3.4.4, 3.4.5, and 3.4.6.				

Documentation provided by project participant	
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Sections 3.3, 3.4, 3.4.2, 3.4.4, 3.4.5, and 3.4.6.	
VVB assessment	**Date:** 07/06/2024
CAR#35 stands closed as the revisions made in the PD were found complete and appropriate.	

CAR ID	36	**Section No.**		**Date :** 18/04/2024
Description of CAR				
1. In Section 3.4 of the PD: a. There is no single baseline scenario for each designated geographic area. i. It is unclear what are the agricultural management practices in the baseline scenario for each geographic area. ii. It is unclear which baseline scenario management practices will continue under the project scenario for each geographic area. b. It is unclear whether baseline scenario was demonstrated based on the initial project activity instances, and thus eligibility criteria is not clear enough in Section 1.4.1 of the PD for future PAIs. c. Unclear justification of historical data against the hierarchy of preferred data sources to establish baseline scenario. d. It is unclear how selecting “dominant practices” for the historical baseline period in each country part of the project area is conservative and follows the methodology (e.g., conventional till; see Background). e. It is unclear what approach will be used to collect data for the historical look-back period of 5 years at the farm-level when scaling up project operations. f. Table 3-6 does not provide sufficient detail on the baseline qualitative and quantitative data sources used to establish the baseline scenario for each sample unit per Table 4 of VM0042. 2. Not all quantitative information is present in the KML (e.g. crop type). PP shall share the revised KML file. 3. Section 3.5.1 of the PD states that GAECs are required for projects receiving CAP payments. It is therefore unclear which of the project farmers receive payments and how this is considered as part of the baseline. 4. Section 3.4 of the PD is to be updated. a. Provide a single baseline for each geographic area. If a single baseline scenario cannot be determined for a project activity over the entirety of a geographic area, the geographic area must be redefined or divided such that a single baseline scenario can be determined for the revised geographic area. Also, i. Provide accurate and clear description of all agricultural management practices in the baseline scenario for each geographical area. ii. Clarify which baseline scenario management practices will continue under the project scenario for each instance. b. Demonstrate how the baseline was defined based on first project activities instances, and how this is consistent with eligibility criteria in Section 1.4.1. Justify how a regional data is appropriate per the guidelines in Box 1, and a clear demonstration of the sources against the hierarchy of information in Box 1. c. Demonstrate how considering just management activities that exhibit long-term effects on SOC stocks (i.e., “dominant practices”) for the historic baseline period is a conservative approach. d. Clarify the approach that will be used to collect data for the historical look-back period of 5 years at the farm level as the project scales across the European continent. e. Ensure that the Table 3-6 indicates baseline qualitative and quantitative data for each sample unit per Table 4 of VM0042. f. Define the baseline scenario of each project activity appropriately: i. Each of the project activity adheres to the methodology requirement per Footnote 4 of VM0042. ii. Sufficient information on what the baseline scenario is (quantitatively and qualitatively) for each project				

activity based on the sampled unit
must be provided.
iii. The baseline scenario of each project activity must be determined to a historical lookback approach.
iv. Each farm's baseline scenario shall be consistent with the baseline
scenario established for the geographic area to which the farm belongs.
v. Baseline scenario must be conservative in all the cases.

Background
● 1 (a): the geographic area defined by the project must be consistent with the geographic area for which the model was calibrated.
● Example on how to apply Table 4 of VM0042 appropriately: Qualitative -: Application of synthetic fertilizer (yes) | Quantitative – application of 600kg/ha/year.
● Please note that the baseline scenario for each activity must be described. This means that the baseline scenario for tillage and cover crop application must be demonstrated individually.
● Action item 1(f): For example, the PD states that dominant practices will be identified for the historic review period; for example, conventional till if the practice is not consistently implemented. However, this approach does not follow the guidance in Footnote 4 of VM0042.
● Action items 1(b) and 2(b): Section 3.6.10 of the VCS Standard, v4.5 states that geographic areas with no initial project activity instances shall not be included in the project unless it can be demonstrated that the same or conservative baseline scenario is applicable to such an area with initial instances

Project participant response	**Date :** 04/06/2024

1. a. & 4.a. The PD Section 3.4 is updated to present a single baseline for each geographic area. The unique baselines are defined by the combination of the Climate Region and the farmer Profile pre-project agricultural activities..
i. There are 4 climate regions in our project: (Warm Temperate Dry, Warm Temperate Moist, Cool Temperate Dry, and Cool Temperate Moist) and 2 farming practices (Conventional tillage and reduced/no till)
The combination of climate region and farmer tillage practices creates 8 unique baseline scenarios in the project.
Table 3-6 is updated as per Table 4 in VM0042, V.2, to clearly describe all practices in the separate baseline.
g. The baseline practices that will continue in the project activity will be addressed for each baseline combination separately, essentially Reduced and or no-till will continue in the project activity, whereas for conventional farmers, all practices are encouraged to be improved.
2. KML File is updated to reflect only location data as per meeting with Verra on April 26, 2024 as KML file should only contain field location information.
3. CAP payments are not tracked as, per the regulatory surplus assessment, CAP Payments do not preclude farmers from being additional. The GAECs provide general recommendations on good farming practices, and there is partial complementarity with the AgreenaCarbon Project (see Table 3-8 in the pD). While adhering to them is a base requirement to receive payments under the CAP, they are voluntary in nature. Therefore, there is no concern under the CAP within the regulatory surplus requirements of Additionality and therefore if farmers are implementing practices under the CAP, this will be captured in their baseline scenario data capture.
4. b. The eligibility criteria are updated for the separate baselines and justification and demonstration of sources is further explained in Table 3-6 as per Table 4 in VM0042 V.2.
c. Argumentation for considering practices that exhibit long-term effect is moved to section 4.1 with relevant reference for the argumentation, with further demonstration that the same principle is applied in the project activity, in section 4.2 of the PD in order to ensure conservativeness of the calculations throughout the project calculations. d. Further documentation has already been provided regarding the process and data collected at field level and demonstration on how this is scalable at ertiliz level. This has been done through validation findings as well as ongoing demos of project activity instance onboarding.
e. Table 3-6 has been updated indicating baseline qualitative and quantitative data for each sample unit per Table 4 of VM0042.
F i. Additional documentation on processes and type of data collected from farmers is provided (See finding 16.4.d.. along with justification on how data are pre-processed for application in the model (see

finding 16.4.c.) are provided to adhere to footnote 4. F ii. Table 3-6 is updated with relevant qualitative and quantitative information along with sources used for the baseline scenario for each project activity based on the sample unit f iii. Section 3.4 in PD describes that sources for qualitative and quantitative data used for each farm's ex-ante calculations established for the geographic area to which the farm belongs. F iv. Ex-ante calculations are replaced with farmer revised data before the final estimation of ERRs prior to verification in order to ensure accurate and conservative estimates
Documentation provided by project participant
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 3.4, Section 4.1, Seciton 4.2 AgreenaCarbon_Project_4022_KML File
VVB assessment **Date:** 07/06/2024
PD has updated section 3.4 to address the concerns pertaining to baseline scenario. Section 3.3.4 of the validation report has also been updated with the baseline scenario assessment. As per PD section 3.4, four geographic areas has been specified in this project, defined by climatic zone linked to tillage practice to set 8 baseline scenarios. Further, the climatic zones can further be assessed per country as is done for additionality in order to ensure a geopolitical or regional assessment. Considering the project is being implemented in pan-European countries, PP has identified 8 different baseline scenarios. VVB has checked the categorisation by reviewing the agricultural management practices in the countries added in project in pre-project scenario, the vegetation type, crop cycle and geographic conditions. It was found that PP has correctly identified the baseline scenarios based on the main practice change which is tillage. In the PD, table 3-6 include sufficient details. The eligibility criteria are updated for the separate baselines and justification and demonstration of sources is further explained in Table 3-6 as per Table 4 in VM0042 V.2 Tillage being the dominant practice has been chosen as the main practice change identified in this project to be quantified is either reduced till to no till or conventional till to reduced/no till. As confirmed from section 3.4.3 of PD, Determination of baseline activities is acquired directly from farmer records on a per field basis to determine the predominant agricultural land management practice occurring in the look-back period. VVB confirmed the collection of data and its method during site visit interviews with stakeholders. PP has also updated Table 3-8 – to provide minimum specifications for ALM practices in baseline scenarios BSL1 - BSL4 and table 3-9 for BSL5-BSL8 (all the 8 categories have been considered in the baseline assessment). CAR#36 stands closed.

CAR ID	37	**Section No.**		**Date :** 18/04/2024
Description of CAR				
1. The additionality of the initial project activity instances was not demonstrated for each designated geographic area (see Finding 16 above). 2. Insufficient demonstration of barrier analysis. The identified barriers analysis has not been demonstrated against each country or stratified regions individually. 3. Insufficient demonstration of common practice: a. The PD has not provided a common practice analysis for each project activity, except tillage, proposed by the project in each country. The analysis must be consistent with the activities adopted in the initial project activity instances. b. Insufficient justification provided for 0.4 recalculation factor applied to Eurostat data for conservation tillage. c. Insufficient justification of CSI extrapolation of non-EU countries based on the evidence requirements in Section 7 of VM0042, v2.0. d. The project area was not stratified into project spatial boundaries (e.g., state or provincial level) in order to demonstrate common practice analysis as required by the methodology. e. The project description has not sufficiently demonstrated the combined adoption rate of project activities for each spatial boundary. Further, it is unclear whether each country does not have national/regional data on a combined adoption rate of cover crops, no-tillage, and mulching. 4. Section 3.5 of the PD is to be updated to address the followings: a. Demonstrate additionality of the initial project activity instances for each designated geographic area. If the additionality of the initial project activity				

instances within a particular geographic area cannot be demonstrated for the entirety of that geographic area, the geographic area must be redefined or divided such that the additionality of the instances is demonstrated.
b. Sufficiently demonstrate the barrier analysis for each geographical area or stratified regions individually. If farmers have received financial support/assistance to implement improved practices in the past (e.g., Sections 1.14.3 and 3.5.1 of the PD), the project must demonstrate that:
i. There are significant barriers that prevent the continuation of improved practices. And,
ii. The project practices go beyond the baseline practices (see Finding 16). c. Demonstrate the common practice analysis sufficiently covering issue 3 above.

Background
Common Practice: The project area must be stratified to the state or provincial level (or equivalent second-order jurisdiction) in the countries where the project is being developed. Evidence of each proposed project activity must be provided and used to calculate the common practice adoption rate (i.e., Equation 1 if stacked). Where supporting evidence is unavailable at the state/provincial level (e.g., in developing countries), aggregated data or evidence at a national or regional level may be used with justification. Further, independent expert attestations are only used where evidence is not available from any of the listed sources.
Where stratification based on geopolitical boundaries is impractical (e.g., due to lack of data), other forms of stratification, such as major soil types or cropping zones, may be used with justification. The same stratification approach and data sources must be applied across the entire project to maintain the integrity of the common practice demonstration.
Furthermore, the adoption rate must be demonstrated for each country.
The project activities can only be considered additional if the implementation of the project applies both of the project activities simultaneously. Furthermore, this also has implications of project start date, the project start must be based on the first GHG ERR that is additional, in this case, if both activities are implemented simultaneously (see Finding 6).

Project participant response	**Date :** 04/06/2024

1. Additionality section has been updated and directly connected to the baseline scenarios developed as part of the baseline combinations. All farmers that are practicing a reduction in tillage will be eligible as an initial assessment. Full update to the PD has been included on barrier analysis on a country and regional level (see section 3.4.5), and data has now been expanded to capture the organic fertilizer as well as cover crops (see section 3.4.6). Therefore, the initial project activities across 11 countries have been demonstrated to be additional. Due to our flexible and adaptable approach, suitable for intra-regional comparisons and extrapolations, the AgreenaCarbon project barrier and common practice analysis can capture future instances.
2. Barrier analysis section and content has been restructured to capture regional and country-level assessment per barrier. The country analysis is reflected further into the regional categories of Northern, Southern, Western and Eastern Europe as barriers are typically socio-economic or cultural which is connected to geopolitical groupings, as opposed to climatic grouping. Section 3.5.2 has been updated in full to reflect the barrier assessment done on the initial instances which will continuously be evaluated as future countries/markets are added.
3. The common practice assessment has also been updated.
a. Agreena has updated the CPT to include data on cover crops, residue
management, and organic ertilizer in order to assess the adoption rate per country where initial instances are located.
b. Eliminated the use of the independent assessment in favor of the raw data, yet with the understanding that the definition from the data source may not be directly applicable to the AgreenaCarbon project as reduced tillage under Agreena is more stringent.
c. Extrapolation has been included in the section on relation between countries where data is non-existent.
d. Data is not available on a Europe-wide level and therefore state, i.e. country level has been used for the assessment in the understanding that the definitions of Eurostat and other data sources are less conservative than Agreena's reduced tillage definition. A literature review has been previously conducted by Agreena in order to demonstrate that up to date practice information is not available at a regional/local

level. e. Combined data for practices is not available on a regional level but a state level, i.e. country level has been included for initial instances. Future instances will also be tested. It was determined that there are a few countries where reduced tillage is common practice and therefore farmers are required to transition to one additional practice beyond reduced tillage, at a minimum. 199 fields have been excluded from the UK and Estonia as they are solely reduced tillage fields in countries with reduced tillage as common practice. 4. Entirety of the Addtionality Section 3.5 has been updated.
Documentation provided by project participant
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 3.5
VVB assessment **Date:** 07/06/2024

CAR ID	38	**Section No.**		**Date :** 18/04/2024
Description of CAR				
1. Section 3.6 of the PD is to be updated to address the followings: a. There is no evidence that the deviation does not negatively impact the conservativeness of the quantification of ERRs. b. It is unclear which (or all) data/parameters are impacted by the methodology deviation. c. It is unclear why the project can have qualitative liming application data from the farmers. 2. Section 3.6 of the project description is to be updated to include explanation on how the deviation does not negative impact the conservativeness of the GHG ERRs quantification and clarification on the data/parameters impacted by the deviation. VCS Standard, v4.5, Section 3.20				
Project participant response				**Date :** 04/06/2024
Updates have been made to section 3.6 “Methodology Deviations” in the PD.				
Documentation provided by project participant				
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 3.6				
VVB assessment				**Date:** 07/06/2024
In the section 3.6 of the PD, PP has taken one methodology deviation for the quantification of carbon dioxide emissions from liming. As per PD, "For the carbon dioxide emissions from liming, the AgreenaCarbon Project utilizes Box 1 for both the baseline and the Project activity data ,as a methodology deviation." VVB checked the deviation as follows. As per VM0042, V2.0 section 8.2.4, the quantification in the baseline scenario under Quantification Approach 3 using Equations 9 and 10. In the project scenario, methodology provides equation 44. Through this deviation, PP has calculated the project emissions from regional data provided by countries for the National Inventory Reports submitted to the United Nations Convention on Climate Change (UNFCCC). This is because at the start of the project when VM0042 version 1.0 was valid and applicable, the lack of requirement of liming parameter data affected the data collected procedure at PP's end and therefore, PP is taking regional data instead of farmers reported data. VVB found that regional data are more conservative and does not negatively affect the ERR calculations. The calculation sheets provided for assessment have been thoroughly checked. References of the values taken in project emission calculations can be verified. VVB confirmed the appropriateness of the deviations sought for the liming parameter. CAR#38 stands closed.				

CAR ID	39	**Section No.**		**Date :** 18/04/2024
Description of CAR				
1. Section 4.1 of the project description has insufficient information on the procedures for quantifying the baseline ERRs. PP to address the followings: i) Insufficient information to allow the reader to reproduce calculations. ii) Insufficient information on the				

procedure for quantification, including explanation and justification of relevant methodological choices with respect to selection of emission factors and default values (and more if applicable). iii) Insufficient information on baseline emissions calculations from SOC: a. Section 4.1 of the PD states that the baseline scenario for each project is determined by applying a 5-year historical look-back period. However, no further details on how such data are collected, and it is unclear how the SOC is directly measured. b. It is unclear how the baseline SOC stocks and SOC stock changes measurement approach is appropriate per quantification approach 1 (e.g frequency and data collection). c. No explanation on model input used to quantify baseline scenario based on Table 6 of VM0042, v2.0. 2. Insufficient information on baseline emissions calculations from fossil fuel combustion. 3. Insufficient information on baseline emissions from liming. 4. Insufficient information on baseline N20 emissions from nitrogen-fixing species and fertilizers. Section 4.1 of the PD is to be updated to provide sufficient information of baseline emission calculation to address issues 1 – 7. VM0042 v2.0, Section 8.2 VCS Project Description Template, v4.2, Section 4.1
Project participant response **Date :** 04/06/2024
1. i. Chapter 4.1 has been updated to include all required model input to allow the reader to reproduce calculations. Furthermore, 6 supporting files have been added (including tutorials, spreadsheets with calculations and KEY tables) to support reproducing the results. 1.ii. Additional tables are added in section 4.1 in the PD with explanation and justification for the variables used. 1.iii.a. Additional documentation is provided on how 5-year historical data is collected . Direct measurements for SOC are described in the monitoring plan (section 5.3) in the PD. 1.iii.b. Updates in the section specify how external measurement sources and soil maps (SoilGrids) are utilized to initiate the model (see section 4.1.1). Direct soil samples collected within the same baseline scenario will be collected within +-5 years in accordance to VM0042 and the ERR calculations will be revised based on the direct measurements 1.iii.c. Additional information regarding model input as per Table 6 are provided in section 4.1 2. Additional information provided in section 4.1 3. Additional information provided in section 4.1 4. Additional information provided in section 4.1
Documentation provided by project participant
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 4.1, Section 5.3 Plus the additional documents from Marcos and Petros
VVB assessment **Date:** 07/06/2024
VVB has checked the PD section 4.1 and confirmed that it now includes sufficient information for the project emission calculation to address the identified issues. The calculations are reproducible. Methodological choices adopted in this project are clearly written in PD now. CAR#39 stands closed.

CAR ID	40	**Section No.**		**Date :** 18/04/2024
Description of CAR				
1. Section 4.2 of the project description does not have sufficient information on the estimated project emissions, specifically on the following: a) Insufficient information to allow the reader to reproduce the calculation. b) Insufficient information on the procedure for quantification, including explanation and justification of relevant methodological choices with respect to selection of emission factors and default values (and more if applicable). c) No explanation on model input used to quantify project scenario based on Table 8 of VM0042, v2.0. d) Insufficient information on project emissions and default values selected based on order of preference related to SOC, fossil fuels, and N2O from fertilizers and N-fixing species and liming. 2. Section 4.2 of the project description is updated to provide sufficient information for the project emission calculation to address above issues. 3. PP is to demonstrate clearly the estimated project emissions of SOC, fossil fuels, and N2O from				

fertilizers and nitrogen-fixing species and liming. It must include the calculations for all of the farms in all of the countries. VM0042, v2.0, Section 8.3 VCS Project Description Template, v4.2, Section 4.2
Project participant response **Date :** 04/06/2024
1.a. We have added 6 supporting files (including tutorials, spreadsheets with calculations and KEY tables) to support reproducing the results. 1.b. Additional tables are added in section 4.2 in the PD with explanation and justification for the variables used. 1.c. Additional information regarding model input as per Table 8 are provided in section 4.2 1.d. Additional information regarding selection of values along are provided in section 4.2 along with supporting information provided in section 4 including all the calculations for the baseline emissions, project emissions and final estimation of Emissions reduction and removals 2. Section 4.2 updated to provide sufficient information for the project emission calculations. 3. We have added 6 supporting files (including tutorials, spreadsheets with calculations and KEY tables) to support reproducing calculations for the project emissions and emission reduction and removals, as well as a spreadsheet with the calculations of all farms in all of the countries.
Documentation provided by project participant
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 4.1, Section 4.2
VVB assessment **Date:** 07/06/2024
VVB has checked the PD section 4.2 and confirmed that it now includes sufficient information for the project emission calculation to address the identified issues. 2. The calculations are reproducible. Methodological choices adopted in this project are clearly written in PD now. 3. PP has provided examples of estimated project emissions of SOC, fossil fuels, and N2O from fertilizers and nitrogen-fixing species and liming, which was found to be complete and accurate as per the requirements of Table 8 of VM0042, v2.0. The assessment of the model input is provided in the validation report section 3.3.6. 4. Section 3.3.6 of the validation report has been updated to include the assessment of ERR calculations and completeness of project emission calculations. CAR#40 stands closed.

CAR ID	41	**Section No.**		**Date :** 18/04/2024
Description of CAR				
PP to address potential leakage from diversion of biomass residues in section 4.3 of the PD.				
Project participant response				**Date :** 04/06/2024
Discussion of potential leakage from diversion of biomass residues was added in section 4.3, accounted for in ERRs estimates, and its impact on Monitoring is included in Subsection “Leakage” of Section 5.3 of the PDD. The parameter and coefficient used for the calculations will be provided in the Parameters table in the chapter 5.1 in the pD.				
Documentation provided by project participant				
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 4.3 and 5.3 Supporting documentation				
VVB assessment				**Date:** 07/06/2024
Section 4.3.4 of the PD includes the accounting for leakage from diversion of biomass residues used for energy applications in the baseline scenario. PP has calculated the leakage as per the Equation S1 in CDM Methodological Tool: Project and leakage emissions from biomass. Data inputs and outputs for calculating the leakage from the diversion of biomass residues used for energy applications in the baseline scenario has been provided in PD table 4-14. These details could be verified in the ERR sheet as well. CAR#41 stands closed.				

CAR ID	42	Section No.		Date : 18/04/2024
Description of CAR				
PP is to update section 4.4 of the PD to address the followings. The project description does not provide a complete equation of net GHG ERR emission calculation that allows a third party to replicate the calculation. a.The net GHG calculations have not been described in an appropriate manner per Section 8.5 of the methodology and do not provide calculations for all key equations to allow the reader to reproduce the annual calculations for estimated reductions or removals. b.Furthermore, no uncertainty calculations have been provided and it is unclear whether the overall net GHG ERR has been adjusted per the uncertainty calculations. c.It is unclear what values are being used within the equations and what the final output for each equation is. d.It is unclear how the project arrived at any of the values presented in Tables 4-1 and 4-2. e.It is unclear whether the buffer pool allocation is based on change in carbon stocks only.				
Project participant response				**Date :** 04/06/2024
Section 4.4 presents detailed calculation updates and explanations to allow a third party to reproduce ourERR calculations.				
Documentation provided by project participant				
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 4.4				
VVB assessment				**Date:** 07/06/2024
Section 4.4 of the PD is updated and now includes key equations, uncertainty calculation approach, values used in each equation used for calculations. Moreover, uncertainty calculations have now been clearly demonstrated in the ERR calculation sheet and the equations are now clearly provided in section 4.4.4 of the PD. CAR#42 stands closed.				

CAR ID	43	Section No.		Date : 18/04/2024
Description of CAR				
The GHG ERR sheets are to be updated to provide sufficient information regarding the baseline, project, leakage, and net GHG ERR calculations. The GHG ERR sheets do not clearly detail the following: 1. Baseline, project, leakage, uncertainty and net GHG ERR calculations. 2. Data input, reference cells where such values are calculated, and formulas. 3. How key data/parameter values have been derived and calculated from other data/parameters				
Project participant response				**Date :** 04/06/2024
Section 4.4. of the PDD has been updated with detailed calculations, and the three points delineated in the CAR have been directly updated in the ERRs calculation process. Additionally, as described in section 4 I the P.D., the quantification of baseline and project activity emissions accompanied by three calculation materials provided as annexes to display the detailed calculation process of the GHG emission reductions and removals. Each supplementary material provides data inputs and a tutorial for the calculations using R or Excel. 1. Supplementary_Material_ERRs: Tutorial for calculating emission reductions and removals and verified carbon units 2. Supplementary_Material_Leakage: Leakage calculation.xlsx 3. Supplementary_Material_Uncertainty: Tutorial for the uncertainty calculation The supplementary material is developed to provide sufficient instructions, information and data for the ERR calculations to verifiable and reproducible.				
Documentation provided by project participant				
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 4.4				
VVB assessment				**Date:** 07/06/2024
1. PP has provided the GHG ERR sheets which is now updated to provide the calculation workflow. The ERR calculation sheet provide sufficient information regarding the baseline, project, leakage, and net GHG ERR calculations.				

2. VVB verified that the ERR sheets contain all of the appropriate data input, reference cells and formulas. The VVB must ensure that all baseline, project, and net GHG ERR are calculated for all of the farms from all of the countries. CAR#43 stands closed.

CAR ID	44	**Section No.**		**Date :** 18/04/2024
Description of CAR				
1. The following values for data/parameters at validation have not been indicated: i. AR: AR value of 20% and that presented in Appendix 4 is too high-level. At minimum, country-basis AR should be provided. ii. EA: Sources and justification for data choices are too high-level. Specific sources and justification should be provided at a country-basis at minimum. iii. FFCbsl,j,i,t iv. MLimestone,bsl,l,t and Mdolomite,bsl,l,t: Unclear how application rates (t/ha) for each country were calculated by dividing the activity data by the agricultural area with the assumption that the lime CO2 emissions originated primarily from croplands. v. MSbsl,SF,i,t, Mbsl,OF,i,t and MBg,bsl,i,t vi. Pbsl,p: It is unclear why farmer records alone would not suffice for this volume and detailed information for the baseline. vii. A (project area). 2. All data/parameters for undefined activity management-related model input variables are not included and justified based on the order of preferences in Box 1 of VM0042, v2.0. 3. Section 5.1 of the project description is to be updated to address the followings: i. Provide sufficient information of the key values for data/parameters at validation. The VVB must ensure that the project description is updated to provide values for each farm in each all countries and describe the source of the data that are used for each individual country to address Issue 1 above. ii. Include data/parameters for model input variables and address Issue 2.			
Project participant response				**Date :** 04/06/2024
Following the points made in this CAR, we have updated all of the parameters as requested in section 5.1 of the PD. Please consult the tables for more detail.				
Documentation provided by project participant				
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 5.1.				
VVB assessment				**Date:** 07/06/2024
Tables in section 5.1 have been found complete and filled correctly as per the VM0042 guidelines. CAR#44 stands closed.				

CAR ID	45	**Section No.**		**Date :** 18/04/2024
Description of CAR				
1. Insufficient information regarding the key values for monitored data/parameters in the Section 5.2 of the project description. PP is to update section 5.2 to address the followings. I. ʃ(SOCbsl,l,t-1), Mwp,SF,i,t: No justification for using Option 4 ias data source. II. Pwp,p: No justification for using Option 4 as data source. III. SOCbsl,i,t, $SOCbsl,i,t-1$, SOCwp,l,t, $SOCwp,i,t-1$: It is unclear what is the frequency of the direct SOC measurement, and the frequency of modelling is for these 3 parameters. IV. fCH4soilbsl,l,t: Unclear why this parameter is included since it is not part of the project boundary. V. EFNdirect; FracGASF,l,S; FracGASM,l,S; FracLEACH,l,S; EFNleach; Ncontent,g; EFNvolat, C, Mwp,OF,l,t, MB,g,wp,l,t: No justification to use the Tier 1 value from Chapter 11, Volume 4 in IPCC (2019) is provided, as required by the methodology. VI. MBg,wp,i,t: The source of data is not in accordance with the methodology requirement. VII. M_OAwp,l,t; CCwp,l,t; p (crop product); MDD, n, n-1, tx,u, parameters are missing from data and parameters to me monitored.			
Project participant response				**Date :** 04/06/2024
Following the points made in this CAR, we have updated all the parameters as requested in section 5.2 of				

the PDD, “Data and Parameters Monitored”. Please consult the tables there present for more detail.
Documentation provided by project participant
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 5.2,
VVB assessment **Date:** 07/06/2024
Tables in section 5.2 have been found complete and filled correctly as per the VM0042 guidelines. CAR#45 stands closed.

CAR ID	46	**Section No.**		**Date :** 18/04/2024
Description of CAR				
Section 5.3 of the project description does not provide sufficient details of the monitoring plan: 1. Insufficient sampling design: a. It is unclear how the size of each stratum is defined by the project. b. It is unclear how it was concluded that 3 samples per stratum is considered enough. c. It is unclear where baseline cores will be collected. d. It is unclear how the sampling procedures is representative of all project areas. e. Unclear why the sampling of initial project activity instances in Appendix 1 only covers 94% of the project area. 2. Insufficient monitoring plan of soil disturbance (e.g., tillage activities). 3. It is unclear how residue management data is quality controlled. 4. It is unclear why liming application is not being monitored and how this approach is more conservative. 5. It is unclear why the project proponent accepts 30% of canopy cover for all the countries to monitor clearing of native ecosystems. 6. It is unclear why the project did not use the same stratification for SOC collection and monitoring for demonstration of additionality and baseline. Further, it is unclear what is the stratification for monitoring the other parameters. 7. There is no monitoring plan for model inputs parameters. Action required. 1. Section 5.3 of the project description is to be updated to address the following issues: a. Provide more information regarding the sampling design. b. Provide sufficient information on the monitoring plan for soil disturbance. c. Provides more details on how residue management data is quality controlled. d. Provide clarification on why liming application is not being monitored and how this approach is conservative. e. Clarify on how 30% canopy cover was defined for all the countries as a target to monitor clearing of native vegetation. f. Clarify whether the stratification is used for monitoring of all parameters and why the same stratification was not applied for ERR calculations and demonstration of baseline and additionality. 2. PP to Include a monitoring plan for the model input parameters in section 5.3 of the project description.			
Project participant response				**Date :** 04/06/2024
Section 5.3 of the PD has been updated to reflect the responses required here, please consult the various subsections to find our response to point 1 throughout point 4. Regarding point 2, an additional appendix hse been included to described the detailed procedure of tillage model detection via remote sensing and its application for monitoring and verification in the project Regarding Point 3, residue is quality controlled against the reported crop type and intended usage that is reported supported by a signed by the farmer attestation prior to every verification. Additional detail is provided in chapter 5.3 section Residue management. Regarding point 4, please refer to methodology deviation Chapter 3.5 in the PD., as no data is collected from the farmer. The data collected from the relevant sources are monitored for updates prior to every verification.				

Note: e) the specification of 30% canopy cover was a threshold previously established and has been updated in order to be more accurate and has now been corrected in Section 5.3.
Documentation provided by project participant
VCS-Project-Description-v4.2-Agreena-Carbon-Project-Final-Commercially Sensitive-20240429_TR1, Section 5.3.
VVB assessment **Date:** 07/06/2024
VVB has checked updated PD section 5.3 and found the following revisions complete. 1. Appendix 8: soil sampling protocol in the PD now include the description of sampling design, minimum data collection requirements of soil sample, measurement of SOC and bulk density along with statistical analysis approach adopted in this project. Appendix 9: soil sampling stratification include the complete details of how the size of each stratum is defined. In this project, VVB checked that PP has done the stratification which was checked from table 5-5 and created the homogenous area. The field classification has been done and for 1000 ha of area, more than 20 ha of area is taken as per sampling. In appendix 9 section, PP has elaborated the approach for sampling adopted that consider the wider geography of the project. Sampling design was found to be complete. 2. Monitoring plan of the soil disturbance has been provided as separate evidence Appendix 11. Standard Operating Procedure Monitoring and Accounting for Soil Disturbance in the AgreenaCarbon Project. The document provided the data inputs, complete monitoring procedure, description of tillage model and QA/QC procedures and its results. The model has been tested by VVB and QA/QC procedure was found to be complete and as per the requirement of VM0042 methodology. Data is organized within the QA/QC system with the flagging system shown in our Project Description under Section 5.3: Monitoring Plan which has also been verified. 3. Monitoring of residue management is now added in the PD section 5.3. As mentioned in the PD, Monitoring of residue is Quality Controlled in a variety of ways. For the assessment, VVB has followed the flagging system adopted in this project and given in the section 5.3 of the PD. The same flagging system and its functioning has been checked in the data provided in ERR sheet. Supporting records i.e., farmers data was also used to cross-verify and it was found that complete monitoring system for residue management. For its QA/QC procedure, VVB discussed and verified the QA/QC chart that includes residue management in figure 5-4 and figure 5-5. 4. liming application is not being monitored in the baseline and PP has sought the deviation in section 3.6 of the PD. For the project monitoring, it is clearly given in PD that the data provided from the relevant sources are monitored and will be checked from updated version prior to every verification. 5. AgreenaCarbon uses remote sensing data to check that whether agricultural fields have not been converted from native ecosystems boundaries include forested area as described in the Monitoring Chapter 5 of this PD. The monitoring check has been clarified in the sub-section 'Clearing of native ecosystems (and deforestation)' of section 5.3 in the PD. 6. VVB checked the PD section 53. which states that the stratification is based on key factors for explaining variation such as soil type, geological parent material and topography. These variables are congruous with the similarity criteria listed in Table 7 of Section 8.2 in VM0042 V.2. It was found to be justified and complete. 7. PP has now added in the PD section 5.3 that model inputs related to ALM practices will be monitored and recorded for each project year t. CAR#46 stands closed.

CAR ID	47	**Section No.**		**Date :** 18/04/2024
Description of CAR				
PP has only submitted a single non-permanence risk report (NPRR). It is unclear how this can be considered sufficient (e.g. natural risks assessment) given, that the project is located across eleven different countries.				
Project participant response				**Date :** 04/06/2024
The NPRT has been discussed with the Verra technical team, and it was decided that 1 NPRT will be sufficient given the significant changes in the document. The following assessment has been made in order to justify the use of one NPRT as well as to supplement that the different risk assessments require				

different geographic analyses. The following table is presented as justification at the start of the report, and additional details have been included directly into the report and the relevant sections:

Risk Category	Justification of Geographical Risk Profile
Internal Risks	a. Supplemental information related to management across the 11 geographies in which AgreenaCarbon currently operates. b. The headquarters, which are based in Copenhagen, presented as the basis of the management of the project as a whole.
External Risks	a. Country specific or geopolitical groupings created for the analysis of land tenure and community engagement. b. Political risks contain full risk analysis based on all countries of initial instances.
Natural risks	a. Analysis based on climatic zones. Risk assessment is done individually per climatic zone and the highest risk area is taken for conservativeness of the buffer.

Documentation provided by project participant	
AgreenaCarbon_Risk Tool_PRR_05172024_Clean	
VVB assessment	**Date:** 07/06/2024
Revised NPR report has been checked and it was found that PP has added sufficient information have been added for each risk rating pertaining to each country added in this project. An updated assessment is provided in the 3.4 of the validation report. CAR#47 stands closed.	

CAR ID	48	**Section No.**		**Date :** 18/04/2024
Description of CAR				
In the MVR, the project does not justify the lack of data that would be required to achieve the 90% confidence coverage, especially from the UK, as it is one of the countries where soil science publications/records are extensive.				
Project participant response				**Date :** 04/06/2024
The IME has decided to reduce the requirement, and the IME has stipulated this in the report that the requirement would be lowered to 85%.				
Documentation provided by project participant				
1972.N.23_IME_Evaluation_Agreeba_VMD0053_3rd_review_230901				
VVB assessment				**Date:** 07/06/2024
VVB has checked the IME Evaluation report and confirmed that the requirement would be lowered to 85%. Table 6 Overview thirty PC/CZ/CFG combinations of the IME Evaluation report has been reviewed and found that the model is meeting the requirements of VMD0053. CAR#48 stands closed.				

CAR ID	49	**Section no.**		**Date :** 14/08/2024
Description of CAR				
PP is to update Sections 1.1 and 4 of the PD to clearly describe the ex-ante estimations for the validated initial PAIs.				

Background Project area is defined as the geographical area where project activities are implemented. Since the eligibility criteria (e.g., baseline, additionality and implementation of activities) are not yet proven for future PAIs, ex-ante estimates for these areas will need to be validated once they are included in the project. Although presenting ex-ante values for future areas is acceptable for the purposes of the project's planned expansion, the project must clearly present the ERRs for the validated areas (PAIs). 1. Sections 1.3 and 4 (Tables 1-3 and 4-20) of the PD are to be updated to clearly describe the ex-ante estimations for the validated initial PAIs.
Project participant response **Date :** 18/09/2024
Section 1.1 and 4 (Tables 1-3 and 4-21) have been adjusted to only provide ex-ante estimation of validated initial PAIs and are now in synch. The estimation will not include forecasts or estimation of expected increase in the project portfolio, with the inclusion of future PAIs (table presented without forecasted 10% increase of portfolio).
Documentation provided by project participant
VVB assessment **Date:** 19/09/2024
Sections 1.1 and 4 of the PD are now updated to clearly describe the ex-ante estimations for the validated initial PAIs.CAR#49 stands closed.

CAR ID	50	**Section no.**		**Date :** 14/08/2024
Description of CAR				
Sections 1.1.1 and 3.4.2 of the PD are to be updated to clarify how many farmers and fields are involved in the initial activity instances. a. The total number of fields and the number of hectares that correspond to the initial PAIs must be clarified and consistent across all sections of the PD. b. All the fields listed in the PD must be part of the initial PAIs and must have been validated by the VVB; otherwise, they must be removed and added in a subsequent verification if necessary.				
Project participant response				**Date :** 18/09/2024
a. Total number of validated PAI boundaries and farmers are now reported in the PD in Sections 1.1.1 and 3.4.2. i. The number of PAIs and hectares are now presented in Tables 1-2, and Table 3-7 has been removed to improve clarity across the PD. ii. In addition, throughout the document, and in response to this Finding, taxonomy has been revised for 'field' to be replaced by PAI to improve clarity b. Language correction from "will be validated" to "are validated" and specified as initial instances. All PAIs in the PD have been validated and checked in line with requirements.				
Documentation provided by project participant				
VVB assessment				**Date:** 19/09/2024
1. Sections 1.1.1 and 3.4.2 of the PD has been updated with the details of farmers and fields are involved in the initial activity instances. Table 1-2 added in the PD provide list of country/ geographic area, no. of PAIs, no. of hectares and no. of farmers. The details have been found consistent in the PD and ERR spreadsheet. 2. The contracts for farmers across the AgreenaCarbon project have been provided by PP for cross-verification while under validation process which has been thoroughly checked by VVB. CAR#50 stands closed.				

CAR ID	51	**Section no.**		**Date :** 14/08/2024
Description of CAR				
Section 1.8 of PD is to be updated to justify the project start date against the definition in Section 3.8 of				

the *VCS Standard, v4.5*. In addition to that, Table 1-7 was updated to align the years and total number of years with the selected length of the credit period. However, this finding cannot be closed.

Issue

1. It is unclear how the "median" method of determining the start date is conservative and accurate.
2. It is unclear how the difference in the start of project activities between fields is reflected in the ERRs.

Project participant response	**Date :** 18/09/2024

1. The accuracy and conservativeness of the selected Project start date (i.e., 15th September 2021) was confirmed by an NDVI assessment made on a subset of fields sampled from 81 of the first farmers to join the Agreena Project. The compared difference in vegetation cover between autumn 2020 and 2021 was calculated. The NDVI assessment detected a range of mean monthly values in which the sampled fields growing cover crop in summer/autumn 2021 showcased a significant difference in vegetation cover (the hallmark of a growing cover crop being present), of which September 2021 was the earliest. However, if a change in NDVI becomes visible in September, it means that the fields were prepared and cover crops planted beforehand, possibly in August. Therefore, the 15th September 2021 is both an accurate and conservative start date for the AgreenaCarbon Project at a grouped-level. The conservativeness and accuracy of this approach is further justified by the fact that cover crop implementation is rewarded according to whether or not farmers planted them, not according to the length of time they have been conducting this practice. If a farmer stipulates winter cover crops as one of their Project activities, this is verified for every single expected month of implementation to prove that this is the case. Input has been provided into Section 1.8, including a figure to demonstrate the harvest season, and in more detail in Appendix 7.

2. Due to the agricultural nature of the AgreenaCarbon Project, the difference in the start of Project activities between fields does not affect the ERRs generated in each field. Mainly, because of the fact ERRs are calculated at a PAI-level using baseline schedules of activities that represent pre-project activities for that field built from farmers attesting to data also used to confirm their Practice Activity or not. Farmers would be eventually awarded an amount of VCUs equivalent to their personal, individual ERRs achieved.

Documentation provided by project participant

Appendix 7

VVB assessment	**Date:** 19/09/2024

VVB has confirmed the accuracy and conservativeness of the selected Project start date (i.e., 15th September 2021) and the approach of using NDVI analysis for the start date is as follows.
The method of start date identification used by PP is NDVI analysis. VVB checked the NDVI satellite data within Agreena's cover crop detection model. The measurement of vegetation coverage, a critical aspect of the project's objectives, is derived from NDVI values obtained from cloud-free imagery. These project activities commenced in 2021, aligning with the initiation of harvest activities, particularly the planting of winter cover crops. This timing coincided with the signing of the initial contract in July 2021. It is to be reiterated that VVB checked the filed ids provided in appendix 10. The procedure mentioned in PD appendix 10 has also been checked and found complete. VVB confirmed that PP has correctly identified that start date of the project. VVB has accepted this approach as the independent desk review confirmed the appropriateness of this application. Various studies, one of them is quoted here. "NDVI can also be used in precision agriculture, which is the use of technology to optimize crop management decisions. NDVI values can be used to identify variations in crop growth and health, and to target specific management practices, such as fertilization and irrigation, to areas of the field that need it most. This can lead to more efficient use of resources and can improve crop yields and quality." /89/ Research papers /90//91/ also confirmed that "NDVI holds good performance to classify vegetation over TDVI and SAVI with respect to overall accuracy". Considering the project activity and its wide extend to multiple country farmers, the approach of using NDVI was found appropriate.

CAR#51 stands closed.

CAR ID	52	Section no.		Date : 14/08/2024
Description of CAR				
Section 3.4 of the PD is to be updated to include information on baseline scenario by addressing following issues. <u>Issue</u> 1. In Tables 3-8 and 3-9 it is unclear: a. Whether the selection of wheat as crop type in the baseline (i.e., BSL1-BSL4) comes from farming consultation or from FAOSTAT (2023). There is contradictory information between the text and Footnote #99. b. Whether the definition of synthetic fertilizers (quantitative information) for BLS1-BSL4 is originated from farming consultation. 1. It is still unclear how selecting “dominant practices” for the historical baseline period in each country part of the project area is conservative and follows the methodology (e.g., the guidance in Footnote 4 in VM0042). 2. In Section 3.5.1 of the PD, it is still unclear which of the project farmers receive CAP payments and how GAEC requirements are considered as part of the baseline analysis. Specifically, insufficient information is provided on the baseline tillage management/reduction, soil cover/crop residues/cover crops so that they will be accounted for in baseline emission quantification. 3. The description of the baseline scenario is incomplete, as not all the pre-project activities listed in Table 1-8 are described in detail under the various scenarios in Section 3.4.2 of the PD.				
Project participant response				**Date :** 18/09/2024
1. Baseline Scenarios were revised, in response to PRR 16, to clarify how Baseline Schedules of Activities are created for each PAI to represent pre-project ALM practices, following principles of conservativeness and data requirements described in Box 1 of VM0042 v2.0. These response revisions are primarily reflected in section 1.11, Section 3.4, Section 4.1, and a new Appendix 10. Tables 3-8 and 3-9 have been merged into one Table (Table 3-4) and reformatted to address this Finding and more clearly identify sources of data used to meet VM0042 v 2.0 Table 4 specifications for ALM practices in the baseline scenario a. Wheat is no longer the crop type for all baselines. Instead farmer attested data are used or, if unavailable, a regional default obtained from FAO. Please see the description and justification of the crop type variable in table 3-4 for further information. b. The origin of quantitative information for synthetic fertilizers was clarified in Table 3-4, please see explanation and justification in the table for details. 2. Baseline Scenarios were revised to address this Finding. Section 3.4 Baseline Scenario has been revised in order to clarify and align with the methodology, including Footnote 4 in VM0042 v2.0. In the revised approach, for a 5-year historic look-back period, when possible attested farmer data are used to create a schedule of baseline activities for each PAI that follows the pattern of pre-project ALM practices. In the case of missing data, regional average values are used that meet the item 4 requirements of Box 1 in VM0042. 3. The Project assumes all farmers receive the basic income support for CAP and therefore must follow GAEC requirements. Section 3.5.1.1 and Tables 3-6 and 3-7 have been included to explain and clarify the CAP payments rules under GAEC and each of the 7 EU countries, as well as interpretation of GAEC in comparison with the Project Activities. The impact of GAEC requirements are accounted for in two ways. First, any widespread adoption of GAECs that are related to Practice Activities will be assessed via the common practice assessment as described in 3.5.3. In other words, anywhere GAEC has already contributed to a Practice Activity becoming common, that Practice Activity will not be eligible (per VM0042 v2.0			

condition 1) to qualify as additional (per VM0042 v2.0 Step 3 Common Practice). Second, even if GAEC has not contributed to a Practice Activity becoming common in a region, it is still accounted within individual PAIs; any ALM practices already adopted for GAEC that are associated with Project Activities would be reflected in the data collected from a farmer for the 5-year historic look-back period of the PAI, as summarized in section 1.11, and detailed in Section 3.4 and in Table 3-4. Specifically tillage management, cover crop and residues are all included in both cases.

4. Baseline scenarios were revised, addressing these concerns. To present the revised approach, Table 1-8 was reordered with Table 1-9, and both tables modified to clarify connection to VM0042 v.2.0 Applicability 1 (Table 1-8) and the collection of historical look-back period data (Table 1-9) for each Project Activity listed in Table 1-1. Revisions to Section 3.4 then describe how these data are used to generate Baseline Schedules of Activities for each PAI that represent pre-project ALM practices, following principles of conservativeness and data requirements described in Box 1 of VM0042 v2.0.

Documentation provided by project participant

Section 1.11, Section 3.4, Section 4.1, Section 4.2, and a new Appendix 10

VVB assessment	**Date:** 19/09/2024

CAR#52 stands closed as the baseline scenario has now been clearly defined in the PD section 3.4.2. The assessment of baseline scenario has been provided in the section 3.3.4 of the validation report.

CAR ID	53	**Section no.**		**Date :** 14/08/2024

Description of CAR

Section 3.5 of the PD is to be updated to clearly demonstrate the steps and results of the detailed steps of additionality assessment for each geographic area applied to the project.

Issue

1. It is still unclear how the project activities go beyond the baseline practices for farms implementing GAEC requirements (see also Finding 16).
2. Details of common practice calculation are not provided. It is unclear how the projects arrived at the results given in Tables 3-12 and 3-13.

Project participant response	**Date :** 18/09/2024

1. See also Project participant response 3 under CAR ID 04, in response to Finding 16 for how GAEC requirements are accounted for in baseline quantification. In addition, GAEC practices have been included in the PD into Section 3.5 on a per country basis in order to provide evidence that the Agreena practice definitions do not align with the GAECs and go above and beyond what is required. Reiteration of the voluntary nature of the requirementsunder the CAP such that there is no mandate to conduct these practices. Even under the assumption of all farmers receiving subsidies in the project, although it is not the case, there would be no overlap with the GAEC practices per country as they do not equate to the same requirements as often are only required on certain types of fields. If farmers are practicing certain practices prior to Agreena project start, as described in the response to CAR ID 04, this is captured in the baseline under the historic look-back period assessment of practices in the 5 years before entry.
2. Calculation is provided in an additional excel sheet in order to provide additional proof that the approach for common practice follows Equation 1 but on a country-level as opposed to on a per hectare level. The equation for one country is demonstrated and spelled out as well as included in the PD in Section 3.5.3 Common Practice Test.

Documentation provided by project participant

Supplementary material of Excel with calculations for common practice test

VVB assessment	**Date:** 19/09/2024

CAR#53 stands closed as the explanation of additionality and calculation of common practice test has been provided as separate calculation sheet.

CAR ID	54	Section no.		Date : 14/08/2024

Description of CAR

PP is to address following issues in GHG ERRs spreadsheets

Issue

The GHG ERRs spreadsheets do not clearly detail data input and formulas. Specifically, it is unclear:

a. How baseline emissions values were obtained.
b. How project emissions values were obtained.
c. How key data/parameter values have been derived and calculated from other data/parameters.
d. Whether “actual” means “project scenario.”
e. What is leakage before scaling and scale_new.

Please ensure that the GHG ERR sheets are updated to provide sufficient information on how the values obtained for the baseline, project, leakage, and net GHG ERRs were calculated.

a. The ERRs spreadsheets must include all parameters and assumptions showing clear calculations (i.e., data input, reference cells and formulas) of all carbon pools and emissions sources claimed in the baseline and project scenarios.
b. The ERRs spreadsheet, which will be publicly available in the Verra Registry, must include the calculations for all GHG sources and pools (e.g., including fossil fuel ERRs). Unless the supplementary information is commercially sensitive, in which case it must be clearly specified in Section 1.18.2 of the PD.
c. Leakage ERRs must be detailed by the type of leakage (e.g., leakage from manure application and leakage from diversion of biomass residues used for energy applications).

Project participant response | **Date :** 18/09/2024

ERR spreadsheets are going to be updated to include clear calculations that can be traced back throughout the columns that come from the RothC reduction output. Process-based model outputs like those for baseline and actuals (project activity) cannot be directly reproduced into excel, therefore the final outputs of VCUs, buffer, total reductions and total removals will be able to be traced through the excel.

a. The GHG ERR sheets are updated to provide sufficient information on how the values obtained for the baseline, project, leakage, and net GHG ERRs were calculated.

The ERRs spreadsheets include all parameters and assumptions showing clear calculations (i.e., data input, reference cells and formulas) of all carbon pools and emissions sources claimed in the baseline and project scenarios.

b. The ERRs spreadsheet will include the calculations for all GHG sources and pools (e.g., including fossil fuel ERRs).

i. The ERR spreadsheet is commercially sensitive,and has now been clearly specified in Section 1.18.2 of the PD.

c. Leakage ERRs are now detailed by the type of leakage (e.g., leakage from manure application and leakage from diversion of biomass residues used for energy applications) in the GHG ERR document which now contains information regarding where the leakage origins from, i.e manure or residue.

i. Residue from leakage is indicated as 0 in the ERR sheet due to the fact that it is calculated as part of verification after actuals are collected.

Documentation provided by project participant

VVB assessment | **Date:** 19/09/2024

The validated and submitted ERR spreadsheet provides sufficient information of calculation

approach and values input for baseline, project, leakage, and net GHG ERRs calculations. The ERRs spreadsheets includes all parameters and assumptions showing clear calculations (i.e., data input, reference cells and formulas) of all carbon pools and emissions sources claimed in the baseline and project scenarios. Leakage calculation has also been updated in the submitted ERR spreadsheet. The submitted filed for review are PD, VR, ERR spreadsheet. Commercial sensitive information is supplementary material which has been reviewed and included in the assessment. The files name are Supplementary material 2 - RothC Supplementary material 3 - IPCC Supplementary material 4 - Leakage Supplementary material 5 – uncertainty CAR#54 stands closed.

CAR ID	55	**Section no.**		**Date :** 14/08/2024
Description of CAR				
Section 5.3 of PD is to be updated to include more information about monitoring plan. <u>Issue</u> 1. It is still unclear how the sample size per baseline type was determined. 2. It is unclear whether fields receiving organic amendment treatment are monitored in terms of SOC stock changes, since Table 1 of Appendix 6 ~~8~~ of the PD states “Avoidance of fields receiving organic amendments.” <u>Action Required</u> 1. Please ensure that the method for determining the sample size per baseline is described in Section 5.3 or Appendix 6 ~~8~~ of the PD. The VVB must assess the method in the VR as needed. 2. Section 5.3 of the project description is to be updated to describe how fields receiving organic amendments are monitored in terms of SOC stock changes. The VVB must ensure that the project follows the specific requirements of Section 9.3 of VM0042, v4.2.				
Project participant response				**Date :** 18/09/2024
1. To address finding CAR ID, a paragraph has been included in the PD Section 5.3.2 (Soil Sampling Plan) to clarify the sample size determination across all PAIs representing baseline scenarios. Appendix 8 is now Appendix 6 due to document updates. PAIs are randomly selected within each strata for soil sampling. All strata will have the minimum required 3-5 PAIs selected for soil sampling, or will have all PAIs sampled where strata contain fewer than the minimum required. After all strata have had the minimum number of samples drawn, a minimum detectable difference (MDD) analysis becomes possible, and will be performed to guide subsequent sampling efforts where prudent. The MDD analysis will use the initial soil sampling results to estimate within strata SOC stock variation, a range of plausible SOC change rates for MDD (as a sensitivity analysis), and the formula provided in Equation (3) of Section 8.2.1.3 of VM0042 v2.0. Strata are project-specific at this, project-wide level; strata area and soil sampling points within them and will be reported at verification to comply with Section 8.2.1.2. of VM0042 v2.0. 2. Agreenas soil sampling protocol is adhering to VM0042 Section 8.2.1.1 (p. 26): "Where organic amendments are applied, projects should delay sampling or re-sampling to the latest time possible after the previous application and the shortest time possible before the next application." This is not to say we are avoiding fields receiving organic amendments but to clarify we will not be soil sampling in fields that have received organic amendments until at least 3 months after application. To address				

finding CAR, Agreena has modified the text in Appendix6 to: *"Where organic amendments are applied, sampling and re-sampling of soil will be delayed until the latest time possible the latest time possible after the previous application and the shortest time possible before the next application"*
Documentation provided by project participant
VVB assessment **Date:** 19/09/2024
1. PP has clarified in the PD section 5.3.2 that the soil sampling has been done randomly in the first PAI. The stratification plan described in the PD has been checked and it was found that the monitoring plan is complete and provide required details as per the VMM0042 methodology requirements. Comment stands closed. 2. Since, PP has confirmed in the PD that "Agreena is not avoiding sampling of fields receiving organic amendments, but Agreena will not be soil sampling in fields that have received organic amendments until at least 3 months after application.", no further clarification is required. Comment stands closed. CAR#55 stands closed.

CAR ID	56	**Section no.**		**Date :** 14/08/2024
Description of CAR				
1. It is unclear whether the stakeholders consulted are representative of all the groups identified.				
Project participant response				**Date :** 18/09/2024
To address this finding, section 2.1.4 'Stakeholder Engagement and Consultation' was expanded to include an explicit list of the salient stakeholder groups with which Agreena interacted throughout the Project development, also providing 3+ examples of representatives engaged per stakeholder group. The following content is included in the PD in section 2.1.4: ● **Farmers and their representatives, Agricultural Cooperatives and Associations:** Private, individual farmers in relevant markets; Danish Agro; Fram Farmers; AgroBaltic; Romanian Farmers' Club; LAPAR (League of Associations of Agricultural Producers from Romania); UNCSV (Union of Agricultural Cooperatives from the Vegetal Sector); Forumul APPR (Forum of Professional Farmers and Processors in Romania); AGRYA (Young Farmers Association); European Carbon Farmers; the Danish Association for Reduced Tillage (FRDK). ● **Agri-food sector Companies** (including agricultural supply chain actors and farm advisory services) **and Trade Organisations:** Agravi; Edaphos; Severn Trent; Savills; AgroIntel; IPSO Agriculture; Proteh Agro; Top Farms; Hankjja Oy; KITE; Agricon; Axial; KPMG EU Assurance; Agraria Nord; Fruitweb; Deloitte. ● **Technical, scientific, and policy experts** (including agronomists, carbon market, soil science and conservation agriculture experts): Dr Pandi Zdruli; Mr Moritz Von Unger; Mr Zsolt Lengyel; Dr Kovacs Attila; Mr Oleksander Dubets; Mr Hristo Banov; Mr Allen Scobie. ● **Research organisations and Academic institutions:** Agricultural Academia of Romania; University of Agricultural and Life Sciences (MATE); the Hungarian Research Institute of Organic Agriculture (ÖMKI); Institute of Rural and Agricultural Development (Polish Academy of Science). ● **Governmental institutions' representatives and policy-makers:** Ministry of Foreign Affairs of Denmark; Denmark's Trade Council; Vice Chair of the Romanian Agricultural Committee; Ministry of Agriculture of Poland ● **NGOs and Foundations:** Clubul Fermierilor Romani; Fundacja Terra Nostra; Nadace Partnerstvi (Czech Environmental Partnership Foundation.				
Documentation provided by project participant				
Section 2.1.4 of the Project Development document.				
VVB assessment				**Date:** 19/09/2024
The updates made in the section 2.2.4 of the PD has been reviewed by VVB. The section "stakeholder				

engagement and consultation" provided the information of stakeholder groups identified and maintained in the project. These stakeholder groups are farmers, agricultural cooperatives and associations; agricultural industry actors and trade associations from the agri-food sector; technical, scientific and policy experts; research and academic bodies; and NGOs. A thorough description of each stakeholder category has been provided in the PD. During the initial assessment of project, VVB has reviewed the stakeholder consultation records and identified the dates as mentioned in the PD. It was identified that the PP has conducted stakeholder consultations as per the VCS requirements. The VCS Standard, v4.5, section 3.18.2 (1-7) has been met. The representative from each stakeholder group has been clearly identified and all project related details have been well discussed and informed with stakeholders and as confirmed through the submitted document. Stakeholder Engagement and Risk Analysis document /40/ and other documents /24//25//26//27//28//34/ provided VVB assurance of the procedure followed on site. VVB cross-check the stakeholder engagement procedure with PP during site visit discussion and observations. CAR#56 stands closed.

CAR ID	57	**Section no.**		**Date :** 14/08/2024
Description of CAR				
While the political risk score is different for each of the 11 countries, the project does not select the most conservative score, nor does it divide the risk assessment by geographic area as required by the Standard.				
Project participant response				**Date :** 18/09/2024
Agreena's approach to risk assessment follows the principles of conservativeness and of evaluating the Project at the grouped-level. The region with the highest risk score is identified and used as the benchmark for all other countries included in the Project. For the political risk dimension, Ukraine has the highest risk rating, reflecting the ongoing war with Russia. However, the governance issues fostered by being in an active armed conflict cannot be compared to the political realities of the other pan-European countries in which the Project takes place. Therefore, to ensure representativeness of the political risk assessment while maintaining conservativeness, Agreena selected Moldova's mean governance score, the second lowest after Ukraine, as the benchmark for the political risk. This approach was justified by qualitative and quantitative evidence of the similarities of Ukraine and Moldova politico-institutional characteristics and governance challenges. Statistical comparisons of Worldwide Governance Indicators (WGIs) values in the reference period 2017 - 2021 suggested that, except for the dimension of Political Stability and Absence of Violence/Terrorism, Moldova and Ukraine governance dimensions are not significantly different.. Please refer to the Rish Tool for further details.				
Documentation provided by project participant				
Section 3.2 'Political Risk' of the AFOLU non-permanence risk tool report.				
VVB assessment				**Date:** 19/09/2024
The approach followed by PP for selecting the geographic area – Moldova for the governance risk rating is considered conservative. A thorough assessment has been provided in section 3.4 of the validation report. CAR#57 stands closed.				

CAR ID	58	**Section no.**		**Date :** 05/12/2024
Description of CAR				
Sections 1.1 and 1.10 of the PD do not provide tables of estimated GHG ERR based on calendar year. Year 2021 is missing and 2041 seems to account for the full calendar year, even though the crediting period ends on 14 September 2041. PP is to update the PD.				
Project participant response				**Date :** 09/12/2024
Sections 1.1 (Table 1-3) and 1.10 (Table 1-7) of the PD have been updated to reflect the calendar years and the ranges dependent on the project start date of September 15, 2021. The ERRs and hectares are also updated to reflect the timeframe.				

Documentation provided by project participant	
- VCS PD 4022 09DEC22024_AgreenaCarbon_PRR R3_Clean; Sections 1.1 and 1.10	
VVB assessment	**Date:** 17/12/2024
The latest version of PD includes GHG ERR based on calendar year. VVB has checked the PD section 1.1 and the ERR are correctly reported in Table 1-3. Estimated annual emission reductions and removals (ERRs) and hectares under management. In the section 1.10, Table 1-7. Estimated GHG emission reductions and removals across the 20-year crediting period also been updated with GHG ERR value as per calendar year. CAR#58 stands closed.	

CAR ID	59	**Section no.**		**Date :** 05/12/2024
Description of CAR				

Minimum specifications for ALM practices in the baseline scenario are incomplete. Consequently, eligibility criteria for the inclusion of new instances are also incomplete. PP is to address the followings.

Issue

In Table 3-4 of the PD, the minimum specifications for ALM practices in the baseline scenario are incomplete. For several ALM practices, instead of providing specifications, the project presents the method for obtaining the data in later phases of the project:

a. *Crop planting and harvesting:*

   i. There are no qualitative specifications of crop type(s).

   ii. There are no quantitative specifications of (1) date(s) planted; (2) date(s) harvested/terminated; (3) crop yield

b. *Fertilizer application:*

   i. It is not specified whether manure/compost/synthetic N fertilizer is applied in all the PAIs

   ii. There are no quantitative specifications of application rates of the different fertilizer types across PAIs (i.e., manure and compost, as there is a specification for synthetic N fertilizer)

c. *Tillage:*

   i. There are no qualitative specifications of tillage type(s)

   ii. There are no quantitative specifications of depth of tillage

d. For residue management:

   i. There are no qualitative specifications of the type(s) of management (i.e., removed or mulched across PAIs)

   ii. The project assumes that 100% of the crop residue removed without evidence/justification

In Section 1.4.1 of the PD, eligibility criteria for the inclusion of new instances lack of detail on the minimum specifications of ALM practices in the baseline.

Project participant response	**Date :** 09/12/2024

1. Data has been included in the PD in Table 3-4 in the column “Value Applied” to reflect the data representing the initial project instances for which the Project has submitted ERR sheets for. Table 3-4 has been updated according to the identified Issues raised in point 1a-1d. Each ALM practice has been updated to refer to geographic area (country) and demonstration in the initial PAIs.

    a. *Crop planting and harvesting:*

        i. Qualitative specifications of the type of primary and intermediate crops has been included in the Table 3-4 in the format of crop functional groups. (i.e. CFG description and additional breakdown of CFGs across each geographic area (country) and represented in initial PAIs). The Crop Functional Groups (CFGs) in the project were defined using the criteria presented in VMD0053 page 13 Topic 1, which establishes that crops in the project domain can be “grouped into functional groups across crops sharing unique combinations of the following attributes”.

            1. N fixation (Y/N);

            2. Annual/perennial (A/P) (defined in accordance with the NRCS Conservation Compliance categorization of crops2);

            3. Photosynthetic pathway (C3/C4/CAM);

            4. Growth form (tree/shrub/herbaceous) (trees and shrubs have woody plant growth, versus herbaceous species that do not grow woody plant material);

            5. Flooded/not flooded.

        iii. Using the criteria mentioned above, the crop species that are found within the project's initial instances were categorised into seven CFGs based on shared characteristics.

        iv. Quantitative specifications of the crop (1) date(s) planted; (2) date(s) harvested/terminated; (3) crop yield has been included in the Table 3-4 (i.e.conventional; reduced or no tillage across each geographic area (country) and represented in initial PAIs)

    b. *Fertilizer application:*

        i. Qualitative specifications of the type of manure/compost/synthetic N has been included in the Table 3-4 (i.e.conventional; reduced or no tillage across each geographic area (country) and represented in initial PAIs)

        ii. Quantitative specifications of the application rates of manure/compost/synthetic N has been included in the Table 3-4 (i.e. N application rates across each geographic area (country) and represented in initial PAIs)

    e. Tillage:

        i. Qualitative specifications of the type of tillage has been included in the Table

3-4 (i.e. conventional; reduced or no tillage across each geographic area (country) and represented in initial PAIs)

ii. Quantitative specifications of the depth of tillage has been included in the Table 3-4 (i.e.conventional (>10cm); reduced (<= 10cm) or no tillage (0 cm) across each geographic area (country) and represented in initial PAIs)

f. For residue management:

i. Qualitative specifications of the type of management has been included in the Table 3-4 (i.e. removed or mulched across each geographic area (country) and represented in initial PAIs)

ii. This value has been amended to 75% based on the recent publication synthesising crop residue production in the EU region[3]. The authors describe the technical potential of crop residues as the amount of crop residue that can be collected from a field stating: "that up to 75% of residues could be harvested by existing machines due to current equipment harvesting limitations". This value range refers to both the harvest index (% yield to aboveground biomass) and the straw recovery. Based on the relevant references[4,5,6,7], *ca.* three quarters of the crop residue produced could be recovered from a field which is at the upper end of the range cited by Scarlat et al. (2019)[1].

2. In Section 1.4.1 of the PD, eligibility criteria for the inclusion of new instances includes additional detail and on the minimum specifications of ALM practices in the baseline as demonstrated in Table 3-4.

[3] Scarlat, N., Fahl, F., Lugato, E., Monforti-Ferrario, F., & Dallemand, J. F. (2019). Integrated and spatially explicit assessment of sustainable crop residues potential in Europe. Biomass and Bioenergy, 122, 257-269.

[4] Boyden, A., Hill, L., Leduc, P., Wassermann, J. (2001). Field Tests to Correlate Biomass, Combine Yield and Recoverable Straw. Humboldt, Canada: Saskatchewan Agriculture & Food, Agriculture Development Fund.

[5] Stumborg, M., Townley-Smith, L. (2004) Agricultural Biomass Resources in Canada, ASAE, St. Joseph, MI, https://doi.org/10.13031/2013.17048.

[6] Zając, T., Oleksy, A., Stokłosa, A., Klimek-Kopyra, A., Macuda, J. (2013) Vertical distribution of dry mass in cereals straw and its loss during harvesting, *Int. Agrophys.* 27, 89–95, https://doi.org/10.2478/v10247-012-0072-0.

[7] Ingwersen, J., Poyda, A., Kremer, P., & Streck, T. (2024). Harvest residues: A relevant term in the carbon balance of croplands?. Agricultural and Forest Meteorology, 349, 109935.

Documentation provided by project participant	
- VCS PD 4022 09DEC22024_AgreenaCarbon_PRR R3_Clean; Sections 1.4.1, 3.4.1, Appendix 10	
VVB assessment	**Date:** 17/12/2024
VVB assessed that the baseline scenario for each Geographic Area is determined by any PAI and the specific ALM specifications and the geographic area has been checked in PD section 3.4.1 and Table 3-4 Minimum specifications for ALM practices and data collection for the baseline schedule of activities for each PAI. country level geographic area has been the basis of demonstration of information in the table. the crop planting and harvesting category has now included the crop functional type. For the assessment, VVB has cross-checked the information and its appropriateness from the submitted ERR spreadsheet as the spreadsheet consists information of all variables listed in the PD. Further, the assessment of correctness of data added in the PD has been performed by revisiting the farmers attestation wherever it has been used and checking the crop functional type and its data from the site visit sample record as well. VVB ensured the correctness of data by randomly identifying one country, at first, and follows the value applied for each ALM practice. Similarly, the data has been checked in the ERR spreadsheet for all the countries. VVB provides reasonable level of assurance for the demonstration of baseline scenario. The assessment has been updated in VR section 3.3.4. CAR#59 stands closed.	

CAR ID	60	**Section no.**		**Date :** 05/12/2024
Description of CAR				
PP is to address the following inconsistencies in the ERRs workbooks <u>Issue</u> 1. The final uncertainty deduction is inconsistent in the PD between Table 4-17 (23.97%) and the text in Section 4.4.4 (14.53%). 2. Values in Table 4-19 are inconsistent with values in tab “ERR_2022” of “AgreenaCarbon VCS PD_4022_29OCT2024_ERRs_2022_PRR R2.”				
Project participant response				**Date :** 09/12/2024
1. Uncertainty value has been updated in the PD throughout. The new uncertainty value of 31.35% is filled into Table 4-17 as well as Section 4.4.4. 2. The uncertainty parameter has now been directly linked with the ERRs and will update automatically if any changes are made to either the project’s average removal or the uncertainty calculation so that the ERRs are always consistent with the requirements laid out in VM0042.				
Documentation provided by project participant				
- VCS PD 4022 09DEC22024_AgreenaCarbon_PRR R3_Clean; Section 4.4.4				
VVB assessment				**Date:** 17/12/2024
Sections 4.4.4 and 4.4.6 of the PD are updated by PP to correctly and consistently report the value of uncertainty deduction and ERR value respectively. The uncertainty value is 31.35% and is consistently reported in PD Table 4-17. Data inputs and outputs for calculating the uncertainty deduction. Table 4-19. Data inputs and outputs for calculating verified carbon units for the sample unit i = PAI ID 7627 has been updated with ERR value. CAR#60 stands closed.				

CAR ID	61	Section no.		Date : 05/12/2024

Description of CAR

Issue

The project used liming data (*MLimestone* and *MDolomite*) from Romania for Moldova due to the lack of local data. The justification given is that both countries are similar in size, geography, and language. However, there is no information on the conservativeness of this approach, and how these similarity factors are relevant for limestone and dolomite application.

Action Required

1. PP is to demonstrates the conservativeness of the values used for *MLimestone* and *MDolomite* for Moldova. The project must:

    a. Provide a detailed explanation of why there is no local data available for Moldova.

    b. Explain the rationale for using data from Romania, ensuring it is based on sound scientific principles.

    c. Demonstrate that the use of Romanian data is conservative for the context of Moldova.

    d. Update the PD with the justification requested.

Project participant response	Date : 09/12/2024

1. The conservativeness of the approach is further justified in Section 5.1 of the PD outlining the monitored parameters under MDolomite and MLimestone. The table has been updated in the comment box with additional scientific literature.

    a. A detailed description of the literature review, to describe the fact that there is not sufficient local data, has been conducted and provided in an additional Appendix 11. As per the Methodology deviation, statistics on limestone for each geographic area in the Project area were obtained from the National Inventory Reports (NIR) for the UNFCCC. However, the NIR submitted by Moldova to the UNFCCC in 2023 does not contain information on CO2 emissions from liming. The Project has compiled multiple articles (publications and technical reports) describing the lime application rates, type of lime and frequency of application for different regions and agricultural land uses (arable or grassland) to date. As of December 2024 there remains a lack of published data on lime application rates for arable soils in Moldova.

    b. Beyond the thorough review of literature and the contribution of local agronomic experts, it was concluded that the data came from geographic areas with similar socio-economic and environmental (soil and climate) conditions to Moldova. The two most similar countries to Moldova include Ukraine and Romania across culture, geography, social and infrastructure according to the Country SImilarity Index. Within the European Soil Database (ESDAC) whilst Romania is culturally similar to Moldova, Moldova shares greater similarity in edapho-climatic conditions to Ukraine (JRC, ESDAC), with both countries sharing a majority in soil type with the Chernozem and Phaeozem soil groups.

    c. However, investigating limestone application rates, the NIRs for Romania and Ukraine demonstrate a 32-40% calculated lower lime-application rate for Ukraine. In addition, a review of scientific literature, lime application rates for Ukraine (3.5-6.7 t/ha, Polovy et al., 2022; Zapko et al., 2014) were calculated to be 25-30% of the rates used in Romania (5-9 t/ha, Nita et al., 2019; Hera et al., 2017). In conclusion, to ensure the principle of conservativeness, the lime application rates identified for Romania were

selected to substitute the lack of limestone data in Moldova d. PD has been updated in sections 5.1 and an additional Appendix to reflect the updates and justification for using Romanian data in Moldova.
Documentation provided by project participant
- VCS PD 4022 09DEC22024_AgreenaCarbon_PRR R3_Clean; Section 5.1, Appendix 11

VVB assessment	**Date:** 17/12/2024
a, b, c The absence of local data for the country Moldova has been identified through conducting independent desk review. The project uses National Inventory Reports (NIR), however, as mentioned in the PD, NIR submitted by Moldova to the UNFCCC in 2023 does not contain information on CO2 emissions from liming. PD appendix 11 provided the rationale for using data from Romania. VVB assessment included the review of the references provided in the PD and additional checks performed to identify why Romania is appropriate country out of all countries under this project. The literature underline the similarity and comparison of soil, climate, crops, agricultural scenario and socio-economic review in Romania and Moldova. VVB identified that these elements are relevant in the project context considering that the project activity involves the agricultural practices and land management description, which ensures to provide the scientific judgement and complete analysis of limestone application data. Therefore the use of Romanian data has been found conservative for the context of Moldova. VVB assessed the justification provided by PP and based on all the checks and review of data it is confirmed that the project, in the context of the usage of liming data, demonstrates the conservativeness and accuracy. d. VVB has checked the latest version of PD and found that the justification of data sources have been provided in PD section 5.1 under parameter table MLimestone,bsl,i,t and MDolomite,bsl,i,t / MLimestone,wp,i,t and MDolomite,wp,i,t and appendix 11. The VR section 3.3.8 and the references have been added in appendix III table. CAR#61 stands closed.	

CAR ID	62	**Section no.**		**Date :** 05/12/2024
Description of CAR				
The NPR applies the second highest political risk score from Moldova, and the justification provided is that the highest political risk score is from Ukraine and is not representative. However, applying a better (i.e., lower) political risk score to Ukraine is not conservative. PP is to clarify.				
Project participant response				**Date :** 09/12/2024
The political risk score in the NPRR has been changed to that of Ukraine, which is applied at the grouped-project level. Thus, the most conservative approach to political risk score assessment was adopted. Please consult Chapter 3.3 of the NPRR that has been shared as part of this validation.				
Documentation provided by project participant				
- AgreenaCarbon_09DEC2024_AFOLU Risk Tool Report_PRR3, Chapter 3.3				
VVB assessment				**Date:** 17/12/2024
PP has now updated the NPR risk rating of political risk by considering Ukraine score. This has now been found conservative in comparison to other risk scores of other countries added in the project. CAR#62 stands closed.				

Table 4. FAR from this validation

FAR ID	01	**Section No.**		**Date :** 04/09/2023
Description of FAR				
The FAR is raised on the tillage model. VVB at the first verification assessment shall address this FAR. The complete details of FAR raised is provided in confidential version of final validation report. VVB omitted the context of FAR following the definition of commercially sensitive information given in VCS Program Definitions v4.4.VVB is continuing the verification assessment of the project and shall address the FAR.				
Project participant response				**Date :** DD/MM/YYYY
Documentation provided by project participant				
VVB assessment				**Date:** DD/MM/YYYY

FAR ID	02	**Section No.**		**Date :** 07/06/2024
Description of FAR				
The next verifying VVB shall check how the recommendation provided by IME in the Third review Model Validation reprot Agreena V4.0 dated Sept 2023 Chapter: Outlook have been addressed by PP in the Model Validation Report, in the verification assessment. Below are the recommendations provided by IME in the IME Evaluation report. 1. We recommend to extend the data sources now in the CVD. We advise to consider the following data resources on long-term changes in soil carbon; the Catch-C project (http://www.catch-c.eu/), the long-term Rothamsted soil carbon experiments (https://www.era.rothamsted.ac.uk/), and the Swiss Agroscope long-term agriculture experiments (https://www.agroscope.admin.ch/agroscope/en/home/topics/environment-resources/monitoring-analytics/long-term-trials/zofe.html). Adding this data may also improve upon the uncertainty ranges. In particular the work could benefit from the inclusion of the wealth of soil data from the United Kingdom. 2. Considering the practise change and requirements under VM0042, it is crucial that the PC included in this project be fully additional, also in the context of European Agricultural requirements. 3. The scale of the model applicability is key to consider. As per Verra VMD0053 the model needs to be provided at least for each unique combination of CZ, PC and CFG. It could be investigated how representative a regional, broad model is on a farm level. In regional models, extremes (low, high) are often averaged out. However, each individual farm may be on a more variable spectrum, which the regional model does not capture. Considering this element, enhancing the resolution of the modelling may enhance the applicability of the modelling and may reduce the uncertainty.				
Project participant response				**Date :** DD/MM/YYYY
Documentation provided by project participant				
VVB assessment				**Date:** DD/MM/YYYY

FAR ID	03	**Section No.**		**Date :** 07/06/2024
Description of FAR				
During the initial assessment of project validation, PP has made the model validation report as per version 1,0 of VMD0053. However, the latest and applicable version of module VMD0053 has been version 2.0 at the time of final submission. Therefore, VVB and IME have reviewed the requirement of VM0042 and				

VMD0053 version 2.0 and it was confirmed that the project model is in conformance with VMD0053 version 2.0. A gap assessment has been completed by IME between Version 1 and Version 2 and has been completed by the IME confirming that Agreena can be assessed under Version 2.0 . Moreover, in the IME Evaluation version migration report, IME informed that IME will also review the updates Agreena has made to the existing model in order to evaluate and close outstanding recommendations. This shall be addressed by verifying VVB in the first verification. More details are provided in CAR#32 table.	
Project participant response	**Date :** DD/MM/YYYY
Documentation provided by project participant	
VVB assessment	**Date:** DD/MM/YYYY