



**Verified Carbon
Standard**

IMPROVED AGRICULTURAL PRACTICES FOR RICE CULTIVATION IN INDIA VALIDATION REPORT



Document Prepared by Carbon Check (India) Private Limited

Project Title	Improved Agricultural Practices for Rice Cultivation in India (project ID: 4032)
Version	2.0
Report ID	CC IPL1752/VCS/VAL/IAPII/20230202

Report Title	Improved Agricultural Practices for Rice Cultivation in India Validation Report
Client	Kosher Climate India Pvt. Ltd.
Date of Issue	21 st September 2023
Prepared By	Carbon Check (India) Private Limited

Contact	<p>Regd. Off: 2071/38, 2nd Floor, Naiwala, Karol Bagh, New Delhi -110005</p> <p>Corporate off: Unit No.: 1701, Logix Office Tower, Plot No.: BW - 58, Sector - 32, NOIDA (Uttar Pradesh) - 201301</p> <p>Telephone: +91 120 4373114</p> <p>URL: www.carboncheck.co.in e-mail: projects@carboncheck.co.in</p>
Approved by	Amit Anand (CEO)
Work carried out by	<p>Vikash Kumar Singh (Team Leader/ Technical Expert)</p> <p>Isha Kapoor (Team Member)</p> <p>Kiran K V (Team Member)</p> <p>Amit Anand (Technical Reviewer)</p>

Summary:

Description of the validation and the project

Carbon Check (India) Private Ltd. has carried out the validation of project “**Improved Agricultural Practices for Rice Cultivation in India**” (hereafter referred to as “project”) under VCS Program. The project is an Agricultural Land Management (ALM) grouped project under the project activity Improved Cropland Management (ICM) implemented by Kosher Climate India Private Limited (hereinafter referred to as project proponent). This project is an initiative to reduce the methane (CH₄) emissions through improved water management practices involving alternate wetting and drying (AWD) of the paddy lands. The VCS project activity is aiming at contributing towards climate change mitigation by reducing GHG emissions through reduction in anaerobic decomposition of the organic matter as well as facilitates cost-effective rice cultivation using controlled irrigation strategy^{/01/}.

The project is planned to be implemented in 5 districts of Assam namely, Dhubri, Barpeta, Darrang, Nalbari, Udalguri and 6 district of West Bengal namely, Coochbehar, Malda, East Medinipur, Dakshin Dinajpur, West Medinipur, Birbhum. The project area and number of farmers identified for the first and second project instances are summarized below^{/01//VIII/}.

Table I: Project area and no. of farmers identified:

Project Instances	Location/Districts	Area (ha)	No. of farmers
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First Instance	West Bengal: Coochbehar, Malda, Dakshin Dinajpur, Purba Medinipur, Paschim Medinipur and Birbhum	2,621	6,342
First Instance	Assam: Dhubri, Barpeta and Nalbari	6,971	14,753
Second Instance	Assam: Darrang and Udalguri	3,577	5,906
Total		13,169	27,001

At the time of validation, the first project instance covers an area 9,592 ha in Assam and West Bengal and the second instance covers 3,577 ha in Assam^{/01/}. The estimated GHG emission reductions from the project are 4,44,780 tCO₂e and 3,91,208 tCO₂e for first and second instances over the fixed crediting period of 10 years (1st January 2023 to 31st December 2032), with an annual average of 44,478 tCO₂e and 39,121 tCO₂e for first and second instances, respectively^{/01//02/}. The project has computed CH₄ emissions in baseline as well as project scenario^{/01//02/}.

The VCS grouped project has applied CDM methodology **AMSIII.AU: Methane Emission Reduction by Adjusted Water Management Practice in Rice Cultivation version 4.0**^{/B02/}.

Based on VCS PD^{/01/} the CCIPL team has conducted validation of the project.

Table II: Dates and timelines of the VCS project^{/01/}

Start Date	1 st January 2023
Listing of project on VERRA registry	27 th December 2022
Public comment period	16 th June 2023 to 16 th July 2023
Crediting period	1 st January 2023 to 31 st December 2032

As per the VERRA news update on “Verra Inactivates UNFCCC CDM Rice Cultivation Methodology” published on 20 MARCH 2023, ([Verra Inactivates UNFCCC CDM Rice Cultivation Methodology - Verra](#))

“All other projects applying the CDM methodology AMS-III.AU that requested listing prior to 3 February 2023 may proceed with registration and must do the following:

- ✓ Complete validation no later than 20 September 2023; and
- ✓ Address any findings issued during Verra’s full review of the registration request.”

As indicated in the table above the listing and GSC period of the project start on 27th December 2022 (i.e., before 3rd February 2023), thereby project is eligible for validation at the time of finalization of this report.

Purpose and scope of validation

The purpose of the validation is the independent evaluation of the project's compliance with the VCS Standard v4.4^{/B01/}, the project's baseline^{/03/}, monitoring plan, project implementation, CH₄ emission reductions by the project^{/02/}, methodology requirements^{/B02/} and compliance with the relevant VCS^{/B01/} and host party criteria. These are validated to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria and the project has been implemented in compliance with the monitoring plan stated in the VCS PD^{/01/}. Carbon Check's objective is to perform a thorough, independent assessment of the validation of the project activity.

Validation scope is defined as an independent and objective review of the VCS Project Description (PD) against the relevant criteria and guidance documents provided by VCS^{/B01/} including the following:

- VCS Program Guide (v4.3, dated 17/01/2023)
- VCS Standard (v4.4, dated 17/01/2023)
- VCS Program Definitions (v4.3, dated 21/12/2022)
- Registration & Issuance Process (v4.3, dated 17/01/2023)
- AFLOU Non-Permanence Process (v4.0, dated 19/09/2019)
- VCS Validation and Verification Manual (v3.2, dated 19/10/2016)
- CDM methodology AMSIII.AU: Methane Emission Reduction by Adjusted Water Management Practice in Rice Cultivation version 4.0^{/B02/}

Following the requirements of above-mentioned documents (guidance and criteria), VVB confirms that the project meets all the applicability criteria of the selected baseline^{/01//03/} and monitoring methodology, "AMS III. AU v4.0^{/B02/}. VVB has also assessed the statements and assumptions made in the VCS PD^{/01/} for accounting of ex-ante ERs generated from the proposed p and confirms them to be valid and applicable.

Method and criteria used for validation

To conduct the validation audit, Carbon Check (India) Private Limited (CC IPL) conducted an assessment including a desk review of the Project Document^{/01/} and supporting documents in compliance with the requirements stated in the VCS Validation and Verification Manual v3.2^{/B01/}, interviews with project stakeholders^{/VIII/}, reference to available information relating to projects or technologies similar to project under validation and the resolution of outstanding issues and the issuance of the final validation report and opinion.

Number of findings raised during validation APPENDIX 2: FINDING LOG

During the validation, a total of **27** findings have been raised, which includes **19** Corrective Action Requests (CARs), **07** Clarification Requests (CLs) and **01** (zero) Forward Action Request (FAR). All the findings have been satisfactorily closed upon the receipt of the revised documents, clarification and/or the documentary evidence.

Uncertainties associated with the validation

The project has applied IPCC default values i.e., global default value, since no country specific default value and regional default values are available.

Project proponent has applied an uncertainty deduction of 8.93% (corresponding to 30 to 50 % uncertainty range) for IPCC default values. This approach, in the opinion of VVB, addresses the uncertainties associated with use of default values. No other uncertainties were found.

As assessed above, the uncertainty associated with the project design, assumptions, and calculations of GHG reduction (methane emissions) has been addressed by the VV team. The validation has been done with a reasonable level of assurance.

Validation conclusion

Based on the on-site inspection, the review of the VCS PD^{/01/}, and supporting documents, VVB confirms that the VCS PD^{/01/} has been developed taking appropriate assumptions and values in compliance with the requirements of VCS Standard version 4.4^{/B01/} and the methodology applied^{/B02/}.

Carbon Check (India) Private Limited has been commissioned by the Kosher Climate India Pvt. Ltd. (Project Proponent) to perform validation of VCS Project Activity “Improved Agricultural Practices for Rice Cultivation in India”.

In accordance with the requirements of VCS Standard version 4.4^{/B01/} and the CDM methodology applied AMSIII. AU version 4.0^{/B02/}, the validation team confirm that all the values and assumption included in the VCS PD including objectives, scope and criteria, level of assurance, baseline and monitoring plan are valid and applicable.

Table III: GHG Emissions Reductions of the project^{/01//02/}

Crediting Period	1 st January 2023- 31 st December 2032 (10 years)	
	GHG Reductions during crediting period (tCO ₂ e)	Annual Average (tCO ₂ e)
First Project Instance	4,44,780	44,478
Second Project Instance	3,91,208	39,121

ABBREVIATIONS

AFOLU	Agriculture, Forestry and Other land use <small>Validation Report: VCS Version 4.2</small>
ALM	Agricultural Land Management
AWD	Alternate Wetting and Drying
BE	Baseline Emission
CAR	Corrective Action Request
CC IPL	Carbon Check (India) Private Ltd.
CL	Clarification Request
CH₄	Methane
CO₂	Carbon Dioxide
tCO₂e	Tonn Carbon Dioxide Equivalent
EIA	Environment Impact Assessment
EF	Emission Factor
ERs	Emission Reductions
FAR	Forward Action Request
FVR	Final Validation Report
GIS	Geographic Information system
GHG	Greenhouse gas(es)
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
IR	Internal Resource
KML	Keyhole Markup Language
LPI	Local Implementation Partner
PD	Project Description
PP	Project Proponent
QC/QA	Quality control/Quality assurance

SDGs	Sustainable Development Goals
TR	Technical Review
VCS	Verified Carbon Standard <small>Validation Report: VCS Version 4.2</small>
VCSA	Verified Carbon Standard Association
VCUs	Verified Carbon Units
VVB	Validation & Verification Body

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1 INTRODUCTION

1.1 Objective

The purpose of this validation audit was to conduct an independent assessment of the project to determine whether the project complies with the validation criteria as set out in section 1.2 of this report including their material accuracy. This report is to document the compliance of the VCS project “**Improved Agricultural Practices for Rice Cultivation in India**” with the requirements of the Verified Carbon Standard (VCS)^{/B01/} and the applied CDM methodology “AMS III. AU: Methane Emission Reduction by Adjusted Water Management Practice in Rice Cultivation version 4.0^{/B02/}”.

Table IV: VVB has ascertained the following on the VCS project:

VCS category	Agricultural Land Management: ICM-AWD
Applied methodology	CDM Methodology “AMSIII. AU: Methane Emission Reduction by Adjusted Water Management Practice in Rice Cultivation version 4.0 ^{/B02/} ”
Sectoral scope	15: Agriculture, Forest, and other Land Use (AFOLU)

The validation objective of the project includes:

- ✓ Assessment of compliance with the VCS Program Guide^{/B01/}, VCS Standard version 4.4^{/B01/} and other relevant VCS requirements^{/B01/}.
- ✓ Assessment of compliance with the applied CDM methodology AMSIII. AU version 4.0^{/B02/}.
- ✓ Assessment of project compliance with the relevant rules including host country legislation.
- ✓ Evaluation of monitoring plan and develop conclusions regarding the monitoring methodology and the collection archiving of data relevant to GHG emissions estimation and baseline emissions.
- ✓ Evaluation of the calculation of GHG reductions, including appropriateness of source, sink, and reservoirs, the correctness and transparency of formula and factor used, assumptions related to estimating GHG reductions, and uncertainties.
- ✓ To develop conclusions based on validation criteria, submission of corrective action on requests, clarification requests and forward action requests, as applicable.

1.2 Scope and Criteria

The project is an AFOLU project under Sectoral Scope 15 – Agriculture Forestry and Other Land Use. The project is an Agricultural Land Management (ALM) project under activity type

Improved Cropland Management (ICM). The project is designed as a standalone project activity^{/01/}.

The scope of validation is to assess the conformance of the VCS PD^{/01/} and other relevant supporting documents against the VCS requirements and applied methodology and tools, including the assessment of:

- ✓ Project area and GHG reduction intervention
- ✓ Physical infrastructure, activities, technologies, and processes of the VCS project^{/01/}
- ✓ Project's physical boundaries
- ✓ Project ownership
- ✓ GHG sources and gases^{/02/}
- ✓ Project eligibility as per VCSA and applied methodology requirement
- ✓ Stakeholder involvement
- ✓ Environmental impacts
- ✓ Baseline and additionality justification
- ✓ Sustainable development contributions
- ✓ Monitoring plan and
- ✓ Estimated GHG reduction

The validation criteria follow the guidance documents provided by VCS^{/B01/} including the following: VCS Standard version 4.4, VCS Program Guide version 4.3, AFOLU Non-Permanence Risk Tool version 4.0 and the applied CDM methodology AMSIII. AU: Methane Emission Reduction by Adjusted Water Management Practice in Rice Cultivation version 4.0" (version 4.0)^{/B02/}.

1.3 Reasonableness of Assumptions

The validation assessment has been conducted to indicate the reasonableness of assumptions, limitations, and methods supporting the statement made by project proponent regarding the ex-ante i.e., constant values for the relevant data and parameters. Based on the review of the VCS PD^{/01/}, carbon calculation spreadsheets^{/02/}, and relevant supporting evidence (i.e., peer review literature^{/06/}, IPCC default values, region specific research studies), VVB confirms that all the assumptions and statements made by PP area valid and appropriate with the possible reasonableness. Further, VVB assessed the relevant data and parameters in section 3.3.8 of this report.

1.4 Summary Description of the Project

The VCS ALM project involves reducing the anaerobic decomposition through implementation of the more efficient irrigation practice for rice cultivation leading to reduction

in methane emissions from paddy farms. The project includes alternate wetting and drying (AWD) method of water management in the field instead of the traditional continuous flooding method^{/01/}. This is in compliance with paragraph 1 (b) and 2 (b) (i.e., Alternate wetting and drying method and aerobic rice cultivation methods) of the applied methodology (AMS III.AU., version 04.0)^{/02/}. Validation Report: VCS Version 4.2

The project is being implemented in the geography of India which includes different cropping seasons as follows:

(i) Single cropping (Cropping season: Dec/Jan to May/June, also dry season or rabi crop¹): Only one crop is grown in a year on a piece of land. In Dhubri, Barpeta and Nalbari districts of Assam single cropping prevails.

(ii) Double cropping (Cropping season: Dec/Jan to April/May - dry season, and June/July to Oct/Nov, rainy season or kharif crop²): Two crops are grown on the same piece of land in a year³. In Darrang, Udalguri, district of Assam and Coochbehar, Malda, Dakshin Dinajpur, Purba Medinipur, Paschim Medinipur and Birbhum districts of W. Bengal double cropping prevails^{/01/}.

Prior to project implementation, farmers followed the traditional continuous flooding method for rice cultivation^{/03//VIII/}. By implementing AWD method of water management, the project activity will reduce the equivalent amount of GHG emissions which would have been otherwise generated by following continuous flooding method in the same scenario. PP intends to support farmers across the states of India by facilitating and executing AWD practices at the farm level in collaboration with the farmers and local farmer organizations. During the project course, the PP has provided necessary services like^{/01//VIII/}:

- ✓ field assistance,
- ✓ training,
- ✓ farm level technical demonstrations,
- ✓ agronomy,
- ✓ fertilizer and pesticide recommendations,
- ✓ irrigation advisory,

¹(PDF) Improved Production Technology for Boro Rice Cultivation in Eastern India. Technical Bulletin, R-69/Patna-39, ICAR-Research Complex for Eastern Region ([researchgate.net](https://www.researchgate.net))

²(PDF) Improved Production Technology for Boro Rice Cultivation in Eastern India. Technical Bulletin, R-69/Patna-39, ICAR-Research Complex for Eastern Region ([researchgate.net](https://www.researchgate.net))

³ Distinguish between single cropping, double cropping and multiple cropping? | EduRev Class 9 Question

- ✓ crop protection advisory,
- ✓ distribution and installation of equipment (e.g., field tubes), and
- ✓ farmer's data documentation

These services are expected to enable the farmers to follow AWD practices at the plot level and reduce crop losses, decrease water usage, and input costs.

VVB, during on-site inspection/interviews^{VIII/} has reviewed the baseline assessment survey data^{103/} and logbooks^{111/} compiled by project monitoring personnel and further converse with the farmers identified within the project boundary and has ascertained that the following:

- a) Prior to project implementation the rice crop cultivation was predominantly based on waterlogged management system for irrigation purpose. It is also confirmed that the farm's water regimes are not upland or rainfed and deep water.
- b) Farmer's onboarding under the project instances is based on their willingness to implement the project activities into their farms. This has been further substantiated with the contracts signed between project proponent and the representatives of farmers/landowners^{111/}.
- c) The designated farmlands have been well equipped with the AWD pipeline installation. Further farm level trainings have been conducted by the ground staff to provide field assistance and on-ground technical demonstration to the farmers.
- d) During on-site interviews^{VIII/} with the farmers, VVB also ascertained that there has been no change in the variety of rice crop planted in the region. Farmers also confirms that project activities implemented in the project region does not lead to any negative impact and/or decrease in the crop yield.
- e) VVB, based on its sectoral and host country expertise, confirms that AWD practice including the specific cultivation elements, technologies are not subject to any local regulatory restrictions in the region of project area.
- f) VVB, during the on-site inspection, has reviewed the baseline conduction as assessed by the PP through survey (questionnaire) conducted in the geographical region of the proposed project or also by web-research of the project region as available publicly. PP has provided the project area characterization and information on pre-season water regime and applied organic amendments, as per Table 2 of the of the applied methodology (AMS III.AU., version 04.0). The baseline scenario is the continuation of the current practice continuously flooded rice cultivation in the project fields implemented (or to be) as a part of this project.
- g) VVB, based on visit of sample farms, confirms that the project rice fields (already implemented at the time of validation) are equipped with controlled irrigation and drainage facilities such that both during dry and wet season and it is confirmed that appropriate dry/flooded conditions can be established on these fields.

As verified, the project start date is 1st January 2023^{/10/}, and the validation of the project has been conducted within the timeline set for the completion of project validation (5 years, as indicated in the VCS Standard v4.4, section 3.8.5).

The GHG reduction from the project is determined using paragraph 30 of the applied methodology, AMS III.AU., version 04.0 (i.e., Option 2: using global default values derived from IPCC tier 1 approach. The estimated GHG emission reductions from the project are 4,44,780 tCO₂e and 3,91,208 tCO₂e for first and second instances over the fixed crediting period of 10 years (1st January 2023 to 31st December 2032), with an annual average of 44,478 tCO₂e and 39,121 tCO₂e for first and second instances, respectively^{/01/02/}. This confirms that aggregated annual emission reductions of all fields included under one project activity shall be less than or equal to 60 kt CO₂ equivalent.

VVB, based on review of the applied methodology, confirms that as per paragraph 14 of the applied methodology, any effects of the project activity on GHG emissions outside the project boundary are deemed to be negligible and do not have to be considered under this methodology. Furthermore, as per paragraph 32 of the applied methodology (AMS III.AU., version 04.0) the default values used consider the rice straw on field as the only organic amendment inputs. Other organic amendments such as compost, farmyard manure and green manure, which have been used in the pre-project scenario, may continue to be applied at the same or a lower rate during the crediting period, but do not affect the emission reductions estimated using the default values. Project emission is also not applicable since the project uses paragraph 30 of (AMS III.AU., version 04.0) and only equation 6 of the applied methodology and such as per paragraph 15 of the applied methodology (AMS III.AU., version 04.0), Due to the optimized N fertilization practice (cf. applicability criteria in paragraph 3(d), N fertilizer control), N₂O emissions do not significantly deviate from the baseline emissions and hence are not considered.

PP in order comply with paragraph 15 and 32 of the applied methodology has kept a provision of monitoring of fertilizers and organic amendments in post project scenario. This is deemed appropriate to the VVB. Since, the project under validation, uses the default value approach as indicated of the applied methodology (AMS III.AU., version 04.0) for emission reductions calculations and thus access to infrastructure to measure CH₄ emissions from reference fields using closed chamber method and laboratory analysis are not applicable and required for the project. The monitoring is thus focused on parameters, which is relevant for using IPCC default and thereby confirms to the monitoring requirement of paragraph 34, 37 and 38 of the applied methodology (AMS III.AU., version 04.0).

2 VALIDATION PROCESS

2.1 Method and Criteria

Validation Report: VCS Version 4.2

The validation assessment has been performed through a combination of document review and interviews with the relevant personnel as discussed in section 2.3 and 2.4 of this report. At all times, the project has been assessed for conformance against the criteria described in section 1.2 of this report. As discussed in section 2.7, findings^{APPENDIX:2 FINDING LOG} have been issued to ensure that the project's conformance to all requirements^{/B01-B03/}.

The validation of the project includes the following assessment activities:

- ✓ Contract review & signing
- ✓ Appointment of team members based on competencies,
- ✓ Assessment Planning including preparation of validation plan (sampling plan) and strategic risk analysis and evidence gathering plan (activities),
- ✓ Desk review of VCS PD, emission reduction calculations(ex-ante) and other documents,
- ✓ Interviews with the stakeholders and local stakeholder meeting(s) during the on-site inspection,
- ✓ Reporting and recording of assessment,
- ✓ Findings and their closure ^{APPENDIX 2: FININDGS LOG}
- ✓ Additional validation activities,
- ✓ Submission of final report.

A project specific validation plan will be developed to guide the auditing process to ensure efficiency and effectiveness. The purpose of the validation plan is to present a risk assessment for determining the nature and extent of validation procedures necessary, thus reducing the risk of auditing error to a reasonable level.

The validation of the VCS PD will be conducted in compliance with the requirement documents^{/B01-B03/}.

Table V: VCS Validation time frame:

A time frame envisaged for this assignment is as follows:

Milestone description	Time
Date of contract signing with the VVB	31 st March 2023
Date of listing of the project on VERRA registry	27 th December 2022

On-site Audit	3 rd August 2023 - 4 th August 2023
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Sampling Plan

No sampling approach has been used by VVB. Report: VCS Version 4.2

Table VI: Validation Team

Sr. No.	Role	Type of Resource	Last Name	First Name	Affiliation (e.g., name of central or other office of VCS Validator and Verifier or Outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Validation findings
1.	Team Leader/ Technical expert	IR	Singh	Vikash Kumar	CC IPL	x	x	x	x
2.	Team Member/ Technical Expert	IR	Kapoor	Isha	CC IPL	x	x	x	x
3.	Team member	IR	K V	Kiran	CC IPL	x	x	x	x

Table VII: Technical reviewer and approver of the Validation report

Sr. No.	Role	Type of Resource	Last Name	First Name	Affiliation (e.g., name of central or other office of VCS Validator and Verifier or Outsourced entity)
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1.	Technical Reviewer	IR	Anand	Amit	CC IPL
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2.2 Document Review

Validation Report: VCS Version 4.2

During the document review, CC IPL has applied standard auditing techniques to assess the quality of information provided. The validation has been performed primarily based on the review of the VCS PD^{01/} and the supporting documentation.

For validation, this process includes:

- ✓ A review of data and information presented to verify completeness and consistency in accordance with VCS Standard (version 4.4) requirements.
- ✓ A review of the project description, monitoring methodology, paying particular attention to the applicability conditions of the methodology, baseline, and additionality related requirements.
- ✓ A review of the monitoring plan and the project's compliance with relevant VCS criteria

Initial review focused on the PD^{01/} (version 1.0 17th 2022) and included an examination of the project details, implementation design, stakeholder engagement, baseline scenario, additionality, project boundary, data and parameters, and estimation of GHG emission reductions. VVB requested the PP to present the supporting information and documents, as per Annex 1 of the VV Plan. Desk review include carbon calculation spreadsheets, contractual agreements stakeholders involved in project implementation, Non-Permanence Risk Report, peer-reviewed literature, monitoring SOPs and other supporting documents^{02-16/}.

The validation assessment also included a review of the PD^{01/}, relative to the field conditions and interviews^{VIII/} with project management staff and stakeholders as discussed in section 2.3 and 2.4 of this report. Refer to table in APPENDIX 2: FINDINGS LOG outlining the documentation reviewed during the validation process.

2.3 Interviews

The on-site inspection/interviews have been carried out by the VVB on 3rd August 2023 to 4th August 2023 at Darrang district of Assam with the project proponent and the farmers participating under the proposed project. During the on-site inspection, VVB team members converse with the farmers regarding the land-use scenario prior to project implementation and/or crop management system in the project region.

Table VIII below describes the on-site inspection interview process and further identifies personnel, including their roles, who were interviewed and/or provided information additional to that provided in the VCS PD, and any supporting documents. Interview has been performed as part of the validation process to confirm and verify the information provided in the documents (see Appendix 1).

Table VIII: Project representatives and stakeholders interviewed.

Sr. No.	Interview			Date	Subject/Topic of Discussion	Team Member
	Last Name	First Name	Affiliation			
/01/	Bellapu	Nagaraju	Kosher climate Pvt. Ltd	03/08/2023	<ul style="list-style-type: none"> PP's roles & responsibilities 	Vikash Kumar Singh, Isha Kapoor, Kiran K V
/02/	L	Latha	Kosher climate Pvt. Ltd	03/08/2023	<ul style="list-style-type: none"> Baseline scenario Project implementation 	
/03/	Dutta	Sudarsha	Kosher climate Pvt. Ltd	03/08/2023	<ul style="list-style-type: none"> Future project plans 	
/04/		Abhilash	Kosher climate Pvt. Ltd	03/08/2023	<ul style="list-style-type: none"> Organization structure, roles & responsibilities 	
/05/	Aktarul	Islam	Kosher climate Pvt. Ltd	03/08/2023	<ul style="list-style-type: none"> Ownership of land 	
/06/		Atul Di	Manab Kalyan	03/08/2023	<ul style="list-style-type: none"> Ownership of carbon credits 	
/07/		Abdulla	Manab Kalyan	03/08/2023	<ul style="list-style-type: none"> Discussion on VCS PD & carbon calculation 	
/08/	Islam	Faridul	Manab Kalyan	03/08/2023		
/09/	Alam	Jahamgir	Manab Kalyan	03/08/2023		
/10/	Kafta	Kishore	Manab Kalyan	03/08/2023		
/11/	Mustafa	Jiaul	Manab Kalyan	03/08/2023		
/12/	Ali	Waheed	Manab Kalyan	03/08/2023		

/13/	Ali	Ismail	Manab Kalyan	23 03/08/2023			
/14/	Dika	Diparrita	Manab Kalyan	03/08/2023		Vikash Kumar Singh, Isha Kapoor, Kiran K V	
/15/	Kalita	Sumi	Manab Kalyan	03/08/2023			
/16/	Kalita	Anamika	Manab Kalyan	03/08/2023			
/17/	A	Jahan	Manab Kalyan	03/08/2023			
/18/	Ali	Sajahan		03/08/2023	Discussion on:		Vikash Kumar Singh, Isha Kapoor, Kiran K V
/19/	Islam	Shahidul	Landowners/ Local stakeholders	03/08/2023	<ul style="list-style-type: none"> • Pre-project irrigation practices 		
/20/	Ali	Abbas		03/08/2023	<ul style="list-style-type: none"> • AWD practices 		
/21/	Ali	Meher	Landowners/ Local stakeholders	03/08/2023	<ul style="list-style-type: none"> • LSC 		
/22/	Ali	Abjal		03/08/2023	<ul style="list-style-type: none"> • Training & capacity building programs 		
/23/		Maniruddin		03/08/2023			
/24/	Awal	Abdul		03/08/2023			
/25/	Ali	Golap	Landowners/ Local stakeholders	03/08/2023		Vikash Kumar Singh, Isha Kapoor, Kiran K V	
/26/	Islam	Nurjul		03/08/2023			
/27/	Gafur	Abdul		03/08/2023			
				03/08/2023			

/28/	Uddim	Jalal	Landowners/ Local stakeholders	023		
				03/08/2 023		
/29/	Baten	Abdul				
/30/	Hoque	Samidul		03/08/2 023		
/31/	Ali	Tamjia		03/08/2 023		
/32/	Ali	Ahmmad	Landowners/ Local stakeholders	03/08/2 023		
/33/	Ali	Rahim		03/08/2 023		
/34/	Ali	Iddis		03/08/2 023		

2.4 Site Visits

The validation on-inspection has been conducted from 3rd August 2023 to 4th August 2023. A ground truthing of the project area was conducted to assess baseline scenario and project implementation during on-site inspection and members of CCIPL team visited selected sample plots.

VVB used the following evidence-gathering activities and techniques in the validation:

- Observation
- Inquiry
- Analytical testing
- Confirmation
- Recalculation
- Examination
- Retracing
- Tracing

- Control testing
- Sampling
- Estimate testing.
- Cross-checking
- Reconciliation
- The following aspect of the project have been assessed during the on-site inspection:
- Project Proponent's roles and responsibilities.
- Brief description of the project
- Project Implementation framework
- SDG Impacts associated with the project.
- Project start date
- Baseline scenario
- Additionality
- Project implementation.
- SOP's and QA/QC Procedures
- Future project plans.
- Future instances
- Organization structure, roles, and responsibilities.
- Non-Permanence risk Assessment
- Ownership of land titles

Validation Plan:

To ensure a complete, transparent, and timely execution of the validation process, the team leader had planned the complete sequence of events necessary to arrive at a substantiated final validation opinion. Various tools had been established to ensure an effective assessment planning.

Identification of Materiality threshold

As per section 4.1.8. of VCS Standard (version 4.4) ^{/B01/},

“The threshold for materiality with respect to the aggregate of errors, omissions and misrepresentations relative to the total reported GHG emission reductions and/or removals shall be five percent for projects and one percent for large projects”.

Table IX: Materiality threshold applicable to the project activity

Check the relevant box against applicable threshold level	Threshold	Related to
<input type="checkbox"/>	1%	Large project: Emission reductions or removals for registered large scale project activities achieving a total emission reduction or removal of 300,000 tonnes of CO ₂ e equivalent per year.
<input checked="" type="checkbox"/>	5%	Project: Emission reductions or removals for registered small-scale project activities achieving total emission reductions of <300,000 tonnes of CO ₂ e per year

The validation team identified the materiality threshold applicable to the project based on the annual GHG reductions^{/02/} achieved from the project i.e., 44,478 tCO₂e and 39,121 tCO₂e for first and second instances, respectively (which is <300,000 tCO₂e/year). Hence VVB determined that materiality threshold of 5% i.e., 2,224 tCO₂e and 1,956 tCO₂e is applicable to the respective project activity instances.

Step 2- Identification of risks, their level and assessment

On the basis of the risk analysis the validation has been planned in accordance with the latest applicable version of CDM Guideline: “Application of materiality in validations”. The risk assessment has been used in developing the validation and evidence-gathering plans. Any input into the risk assessment shall be recorded.

Table X: Risks associated with the project implementation & their assessment.

Sr. No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the potential risk	Assessment of the records/information/interview with personnel to check controls/migration measures
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		Risk level	Justification	
1.	<p>VCS project activity requirements</p> <p>Adherence to VCS rules and requirements including those related to AFOLU and applicable category i.e., ALM - ICM.</p>	High	This corresponds to high risk since compliance with the VCS rules and requirements is critical for the project.	The risk has been mitigated by reviewing the VCS PD and supporting documents thoroughly in compliance with each section of VCS template instructions and VCS Standard, v4.4.
2.	<p>Ownership</p> <p>Adherence to ownership and legal right of the project including the proof of right of carbon credits</p>	High	Since, this is a grouped project and involves privately held lands (farmer's land), the evidence of project ownership, in respect of each project activity instance, held by the project proponent from the respective start date of each project activity instance shall be assessed. VVB considers this as high risk.	The risk has been mitigated by checking the agreement between the PP and individual farmers/private landowners assigned of project implementation and proof of title.
3.	<p>Baseline methodology</p> <p>Adherence to selected baseline protocol as per the applied methodology, AMS-III.AU., Version 4.0 and applicability and temporal boundaries.</p>	Medium	This corresponds to medium risk category since compliance with the applied methodology, AMS-III.AU. v4.0 is critical for the project.	The risk has been mitigated by inspecting project implementation, cross checking SOP's and by means to reviewing the documents of participating farms (for both pre and post project scenario).

<p>4. Time period (for e.g., project start date, start date of crediting period and length of crediting period) covered by Project Report</p> <p>Adherence to the VCS requirements for start date, crediting period and length of the project</p>	High	<p>Project shall meet the VCS requirements for time period such as validation is being carried within five years of the project start date (section 3.8.5 VCS Standard v4.4). In the opinion of the VVB this risk is considered as high.</p>	<p>The risk has been mitigated by reviewing the evidence pertaining to the project start date including the time stamped pictures, contracts, and receipts.</p>
<p>5. Baseline Scenario and Additionally</p> <p>Accuracy of baseline scenario identification and compliance with eligibility for positive list for additionality demonstration as per VCS requirements, applied methodology, and additionality tool.</p>	Medium	<p>Post confirmation of technology and applicability (including confirmation on the baseline situation/farm characteristics), the baseline scenario and additionality demonstration of the project activity, in the opinion of VVB, shall have a medium risk.</p>	<p>The risk has been mitigated by interviews and review of evidence of baseline and additionality during on-site inspection.</p>
<p>6. Baseline assertion</p> <p>Accuracy of baseline assertion</p>	Medium	<p>Considering the project activity, applying the methodology AMS-III.AU. v4.0, the risk for the baseline assertion including the compliance with determination of schedule of activities in the baseline scenario as stated in the methodology, is considered as medium.</p>	<p>The risk has been mitigated by reviewing systematic sampling, source data and calculations</p>
<p>7. Correctness of source of data used for Emission reduction estimation/calculati on.</p> <p>Accuracy of default/ex-ante fixed values with the help of national data or IPCC tier 1 default</p>	High	<p>As per the methodology, various sources for the data such as default values with the help of national data or IPCC tier 1 default values shall be used, any other Peer-reviewed published data. This forms a high risk for overall carbon reductions from the project.</p>	<p>The risk has been mitigated by assessment of all sources, sinks and reservoirs that are included in the project report during the on-site inspection.</p>

	values shall be used for the ex-ante carbon calculation.			
8.	<p>Emission reduction estimation including future estimate / calculation.</p> <p>Accuracy of default/ex-ante fixed values used for the ex-ante carbon calculation.</p>	Low	PP has used various sources for the data such as default values from IPCC, and the applied methodology are also used, including literature reviews. This forms a low risk for overall carbon reductions from the project. Adjustments (conservative discounts) to account uncertainty associated with default as per the applied CDM methodology, AMS-III.AU version 4.0 shall be confirmed during course of validation and during on-site inspection and interviews.	This risk has been mitigated by cross-checking emission reduction calculation spread sheet including all baseline emission, project emission, leakage emission and final emission reduction calculation.
9.	<p>Monitoring Plan</p> <p>Monitoring of the project monitoring parameter as per the VCS rules and requirements and verification of applicability of section 6 of the methodology including monitoring of baseline and project emissions and monitoring of farmers' compliance with project cultivation practice.</p>	High	Compliance with section 6.1.2 of AMS-III.AU version 04.0, even in case of methodology/IPCC default is on high risk since the monitoring is on farm level.	The risk has been mitigated by reviewing the feasibility of the monitoring at farm level and project proponent's sampling plan (if any).
10.	<p>VCS project description</p> <p>Completeness and correctness of project description.</p>	High	Since the project design has multiple components, the appropriate description of all the aspects including the applied methodology is pertinent. Hence, in the opinion of VVB, this risk is considered as high.	The risk has been mitigated by reviewing adherence of the VCS PD to the actual site condition for e.g., the existence of the project; project start date; GHG inventory of sources and sinks; sources and sinks; records kept on site.
11.	<p>Leakage</p> <p>Identification of</p>	Low	Since the project includes adoption of agricultural	The risk has been mitigated by confirming the

source of project emissions		land management practices so there is no risk of leakage.	pre-project scenario through on-site inspection and interviews that there is no displacement of pre-project activities due to project implementation.
12. Project Area and Eligibility Assessment of eligibility of land and calculation of area for each geographic area specified in the PD.	High	This corresponds to high risk as the proposed project activity is a grouped project and intend to include new activity instances. This also has material impact on overall carbon reductions from the project.	The risk has been mitigated by interviewing the contractors of the project implementation and by further reviewing documents to cross check the land-use pattern and temporal boundaries of the project. On-site inspection of sample sites and review of project management plan.
13. Participation under any other GHG Program Risk of double counting of project or carbon credits	High	Since the project is implemented by collaborating with the farmers, checking of title of land and rights of carbon credits including project's existence in any other GHG program corresponds to a high-risk category.	The risk has been mitigated by reviewing agreement of PP with contractors, land ownership proof, proof for waiver of carbon credits by the other entities along with checking the project on other registries.

2.5 Resolution of Findings

The objective of the validation is to resolve any outstanding issues (issues that require further elaboration, research, or expansion) which have to be clarified/corrected prior to final VVB's conclusions on the project's baseline, monitoring plan from the VCS PD and subsequently the project implementation, monitoring practices and achieved GHG reductions (methane emissions) from the PD. Material discrepancies identified during the validation are addressed either as CARs, CLs or FARs APPENDIX 2: FINDINGS LOG

Corrective Action Requests (CAR) are issued, where:

- ✓ mistakes have been made with a direct influence on project results requiring adjustments of the VERs in monitoring report.
- ✓ applicable methodological specific requirements have not been met.

A Clarification Request (CL) is used where additional information is needed to fully clarify an issue or where the information is not transparent enough to establish whether a requirement is met.

A Forward Action Request (FAR) has been issued, where:

- ✓ the actual project monitoring and reporting practices requires attention and /or adjustment for the consecutive verification period, or
- ✓ An adjustment of the MP is recommended.

In the context of FARs, risks have been identified, which may endanger the delivery of high-quality GHG reductions in the future, i.e., by deviations from standard procedures as defined by the MP. Therefore, such aspects should receive a special focus during the consecutive verification. A FAR may originate from lack of data sustaining claimed GHG reductions.

The VVB on every issue raised during the validation process has used the table format given below:

CAR/CL/FAR ID		Section no.		Date: DD/MM/YYYY
Description of FAR				
Project Proponent response				Date: DD/MM/YYYY
Documentation provided by Project Proponent				
VVB assessment				Date: DD/MM/YYYY

A total of 27 have been raised, which includes 19 CARs, and 07 CLs and 01 FAR please refer to [APPENDIX 2: FINDINGS LOG](#) for the details of the findings.

PP have addressed all the findings either by providing the audit team with the requested information/documents or by making the appropriate corrections. Based on the review of the information/justification provided by PP, all the findings have been successfully closed.

2.5.1 Forward Action Requests

01 forward action request has been raised during this validation by VVB. Detailed FAR has been added in appendix 2 of this document.

3 VALIDATION FINDINGS

3.1 Project Details

Project type

The project belongs to the Sectoral Scope 15: Agriculture, Forestry and Other Land Use (AFOLU) and is under project type Agricultural Land Management (ALM) with project activity type Improved Cropland Management (ICM), as the project activity reduce CH₄ emissions by implementing AWD irrigation practice for rice cultivation^{01/}. Therefore, the project is

eligible in accordance with Appendix 1 of the VCS Standard v4.4 ^{/B01/} as well as the CDM Methodology AMS III. AU version 4.0^{/B02/}.

The project is a grouped project, first and second project instances are being implemented in Darrang, Udalguri, Dhubri, Barpeta and Nalbari districts of Assam and Coochbehar, Malda, Dakshin Purba Medinipur, Paschim Medinipur and Birbhum districts of West Bengal^{/01//05/}. This has been further confirmed by VVB during the on-site inspections. VVB confirms that the proposed PAI includes AWD irrigation method of water management in rice cultivation and thus in line with the VCSA requirement^{/B01/}.

Technologies and measures implemented

The project involves alternate wetting and drying approach of water management and/or irrigation in rice farms and save about 15-30% of water without reducing grain yield. AWD involves an irrigation schedule where in the rice field is allowed to dry for a few days before re-irrigation^{/01/}.

Continuous flooding is done through the flowering stage as well as a week before and after the peak of flowering. A perforated plastic pipe with an appropriate diameter can be installed in the field allowing visual determination of the water level in the field below the soil level. These are called field water tubes^{/01//11/}.

The project activity implements multiple aeration water regime during the cropping period which can be started a few weeks (1–2 weeks) after transplanting.

When many weeds are present, AWD will be postponed for 2–3 weeks to assist suppression of the weeds by the ponded water and second drying can be started from 5 to 6 weeks after transplanting. The duration for which the soil is left dry could vary from 1–10 days depending on the root depth through the crop development stages.

Subsequent irrigation is provided (2 to 5 cm of standing water depth) when the water level reaches a pre-determined level below soil level. The below soil level of water is determined based on the length of the roots and is ensured that the water level does not go below the root zone. This would ensure that the roots are still able to draw water from the saturated soil.

Local fertilizer recommendations for flooded rice can be used. The project will be implemented in Dhubri, Barpeta and Nalbari districts of Assam where single cropping prevails. In Darrang, Udalguri of Assam, Coochbehar, Malda, Dakshin Dinajpur, Purba Medinipur, Paschim Medinipur and Birbhum districts of W. Bengal double cropping prevails^{/01/}.

Based on the on-site inspection^{/VIII/} of the sample farms identified by the VVB, literature review^{/06/}, SOPs placed by PP in their management plan^{/08//14/}, and own expertise on AWD technique, VVB confirms that the technology measures employed by the PP are appropriate and applicable for the designated project region.

Eligibility of the project

Based on the review of VCS PD^{/01/} supporting evidence and on-site inspection, VVB has assessed the project eligibility requirements: Report: VCS Version 4.2

Table XI: Project eligibility ^{/B01/}

Agricultural Land Management (ALM) ^{/01/}		
Sr. No.	Requirement	VVB assessment
1.	<p>Eligible ALM activities are those that reduce net GHG emissions on croplands and grasslands by increasing carbon stocks and woody biomass and/or decreasing CO₂, N₂O, and/or CH₄ emissions from soils.</p> <p>Justification This project reduces CH₄ emissions from rice fields i.e., from croplands, by replacing the traditional continuous flooding method with AWD practice as described in Section 1.1. Hence, this project is eligible under the ALM category.</p>	<p>Based on desk review^{/01/}, on-site inspection/interviews^{/VIII/}, and supporting evidence^{/11/}, VVB confirms that the project has implemented water management technique called alternate drying wetting for reducing anaerobic decomposition of the organic matter and thus reduce the CH₄ emission from rice cultivation.</p> <p>Therefore, the project is eligible under ALM activity.</p>
2.	<p>The project area shall not be cleared of native ecosystems within the 10-year period prior to the project start date.</p> <p>Justification The project area is demarcated for LULC to demonstrate that the project area has not been cleared of native ecosystems since 10 years through LULC analysis considering 2012 as base year, 2017 as control point and 2022 as current year. This will give a clear picture of land use land cover changes in project area including but not limited to Agriculture etc.</p>	<p>By cross-checking the LULC maps/satellite imagery^{/05/} of the area within project boundary, review of baseline assessment survey data/information^{/03/} and based on on-site inspection/interviews^{/VIII/}, VVB confirms that prior to project implementation the project area was under agricultural cultivation and the region was predominantly subjected to flooded rice cultivation method.</p> <p>Therefore, VVB confirms that the project activity does not involve clearing of native ecosystem. (Kindly refer to FAR 01 raised in the appendix 2 of this document)</p>
3.	<p>Improved Cropland Management (ICM): This category includes practices that demonstrably reduce</p>	<p>Based on desk review^{/01/} and on-site inspection/interviews^{/VIII/}, VVB confirms that project activities include reduction of</p>

<p>net GHG emissions of cropland systems by increasing soil carbon stocks, reducing soil N2O emissions, and/or reducing CH4 emissions.</p> <p>Justification/ Evidence This project reduces CH4 emissions from rice fields i.e., from croplands, by replacing the traditional continuous flooding method with AWD practice as described in Section 1.1. Hence, this project falls under the ICM activity type.</p>	<p>CH4 emissions from rice cultivation by applying alternate drying and wetting technique and thus valid and appropriate to be eligible under VCS ALM activity.</p>
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Project Design

As per the VCS PD^{/01/}, the project is a grouped project with multiple project instances. VVB confirms this during the on-site inspection and through the review of KML files^{/05/}.

Grouped project eligibility criteria.

By reviewing the VCS PD^{/01/} and the supporting evidence, VVB confirms that the eligibility criteria set out by the PP for the inclusion of new project activity instances are in line with the VCS Standard version 4.4^{/B01/}.

Table XII: Eligibility criteria for inclusion of new PAI and their assessment

Sr. No	Eligibility condition	Justification
1.	Meet the applicability conditions set out in the methodology applied to the project.	All the grouped project activity instances shall meet the applicability conditions prescribed in the CDM methodology AMS III AU: Methane emission reduction by adjusted water management practice in rice cultivation-- Version 04.0.
2.	Use the technologies or measures specified in the project description.	All the grouped project activity instances use the same technologies or measures that are specified in the project description which is alternate wetting and drying (AWD).
3.	Apply the technologies or measures in the same manner as specified in the project description.	All the grouped project activity instances shall include the introduction of improved practice that is AWD.

4.	Are subject to the baseline scenario determined in the project description for the specified project activity and geographic area.	The project areas are from the rice-growing states in India and in the pre project scenario, the farmers are practicing continuous flooded irrigation for the entire cropping season. This shall be verified from a representative survey conducted in the geographical region of the proposed project or by using national data.
5.	Have characteristics with respect to additionality that are consistent with the initial instances for the specified project activity and geographic area.	As per paragraph 5 of AMS-III.AU “Project participants shall apply the General guidelines for SSC CDM methodologies, Guidelines on the demonstration of additionality of small-scale project activities”. All the grouped project activities shall demonstrate the additionality as per tool 21 “Demonstration of additionality of small-scale project activities” Version 13.1
6.	Occur within one of the designated geographic areas specified in the project description.	All the grouped project activity instances shall be implemented in the geographical boundary of India.
7.	Have a start date that is the same as or later than the grouped project start date.	All new project activity instances will have the start date as same or later than the grouped project start date.
8.	Not be or have been enrolled in another VCS project.	None of the new project activity instances should have been enrolled or registered in another VCS project activity.

VVB confirms that definition of eligibility criteria complies and meets the requirement of section 3.6.16 & 3.6.17 of the VCS Standard version 4.4.

Table XIII: Project proponent and other entities involved in the project^{/01/VIII/}

Name	Title/Organization/Community	Role
Mr. Vamsi Krishna M (Managing Director)	Kosher Climate India Pvt. Ltd.	Project Proponent
Atul Ch Kalitha (Secretary)	Manab Kalyan	Implementing partner
Tanbir Rahaman (Director)	Sabuj Bahini Agro Producer Company Limited	Implementing partner

Piyush Saurav Sharma (Director)	Sanjog	Implementing partner
Amal Roy (Secretary)	Satmile Satish Club O Pathagar	Other Entities
Kopil Uddin Ahmed (Director)	Techno Village LLP	Implementing partner
Udayan Sarkar (President)	Angargaria Srijoni Siksha Nikethan	Implementing partner

During on-site inspection/interviews^{VIII/}, VVB has been informed regarding roles and responsibilities of PP and other entities. Furthermore, based on the document review^{01/}, VVB confirms the PP and other entities involved in the project.

Ownership

VVB, based on the review of VCS PD^{01/}, on-site inspection/interviews^{VIII/} and the land records^{11/} issued by the government agency, confirms that the first and second project activity instances have been implemented on agricultural lands owned by the individual farmers. Financial benefits generated by the project i.e., carbon credit rights belong to PP^{01/VIII/}. VVB has further reviewed the agreements signed between PP and NGOs and/or farmers representatives and confirms that the project proponent has the legal right to manage and operate the project where farming activities shall be carried out by the landowners/farmers and confirm that the project proponent has rightful ownership over the carbon credits generated by the proposed project^{07/}.

VVB based on the review of MOU signed between PP and NGOs and/or farmers representatives^{07/}, confirms that these MOUs/agreements ensures that the farmers participating under the proposed project get benefited via carbon revenues or agriculture related consulting or discount of Agri-inputs, whichever is preferred by the farmers.

Project Start Date

As per the section 3.8 of VCS Standard v4.4,

“The project start date of an AFOLU project is the date on which activities that led to the generation of GHG removals are implemented (e.g., preparing land for seeding, planting, changing agricultural or forestry practices, rewetting, restoring hydrological functions, or implementing management or protection plans).”

As per the section 1.8 of the VCS PD^{01/}, The project start date has been determined from the land preparation date of particular crop season. As per section 5.8.2 of applied methodology, the season for a cropping cycle will start from land preparation. The start date of the grouped project activity is 01/01/2023 which is the land preparation date of reference fields located in the Assam and West Bengal states of first instance.

The start date for second instance is 1st January 2023 as well. The project start date can be verified from the farmer logbooks.

VVB, based on the review of the farmers logbooks^{/10/11/}, confirms that the start date for the first and second project instance is 1st January 2023^{/01/}, as this is earliest date on which the land preparation has been started by the farmers. This has been further verified during on-site inspection and interviews^{/VIII/} with the participating farmers.

In the opinion of VVB, the start date is following the VCS requirement, as project validation is being carried out within the time-period set out in VCS standard v4.4 section 3.8.5.

Project Crediting period

As per section 3.9.2 of VCS Standard v4.4,

“For ALM projects focusing exclusively on reducing N₂O, CH₄ and/or fossil-derived CO₂ emissions, the project crediting period shall be either seven years (twice renewable for a total of 21 years) or ten years fixed”.

VVB confirms that the project crediting period is conforming with the VCS requirement, as the crediting period for the first and second project instance is 10 years fixed from 1st January 2023 to 31st December 2032^{/01/}.

VVB has further verified this by reviewing the MOUs signed between the Kosher Climate India Private Limited (PP) and the NGOs and/or farmer representatives^{/07/}, that the agreement between parties involved shall be valid for a period of 10 years. Thus, VVB confirms that the project will remain viable for the reported crediting period.

Project scale and estimated GHG reductions

As per section 3.10.1 of VCS Standard v4.4,

“Project size categorizations are as follows:

- 1) Projects: Less than or equal to 300,000 tonnes of CO₂e per year.*

- 2) Large projects: Greater than 300,000 tonnes of CO₂e per year.”*

Based on the review of the VCS PD^{/01/}, and carbon calculation spreadsheet^{/02/}, VVB confirms that the estimated annual GHG reductions generated from the project are 4,44,780 tCO₂e and 3,91,208 tCO₂e for first and second instances over the fixed crediting period of 10 years (1st January 2023 to 31st December 2032), with an annual average of 44,478 tCO₂e and 39,121 tCO₂e for first and second instances, respectively. Therefore, the project scale is at “Projects” level.

Project location

Based on the review of the VCS PD^{/01/} and through on-site inspection/interviews^{/VIII/}, VVB confirms that the first and second project activity instances have been implemented in the states of Assam and West Bengal covering an area of 13,169 ha.

At the time of validation, the first project instance covers 6,971 ha in Assam and 2,621 ha in West Bengal and the second instance is spread over 3,577 ha in Assam. The first and second instances will be implemented in Darrang, Udalguri, Dhubri, Barpeta and Nalbari districts of Assam and Coochbehar, Malda, Dakshin Purba Medinipur, Paschim Medinipur and Birbhum districts of West Bengal^[01/VIII/05].

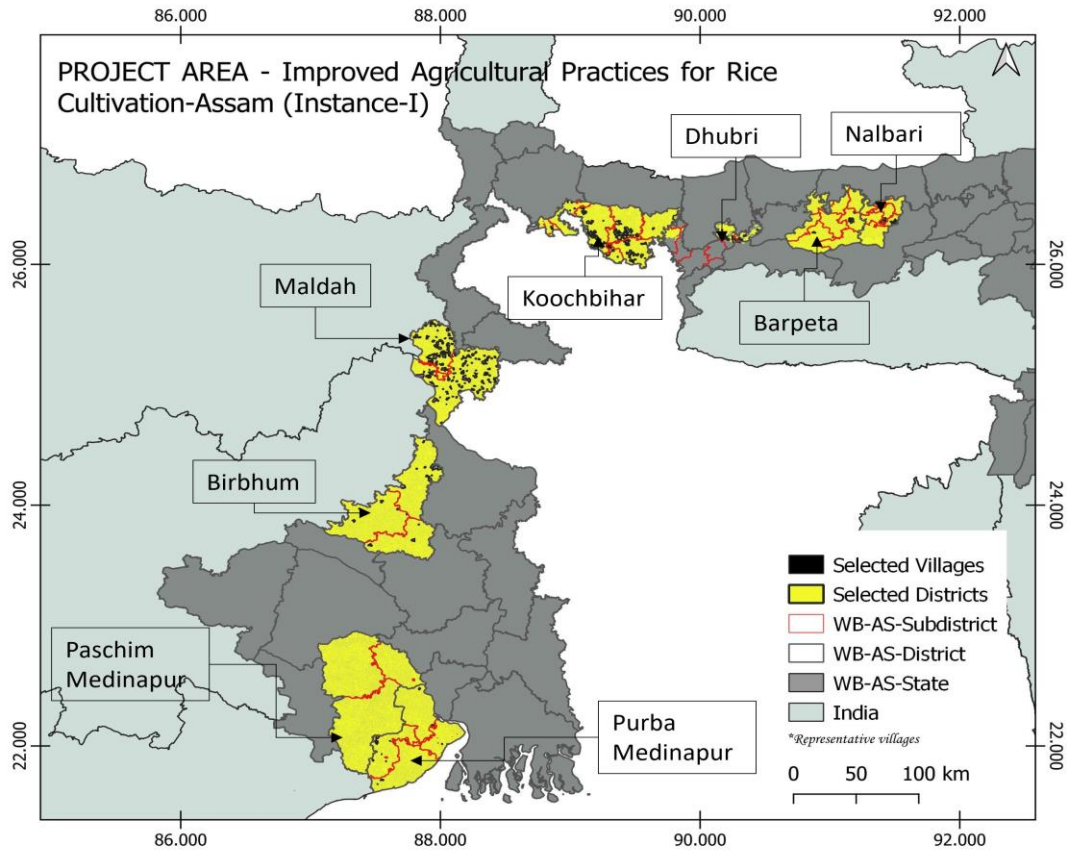


Figure 1: Project area map for first instance

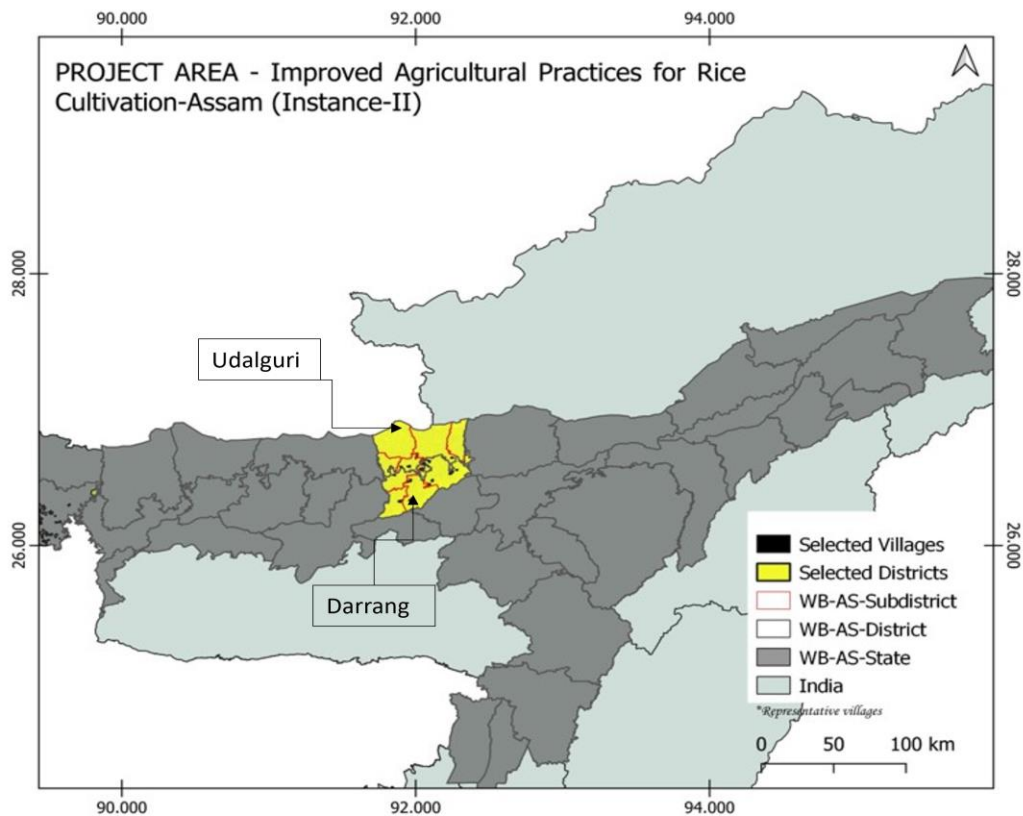


Figure 2: Project area map for second instance

Table XIV: Extent of Project Area

State	Districts	Details
West Bengal	Coochbehar	25°57'40" N and 26°32'20" N 88°47'40" E and 89°54'35" E
	Malda	25° 0' 39.0276" N and 88° 8' 27.9528" E
	Dakshin Dinajpur	88° 35.6756' E and 25.350213° N
	Purba Medinipur	21° 57.2479' N and 87° 48.1544' E
	Paschim Medinipur	22° 25' 51.2004" N and 87° 19' 17.3532" E
	Birbhum	23° 53.2269' N and 87° 34.7477' E
Assam	Dhubri	26° 1.3403' N and 89° 58.7338' E

	Barpeta	26°30'10.22" N and 90°58'9.73" E
	Nalbari	26° 26.5744' N and 91° 26.4623' E
	Darrang	26°44'59.99" N and 92°29'59.99" E
	Udalguri	26°41'22.9776"N and 91° 54' 35.7264" E

Based on the review of the Geo-tagged KML files^{/05/} with the coordinates for the areas under the grouped project and further verified during on-site inspection and through GIS analysis performed by the GIS expert of VVB team, VVB confirms that the information relevant to the project location and extent of project area for the reported crediting period is valid and appropriate.

Conditions prior to project initiation

Based on the review of VCS PD^{/01/}, supporting document^{/03//05/}, and on-site inspection and through interviews with the participating farmers^{/VIII/}, VVB confirms that prior to project implementation the project area was subjected to agricultural land use for rice cultivation involving continuous flooding method for crop irrigation.

Project compliance with applicable laws, statutes, and other regulatory frameworks

The proposed project activity is being implemented on the legal agricultural land where rice cultivation has been permitted by the statute. The grouped project intends to implement AWD rice cultivation method replacing the traditional continuous method of water management^{/01/}. Furthermore, the AWD method has been proven to reduce the CH₄ emissions from rice cultivation^{/06/} and to ensure efficient water usage, the project activity is not prevented by any host country rule or regulation.

There are some laws/policies which are indirectly related to the proposed project activity:

- The Child Labour (Prohibition and Regulation) Act, 1986:** The Act prohibits employment of children in certain occupations and processes (part II, Section 3). The Act also specifies conditions of work for children, if permitted to work. These include a working day of maximum of 6 hours a day (including rest), no work period exceeding 3 hours at a stretch, and no overtime (Section 7). The Act requires maintenance of a register for employed children (Section 11).

The project proponent has employed a standard procedure for the purpose of farmers onboarding under the proposed project which prevents involvement of children in the project activities^{/VIII//14/}.

- Minimum Wages Act, 1948:** requires the Government to fix minimum rates of wages and reviews this at an interval of not more than 5 years. The Payment of Wages Act, 1936, amended in 2005. Every employer shall be responsible for the payment to persons employed by him of all wages required to be paid under this Act. As per the

Equal Remuneration Act 1976, it is the duty of an employer to pay equal remuneration to men and women workers for same work or work of a similar nature.

PP has placed the MOU signed by both the parties involved in the proposed project to ensure that the farmer's as well as monitoring personnel's rights over the benefits generated through VCU's from the project are safe although PP possess the ownership of the carbon credits^{/07/}.

- **Contract Labour (Regulation and Abolition) Act, 1970:** An Act to regulate the employment of contract labour in certain establishments and to provide for its abolition in certain circumstances and for matters connected therewith.

Farmers onboarding in the project is based on their willingness and further to ensure the same PP has provide the consent letters^{/07/} signed by the representative farmers participating in the project.

VVB confirms that the proposed project activity is not prevented by any rule or regulation present in the host country.

Participation under other GHG programs

Projects registered or seeking registration under other GHG program(s)

The project has not been registered or is seeking registration under any other GHG programs^{/01/}. This has been further confirmed by checking on other registries (CDM/GS/GCC/Plan Vivo)^{/B04/} and has been verified by reviewing the declaration provided by project proponent^{/15/}, that the project is not seeking registration under other GHG program.

Rejection by other GHG programs

Based on the review of VCS PD^{/01/}, declaration by PP^{/15/}, and own research^{/B04/}, VVB confirms that the project has neither applied for nor has been rejected by any other GHG program.

Other forms of credit

Emissions trading programs and other binding limits

Based on the review of the VCS PD^{/01/}, further verified with the declaration provided by PP^{/15/}, VVB confirms that the project is not included in any emissions trading program or any other mechanism that allows GHG allowance trading, therefore, GHG emission reductions generated by this project will not be used for compliance under any other program or mechanism.

Other forms of environmental credit

Based on facts and discussions during on-site inspection/interviews^{/VIII/}, VVB confirms that the project has not sought or received another form of GHG related credit, including renewable energy certificates.

This has been further confirmed by receiving a declaration^{/15/}, signed by the project proponent that the project is not bounded by any Emission Trading program and that the project does not intend to generate any other kind of environmental credits for GHG emission reductions.

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Scope 3 emissions double claiming

Since the project activity does not include any commercial farming practice in the management plan, scope 3 (supply chain) emission is not applicable to the project activity. VVB based on the on-site inspection/interviews^{/VIII/} and by reviewing the declaration by PP confirm that the VCUs generated by the project activity are intended towards GHG offsetting under GHG trading mechanism and the project does not involve any commercial farming practice in the project region.

Sustainable development contributions

The project is inclined towards achieving the Sustainable Development Goals which are set out by United Nations Development Programme (UNDP). The project contributes to many of the country's sustainable development priorities. The SDGs achieved from the project are as follows:

Goal 1 (No Poverty): Additional income generation for the farmers from carbon project. The project activities facilitate additional incomes to the small and marginal farmers in terms of carbon credits as an incentive for adopting AWD rice cultivation practice.

Goal 2- (Zero hunger): Sustainable agricultural practices reduce input cost and increase income. Rice farming is a major source of income for the farmers in the project area. The project promotes adoption of AWD and provide crop advisory to farmers for rational use of fertilizers and weather advisory which helps them to generate substantial yield with reduced input costs and increase income, thus allowing farmers to afford food.

Goal 6- (Clean water and sanitation): The project implements water saving techniques by adopting the AWD method.

Goal 8- (Decent work and economic growth): The project provides employment to local youth working as field staff who provides technical advice and training to farmers and help in the implementation and documentation of AWD method in the field.

Goal 13- (Climate action): CH₄ emissions generated under anaerobic conditions are reduced by the implementation of the project. This positive impact is a direct consequence of the project activity.

The project ensures to facilitate the small scale and marginal farmers to adopt more efficient water management techniques for rice cultivation. The project also focusses on farmer's training about the implementation of AWD and the field water pipes for controlled irrigation. The AWD method is a smart water saving and eco-friendly technique for rice cultivation which not only has GHG mitigation potential but also improves farmer's economy^{/01/08/}.

Based on the review of VCS PD^{/01/} and supporting documents^{/07-09//11//14/}, VVB confirms that the statements made by PP on contribution towards SDGs are valid and appropriate.

Additional information

Leakage management for AFOLU projects

Validation Report: VCS Version 4.2

As per section 5.5 of the applied CDM methodology AMS III. AU^{/B02/}, any effects of the project activity on GHG emissions outside the project boundary are deemed to be negligible and do not have to be considered. Therefore, no leakage management is applicable for the proposed project activity.

Commercially sensitive information

Based on the review of the VCS PD^{/01/} and supporting documents^{/02-16/}, VVB confirms that no commercially sensitive information has been excluded from the public version of the project description.

3.2 Safeguards

3.2.1 No Net Harm

PP has demonstrated the potential environmental and socio-economic impacts subjected to project implementation.

Table XV: Impacts of project implementation

Potential impacts		Actions taken by PP
Environmental	The project has no negative impacts but many positive impacts on environment in terms of water conservation and CH4 emission reduction.	No action required.
	The project practice water management technique involving alternate drying and wetting the field which can cause growth of weeds in the field.	The ground staff can train the farmers weed management techniques.
Socio-economic	Improper implementation of AWD method can cause low yield and impact farmer's income negatively.	Appoint ground staff to provide training and technical advice to farmers. Also, the ground staff has to monitor the field activities, conduct monthly inspection and maintain log of field activities.

	Project is being implemented with the training and capacity building. Project will not cause any net harm to the community.	No action required.
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Based on the review of the supporting evidence^{/13//14/} and on-site inspection/interviews^{/VIII/}, VVB confirms that the PP has ensured the appropriate implementation of AWD method for crop irrigation by the farmers through planned field level training of farmers. Thus, project implementation does not lead to any negative environmental and/or socio-economic impacts.

3.2.2 Local Stakeholder Consultation

The Local Stakeholder Consultation meetings were held by the PP with stakeholders and all members and/or implementing partners in Guwahati (Assam) and 2 districts of West Bengal namely Malda and Cooch Behar^{/01//13/}. PP has adopted a distinctive process for engaging with local stakeholders. The meetings were conducted at the following places^{/13/}:

Table XVI: Time and Place of LSC meetings

Day of stakeholder consultation	Location
8 th December 2022	Sabuj Bahini Agroproducer company limited Training Hall, Chanchal, Malda, W. Bengal
12 th December 2022	Krishi Vigyan Kendra, Kamrup, Kahikuchi Guwahati, Assam
19 th December 2022	SSCOP, Elajaner Kuthi, Coochbehar, W. Bengal Cooch Behar, W. Bengal

The stakeholders identified and invited for the meeting were relevant and are directly /indirectly affected by the project. The invitees include individuals from the local communities, representatives of local authority and official representatives. Group of stakeholders identified for this project includes following^{/13/}:

- ✓ Farmers with an intent to participate in the project.
- ✓ Local people who are directly or indirectly a part of agriculture practices in the area
- ✓ Women who are engaged in agriculture.
- ✓ District Agriculture Officer(s)
- ✓ State and District Agriculture Department(s)

- ✓ Research institutes and agriculture universities

Local people were invited through the public notice which is more appropriate. For officials from the agriculture sector, invitations were sent via email or in person with hard copies. For village authorities and officials' invitations were handed over as they were available locally in the project area^{13/}.

The participants were informed about the concepts of CH₄ emission reduction by AWD in rice cultivation, project design, implementation pattern, risks, costs and benefits from the project and the laws/regulations covering farmer's worker's rights as per the host country laws/policies. The representatives of the local communities had the opportunity to present themselves, followed by the representative of the implementing partners, who elaborated the importance for adopting the technology in particular geography. The farmers/local stakeholders who were not able to attend the LSC meeting, were requested to share their inputs via email to PP or to the local implementing partners^{101/VIII/}.

On-going communication mechanism between the PP and local stakeholders employed includes the following:

- ✓ Implementing partners will conduct periodic meetings with local stakeholders to provide information on project activity, address concerns and gather feedback.
- ✓ Implementing partner will have a dedicated contact person for every block of project area along with village level contact person, this person will be easily accessible and responsive to queries, suggestions, and concerns from stakeholders.
- ✓ Implementing partner will have a feedback register at village level which allows stakeholders to provide input, express concerns, and share ideas.

Table XVII: Input received during the LSC meeting:

Sr. N.	Concerns	Response
1.	The representatives of the community highlighted that the major concern they are facing is that increasing fares towards motor pump for every irrigation.	PP pointed out that implementing AWD would bring additional benefits, including cost savings, as AWD necessitates reduced irrigation, resulting in lower cultivation costs.
2.	Many farmers raised questions regarding possibility of reduced yield.	PP explained the farmers about the technique and explained the various studies and experiences of projects. The importance of drying at the correct timings was highlighted, and not to undergo drying ones the crop is approaching its reproductive stage

3.	Farmers asked PP to explain how the contract terms with respect to credit share will be.	PP pointed out the credit share percentage, credit share transfer and ownership of credit lies with Kosher Climate.
4.	Over half of the stakeholders were not aware of carbon credits, carbon trading or voluntary carbon units (VCU) before the stakeholder meeting.	Most of the stakeholders found the meeting helpful for them to understand AWD practices and the benefits of water management techniques, carbon trading, carbon credits and VCU.

During the on-site interviews^{VIII} with famers and other stakeholders, the following questions were asked by the VVB:

1. Are you aware of the project?
2. Are you aware of the carbon credits and revenue?
3. Has the project improved your living or income?
4. Have you been invited to give your comments on the project?
5. Were your comments addressed by the PP?
6. Were you imparted any training for capacity building and/or monitoring procedures?
7. Was your plot/land parcel included in the project?

VVB has observed that the farmers were aware of the project and its process for registration in VERRA. They were given capacity trainings by the PP and confirmed the locations of sample plots included in the project. VVB confirms (based on assessment above, review of documents and on-site inspection interview's/observation) the following:

- ✓ PP has summarized stakeholder input received during the local stakeholder consultation meeting.
- ✓ PP has identified the potential risks that may affect the local stakeholders identified within the project boundary and has employed internal policies to safeguard.
- ✓ PP has appropriate communicated to the local stakeholders regarding the project information and about the project design and implementation, risks, costs, and benefits.
- ✓ VVB has ascertained that the project complies with national laws, statutes, and other regulatory frameworks.

VVB, based on the on-site inspection interviews with the participating farmers^{VIII/}, documentation review^{13/}, confirms that Local Stakeholder Consultations have been conducted in local languages. Furthermore, during the LSC meetings, the feedback forms were also given to farmer which is deemed to be suitable and appropriate by VVB. PP has developed grievance redressal mechanism^{13/} and SOPs^{14/} regarding the inputs for training and has entered in contractual agreement^{05/} with farmers with due course of time mentioning the right over carbon credits and revenue generated through sale of it.

Considering the supporting evidence for the LSC meeting provided by the PP^{13/}, VVB confirms that the approach of the PP to identify the stakeholders is appropriate and that the rationale supporting it are fitting to the context of the project. Therefore, VVB deems that process applied by PP has properly identified all stakeholders who might be impacted by the project activities.

3.2.3 Environmental Impact

Based on the review of the VCS PD^{01/}, on-site inspection and interviews with the farmers^{VIII/}, and the supporting documents^{06-09/13/}, VVB confirms that the project activity has positive impacts on the environment and the project does not require an Environmental Impact Assessment. VVB based on its sectoral and country expertise confirms that the project type does not require an environmental clearance in the host country and considers the justification in the VCS PD^{01/} as appropriate and valid.

3.2.4 Public Comments

The project was open for public comment from 16th June 2023 to 16th July 2023.

As per the section 2.4 of the VCS PD^{01/}, the project has received one public comment and the comment and PP response are given below:

Comment 1: The methodology is under review, why the project can be uploaded for public comment? Funny platform

Response: As per the Verra, all projects applying the CDM methodology AMS-III.AU that requested listing prior to 3 February 2023 may proceed with registration and must complete validation no later than 20 September 2023 and address any findings issued during Verra's full review of the registration request. Hence as on date proposed project activity of 16,000 ha is eligible to register, subjected to completion of validation by September 19th, 2023, under Verra. Considering the validity of applied methodology.

VVB, confirms that the proposed project has been listed on the VERRA registry prior to 3rd February 2023 (Listing date: 27th December 2022) and is eligible for validation.

3.2.5 AFOLU-Specific Safeguards

In line with the VCS PD template instructions, VVB analysed the project-specific safeguards as summarized below:

Table XVIII: Project specific safeguards

<p>The local stakeholder identification process and the description of results.</p>	<p>The stakeholders identified by the PP are:</p> <ul style="list-style-type: none"> a) farmers participating in the project. b) local people who are directly or indirectly a part of agriculture practices in the area c) women who are engaged in agriculture. d) District Agriculture Officer(s) e) State and District Agriculture Department(s) f) research institutes and agriculture universities <p>Based on the desk review^{01//13/}, VVB confirms that all the stakeholders relevant to the project activity have been identified/addressed as required and no party/individual has been overlooked. VVB confirms that the local stakeholder identification process is valid and applicable.</p>
<p>Risks to local stakeholders due to project implementation and how the project will mitigate such risks.</p>	<p>By reviewing VCS PD^{01/} supporting documents, VVB confirms that the project does not expect any negative impact on the environment as well as on the local community.</p> <p>As per the review of VCS PD^{01/}, VVB has ascertained that the project expects to beneficially impact the local stakeholder, through contributing towards UN SDGs i.e.,</p> <p>SDG/Goal-1 No Poverty- Additional income generation for the farmers from carbon project.</p> <p>SDG/Goal-2 Zero Hunger: The project promotes adoption of AWD and provide crop advisory to farmers for rational use of fertilizers and weather advisory which helps them to generate substantial yield with reduced input costs and increase income, thus allowing farmers to afford food.</p> <p>SDG/Goal-6 Clean water and sanitation- The project implements water saving techniques by adopting the AWD method.</p> <p>SDG/Goal-8 - Decent work and economic growth - employment to local youth working as field staff who provides technical advice and training to farmers and</p>

	<p>help in the implementation and documentation of AWD method in the field.</p> <p>SDG/Goal-13 Climate Action- CH4 emissions generated under anaerobic conditions are reduced by the implementation of the project.</p> <p>Considering the on-site inspection/interviews^{VIII/}, supporting evidence^{06/8/14/}, and own expertise, VVB confirms that the project imposes the positive impacts on the stakeholders by securing their livelihood potential and applying more efficient rice cultivation method.</p>
<p>Risks to local stakeholder resources due to project implementation and how the project will mitigate such risks, including plans to ensure the project will not impact local stakeholders' property rights without the free, prior and informed consent</p>	<p>As a part of project implementation, rice cultivation is being carried out by farmers on the lands belonging to them.</p> <p>The farmers are the landowners and are expected to provide with the benefits of carbon credit selling by PP and an institutional mechanism has been set up to transfer the carbon credits^{07/}.</p> <p>The agreements/MOUs^{07/} have been signed between NGOs and/or farmer representatives on behalf of farmers after their prior consent^{07/} for implementation of the project activity. VVB confirms that the project does not impact local stakeholders' property rights without the free, prior, and informed consent.</p>
<p>Processes to ensure ongoing communication and consultation, including a grievance redress procedure to resolve any conflicts that may arise between the project proponent and local stakeholders.</p>	<p>Based on the review of the LSC meeting documentation^{13/} presented by the PP, and on-site inspection/interviews with the participating farmers^{VIII/}, VVB confirms that the grievance redressal procedure used by project proponent during stakeholder consultations is in line with the VCSA requirements, as during LSC meeting feedback/input questionnaires were distributed with the farmers/stakeholders in order to gather their understandings and/or suggestion regarding project implementation a</p>
<p>Identify, discuss and justify a conclusion regarding whether the project has been designed and, as appropriate, is implementing, plans and processes to ensure the project will not create any negative impacts on local</p>	<p>Based on the information on project implementation and the monitoring process^{01/09/11/14/}, VVB confirms that the project will not lead to any negative impact on local stakeholders.</p>

stakeholders or mitigates such impacts where necessary.	
For AFOLU projects that have claimed to have no impacts on local stakeholders, provide an assessment of the evidence provided and identify, discuss and justify a conclusion as to whether the project has no impacts on local stakeholders	This has been confirmed based on confirmation of the abovementioned details against of the VCS requirement ^{t/B01/} including review of relevant documents, that project will have negative impacts on the environment as well as on the local stakeholders. VVB confirms that the project activity will lead to overall positive impacts.

3.3 Application of Methodology

3.3.1 Title and Reference

The project applies small scale ALM CDM Methodology AMS III. AU: Methane Emission Reduction by Adjusted Water Management Practice in Rice Cultivation/ version 4.0^{B02/} and CDM Tool 21 “Demonstration of Additionality of Small-Scale Project Activities v13.1^{B03/}.

3.3.2 Applicability

Following the applied methodology and tool, VVB has summarized the process incorporated to assess the project applicability against relevant requirements as below:

Table XIX: Project eligibility as per applied methodology:

AMS III.AU: Methane Emission Reduction by Adjusted Water Management Practice in Rice Cultivation v4.0		
Sr.	Applicability Condition	VVB Assessment
a)	Rice cultivation in the project area is predominantly characterized by irrigated, flooded fields for an extended period of time during the growing season, i.e., farms whose water regimes can be classified as upland or rainfed and deep water are not eligible to apply this methodology. Justification The project areas are from the rice-growing states in India and in the pre project scenario, the farmers are practicing continuous flooded irrigation for the entire	Based on the review of the baseline survey records ^{03/} , the farmers logbook records ^{11/} provided by PP, and on-site inspection/interviews ^{VIII/} , VVB confirms that the project has been implemented in the region/area which was subjected to continued irrigated flooding method of water management for rice cultivation prior to project start date. Further, based on own research: i) https://krishijagran.com/agripedia/rice-cultivation-in-assam-a-complete-guide/ ,

	<p>cropping season. This shall be verified from a representative survey conducted in the geographical region of the proposed project.</p> <p>This determination will be based on the water management practices adopted by the baseline farmers that, they are following irrigation or supplemental irrigation water regime, and they have control over irrigation methods, such as using motor pumps to irrigate or drain the fields.</p>	<p>ii) statistical handbook assam - 2021.pdf (includes district wise and season (Kharif/Rabi) wise on area irrigated in Assam through irrigation schemes.</p> <p>iii) agriculture gross-net-irrigated-and-un-irrigated-area Statistics and Growth Figures Year-wise of west-bengal-Indiastat, VVB confirms that the project region follows the cultivation of lowland rice cultivation which necessitates a large amount of water.</p> <p>In the project scenario the AWD irrigation method has been implemented in in the project area^{/01/VIII/}.</p> <p>Therefore, VVB confirms that the project meets the applicability condition.</p>
<p>b)</p>	<p>The project rice fields are equipped with controlled irrigation and drainage facilities such that both during dry and wet season, appropriate dry/flooded conditions can be established on the fields.</p> <p>Justification</p> <p>The farmers in the project activity should have access to the controlled irrigation sources in the rice fields such as borewells with motor pumps canal water with adjusted bunds during both dry and wet periods. This can be verified with representative survey conducted in the geographical region of the proposed project or by using national data.</p>	<p>Based on the on-site inspection/interviews with the farmers^{VIII/} and the desk review^{07/11/14/}, VVB confirms that the project rice fields contain motor pumps and adjusted bunds to regulate the water level in the field. Project proponent ensures to provide appropriate equipment to farmers to facilitate intermittent and/or controlled drainage facilities along with field training for installment of relevant equipment i.e., field water pipes.</p>
<p>c)</p>	<p>The project activity does not lead to a decrease in rice yield. Likewise, it does not require the farm to switch to a cultivar that has not been grown before</p> <p>Justification</p> <p>The implementation of Alternate Wetting and Drying technology will not result in</p>	<p>Based on the desk -review^{/01/03/08/} and further verified by conversing with the participating farmers^{VIII/}, VVB confirms that the crop yield produced in both baseline and project scenario has been taken into consideration by PP to analyze the changes in the crop yield due to adoption of AWD practice.</p> <p>As per the interviews with the farmers^{VIII/}, there has been no change</p>

	<p>reduction of rice yield⁴. The Project Proponent is however collecting the yield information and documented in the farmer logbooks after each crop season.</p> <p>The PP has not recommended or will not recommend any change of cultivar usage as part of the standard package of practices provided to the farmers during onboarding.</p>	<p>in the variety of rice crop and that there was no decrease in the crop yield as well. To ensure that the project activity does not lead to a decrease in yield, “yield” has been added as a monitored parameter in the PD/01/.</p>
<p>d)</p>	<p>Training and technical support during the cropping season that delivers appropriate knowledge in field preparation, irrigation, drainage and use of fertilizer to the farmer is part of the project activity and is to be documented in a verifiable manner.</p> <p>Justification</p> <p>The PP confirms providing advisory to the farmers through ground staff about improved water management practices, provide the farmers necessary field assistance, training, farm level technical demonstrations, agronomy, fertilizer, crop protection advisories to the farmers, to implement AWD practices. Further, agronomists will visit fields to provide necessary advisory to the farmers. This shall be confirmed through the data maintained in the training calendar and training records.</p>	<p>Based on the review of the supporting evidence for field level training^{14/}, on-site inspection/interviews^{VIII/}, by verifying the competency of MRV personnels employed by the project proponent^{04/}, VVB confirms that PP has ensured to provide appropriate and possible optimum technical advisories to farmers along with other necessary field assistance.</p>
<p>e)</p>	<p>Project proponents shall assure that the introduced cultivation practice, including the specific cultivation elements, technologies, and use of crop protection products, is not subject to any local regulatory restrictions.</p> <p>Justification</p>	<p>VVB, based on the literature review^{06/} and its host country's expertise confirms that the project type is not being prevented by any local regulatory guidelines, as the project involves the AWD practice for rice cultivation leading positive environmental and socio-economic impacts.</p>

⁴ <https://www.omicsonline.org/open-access/barriers-and-opportunities-of-alternate-wetting-and-drying-awd-irrigation-system-in-bangladesh-a-comparative-study-among-major-ric-116999.html>

	<p>The AWD practice implemented in the project activity instance of grouped project activity are not restricted by any local regulatory bodies. Further many of the agricultural universities and research institutions recommends to implement the AWD practices to help farmers in reducing the water consumption and encouraging the sustainable farming.</p> <p>This can be verified by available public policies or regulations in the region.</p>	
<p>f)</p>	<p>Except the case where the default value approach indicated in section 6.1.2 “Emission reductions using IPCC tier 1 approach or default values” is chosen for emission reductions calculations, project proponents have access to infrastructure to measure CH4 emissions from reference fields using closed chamber method and laboratory analysis.</p> <p>Justification All the two instances in the grouped project activity shall adopt the default value approach for “Emission reductions using IPCC tier 1 approach or default values”. This can be verified from the PD or the subsequent MR.</p>	<p>Since IPCC tier 1 approach has been applied for GHG reductions calculation, this condition is not applicable to the project. VVB confirms that this condition is not applicable to the project as all the equations applied by PP for GHG reductions accounting are in line with the applied methodology AMS III. AU^{B02/}.</p>
<p>g)</p>	<p>Aggregated annual emission reductions of all fields included under one project activity shall be less than or equal to 60 kt CO2 equivalent.</p> <p>Justification The The aggregated annual emission reductions of all fields included in first and second instance under this grouped project is 44,478 tCO₂e and 39,121 tCO₂e equivalent per annum which is less than 60 kt CO2 equivalent. This can be verified from the PD and the subsequent MR.</p>	<p>As the annual GHG reductins generated from each project instances are estimated as < 60 Kt CO₂e^{J01//02/} i.e.,</p> <p>For first project instance- 44,478 tCO₂e and for second project instance 39,121 tCO₂e.</p> <p>VVB confirms that the project meets the applicability condition.</p>

Table XX: TOOL 21 “Demonstration of Additionality of Small-scale Project Activities (version 13.1)^{B03/}

Sr.	Applicability Condition	VVB Assessment
a)	<p>The use of the methodological tool “Demonstration of additionality of small-scale project activities” is not mandatory for project participants when proposing new methodologies. Project participants and coordinating/managing entities may propose alternative methods to demonstrate additionality for consideration by the Executive Board.</p> <p>Justification PP has applied the methodological tool “Demonstration of additionality of small-scale project activities” which is in line with the applied methodology.</p>	<p>Project proponent has demonstrated the project additionality in line with the methodological tool as per the applied methodology AMS III.AU^{B02/}.</p>
b)	<p>Project participants and coordinating/managing entities may also apply “TOOL 19: Demonstration of additionality of microscale project activities” as applicable.</p> <p>Justification The project activity is categorized as a small-scale project. Hence, tool 19 is not applicable.</p>	<p>As the estimated annual GHG emission reductions of the project are falling in the range between >20 Kt CO₂e and < 60 Kt CO₂e^{01//02/}, VVB confirms the project need not to apply TOOL 19 for additionality demonstration.</p>

3.3.3 Project Boundary

In accordance with the applied methodology^{B02/} the project boundary identified by PP for GHG accounting as follows:

Table XXI: GHG sources and gases

	Source	Gases	Whether included?	Justification/Explanation
Baseline	Continuation of current practice-continuously	CO ₂	No	Not included in this project
		CH ₄	Yes	High rates of CH ₄ are emitted by the continuous flooding due to anaerobic decomposition of the organic matter

	flooded rice cultivation	N ₂ O	No	Since there is no change in the fertilizer application rate the N ₂ O emissions will not change.
Project	Implementation of AWD/ DSR methods in the project field.	CO ₂	No	Not included in this project
		CH ₄	Yes	As per paragraph 15 of the methodology, “project emissions consist of the CH ₄ emissions, which will still be emitted under the changed cultivation practice”
		N ₂ O	No	Since there is no change in the fertilizer application rate the N ₂ O emissions will not change.

GHG gases, namely CO₂ and N₂O have been conservatively excluded from GHG accounting^{/01/VIII/}.

VVB confirms that the project boundary and selected sources, gases, and their justification of inclusion and/or exclusion is valid and project boundary is correctly defined and in compliance with the applicable methodology^{/B02/} and VCS requirements^{/B01/}.

3.3.4 Baseline Scenario

In accordance with the applied methodology^{/B02/} the baseline scenario identified for the proposed project activity is the continuation of the current/pre-project practice which is continuously flooded rice cultivation in the region. This has been further verified through reviewing the baseline survey records^{/03/} and the GIS analysis data^{/05/} provided by the PP and by interviews with the farmers and/or local stakeholders participating/identifying within the project region.

3.3.5 Additionality

The CDM tool 21 “Demonstration of additionality of small- scale project activities” Version 13.1, has been applied to demonstrate the project additionality. PP has identified the following barriers which may have prevented the project implementation:

Based on the review of VCS PD and on-site inspection interviews^{/VIII/} confirms that the project activity would not have occurred due to following barriers:

Table XXII: Barriers identified by PP and VVB assessment.

Project Barrier	VVB Assessment
Investment Barrier	Implementation of the project is prohibitively expensive at both farmer-plot level as well as across scall through organizations. The investment cost includes transportation and installation of pipes, recruiting local

	<p>field staff to farmer capacity building and monitor field activities during crop cycle, field specific agronomy inputs, travel expenses of staff for monitoring and all other services offered free of cost to the farmers.</p> <p>Based on the on-field interviews with the farmers^{VIII}, VVB confirms that PP has provided financial assistance to farmers for the AWD pipeline installation in their rice fields to ensure intermittent irrigation of the crop and proper implementation of AWD technique in the project region.</p>
<p>Technology Barrier</p>	<p>Water management without yield trade-off is a challenging technicality both at the farmer level and geography. Plot, variety, season, and crop specific assessment is required which is not readily available to the farmer. Hence, without this project, water management implementation, even for the purpose of water saving is not a possibility.</p> <p>As per the interviews with the farmers^{VIII}, prior to project implementation they were either unaware regarding the concept of alternate wetting/drying irrigation method for rice or farmers had limited or no technological understanding of AWD techniques.</p>
<p>Barrier due to prevailing practice</p>	<p>Continuously flooded irrigation is less technologically advanced because it only requires that the fields should be flooded throughout the season and there is no need to monitor the growth status of the crop to inform appropriate drainage and irrigation activities. In contrast, AWD requires the farmer to keep track of the irrigation and drainage, monitor the water level in the field, check the installed pipe for clogging, clean the mud settled at the bottom of the pipes, watch for weeds etc. The farmers perceive AWD implementation to be a complicated water management system. Hence, there is a low willingness to switch from the conventional flooded approach of irrigation to AWD. Changing the cultivation method to AWD goes against farmers' knowledge of traditional methods.</p> <p>In the project scenario project proponent has provided technical as well as financial assistance under the VCS project to the farmers identified within the project boundary to implement the project activity and equipped the rice fields with the AWD pipeline installations^{/01/VIII/07/14/15/}. This enables the farmers to follow the improved irrigation method i.e., AWD for rice crop cultivation, thus resolved this barrier.</p>

Further the project is being implemented in the non-annex 1 country and in the host country there are yet rule/regulations which mandates implementation of AWD practices. In India, Non-Governmental Organizations (who are the project implementers in the project area) are seen to have a significant role in community development practice. But, nowadays, many

NGOs are facing financial problems in the implementation of various social developmental programs⁵.

The adoption of AWD in India has been slow, despite its potential to reduce water consumption and greenhouse gas emissions and improve crop yields. The main barriers to AWD adoption in India are the lack of awareness and technical knowledge among farmers⁶.

In opinion of VVB, the demonstration of project additionality is valid and in compliance with CDM Tool 21^{/B03/} and considering the above-mentioned details the project activity is deemed additional by the VVB.

3.3.6 Quantification of GHG Emission Reductions and Removals

VVB confirms that the PP has incorporated the methods for quantifying the GHG reductions generated by the project in accordance with the methodology^{/B02/}. VVB has performed review of all input data, parameters, formulas, calculations, conversions, statistics, and output data to ensure consistency with the documentation^{/01/02/}, methodology^{/B02/}, associated and tools^{/B03/}.

Furthermore, where applicable, references for analysis methods or default values were checked against relevant scientific literature for best practice. The GHG reductions has been calculated as follows:

In accordance with the applied methodology^{/B02/}, PP has demonstrated the quantification approach applied for GHG accounting of the selected carbon pools as follows:

Baseline Emissions:

According to the applied methodology AMS III AU, for the ex-ante estimation of emission reductions within the project design document, project proponent shall choose IPCC tier Option 2 approach to calculate emission reductions as per paragraph 30 of the methodology explained in section 4.4 of PDD. Hence, the section is not applicable.

Project Emissions:

According to the applied methodology AMS III AU, for the ex-ante estimation of emission reductions within the project design document, project proponent shall choose IPCC tier Option 2 approach to calculate emission reductions as per paragraph 30 of the methodology explained in section 4.4 of PDD. Hence, the section is not applicable.

Leakage:

⁵ <https://www.redalyc.org/journal/6437/643768221040/html/>

⁶ <https://drreddysfoundation.org/alternate-wetting-and-drying-awd-for-sustainable-paddy-cultivation-in-india/>

As per the applied methodology^{/B02/}, any effects of the project activity on GHG emissions outside the project boundary are deemed to be negligible and do not have to be considered. Therefore, no leakage has been considered for this project type.

Net GHG emission reductions Validation Report: VCS Version 4.2

According to the applied methodology AMS III AU^{/B02/}, for the ex-ante estimation of emission reductions within the project design document, PP shall choose IPCC tier Option 2 approach to calculate emission reductions as per paragraph 30 of the methodology. Option 2 uses global default values derived from IPCC tier 1 approach to calculation emission reductions. Paragraph 31 of the methodology mentions the default values to be used to calculate emission reductions as per Option 2.

Option 2 of paragraph 30 of the methodology AMS.III-AU version 4.0 is used to estimate the net GHG emission reductions. The emission reductions are calculated as per equation (6), using default values of adjusted daily emission factor EF_{ER} (kgCH₄/ha/day).

- (a) For regions/countries where double cropping is practised:
 - i. Use 1.50 (kgCH₄/ha/day) for project activities that shift to intermittent flooding (single aeration);
 - ii. Use 1.80 (kgCH₄/ha/day) for project activities that shift to intermittent flooding (multiple aeration);
- (b) For regions/countries where single cropping is practised:
 - i. Use 0.60 (kgCH₄/ha/day) for project activities that shift to intermittent flooding (single aeration);
 - ii. Use 0.72 (kgCH₄/ha/day) for project activities that shift to intermittent flooding (multiple aeration).

Equation 6 under paragraph 21 of the methodology AMS-III. AU^{/B02/}:

$$EF_y = EF_{ER} \times A_y \times L_y \times 10^{-3} \times GWP_{CH_4}$$

where,

EF_{ER} = Emission reductions in year y (t CO₂e)

A_y = Area of project fields in year y (ha)

L_y = Cultivation period of rice in year y (days/year).

GWP_{CH_4} = Global warming potential of CH₄ (tCO₂e/tCH₄)

The project activity shifts to intermittent flooding with single and multiple aerations.

Therefore, EF_{ER} = 0.72 kgCH₄/ha/day (For single cropping with multiple aeration)

$$EF_{ER} = 1.80 \text{ kgCH}_4/\text{ha/day (For double cropping with multiple aeration)}$$

The Global Warming Potential of CH₄ is 28 as per the VCS Standard Version 4.3 Section 3.14.4. Hence, $GWPC_{CH_4} = 28$

The cultivation period of rice varies across the country depends on the rice variety used by the farmer and climatic conditions in the season.

For ex-ante purpose to determine the most certain number of cultivation days in the project activity region (Assam and West Bengal) PP, through baseline survey has collected the crop varieties used by the farmers and considered the standard cultivation days applicable for those rice varieties from National Rice Research Institute and relevant sources which are provided in the table below.

Followed to this PP has estimated the cultivation days of varieties used in the project region though weighted average basis and determined that the cultivation period of rice in the project scenario is 140 days for single cropping (Rabi season) and 270 days for double cropping (Kharif and Rabi season).

Table XXIII: Cultivation period for different variety and cropping season, in the project region

Geography	Cropping Season	Variety	Area (ha)	Cultivation days
West Bengal	Kharif	Kiron	0.1	110 ⁷
West Bengal	Kharif	Anamika	0.05	145 ⁸
West Bengal	Kharif	Khitish	0.05	120 ⁹
West Bengal	Kharif	Shatabdi	0.06	110 ¹⁰
Assam	Kharif	Dabang Plus	0.06	120 ¹¹
Assam	Kharif	Astha	0.02	110 ¹²
Assam	Kharif	PAN 804	0.41	140 ¹³
West Bengal	Rabi	MTU 7028	0.06	140 ¹⁴

⁷ Released Varieties – National Rice Research Institute (icar-nrri.in)

⁸ Released Varieties – National Rice Research Institute (icar-nrri.in)

⁹ Released Varieties – National Rice Research Institute (icar-nrri.in)

¹⁰ Released Varieties – National Rice Research Institute (icar-nrri.in)

¹¹ <https://www.acsenagriscience.com/category/paddy/>

¹² <https://asthaagri.com/category/paddy/?pdf-catalog=106>

¹³ <https://agrostar.in/product/pan-804-paddy-6-kg-seeds/AGS-S-4228?language=en&state=maharashtra>

¹⁴ <https://www.onlinegreenday.com/products/srs-paddy-seed-mtu-7029>

West Bengal	Rabi	CR 800	0.66	140 ¹⁵
West Bengal	Rabi	Swarna Sub 1	0.66	145 ¹⁶
Assam	Rabi	Dabang Plus	0.06	130 ¹⁷
Assam	Rabi	PAN 804	0.1	140 ¹⁸
Assam	Rabi	Astha	0.05	100 ¹⁹

After applying the weighted average, the cultivation days for Rabi season is 140 days and 130 days for Kharif season.

Therefore, $L_y = 140$ days (Single cropping regions-Rabi)

$L_y = 270$ days (Double cropping regions-Kharif and Rabi)

As per Indian Council of Agricultural Research (ICAR), Government of India recommendation²⁰, 10 per cent of main field area can be considered for nursery bed preparation. Hence PP has deducted 10 per cent of the main field area (used for nursery bed) while calculating the emission reductions.

Table XXIV: Area under project activity instances

Instance	Area (ha)	10% deduction towards nursery	Ay (ha) (area covered at the time of validation)	Crop and water regime
First instance	6971	697	6274	Single cropping with multiple aeration
First instance	2621	262	2359	Double cropping with multiple aeration

¹⁵ <https://odishaseedsportal.nic.in/ouatreport/Totvariety/247>

¹⁶ <https://icar-nrri.in/wp-content/uploads/2018/07/63.-Swarna-%E2%80%93Sub-1-A-promising-high-yielding-rice-variety-for-flood-%E2%80%93prone-rainfed-shallow-lowlands-of-coastal-Odisha.pdf>

¹⁷ <https://www.acsenagriscience.com/category/paddy/>

¹⁸ <https://agrostar.in/product/pan-804-paddy-6-kg-seeds/AGS-S-4228?language=en&state=maharashtra>

¹⁹ <https://asthaagri.com/category/paddy/?pdf-catalog=106>

²⁰ https://icarrcer.icar.gov.in/storage/FINAL_boro-rice.pdf

Second instance	3577	358	3219	Double cropping with multiple aeration
Total	13,169	1,317	11,852	-

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Uncertainty Calculation:

In line with 2006 IPCC Guidelines, Volume 2, Chapter 2, Tables 2.2 to 2.6, the estimated ERs are multiplied with Conservativeness factor for Estimated uncertainty range at 95% confidence level of overall emission reductions. A Conservativeness factor of 0.893 has been considered for Estimated uncertainty range at 95% confidence level of overall emission reductions of > +/- 30%, ≤ +/-50%.

The emission reduction is calculated as below:

- a. First instance: Single cropping with multiple aeration.

Year	Ay	Ly	GWPC _{H4}	EFER	Conservativeness factor	ER _y
1st January 2023- 31st December 2023	6,274	140	28	0.72	0.893	15,813
1st January 2024- 31st December 2024	6,274	140	28	0.72	0.893	15,813
1st January 2025- 31st December 2025	6,274	140	28	0.72	0.893	15,813
1st January 2026- 31st December 2026	6,274	140	28	0.72	0.893	15,813
1st January 2027- 31st December 2027	6,274	140	28	0.72	0.893	15,813
1st January 2028- 31st December 2028	6,274	140	28	0.72	0.893	15,813
1st January 2029- 31st December 2029	6,274	140	28	0.72	0.893	15,813
1st January 2030- 31st December 2030	6,274	140	28	0.72	0.893	15,813
1st January 2031- 31st December 2031	6,274	140	28	0.72	0.893	15,813
1st January 2032- 31st December 2032	6,274	140	28	0.72	0.893	15,813

Total						1,58,128
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b. First instance: Double cropping with multiple aeration:

Year	Ay	Ly	GWPC _{H4}	EFER	Conservativeness factor	ER _y
1st January 2023- 31st December 2023	2,359	270	28	1.8	0.893	28,665
1st January 2024- 31st December 2024	2,359	270	28	1.8	0.893	28,665
1st January 2025- 31st December 2025	2,359	270	28	1.8	0.893	28,665
1st January 2026- 31st December 2026	2,359	270	28	1.8	0.893	28,665
1st January 2027- 31st December 2027	2,359	270	28	1.8	0.893	28,665
1st January 2028- 31st December 2028	2,359	270	28	1.8	0.893	28,665
1st January 2029- 31st December 2029	2,359	270	28	1.8	0.893	28,665
1st January 2030- 31st December 2030	2,359	270	28	1.8	0.893	28,665
1st January 2031- 31st December 2031	2,359	270	28	1.8	0.893	28,665
1st January 2032- 31st December 2032	2,359	270	28	1.8	0.893	28,665
Total						2,86,652

c. Second instance: Double cropping with multiple aeration

Year	Ay	Ly	GWPC _{H4}	EFER	Conservativeness factor	ER _y
1st January 2023- 31st December 2023	3,219	270	28	1.8	0.893	39,121
1st January 2024- 31st December 2024	3,219	270	28	1.8	0.893	39,121

1st January 2025- 31st December 2025	3,219	270	28	1.8	0.893	39,121
1st January 2026- 31st December 2026	3,219	270	28	1.8	0.893	39,121
1st January 2027- 31st December 2027	3,219	270	28	1.8	0.893	39,121
1st January 2028- 31st December 2028	3,219	270	28	1.8	0.893	39,121
1st January 2029- 31st December 2029	3,219	270	28	1.8	0.893	39,121
1st January 2030- 31st December 2030	3,219	270	28	1.8	0.893	39,121
1st January 2031- 31st December 2031	3,219	270	28	1.8	0.893	39,121
1st January 2032- 31st December 2032	3,219	270	28	1.8	0.893	39,121
Total			3,91,208			

VVB, based on the review of VCS PD/01/and carbon calculation spread sheet/02/, confirms that the calculation of emissions reductions are subjected to project implementation and the VCU's determined are in line with the VCS requirement/B01//B02/ and deemed valid and acceptable by the VVB.

3.3.7 Methodology Deviations

No deviations were detected by the VVB from the applicable methodology.

3.3.8 Monitoring Plan

As per the VCS PD^{01/}, the monitoring plan followed is as follows:

Table XXV: Data and parameter available at validation

Data/Parameters	Value applied	VVB assessment
Adjusted daily emission factor (EF _{ER}) kgCH ₄ /ha/day	0.72 for single cropped rice with multiple aeration	Since the value applied is in accordance with the applied methodology ^{B02/} , VVB confirms that the value applied is appropriate.

	1.80 for double cropped rice with multiple aeration	

Table XXVI: Data/parameters monitored.

Data/Parameters	Value applied	VVB assessment
Aggregated project area in year y (A _y)	<p>First Instance: 2,359 ha (Single cropping with multiple aeration) in Assam</p> <p>6,274 ha (Double cropping with multiple aeration) in West Bengal</p> <p>Second Instance: 3,219 ha (Double cropping with multiple aeration) in Assam</p>	Based on the review of the Geo-tagged KML files ^{/05/} with the coordinates for the areas under the grouped project and further verified during on-site inspection and through GIS analysis performed by the GIS expert of VVB team, VVB confirms that the information relevant to the project area of first and second instances for the reported crediting period is valid and appropriate. (Kindly refer to the FAR raised in the appendix 2 of this document)
Cultivation period of rice in year y (L _y)	<p>140 days for single season rice</p> <p>270 days for double seasoned rice</p>	Project proponent has provided with the literature references ^{/06/} for selecting the cultivation period as given. Further VVB has reviewed the farmers logbook and baseline survey records ^{/03/} , and thus confirms that the value applied for rice cultivation period in the project region is valid and applicable.
Amount of production harvested per unit of land area (Yield)	—	The yield produced kg/ha will be verified through the farmer logbook record during the first verification
Fertilizer application amount with source (Fertilizer/ Organic amendment application)	—	The fertilizer application rate will be verified through the farmer logbook record during the first verification

The PP has conducted a baseline survey of the project area and found that the farmers follow continuously flooded rice cultivation in the baseline scenario^{/03/}. The sample size has

been calculated based on CDM guidelines: “General Guidelines for Sampling and surveys for CDM project activities and programmes of activities, version 4.0^{B03/}”.

To monitor the project activities that are according to the proposed AWD practice, farmer logbooks were maintained for each individual farmer^{01//11/}. will be photographed for all the farmers for their representative plots.

The following parameters have been collected^{11/}:

1. Area of the farm/cropland
2. Date of nursery sowing
3. Date of Transplanting
4. Name of the varieties
5. Name of the fertilizer(s) and/or organic amendments applied.
6. Number of irrigation events
7. Number and duration of drainage periods
8. Yield

In line with the applied CDM guideline^{B03/} the sample size has been determined by taking a confidence interval of 90% and margin of 10%.

The required number of sample size has been calculated as per “General Guidelines for Sampling and surveys for CDM project activities and programs of activities, version 4” to achieve a 90/10 confidence/precision level.

The equation for total sample size is

$$n \geq \frac{1.645^2 NV}{(N-1) \times 0.1^2 + 1.645^2 V}$$

Where,

N = Total number of farmers (2,934,467)

1.645 = Represents the 90% confidence required

0.1 = Represents the 10% relative precision

V = variance

$$V = \frac{SD^2}{\bar{p}^2} = \frac{\text{overall variance}}{\bar{p}^2}$$

Overall variance is given by: Validation Report: VCS Version 4.2

$$SD^2 = \frac{(g_a \times p_a(1 - p_a)) + p_b(g_b \times (1 - p_b)) + (g_c \times p_c(1 - p_c)) + \dots + (g_k \times p_k(1 - p_k))}{N}$$

p is the overall proportion and is given by

$$\bar{p} = \frac{(g_a \times p_a) + (g_b \times p_b) + (g_c \times p_c) + \dots + (g_k \times p_k)}{N}$$

Substituting the necessary values,

The required number of samples was found out to be 30.

The required number of samples per district is found out using the equation -

$$n_i = \frac{g_i}{N} \times n$$

The PP has collected 40 samples, considering a response rate of 80%.

Table XXVII: District wise sample size identified by PP:

State	Districts	Required No of samples	No of samples (Considering response) 80%
Assam	Dhubri	1	2
Assam	Barpeta	1	2
Assam	Darrang	1	1
Assam	Nalbari	1	1
Assam	Udalguri	1	1
West Bengal	Coochbehar	3	4
West Bengal	Malda	4	5
West Bengal	East Medinipur	6	8
West Bengal	Dakshin Dinajpur	2	3
West Bengal	West Medinipur	6	8
West Bengal	Birbhum	3	4

	Total	30	40
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Based on the review of the evidential documentation^{02-16/} and on-site inspection/interviews^{VIII/}, VVB confirms that the monitoring plan stated in the VCS PD is valid and appropriate. Further at the time of validation VVB has learned that all the monitoring activities have been followed by the MRV personnels to ensure possible optimum data quality.

3.4 Non-Permanence Risk Analysis

As per the Section 1.1.4 of AFOLU AFOLU Non-Permanence Risk Tool

“Non-permanence risk analysis only needs to be applied to GHG removals or avoided emissions through carbon sinks. Project activities generating emissions reductions of N₂O, CH₄ or fossil-derived CO₂ are not subject to buffer withholding, since these GHG benefits cannot be reversed”.

Since the project is aiming at reducing CH₄ emissions through implementing AWD rice cultivation technique (i.e., avoided emissions), it is not subject to buffer withholding. VVB confirms that the non-permanence risk analysis is not applicable to the project activity. This is also in-compliance with the SSC work group clarification (SSC 820)²¹ “Inquiry about tree cover loss and risk buffer in AMS-III.AU. projects (submitted 25 Oct 21)” as available on the methodology page on CDM website.

4 VALIDATION OPINION

Carbon Check (India) Private Limited has performed the validation of the proposed VCS project activity i.e., VCS 4032 “**Improved Agricultural Practices for Rice Cultivation in India**”. This assessment has been performed based on all guidance and criteria as provided in VCS Standard version 4.4^{B01/}, VCS Program Guide version 4.3^{B01/}, VCS Validation and Verification Manual version 3.2 and Registration & Issuance Process version 4.3. The project specific information has been provided in the VCS PD^{01/} as required by the VCS Standard^{B01/} and meets the requirements of the applied baseline and methodology AMS III. AU version 4.0^{B02/}.

VVB, based on the desk review^{01-15/}, as well as on-site inspection/interviews^{VIII/}, confirms that the project activity is designed to reduce methane emissions from the project region due to conventional flooding rice cultivation through alternate wetting and drying (AWD) method of water management in the rice field.

²¹ <https://cdm.unfccc.int/methodologies/DB/D14KAKRJEW40THEA4YJICOHM26M6BM>

The validation assessment has been conducted to indicate the reasonableness of assumptions, limitations, and methods supporting the statement made by project proponent regarding the ex-ante i.e., constant values for the relevant data and parameters. Based on the review of the VCS PD^{/01/}, carbon calculation spreadsheets^{/02/}, and relevant supporting evidence (i.e., peer review literature^{/06/}, IPCC default values, region specific research studies), VVB confirms that all the assumptions and statements made by PP area valid and appropriate with the possible reasonableness. Further, VVB assessed the relevant data and parameters in section 3.3.8 of this report.

During the validation total of 27 findings have been raised by VVB, including 19 CARs, 07 CLs, and 01 FARs and upon the receipt of request clarification and/or supporting evidence all the findings have been satisfactorily closed.

The validation has been performed using a risk- based approach, as described above. The total ex-ante GHG emission reductions from the project are 4,44,780 tCO₂e and 3,91,208 tCO₂e for first and second instances over the fixed crediting period of 10 years (1st January 2023 to 31st December 2032), with an annual average of 44,478 tCO₂e and 39,121 tCO₂e for first and second instances, respectively^{/01//02/}.

Table XXVIII: Break-up of the ex-ante reductions over the crediting period for first instance:

Year	Estimated GHG emission reductions or removals (tCO ₂ e)
1 st January 2023-31 st December 2023	44,478
1 st January 2024-31 st December 2024	44,478
1 st January 2025-31 st December 2025	44,478
1 st January 2026-31 st December 2026	44,478
1 st January 2027-31 st December 2027	44,478
1 st January 2028-31 st December 2028	44,478
1 st January 2029-31 st December 2029	44,478
1 st January 2030-31 st December 2030	44,478
1 st January 2031-31 st December 2031	44,478
1 st January 2032-31 st December 2032	44,478
Total estimated ERs	4,44,780
Total number of crediting years	10 years

Average annual ERs	44,478
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Table XXIX: Break-up of the ex-ante reductions over the crediting period for second instance:

Year	Estimated GHG emission reductions or removals (tCO₂e)
1 st January 2023-31 st December 2023	39,121
1 st January 2024-31 st December 2024	39,121
1 st January 2025-31 st December 2025	39,121
1 st January 2026-31 st December 2026	39,121
1 st January 2027-31 st December 2027	39,121
1 st January 2028-31 st December 2028	39,121
1 st January 2029-31 st December 2029	39,121
1 st January 2030-31 st December 2030	39,121
1 st January 2031-31 st December 2031	39,121
1 st January 2032-31 st December 2032	39,121
Total estimated ERs	3,91,208
Total number of crediting years	10 years
Average annual ERs	39,121

The estimated annual GHG emission reductions/removals of the project for the second instance are:

Year	Estimated GHG emission reductions or removals (tCO₂e)
1 st January 2023- 31 st December 2023	39,121
1 st January 2024- 31 st December 2024	39,121

1 st January 2025- 31 st December 2025	39,121
1 st January 2026- 31 st December 2026	39,121
1 st January 2027- 31 st December 2027	39,121
1 st January 2028- 31 st December 2028	39,121
1 st January 2029- 31 st December 2029	39,121
1 st January 2030- 31 st December 2030	39,121
1 st January 2031- 31 st December 2031	39,121
1 st January 2032- 31 st December 2032	39,121
Total estimated ERs	3,91,208
Total number of crediting years	10 years
Average annual ERs	39,121

VVB, based on the desk-review^{/01//02/} and on-site inspection confirms that the projected ex-ante emission reductions generated from the project activity are in line with the methods and criteria and assumptions as mentioned in the VCS PD^{/01/}.

5 APPENDIX 1: LIST OF DOCUMENTS

Sr. No.	Documents	Reference
/01/	VCS PD	Version 3.1 21st September 2023 Version 3.0 1 st September 2023 Version 2.0 28 th June 2023 Version 1.0, 17 th November 2022
/02/	a) ER Sheet.xlsx b) Supporting Documents for ER i) EB81_repan22_AMS-III AU_ver04.0.pdf ii) V4_05_Ch5_Cropland.pdf	-
/03/	Baseline Assessment/Surveys a) Assam: <ol style="list-style-type: none"> i. Barpeta, Assam (1).pdf Barpeta,...Assam (1).pdf ii. Darrang, Assam .pdf iii. Dhubri, Assam .pdf Dhubri, Assam (1).pdf iv. Nalbari, Assam (1).pdf v. udalguri, Assam .pdf vi. Barpeta, Assam.pdf b) West Bengal <ol style="list-style-type: none"> i. Birham Mamon Shaikh , Birbhum .pdf MD. Firoz , Birbhum .pdf SK. Sonu , Birbhum .pdf Sohel Mallic , Birbhum .pdf ii. Coochbehar CHANDAN.pdf FARMER 2 PURNESWAR.pdf Farmer 3- dinabandhu roy.pdf Gousal Azam.pdf iii. Malda AFJAL HUSSAIN -MALDA.pdf HASEL ALI -MALDA.pdf JAHNGIR ALOM -MALDA.pdf SK BUL HUSSAIN -MALDA.pdf SUBRATA KARMAKAR-MALDA.pdf iv. Purba Mednipur 	

	<p>Debasish Barman , East Midnapore .pdf Goutam maity, East Midnapore .pdf Indrajit Patra , East Midnapore .pdf Mahendra Manna , East Midnapore .pdf Samaresh Manna , East Midnapore .pdf Shyamapada Bhunia , Purba Midnapore (1).pdf Subra Sankar maity , East Midnapore .pdf Sukdeb Das , East Midnapore .pdf Tanmoy Karan , East Midnapore .pdf</p> <p>v. South Dinajpur JAIRUL SARKAR- SOUTH DINAJPUR .pdf NAJEMA KHATUN- SOUTH DINAJPUR .pdf</p> <p>vi. West Medinipur Ashish Das , West Midnapore (1).pdf Ashish Das , West Midnapore (1).pdf Chittaranjan Das , West Midnapore .pdf Dipak kumar manna, West Midnapore .pdf Durgesh Das , West Midnapore .pdf Jiban Das, West Midnapore .pdf Sadananda Maity , West Midnapore .pdf</p> <p>Weighted average calculation. a) Weighted average calculation.xlsx. b) Baselines: Assam: i) banjamari 3.pdf, ii) barjhar.pdf, iii) bholabari (1).pdf Bengal: i) Aijul Hossain sabuj bahini.pdf, ii) Chandan Sharma Cooch behar.pdf iii) Purneswar Barman Cooch behar.pdf iv) Subhadip Chowdhury Srijani.pdf</p>	
/04/	<p>CVs and Organisation Structure Kosher Team Structure.pdf CVs a) Agronomists Abinash Resume.pdf New Resume Pragya Pratim Sutradhar (1).pdf Shaikh Lal Mohammad CV (2) (1) (2) (1).pdf Sourav Ghosh Updated Resume.pdf b) PMU Amreesh K. Bhullar_CV.pdf Dr. Sudarshan Dutta _CV.pdf Resume_Latha.pdf SoumyaCV.pdf</p>	-
/05/	<p>GIS Data a) Shapefiles AllCropIntellects_combined_latlong.shp LULC_12_Attribute.shp LULC_merge_2017.shp</p>	

	<p>LULC_merge_2022.shp</p> <p>b) Maps</p> <p>Assam_LULC_12.jpg</p> <p>West_Bengal_LULC_12.jpg</p> <p>Assam_LULC_17.jpg</p> <p>West_Bengal_LULC_17.jpg</p> <p>Assam_LULC_17.jpg</p> <p>West_Bengal_LULC_17.jpg</p>	
/06/	<p>Literature Review</p> <p>a) Bhatia et al.2013.pdf</p> <p>b) Purkait et al 2005.pdf</p> <p>Links for literature reviews referred (footnotes)</p> <ol style="list-style-type: none"> a. https://www.ccacoalition.org/en/activity/paddy-rice-production b. https://www.sciencedirect.com/science/article/abs/pii/S0167880921002759?via%3Dihub c. https://www.sciencedirect.com/science/article/abs/pii/S0378377420304017 d. https://www.researchgate.net/publication/353306760_Improved_Production_Technology_for_Boro_Rice_Cultivation_in_Eastern_India_Technical_Bulletin_R-69Patna-39_ICAR-Research_Complex_for_Eastern_Region e. https://edurev.in/question/2288479/Distinguish-between-single-cropping--double-cropping-and-multiple-cropping- f. http://www.knowledgebank.irri.org/training/fact-sheets/water-management/saving-water-alternate-wetting-drying-awd g. https://iopscience.iop.org/article/10.1088/1757-899X/980/1/012066/pdf#:~:text=The%20result%20of%20this%20study,and%20emitted%20the%20lowest%20CH4 h. https://www.ipcc.ch/report/revised-1996-ipcc-guidelines-for-national-greenhouse-gas-inventories/ i. https://cgspace.cgiar.org/rest/bitstreams/34363/retrieve j. http://article.businessmanagementsciences.com/pdf/JBMS-3-1-4.pdf k. https://en.wikipedia.org/wiki/Climate_of_India l. https://cwc.gov.in/ m. https://mausam.imd.gov.in/ n. https://nbsslup.in/ o. https://www.ccacoalition.org/en/activity/paddy-rice-production p. https://www.researchgate.net/publication/353306760_Improved_Production_Technology_for_Boro_Rice_Cultivation_in_Eastern_India_Technical_Bulletin_R-69Patna-39_ICAR-Research_Complex_for_Eastern_Region q. https://www.indiastat.com/table/agriculture/state-season-wise-area-production-productivity-ric/1440252 r. https://theprint.in/india/punjab-farmers-want-status-quo-on-msp-subsidies-at-the-root-of-agrarian-crisis/580135/https://agcensus.dacnet.nic.in/districtsum 	-

- [marytype.aspx](#)
- s. <https://www.omicsonline.org/open-access/barriers-and-opportunities-of-alternate-wetting-and-drying-awd-irrigation-system-in-bangladesh-a-comparative-study-among-major-ric-116999.html>
- t. <https://www.downtoearth.org.in/news/climate-change/climate-crisis-in-north-east-india-why-are-rainfall-patterns-changing--78879>
- u. <https://www.indiawaterportal.org/articles/eastern-india-highly-vulnerable-climate-change-says-study>
- v. https://scholar.google.com/scholar_lookup?title=Assessing+the+impacts+of+historical+and+future+land+use+and+climate+change+on+the+streamflow+and+sediment+yield+of+a+tropical+mountainous+river+basin+in+South+India&author=Sinha,+R.K.&author=Eldho,+T.I.&author=Subimal,+G.&publication_year=2020&journal=Environ.+Monit.+Assess.&volume=192&pages=1%E2%80%9321&doi=10.1007/s10661-020-08623-5
- w. <https://diragri.assam.gov.in/>
- x. <https://indianexpress.com/article/opinion/editorials/falling-rice-acreage-in-eastern-india-is-symptom-of-a-larger-problem-8049302/>
- y. <http://www.wbagrimarketingboard.gov.in/>
- z. <https://environmentandforest.assam.gov.in/information-services/biodiversity-of-assam-0>
- aa. <https://fsi.nic.in/isfr19/vol2/isfr-2019-vol-ii-west-bengal.pdf>
- bb. <https://westbengalforest.gov.in/upload/wildlife/introduction.pdf>
- cc. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwiPzdOZmNmAAxXSumMGHWWsAysQFnoECAQQA&url=https%3A%2F%2Fassam.gov.in%2Fabout-us%2F398&usg=AOvVaw0LVKYIpyA7QFQ_6pSubJwz&opi=89978449
- dd. <https://www.omicsonline.org/open-access/barriers-and-opportunities-of-alternate-wetting-and-drying-awd-irrigation-system-in-bangladesh-a-comparative-study-among-major-ric-116999.html>
- ee. <https://www.redalyc.org/journal/6437/643768221040/html/>
- ff. <https://drreddysfoundation.org/alternate-wetting-and-drying-awd-for-sustainable-paddy-cultivation-in-india/>
- gg. <https://icar-nrri.in/wp-content/uploads/2018/07/63.-Swarna-%E2%80%93Sub-1-A-promising-high-yielding-rice-variety-for-flood-%E2%80%93prone-rainfed-shallow-lowlands-of-coastal-Odisha.pdf>
- hh. <https://www.acsenagriscience.com/category/paddy/>
- ii. <https://agrostar.in/product/pan-804-paddy-6-kg-seeds/AGS-S-4228?language=en&state=maharashtra>
- jj. <https://asthaagri.com/category/paddy/?pdf-catalog=106>
- kk. https://icarrcer.icar.gov.in/storage/FINAL_boro-rice.pdf

/07/	<p>MOU</p> <ul style="list-style-type: none"> a. MoU_Kosher_Manab Kalyan.pdf b. MoU_Kosher_Sabuj Bahini.pdf c. MoU_Kosher_Sanjog.pdf d. MoU_Kosher_SSCOP.pdf e. MoU_Kosher_Techno Village.pdf f. Srijoni Mou.pdf g. Leased land declaration <ul style="list-style-type: none"> i) CamScanner 08-23-2023 17.32.34.pdf ii) CamScanner 08-23-2023 17.32.51.pdf 	-
/08/	<p>Package of Practice</p> <ul style="list-style-type: none"> a) Assam Package of Practices.pdf/Assam POP.pdf b) Bengal Package of Practices.pdf/Bengal POP.pdf 	-
/09/	<p>Project Implementation Schedule</p> <ul style="list-style-type: none"> a) AWD complilation.xlsx b) AWD Sheet for organisations.xlsx c) Gantt chart - AWD - Repeat hectares (WEST BENGAL).pdf 	-
/10/	<p>Proof of Start date</p> <ul style="list-style-type: none"> a) Assam <ul style="list-style-type: none"> 1.pdf 2.pdf 3.pdf 4.pdf 5.pdf b) Bengal <ul style="list-style-type: none"> SB-CHA2-NEH-003.pdf SB-CHA2-NEH-012.pdf SB-CHA2-NEH-030.pdf c) First instance/Ratin sharma(2).pdf d) Second Instance/ CamScanner 08-18-2023 18.43.25.pdf 	-
/11/	<p>Representative Farmers</p> <ul style="list-style-type: none"> a) Assam <ul style="list-style-type: none"> Folder: Manab Kalyan (Barjhar): Folder: Sanjog (Eragaon) Folder: Techno Village (Nayeralga Pt-4) b) Bengal <ul style="list-style-type: none"> Folder: Logbooks Folder: Sabuj Bahini Folder: Srijoni Folder: SSCOP <p>The above-mentioned folder includes the following details:</p> <ul style="list-style-type: none"> i) 1st AWD ii) 2nd AWD iii) Agreement/Contract (Carbon credit transfer) iv) Land record (Land ownership) v) Logbook (Farmer diary templates) vi) Pipe Installation vii) Polygon mapping <p>c) Compiled AWD Sheet.xlsx</p>	-

	<ul style="list-style-type: none"> d) Farmer Logbooks <ul style="list-style-type: none"> i) CamScanner 08-18-2023 18.44.08.pdf ii) Ranjan Sharma.pdf 	
/12/	<p>Soil Data Analysis</p> <ul style="list-style-type: none"> a) soil sample analsis-Assam, Dhubri.pdf b) soil sample analysis-CoochBehar.xlsx c) Soil-sample-Birbhum.xlsx 	-
/13/	<p>Stakeholder Meeting</p> <ul style="list-style-type: none"> a. Folder: Assam b. Folder: Bengal c. NTS.pdf (Improved Agricultural Practices for Rice cultivation in India Project Summary) <p>These includes the following particulars:</p> <ul style="list-style-type: none"> i) Folder: feedback forms ii) Folder: Invitation iii) Meeting attendance iv) Newspaper Ad v) Photos of stakeholder meeting vi) Alternate Wetting and Drying_Rice Paddy Cultivation.pptx.pdf vii) Guest list.docx Assam and/or Bengal viii) MOM.docx (Assam and/or Bengal) ix) PPT on AWD NEW.pptx <p>c) VCS AFOLU Safeguards.docx-</p>	-
/14/	<p>Project Operation and Monitoring Manual (SOPs)</p> <ul style="list-style-type: none"> a) SOP for Onboarding: SOP Onboarding.docx b) Technology Employed.docx c) Folder Training Calender (Assam and Bengal) <ul style="list-style-type: none"> i) Attendance sheet ii) Training Calender iii) Training meeting photos d) Training Material: <ul style="list-style-type: none"> i) Training photos ii) banner.pdf iii) Gohari Final.pdf iv) ppt on AWD NEW.pptx v) Improved Agriculture.pdf vi) Summary of AWD.pdf vii) VID-20230214-WA0032.mp4 viii) Water Management bengali.docx ix) EMPLOYEE HANDBOOK-2023.pdf e) Pipe installation manual (1).pdf 	-
/15/	Kosher Declaration.pdf	-
/16/	<p>Public Comment Summary</p> <ul style="list-style-type: none"> a) Public_Comments_Summary_4032 (1).pdf b) Response to IETA Modified.pdf 	-
/B01/	<p>VCS requirements/guidelines</p> <ul style="list-style-type: none"> a) VCS Program Guide (v4.3, dated 17/01/2023) 	Others

	<p>VCS-Program-Guide-v4.3-FINAL.pdf (verra.org)</p> <p>b) VCS Standard (v4.4, dated 17/01/2023) VCS-Standard-v4.4-FINAL.pdf (verra.org)</p> <p>c) VCS Methodology Requirements (v4.3, dated 17/01/2023) VCS-Methodology-Requirements-v4.3-FINAL.pdf (verra.org)</p> <p>d) Program Definitions (v4.3, dated 21/12/2022) VCS Program Definitions v4.2 (verra.org)</p> <p>e) Registration & Issuance Process (v4.3, dated 17/01/2023) Registration and Issuance Process (verra.org)</p> <p>f) AFOLU Non-Permanence Risk Tool (v4.0, dated 19/09/2019) AFOLU Non-Permanence Risk-Tool v4.0.pdf (verra.org)</p> <p>g) VCS Validation and Verification Manual (v3.2, dated 19/10/2016) VCS Validation Verification Manual v3.2.pdf (verra.org)</p>	
/B02/	<p>Methodology applied Small Scale CDM Methodology AMS III. AU: Methane emission reduction by adjusted water management practice in rice cultivation v4.0. 5IP163JN4RKG2D0XOQZS9T7W8MEYAC (unfccc.int)</p>	Others
/B03/	<p>Tools applied</p> <p>a) TOOL 21 “Demonstration of Additionality of Small-scale Project Activities (version 13.1) untitled (unfccc.int)</p> <p>b) CDM guideline: “General Guidelines for Sampling and surveys for CDM project activities and programmes of activities, version 4.0. meth_guid48.pdf (unfccc.int)</p>	Others
/B04/	<p>a) Other GHG programs:</p> <p>CDM: CDM: Project Activities (unfccc.int)</p> <p>GCC: GCC PROJECTS PORTAL (globalcarboncouncil.com)</p> <p>GSF: GSF Registry (goldstandard.org)</p> <p>Plan Vivo: Projects Plan Vivo Foundation</p> <p>b) VERRA project page: https://registry.verra.org/app/projectDetail/VCS/4032</p>	Others

APPENDIX 2: FINDINGS LOG

Table 1. Clarification requests from this validation

CL	01	Section no.	supporting documents	Date: 04/08/2023
Description of CL				
<p>As per the VCS PD the grouped project is titled as <i>“Improved Agricultural Practices for Rice Cultivation in India”</i>.</p> <p>Whereas, in the MOUs provided by the project proponent includes project titles as follows:</p> <ol style="list-style-type: none"> 1. In documents MoU_Kosher_Manab Kalyan.pdf, MoU_Kosher_Sanjog.pdf, and MoU_Kosher_Techno Village.pdf – <i>“Improved Agricultural practices through Carbon finance for subsistence farmers in Assam”</i> 2. In documents MoU_Kosher_Sabuj Bahini.pdf, MoU_Kosher_Sanjog.pdf, and Srijoni Mou.pdf - <i>Improved Agricultural practices through Carbon finance for subsistence farmers in West Bengal”</i> <p>Project proponent shall clarify the same.</p>				
Project Proponent response				Date: 07/08/2023
<p>The proposed project activity (Improved agricultural practices for Rice cultivation in India) is designed as a grouped project activity with multiple instances across the geographical boundary of India. The Project Proponent Kosher Climate during the process of implementation has tied up with various implementation partners viz., NGO, FPOs and any private entities to support the ground implementation and monitoring. In this process the PP has entered into MoUs with implementation partners with general scope of work applicable for all regenerative practices. Hence the MoUs are titled in general which has no correlation with title of VCS project activity.</p>				
Documentation provided by Project Proponent				
VVB assessment				Date: 19/08/2023
<p>The justification provided is deemed to be acceptable to VVB. The finding is closed.</p>				
CL	02	Section no.	LULC maps	Date: 04/08/2023
Description of CL				

1. As supporting evidence for project eligibility under VCS Standard, that project area has not been cleared of native ecosystems within 10 years before the project start date, project proponent shall provide Land Use Land Cover maps for the area subjected to project implementation in the PD
 The provided LULC maps only indicates that the pre-project land-use scenario was agricultural cultivation. Project proponent shall provide revised LULC maps for complete project area included under the first and second project instances.

2. As per para 3.2.5 of VCS standard version 4.4, Activities that drain native ecosystems or degrade hydrological functions to generate GHG credits are not eligible under the VCS Program Evidence shall be provided in the project description that any AFOLU project area was not drained or converted to create GHG credits.

3. Referring to para 3.2.9 of VCS standard version 4.4 “Where ARR, ALM, IFM or REDD project activities occur on wetlands, the project shall adhere to both the respective project category requirements and the WRC requirements, unless the expected emissions from the soil organic carbon pool or change in the soil organic carbon pool in the project scenario is deemed below de minimis or can be conservatively excluded as set out in the VCS Program document VCS Methodology Requirements, in which case the project shall not be subject to the WRC requirements.” Project proponent is requested clarify how the project activity complies with the above mentioned requirement and add the same in the PD.

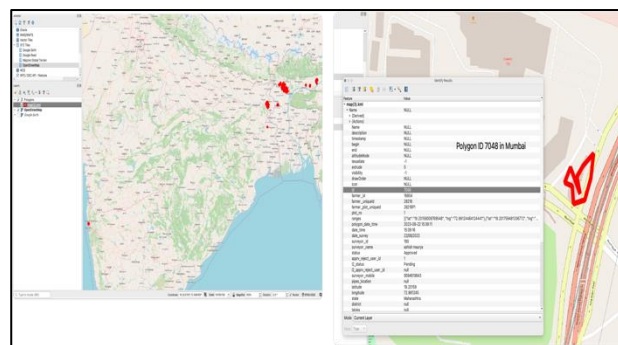
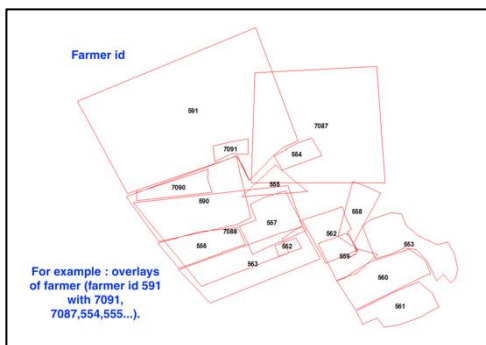
The KML files of all the maps used for the demonstration of above points is requested to be provided to VVB

Project Proponent response	Date: 01/09/2023
<ol style="list-style-type: none"> 1. The project area is demarcated for LULC to demonstrate that the project area has not been cleared of native ecosystems since 10 years through LULC analysis considering 2012 as base year, 2017 as control point and 2022 as current year. This will give a clear picture of land use land cover changes in project area including but not limited to Agriculture etc. 2. The current project activity does not involve activities that drain native ecosystems or degrade hydrological functions. From the LULC analysis it can be established that the project area is agriculture land before implementation of the project and the lakes or water bodies are not impacted by the project. 3. The proposed project comes under ALM activity however as per the requirement stated above, the project fields considered under the project activity (Alternate Wetting and Drying of agriculture fields) will not fall under wetlands, same has been demonstrated. All the required sections have been incorporated in the PD. 	
Documentation provided by Project Proponent	
<i>LULC Maps 2012-2017-2022 KML (LULC-2012.kmz; LULC-2017.kml; LULC-2022.kml; Polygons.kml)</i> <i>Revised PD (Revised PD -V03.docx)</i>	
VVB assessment	Date: 02/09/2023

- 1- Based on the review of LULC files provided by PP, confirm that there are some inconsistencies:
- 2-
- 3- The LULC2012 attribute table only have code but is not clear the correspondences of those code to a specific land cover class, about the LULC 2017 & 2022 the landcover names doesn't standardized.

LULC_2012	LULC_2017	LULC_2022																		
<table border="1"> <thead> <tr> <th>Name</th> </tr> </thead> <tbody> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>8</td></tr> </tbody> </table>	Name	1	2	3	4	5	8	<table border="1"> <thead> <tr> <th>Landcover</th> </tr> </thead> <tbody> <tr><td>Agricultur</td></tr> <tr><td>Barren Lan</td></tr> <tr><td>Built-up</td></tr> <tr><td>Water</td></tr> </tbody> </table>	Landcover	Agricultur	Barren Lan	Built-up	Water	<table border="1"> <thead> <tr> <th>Landcover</th> </tr> </thead> <tbody> <tr><td>Agricultur</td></tr> <tr><td>Barren</td></tr> <tr><td>Builtup</td></tr> <tr><td>Forest</td></tr> <tr><td>Water</td></tr> </tbody> </table>	Landcover	Agricultur	Barren	Builtup	Forest	Water
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Agricultur																				
Barren Lan																				
Built-up																				
Water																				
Landcover																				
Agricultur																				
Barren																				
Builtup																				
Forest																				
Water																				

- 4- There are polygons of project area completely inside or with a relevant area inside of the forest for LULC 2012 (there are 334 polygons), two of those polygons appear completely inside or relative inside of the forest for 2012 and 2017 and one polygon still is inside of the forest for LULC 2012-17-22. (Please check the shapefile "Polygons_in_forestLULC2012.shp; Polygons_in_forestLULC2012and2017.shp")
- 5- In the LULC 2017 there are 185 polygons completely inside or with a relevant area inside of the forest. (Please check the shapefile "Polygons_in_forestLULC2017.shp")
- 6- In the LULC 2022 there are 120 polygons completely inside or with a relevant area inside of the forest. (Please check the shapefile "Polygons_in_forestLULC2022.shp")
- 7- There are 87 polygons that keep the condition of inside of the forest or relatively with relevant area inside of the forest for LULC 2017 & 2022. (Please check the shapefile "Polygons_in_forestLULC2017and2022.shp")
- 8- The "Polygons.kml" file doesn't meet the requirements of VCS Standard, there are a lot of polygons overlay issues and one polygon outside of project area (Polygon ID:7048), required check all farmer polygons and fix overlays of farms.



Project Proponent response

Date: 05/09/2023

1. The attribute table for 2012 LULC has been updated stating the classification.
2. It is to say that these 334 project polygons are situated within tree outside forest (TOF). However, upon cross-referencing with Google Earth imagery from the year 2012, it becomes evident that these polygons are, in fact, located within agricultural lands. In reality, these regions consist of agricultural lands with trees primarily at their borders, as confirmed by Google Earth screenshots. This discrepancy arises because TOF has been grouped under the forest category. Furthermore, several of the polygons are classified as forested areas, even though they contain only a small border area of actual tree cover. This issue typically emerges during GIS overlays, classification workflows and vectorization of raster data where achieving absolute accuracy can be challenging. Therefore, it may be prudent to consider a slight threshold, to account for these variations in land cover classification.
3. The Google Earth screenshots given for 2017, some of the project polygons are situated within tree outside forest (TOF). However, upon cross-referencing with Google Earth imagery from the year 2017, it becomes evident that these polygons are, in fact, located within agricultural lands.
4. The Google Earth screenshots given for 2022, project polygons are situated within tree outside forest (TOF). However, upon cross-referencing with Google Earth imagery from the year 2017, it becomes evident that these polygons are, in fact, located within agricultural lands.
5. The previous polygon file submitted was incorrect. An updated polygon file has been provided in which the overlaid polygons are not visible.

Documentation provided by Project Proponent

Screenshot file
Polygons.shp

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

Since project proponent was not bel to provide the project field polygons for the entire area, the LULC analysis of the whole project area could not be completed. Based on the analysis of the LULC maps, shapefiles and the polygons provided for the 2500 ha of the project area out of 13,169 ha, it has been confirmed that the 2500 ha of land has not been cleared of native ecosystem since past 10 years.

FAR01 has been raised.

Thus, the finding is closed.

CL	03	Section no.	1.11, VCS PD	Date: 04/08/2023
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Description of CL

Project proponent is requested to clarify how project proponent determined the number of perforated water tubes required to be installed in the designated Rice field.

Project Proponent response **Date:** 07/08/2023

Supporting document explaining the pipe installation process with number of pipes has been provided.

Documentation provided by Project Proponent

Pipe Installation Manual

VVB assessment **Date:** 19/08/2023

The pipe installation manual provided by PP states that “*The tube should be placed in a readily accessible part of the field close to a bund, so it becomes easier to monitor the ponded water depth inside the tube. The location should be representative of the average water depth in the field. For each hectare of land, one pipe installation is planned. In certain instances, where 1 hectare encompasses multiple farmers, each farmer receives an individual pipe. This approach ensures that both irrigation and aeration control remain in the hands of each farmer*”. VVB during the on-site visit has confirmed that the pipes has been installed as per the above mentioned procedures.

Thus, the finding is closed.

CL	04	Section no.	1.8, VCS PD	Date: 04/08/2023
Description of CL				
In line with VCS standard v4.4 requirement, project proponent shall provide the evidence supporting the project start date for the first and second project instances indicating the seed sowing date as provided in the section 1.8 of the VCS PD (version 2.0 dated 28 th June 2023).				
Project Proponent response				Date: 07/08/2023
Supporting documents (Farmer Logbooks) has been provided where the Land preparation date shall be evidenced as 01/01/2023 for both first and second instances.				
Documentation provided by Project Proponent				
Project start date Farmer Logbooks				
VVB assessment				Date: 19/08/2023
The date 01/01/2023 has been stated as the earliest date of land preparation in the farmers logbook. The same has also been verified during the on-site visit and interview with the farmers.				
Thus, the finding is closed				

CL	05	Section no.	3.2, VCS PD	Date: 04/08/2023
Description of CL				
In section 3.2 of the VCS PD in justification for methodology applicability condition 3) or (c), it is stated that “ <i>The project proponent ensures that implementation of AWD will not lead to decrease in rice yield and switch to new cultivar. This shall be confirmed through the data maintained in the farmer logbooks</i> ”.				
Project proponent is requested to clarify in this regard, how does project proponent ensure that the Rice crop yield and cultivar will remain same after implementing AWD technique for water management.				
Project Proponent response				Date: 07/08/2023
1.The implementation of Alternate Wetting and Drying technology will not result in reduction of rice yield. The Project Proponent is however collecting the yield information and documented in the farmer logbooks after each crop season. The updated information has been incorporated in the PD.				
2. The PP has not recommended or will not recommend any change of cultivar usage as part of the standard package of practices provided to the farmers during onboarding.				
Documentation provided by Project Proponent				
Revised PD Assam PoP Bengal PoP Farmer Logbook				
VVB assessment				Date: 19/08/2023

As stated in the reference literature provided in footnote 38 of PD, the AWD practice will not lead to a decrease in the rice yields, the project proponent has also added “yield” as a monitoring parameter in the section 5.2 of PD and therefore will be monitored to ensure that the project activity will not lead to a decrease in rice yield.

The cultivar used has also been documented in the farmers log book and during the interview with the farmers, validation team observed that the cultivar remains same and has not undergone any switch due to the project activity.

Thus, the finding is closed.

CL	06	Section no.	5.2,VCS PD	Date: 04/08/2023
Description of CL				
<p>In the section 5.2, data and parameter monitored table for "Ay" and "Ly", project proponent has mentioned that mobile based application will be used as the source of the parameter. Project participant is requested to add what data will be collected through the mobile applications and provide the evidence to VVB to substantiate the same. Such monitoring measures is also requested to be added in section 5.3 of PD.</p> <p>Moreover, project proponent is requested to clarify how the actual land area under the project activity can be monitored from the total land record of the land owner considering the fact that all the land area mentioned in the land record might not be included in the project activity.</p> <p>During the site visit, Validation team has observed that the land prepared for nursery bed is being used for different purposes and AWD practices are not being implemented in plot dedicated for nursery bed. Also for the drainage facility, the water from each rice field (separated by roads/ bunds) are being transferred to the adjacent field through canals and the water passes from one check to another before it enters the drainage canal. It has been observed that the checks adjacent to the canal (entry/exit) is found to be flooded most of the time compared to the other checks or plots even with AWD practice due to the incoming/outgoing water from the canal to or from the adjacent checks. Therefore Project participant is requested to clarify how such area is considered in the project area for the calculation of parameter Ay.</p>				
Project Proponent response				Date: 07/08/2023

1. The monitoring parameters Ay and Ly have been updated in line with the methodology requirements. Further it is to confirm that the parameters Ay will be sourced from the farmer contracts and Ly will be sourced from the farmer logbooks. However, in future to adopt the sustainable monitoring approach PP may use the cloud based web application to directly feed all the monitoring parameters into the of web application through mobile devices. The information will be stored in the cloud space and shall be verified on real time basis by the verifier.
2. Irrespective of land area mentioned in land record, PP is only considering the area mentioned in the farmer contract which is mutually agreed by the farmer and the PP. Further, the PP determined the project field area under this project activity as kml polygons through GIS technology. This ensures the accuracy of project area considered for the project activity.
3. As per ICAR recommendation, 10 per cent of crop area can be considered for nursery bed preparation. Hence PP has deducted 10 per cent of the main field area (used for nursery bed) while calculating the emission reductions. The PP is monitoring the AWD implementation in all project plots including the plots nearer or adjacent to the drainage outlets or checks, as observed during the visit special attention and regular monitoring will be provided to these specific plots to oversee the drying events. PP will however adopt the controlled drainage techniques like opening of bunds or pumping out the water to ensure the implementation of AWD. If in case, the situation is beyond the control of farmer due to over flooding and draining of specific field is not possible, emission reductions of those fields during that particular season will not be considered.

Documentation provided by Project Proponent

Revised PD

VVB assessment

Date: 19/08/2023

In the revised PD, project proponent has clarified that the source of parameter Ay is Farmers contract and Ly is farmers logbook or mobile based applications.

In the “Data and parameters monitored” table for parameter Ay, project proponent has mentioned that “the PP determined the project field area under this project activity as kml polygons through GPS technology” and monitoring equipment is given as “Geo-mapping via GPS tools”. However, the geo mapping is not added in the “Source of data” column. Project proponent is requested to add the same. Project proponent has also not provided the geo mapped files of the individual farmlands included in the project activity. It is requested to provide to VVB.

Also in the excel sheet” Compiled AWD Sheet”, tab “Assam- Manab and Sanjog”, the leased land has also been considered for the calculation of total land area. Project participant is requested to clarify the monitoring procedure of the leased land as well in the section 5.2 of PD under the parameter Ay

The data provided in the excel sheet provided to the VVB “Compiled AWD Sheet” is not consistent with the data provided in the PD such as “total land area” and “number of farmers”.

Thus, finding is open

Project Proponent response

Date: 01/09/2023

1. The source of data for Ay has been revised in the revised PD, encompassing all data sources.
2. The section 5.2 of revised PD has been updated with information pertaining to leased land farmers and supporting evidence has been provided.
3. Compiled AWD sheet has been updated with actual number of farmers and the area under the project activity. The same change has been reflected in the PD.
4. Due to technical constraint of making on field polygon measurements, PP has not been able to complete the process for the entire area. The kml file for 2,500 hectares out of total area of 13,169 ha has been completed and provided as a kml file. The polygons for the rest of the area is in progress which shall be submitted before registration of the project. However, it is to confirm that PP has signed the onboarding contracts with all the farmers for entire project area and has the full control over the complete project area. To further confirm it the first AWD implementation and monitoring for both the instances has been successfully completed and logbooks for the same has been submitted to VVB for their verification and confirmation. With this explanation though the polygons mapping of entire area is incomplete, PP would like to confirm the control of the entire project area through other means while the polygon mapping for the rest of the area is in progress.

Documentation provided by Project Proponent

Revised PD
ER Sheet
Compiled AWD sheet
Leased land declaration
Polygons.kml

VVB Assessment **Date:02/09/2023**

1. It has been observed that the KML polygon (geo mapping) has been added as source of data in the table
2. The monitoring procedure of leased land has been added in the PD
3. Updated “compiled AWD sheet” has been provided to VVB which contains the total farmer and land area which is found to be consistent with PD.
4. Kindly refer to the FAR01 raised.

Thus, the finding is closed.

CL	07	Section no.	5.3, VCS PD	Date: 04/08/2023
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Description of CL

1. In section 5.2 of the VCS PD, it is stated that the value applied for the “Cultivation period of rice in year y” i.e., 140 for single season rice (depending upon the crop varieties). 270 for double seasoned rice (depending upon the crop varieties).
2. Project proponent shall provide supporting evidence for identifying the above-mentioned “Cultivation period of rice in year y” for the project region.
3. Project proponent shall provide information relevant to use of fertilizers, i.e., if there was change in fertilizer’s usage quantity, if farmers were recommended to use organic amendments for cultivation that are different from the pre-project scenario.

Project Proponent response	Date: 07/08/2023
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<ol style="list-style-type: none"> 1. The PP as a part of baseline survey collected the varietal information for sample farmers and upon applying weighted average approach, cultivation period of rice (referring to National Rice Research Institute and relevant sources) has been determined for ex ante calculations. 2. Supporting document has been provided as footnotes in revised PD and weighted average calculation sheet given as separate document. 3. There was no change in fertilizer usage quantity or organic amendments was recommended as a part of PoP by the PP. However, fertilizer usage details are being monitored through farmer logbooks.
Documentation provided by Project Proponent <i>Weighted average calculation</i> <i>Baselines</i> <i>Assam PoP</i> <i>Bengal PoP</i> <i>Farmer Logbook</i>
VVB assessment Date: 19/08/2023
<p>It has been observed based on the baseline survey, the cultivar used has been determined by the project proponent, the cultivation period of the cultivar has been obtained from the national rice research institute data and other relevant sources. The reference to these data is added as footnotes in the PD. During the on-site visit, VVB also confirms that no organic amendments are recommended by Project proponent to the farmers.</p> <p>Thus, finding is closed.</p>

Table 2. Corrective Action Request from this validation

CAR	01	Section no.	Title page, content, appendix	Date: 04/08/2023
Description of CL				
<p>In the table provided in the title page of the PD, all items should be filled using Arial or Century Gothic 10.5 points.</p> <p>Project proponent is also requested to provide the appendix number and name in the PD and update the contents page accordingly</p>				
Project Proponent response				Date: 07/08/2023
Necessary changes have been incorporated and addressed in the revised PD.				
Documentation provided by Project Proponent				
<i>Revised PD</i>				
VVB assessment				Date: 19/08/2023
The required changes have been made in the PD.				
Finding is closed				
CAR	02	Section no.	1.1, 1.9,VCS PD	Date: 04/08/2023
Description of CL				

In the section 1.1 of PD, the following corrections are requested to be made.

1. In the section 1.1 of PD, project proponent has mentioned that 'The total greenhouse gas (GHG) emission reductions through the implementation of the project are estimated at 11,24,424 tCO₂e over the first crediting period of ten years, with an annual average of 1,12,442 tCO₂e. However, the statement "first crediting period of ten years" is contradicting to the requirement mentioned in para 3.9.2 of VCS standard version 4.4 as the renewable crediting period of 7 years or fixed crediting period of 10 years are the applicable options. Project proponent is requested to revise the statement accordingly. The section 1.9 of PD should also be included with the information on extent of the crediting period.

2. The total number of households/farmers involved in the project is requested to be added in the section 1.1 of PD

Project Proponent response	Date: 08/08/2023
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1. Necessary changes related to the crediting period has been incorporated in the revised PD.
2. Number of farmers for each instance have been provided in section 1.1 of PD.

Documentation provided by Project Proponent

Revised PD

VVB assessment	Date: 19/08/2023
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The contradicting statement in the PD has been revised. The crediting period has been stated appropriately in section 1.1 and 1.9 of PD. The total numbers of farmers included in the project activity is also included in the section 1.1 of PD.

Thus, finding is closed

CAR	03	Section no.	1.2, VCS PD	Date: 04/08/2023
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Description of CL

The reference page number of VC standard provided in the footnote 4,5, and 6 is found to be incorrect, and therefore is requested to be corrected.

Moreover, It has been observed that the latest version number of the VCS documents are not referred through the PD. Project proponent is requested to revise the PD as per the latest version number of VCS rules and requirements

Project Proponent response	Date: 08/08/2023
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The latest versions of VCS documents have been referred and incorporated the changes.

Documentation provided by Project Proponent

Revised PD

VVB assessment	Date: 19/08/2023
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The footnote 4, 5, and 6 of PD has been revised accordingly. The latest version number of the VCS standard document has been provided in PD.

Thus, finding is closed.

CAR	04	Section no.	1.3,VCS PD	Date: 04/08/2023
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Description of CL

The justification provided for the scope of VCS program "The Six Kyoto Protocol greenhouse gases" in the section 1.3 of PD is unsatisfactory and therefore is requested to be revised. In PD, it is mentioned that "The project activity removes carbon dioxide", while as per the scope of methodology the project activity will result in reduced generation of methane.

Project Proponent response	Date: 08/08/2023
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Revised the section as per the project activity implications.

Documentation provided by Project Proponent	
<i>Revised PD</i>	
VVB assessment	Date: 19/08/2023
The project proponent has revised the justification and mentioned CH4 instead of CO2.	
Thus, finding is closed	
Validation Report: VCS Version 4.2	

CAR	05	Section no.	1.4,VCS PD	Date: 04/08/2023
Description of CL				
The eligibility conditions provided for new project activity instances and their inclusion in the section 1.4 of the PD is requested to be revised as per the latest VCS standard version 4.4. The conditions provided in the para 3.6.17 of VCS standard 4.4 and their justification is requested to be added in the PD				
Project Proponent response				Date: 08/08/2023
The eligibility conditions of latest VCS standard have been referred and incorporated the sections.				
Documentation provided by Project Proponent				
<i>Revised PD</i>				
VVB assessment				Date: 19/08/2023
It has been observed that project proponent has added the eligibility condition and its justification as per para A.1.2 of VCS standard version 4.4 in the section 1.4 of PD. The justification provided is deemed to be acceptable to VVB.				
Thus, finding is closed.				

CAR	06	Section no.	1.6, VCS PD	Date: 04/08/2023
Description of CAR				
While reviewing the MOUs provided by the project proponent (between Project proponent and NGOs/FPOs), VVB has ascertained that there are other entities involved in the project implementation i.e.,				
<ol style="list-style-type: none"> 1. MoU_Kosher_Manab Kalyan.pdf - MANAB KALYAN, 2. MoU_Kosher_Sabuj Bahini.pdf – SABUJ BAHINI AGRO PRODUCER COMPANY LIMITED 3. MoU_Kosher_Sanjog.pdf – SANJOG (4. MoU_Kosher_SSCOP.pdf - STAMILE SATISH CLUB O PATHAGAR (SSCOP) 5. MoU_Kosher_Techno Village.pdf – TECHNO VILAAGE LLP 6. Srijoni Mou.pdf – ANGARGARIA SRIJONI SIKSHA NIKETAN 				
Whereas no information relevant to these entities has been provided in the VCS PD.				
In line with the VCS PD template v4.2, project proponent shall provide the information related to the other entities involved in the project in section 1.6 of the VCS PD.				
Project Proponent response				Date: 08/08/2023
As per the information provided in the PD, Kosher Climate India Private Limited is the only project owner and act as PP for the grouped project activity and all instances included in the grouped project which is in line with the definitions of VCS project standard. Whereas, the entities mentioned above are the implementation agencies for the on ground implementation who shall be treated as service providers in the project area. These entities do not have any legal ownership or rights of ownership in the project activity. Hence, the details of these entities are not necessarily to be included in the PD.				
Documentation provided by Project Proponent				
VVB assessment				Date: 19/08/2023

Referring to para 3.2.3 of VCS standard version 4.4 “Where an implementation partner is acting in partnership with the project proponent, the implementation partner shall be identified in the project description. The implementation partner shall identify its roles and responsibilities with respect to the project, including but not limited to implementation, management, and monitoring of the project, over the project crediting period.”

Validation Report: VCS Version 4.2

Therefore, project proponent is requested to add the project implementing partner details in the PD.

Thus, finding is open.

Project Proponent response	Date: 23/08/2023
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The section 1.6 has been updated with other entities involved in the project activity. The section 5.3 has been highlighted with the roles and responsibilities of all the entities involved in the project.

Documentation provided by Project Proponent

Revised PD

VVB Assessment	Date: 02/09/2023
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It has been observed that section 1.6 of PD has been revised accordingly and details of all the implementing partners has been added.

Thus, finding is closed.

CAR	07	Section no.	1.7,VCS PD	Date: 04/08/2023
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Description of CL

It has been observed that project proponent has provided the project ownership details in the section 1.7 of the PD. However, project proponent is also requested to add the type of ownership provided in the para 3.7.1 of VCS standard version 4.4

Project Proponent response	Date: 08/08/2023
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The type of ownership has been updated in line with the para 3.7.1 of VCS standard version 4.4.

Documentation provided by Project Proponent

Revised PD

VVB assessment	Date: 19/08/2023
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It has been observed that the type of ownership has been added in the section 1.7 of PD. The ownership type is identified as “An enforceable and irrevocable agreement with the holder of the statutory, property or contractual right in the land, vegetation or conservational or management process that generates GHG emission reductions or removals which vests project ownership in the project proponent”, which is deemed to be acceptable to VVB.

Thus, finding is closed.

CAR	08	Section no.	1.10, VCS PD	Date: 04/08/2023
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Description of CAR

The following corrections are requested to be made in section 1.10 of PD.

1. As per the VCS PD section 1.1, the annual GHG removals generated from the projects are 1,12,442 tCO₂e. Whereas in section 1.10 of the VCS PD, project proponent has selected the estimated annual GHG emission reductions/removals range of 20,000 – 100,000 tCO₂e/year.

Validation Report: VCS Version 4.2

2. In the table for the year wise estimated GHG emission reductions or removals provided in section 1.10 of PD, year 1, year 2, year 3 etc.. Has been mentioned which is requested to be removed.

3. In section 1.10 of the VCS PD, project proponent has provided the same value for Total estimated GHG removals (tCO₂): 11,244,24 and for Average annual ERs (tCO₂): 11,244,24.

Project Proponent response	Date: 08/08/2023
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1. As per the revised information, annual GHG removals for each instance falls between 20,000 – 100,000 tCO₂e/year. Hence, the selection of project type is justified. A separate table for each instance has been incorporated in the PD.

2. The format has been updated as per the latest VCS template.

3. Necessary corrections have been incorporated to reflect the changes.

Documentation provided by Project Proponent

Revised PD

VVB assessment	Date: 19/08/2023
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It has been observed that necessary corrections have been made in section 1.10 of PD.

Thus, the finding is closed.

CAR	09	Section no.	1.12,VCS PD	Date: 04/08/2023
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Description of CAR

In section 1.12 of the VCS PD, it is stated that “*The first and second instances will be implemented in Darrang, Udalguri, Dhubri, Barpeta and Nalbari districts of Assam and Coochbehar, Malda, Dakshin Purba Medinipur, Paschim Medinipur and Birbhum districts of West Bengal*”.

Furthermore, VVB has observed that the districts of West Bengal which are under the grouped project are inconsistent. As in section 1.11 of the VCS PD districts given are: Coochbehar, Malda, Dakshin Dinajpur, Purba Medinipur, Paschim Medinipur and Birbhum.

Whereas in section 1.12 of the VCS PD the districts given are: Coochbehar, Malda, Dakshin Purba Medinipur, Paschim Medinipur and Birbhum.

Project proponent is requested to provide the map of the project geographical boundary(districts) covered in the first two instances in the section 1.12 of the PD. Project participant is requested to add (in section 1.12 of PD) all relevant information provided in the para 3.11.2 -3.14.4 of VCS standard version 4.4

Project Proponent response	Date: 08/08/2023
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1. This was a typographical error, where Dinajpur was omitted in section 1.12, necessary correction has been made.

2. A district wise maps for both the instances have been revised and updated

3. Updated the information as per the VCS standard version 4.4

Documentation provided by Project Proponent

Revised PD

VVB assessment	Date: 19/08/2023
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It has been observed that the typographical error has been corrected in the PD. A Map of the project location for both the instances has been added in the PD.

Thus, finding is closed.

Validation Report: VCS Version 4.2

CAR	10	Section no.	1.13,VCS PD	Date: 04/08/2023
Description of CL				
<p>Project proponent is requested to revise the section 1.13 and 1.16 of the PD in compliance with the VCS PD template guideline, as it has been observed that the section contains information which should have only been made available during listing.</p> <p>The following information is requested to be added</p> <p>In section 1.13 include the present and prior environmental conditions of the project area, including as appropriate information on the climate, hydrology, topography, relevant historic conditions, soils, vegetation and ecosystems.</p> <p>In section 1.16.1 indicate whether the project reduces GHG emissions from activities that are included in an emissions trading program or any other mechanism that includes GHG allowance trading, and include details about any such programs or mechanisms. Where applicable, demonstrate that GHG emission reductions and removals generated by the project will not be used for compliance under such programs or mechanisms. Examples of appropriate evidence are provided in the VCS Standard.</p> <p>In section 1.16.2 (other forms of environmental credits indicate whether the project has sought or received another form of GHG-related environmental credit, including renewable energy certificates. Include all relevant information about the GHG-related environmental credit and the related program.</p> <p>In section 1.16.2 (Supply 3 emissions) demonstrate that a public statement(s) by the owner(s) or retailer(s) of the impacted good(s) or service(s) or project proponent (as applicable) has been made throughout the project crediting period. Where applicable, also demonstrate that the impacted good or service's producer(s) or retailer(s) have been notified of the project and the potential risk of Scope 3 emissions double claiming via email. Evidence of the public statement(s) and email(s) must be provided in this report or attached as an appendix.</p> <p>In line with section 1.15 and section 1.16 of the VCS PD template v4.2 requirement, PP shall provide declaration for the following:</p> <ul style="list-style-type: none"> a) Projects registered (or seeking registration) under other GHG program(s) b) Project rejected by other GHG programs. c) Emissions trading programs and other binding limits <p>Other forms of environmental credits</p>				
Project Proponent response				Date: 08/08/2023
The PP has revised the section 1.13 and 1.16 and incorporated the information in line with the VCS PD template and VCS Standard version 4.4.				
Documentation provided by Project Proponent				
Revised PD Declaration form				

VVB assessment	Date: 19/08/2023
<p>It has been observed that section 1.13 of PD has been revised to include all the relevant information as per the VCS PD template guideline.</p> <p>The section 1.16 has also been revised as per the VCS template guideline.</p> <p>However, the declaration provided by the project proponent is not signed or sealed.</p> <p>Thus, the finding is open.</p>	
Project Proponent response	Date: 23/08/2023
<p>The declaration form is provided with signature and seal of authorized signatory.</p>	
Documentation provided by Project Proponent	
<i>Kosher Declaration</i>	
VVB Assessment	Date: 02/09/2023
<p>PP has provided the signed declaration to VVB.</p> <p>Thus, finding is closed.</p>	

CAR	11	Section no.	2.2,VCS PD	Date: 04/08/2023
Description of CL				
<p>In the section 2.2 of the PD, project proponent is request to add how the following requirements (as provided in VCS PD template guideline) has been discussed during the local stakeholder consultation and provide its evidence to VVB.</p> <ol style="list-style-type: none"> 1. The procedures or methods used for engaging local stakeholders (e.g., dates of announcements or meetings, periods during which input was sought). 2.The procedures or methods used for documenting the outcomes of the local stakeholder consultation. 3.The mechanism for on-going communication with local stakeholders. 4.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. 5.For AFOLU projects, also demonstrate how the project has or will communicate the following: 6.The project design and implementation, including the results of monitoring. 7.The risks, costs and benefits the project may bring to local stakeholders. 8.All relevant laws and regulations covering workers' rights in the host country. 9. The process of VCS Program validation and verification and the validation/verification body's site visit 				
Project Proponent response				Date: 08/08/2023
<p>Section 2.2 of the PD has been updated information pertaining to stakeholder consultation has been updated in line with VCS PD template.</p>				
Documentation provided by Project Proponent				
<i>Stakeholder meeting evidence</i>				
VVB assessment				Date: 19/08/2023
<p>It has been observed that project proponent has revised the section 2.2 of PD as per the above comment.</p> <p>However, discussion on the risk to the local stakeholder, the relevant law and regulations covering workers right, process of VCS program validation and verification is not mentioned in the section. Project proponent is requested to add the same.</p> <p>Thus, finding is open.</p>				
Project Proponent response				Date: 23/08/2023

Section 2.2 of the PD has been revised to include details about the potential risks to local stakeholders, with reference to sections 3.18.13 to 3.18.16 of VCS Standard Version 4.4. Additionally, information regarding laws and regulations governing workers' rights and the validation and verification process has been incorporated.	
Documentation provided by Project Proponent	
<i>Revised PD</i>	
VVB Assessment	Date: 02/09/2023
It has been observed that PP has revised PD to comply with VCS requirements.	
Thus, finding is closed.	

CAR	12	Section no.	2.4, VCS PD	Date: 04/08/2023
Description of CAR				
In line with the VCS standard v 4.4 section 3.18.9, project proponent shall address the public comment received during the public comment period in the section 2.4 of the VCS PD.				
Project Proponent response				Date: 08/08/2023
The project 4032 has received one public comment which was duly addressed during the public comment period.				
Documentation provided by Project Proponent				
<i>Revised PD</i>				
<i>Public comments summary</i>				
VVB assessment				Date: 19/08/2023
As per the VCS PD template guideline, in section 2.4 of PD, project proponent is requested to demonstrate how due account of all and any comments received during the public comment period has been taken. Include details on any updates to the project design or demonstrate the insignificance or irrelevance of comments.				
Thus, finding is open.				
Project Proponent response				Date: 23/08/2023
Section 2.4 of the revised PD has been supplemented with information on consideration of received comments.				
Documentation provided by Project Proponent				
<i>Revised PD</i>				
VVB Assessment				Date: 02/09/2023
It has been observed that PP has revised PD as per the above comments.				
Thus, finding is closed.				

CAR	13	Section no.	2.5, VCS PD	Date: 04/08/2023
Description of CL				
In the section 2.5 of PD, project proponent is requested to justify how the requirement provided in section 3.18.12, 3.18.17 - 3.18.20 of VCS standard version 4.4 has been met.				
Also, the evidence to substantiate the digital agronomy support and safeguard on discrimination and sexual harassment (mention in section 2.5 of PD) is requested to be provided to VVB				
Project Proponent response				Date: 08/08/2023
1. Section 2.5 of PD has included the sections as per VCS standard version 4.4 and justifications are provided in the PD. 2. Supporting documents are provided.				
Documentation provided by Project Proponent				

<i>Revised PD</i>	
<i>Employee Handbook</i>	
VVB assessment	Date: 19/08/2023
<p>It has been observed that the PD has been revised to include all the relevant information as per the requirement set in VC standard version 4.4.</p> <p style="text-align: right; font-size: small;">Validation Report: VCS Version 4.2</p> <p>The required evidence has also been provided to VVB and is deemed to be acceptable.</p> <p>Thus, the finding is closed.</p>	

CAR	14	Section no.	3.2,VCS PD	Date: 04/08/2023
Description of CL				
<p>In the section 3.2 of PD, project proponent is requested to demonstrate the applicability condition of tool 21.</p> <p>Also, In the section 3.2 of the PD, under the eligibility condition 1, PD is requested to justify how the project area is not included under the water regime of upland, rainfed, or deepwater.</p>				
Project Proponent response				Date: 08/08/2023
<ol style="list-style-type: none"> 1. Applicability condition for tool 21 has been added in section 3.2 of PD. 2. Justification has been given for how project activity excluded upland, rainfed or deepwater in section 3.2 of revised PD. 				
Documentation provided by Project Proponent				
<i>Revised PD</i>				
VVB assessment				Date: 19/08/2023
<p>It has been observed that project proponent has provided the applicability condition of tool 21 version 13.1 and it justification in section 3.2 of PD. The justification is deemed to be acceptable to VVB.</p> <p>Project proponent in section 3.2 of PD has described that “<i>Project activity will not consider upland under project area as most of the paddy cultivation is in lowlands . It is also confirmed through scientific literature that irrigated, flooded fields for an extended period of time during the growing season is the conventional practice of rice cultivation which cannot be established in upland and deep-water condition</i>”. The literature referred which is given as footnote does not specifically states that the project area is not upland, rainfed or deep water.</p> <p>The literature “Sharma, B. and Sharma, H., 2015. Status of rice production in Assam, India. <i>Journal of Rice Research: Open Access</i>, 3, p.e121”, states that excessive rainfall during the months of May to September caused heavy flood, water logging, and damage of crops and even lives in assam. Also the literature “Islam, K., 2012. Position of rice production in Assam. <i>IJCAES Special issue on Basic, Applied and Social Sciences</i>, 2, pp.124-143.” states that Assam occupies a special place in the rainfed rice production system in the eastern India (being a major rainfed rice-growing area) by covering about 9 per cent of the total rice area and contributes 8 per cent to the production. Project participant is requested to justify how it has been ensured that the project area does not include uplands, rainfed or deepwater water regimes.</p> <p>Thus, finding is open.</p>				
Project Proponent response				Date: 22/08/2023

The baseline survey conducted prior to farmer onboarding will determine the applicability condition, which specifies that the project area should not encompass upland, rainfed, or deep water regimes. This determination will be based on the water management practices adopted by the baseline farmers, proving that the farmers are following irrigated practice in Rabi season and rainfed with supplemental irrigation water regime in Kharif season, and they have control over irrigation methods, such as using motor pumps to irrigate or drain the fields. The section 3.2 of the revised PD has been updated accordingly.

In Assam, flooding is a common in certain areas. According to baseline survey conducted by PP, the districts Dhubri, Nalbari and Barpeta, the farmers do not take up Paddy in Kharif season (Which starts from June). In such instances, the PP will classify the region as a single-cropping area, considering only Rabi season. The section 5.3 of the revised PD has been updated to reflect the changes.

Documentation provided by Project Proponent

Revised PD
Baseline surveys

VVB Assessment

Date: 02/09/2023

The justification provided by PP is deemed to be acceptable to VVB. Thus, the finding is closed.

CAR	15	Section no.	3.5,VCS PD	Date: 04/08/2023
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Description of CL

In section 3.5 of the VCS PD, project proponent is requested to demonstrate the additionality through regulatory surplus as provided in section 3.14.1 of VCS standard version 4.4.

Moreover, it has been observed that project participant has provided the demonstration of additionality (as per methodology requirement) through investment barrier, technology barrier, barrier due to prevailing practice. Project proponent is requested to provide the VVB with evidences to substantiate the claims

Project Proponent response

Date: 08/08/2023

Section 5.5 of PD has been included with additionality through regulatory surplus. The revised PD has also been updated with relevant references to prove additionality.

Documentation provided by Project Proponent

Revised PD

VVB assessment

Date: 19/08/2023

It has been observed that in section 3.5 of PD, the additionality has been demonstrated through regulatory surplus.

The evidence of the barriers identified has been added in the footnotes of the respective barriers.

Thus, the finding is closed.

CAR	16	Section no.	4.1, 4.2,VCS PD	Date: 04/08/2023
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Description of CL

It has been observed that, in section 4.1 and 4.2 of PD, project proponent has provided the baseline and project calculation approach as given in the para 12 and 16 of the methodology AMS.III-AU respectively. However, the actual emission reduction has been calculated through the equation provided in para 21 and 31 of the methodology using the option 2 which is an alternative approach of ER calculation to that of approach provided earlier. Project proponent is requested to clarify the relevance of adding the equations (equation 1,2,3 and 4 of methodology) and is requested to provide the actual calculation approach used in the section 4.1 and 4.2 of PD.

Project Proponent response

Date: 08/08/2023

The PP has considered option 2 approach as an alternative to the reference field approach indicated in paragraphs 12, 13, 16 and 17 of applied methodology. Hence, the section is not applicable and necessary changes have been made in the revised PD.			
Documentation provided by Project Proponent			
<i>Revised PD</i>			
VVB assessment		Date: 19/08/2023	
Project proponent has revised the section 4.1 and 4.2 of PD. The calculation of baseline and project emissions are not applicable since the GHG emissions reduction is calculation using the IPCC tier 1 approach or default values by applying the equation 6 of the applied methodology.			
Thus, finding is closed.			

CAR	17	Section no.	4.4,VCS PD	Date: 04/08/2023
Description of CAR				
As project proponent has applied the IPCC default values for the estimation of ERs generated from the project, project proponent shall address the uncertainty associated with the Ers calculations.				
Project Proponent response				Date: 19/08/2023
In line with 2006 IPCC Guidelines, Volume 2, Chapter 2, Tables 2.2 to 2.6, A Conservativeness factor of 0.893 has been considered for Estimated uncertainty range at 95% confidence level of overall emission reductions of > +/- 30%, ≤ +/-50%. The changes after deducting uncertainty towards IPCC default values has been updated.				
Documentation provided by Project Proponent				
<i>ER Sheet</i>				
<i>Revised PD</i>				
VVB assessment				Date: 19/08/2023
Project participant has applied the uncertainty factor as per the 2006 IPCC guideline.				
Thus, finding is closed				

CAR	18	Section no.	4.4,VCS PD	Date: 04/08/2023
Description of CAR				
In section 4.4, project proponent shall provide vintage-wise ERs as per VCS standard format Day-Month-Year to Day-Month-Year, for ex-ante emission reduction in VCS PD as well as in ER calculation spreadsheet.				
Project Proponent response				Date: 08/08/2023
Updated the ERs vintage-wise as per VCS standard format in both VCS PD and ER calculation spreadsheet.				
Documentation provided by Project Proponent				
<i>Revised PD</i>				
<i>ER sheet</i>				
VVB assessment				Date: 19/08/2023
Project proponent has provided the vintage wise ERs as per the VCS standard format in the section 4.4 of PD.				
Thus, the finding is closed.				

CAR	19	Section no.	5.3, VCS PD	Date: 04/08/2023
Description of CAR				


<ol style="list-style-type: none"> 1. Project proponent shall describe the monitoring method used for the estimation of the crop yield in baseline as well as project scenario. 2. Project proponent shall provide information related to the stratification procedure followed for the sample size determination. 	
Project Proponent response	Date: 08/08/2023
<ol style="list-style-type: none"> 1. The PP has collected the baseline yield information as part of baseline surveys on sample basis and during first year of project activity PP is collecting both previous season yield and current season yield in the farmer logbooks. So, the baseline yield collected in the first year will be fixed for the entire crediting period. 2. The PP is monitoring entire project area and the sample size will not be applicable. 	
Documentation provided by Project Proponent	
<i>Farmer Logbooks</i> <i>Revised PD</i>	
VVB assessment	Date: 19/08/2023
<p>The baseline yield information has been verified from the baseline survey data of the samples provided by project proponent. The farmers logbook which is available after the first cropping season also recorded the information of current and previous yield. Moreover, the yield has been included as the monitored parameter in the PD to ensure that it is monitored throughout the crediting period.</p> <p>Thus, the finding is closed.</p>	

Table 3. Forward Action Request from this validation

FAR	01	Section no.	1.4	Date: 09/09/2023
Description of FAR				
<p>The LULC map and shapefiles of all the districts covering project area for the years 2012, 2017, and 2022 has been provided to VVB. But the polygon of only 2500 ha of the project area out of total of 13,169 ha is only provided to VVB. Based on the analysis of the LULC shapefiles and the polygons of the project area provided, it can be confirmed that the provided project area (2500 ha) has not been cleared of the native ecosystem since last 10 years. However, it needs to be confirmed that the rest of the area included in the project activity (10669 ha) has not been cleared of the native ecosystem since last 10 years. PP shall provide the polygon for remaining project area (for 10669 ha) to the VVB during the first verification and VVB shall validate the same.</p>				
Project Proponent response				Date: DD/MM/YYYY
Documentation provided by Project Proponent				
VVB assessment				Date: DD/MM/YYYY

APPENDIX 3: CERTIFICATES OF COMPETENCY

Validation Report: VCS Version 4.2



Carbon Check (India) Private Limited

Certificate of Competency

Mr. Vikash Kumar Singh

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:


<input checked="" type="checkbox"/> Validator	<input checked="" type="checkbox"/> Verifier	<input checked="" type="checkbox"/> Team Leader	<input checked="" type="checkbox"/> Technical Expert
<input checked="" type="checkbox"/> Technical Reviewer	<input type="checkbox"/> Health Expert	<input type="checkbox"/> Gender Expert	<input checked="" type="checkbox"/> Plastic Waste Expert
<input checked="" type="checkbox"/> SDG+	<input checked="" type="checkbox"/> Social no-harm(S+)	<input checked="" type="checkbox"/> Environment no-harm(E+)	<input checked="" type="checkbox"/> CCB Expert
<input checked="" type="checkbox"/> Financial Expert	<input checked="" type="checkbox"/> Local Expert for India, South Africa, and Spanish speaking countries		

in the following Technical Areas:

<input checked="" type="checkbox"/> TA 1.1	<input checked="" type="checkbox"/> TA 1.2	<input type="checkbox"/> TA 2.1	<input checked="" type="checkbox"/> TA 3.1	<input checked="" type="checkbox"/> TA 4.1
<input checked="" type="checkbox"/> TA 4. n	<input type="checkbox"/> TA 5.1	<input type="checkbox"/> TA 5.2	<input checked="" type="checkbox"/> TA 7.1	<input type="checkbox"/> TA 8.1
<input type="checkbox"/> TA 9.1	<input type="checkbox"/> TA 9.2	<input type="checkbox"/> TA 10.1	<input checked="" type="checkbox"/> TA 13.1	<input checked="" type="checkbox"/> TA 13.2
<input checked="" type="checkbox"/> TA 14.1	<input checked="" type="checkbox"/> TA 15.1			

Issue Date
1st January 2023

Expiry Date
31st December 2023



Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023



Carbon Check (India) Private Limited

Certificate of Competency

Ms. Isha Kapoor

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

- | | | | |
|---|--|--|--|
| <input checked="" type="checkbox"/> Validator | <input checked="" type="checkbox"/> Verifier | <input checked="" type="checkbox"/> Team Leader | <input checked="" type="checkbox"/> Technical Expert |
| <input type="checkbox"/> Technical Reviewer | <input type="checkbox"/> Health Expert | <input type="checkbox"/> Gender Expert | <input type="checkbox"/> Plastic Waste Expert |
| <input type="checkbox"/> SDG+ | <input type="checkbox"/> Social no-harm(S+) | <input type="checkbox"/> Environment no-harm(E+) | <input type="checkbox"/> CCB Expert |
| <input type="checkbox"/> Financial Expert | <input checked="" type="checkbox"/> Local Expert for India | | |

in the following Technical Areas:

- | | | | | |
|---|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| <input type="checkbox"/> TA 1.1 | <input type="checkbox"/> TA 1.2 | <input type="checkbox"/> TA 2.1 | <input type="checkbox"/> TA 3.1 | <input type="checkbox"/> TA 4.1 |
| <input type="checkbox"/> TA 4. n | <input type="checkbox"/> TA 5.1 | <input type="checkbox"/> TA 5.2 | <input type="checkbox"/> TA 7.1 | <input type="checkbox"/> TA 8.1 |
| <input type="checkbox"/> TA 9.1 | <input type="checkbox"/> TA 9.2 | <input type="checkbox"/> TA 10.1 | <input type="checkbox"/> TA 13.1 | <input type="checkbox"/> TA 13.2 |
| <input checked="" type="checkbox"/> TA 14.1 | <input type="checkbox"/> TA 15.1 | | | |

Issue Date

1st January 2023

Expiry Date

31st December 2023



Mr. Vikash Kumar Singh
Compliance Officer



Mr. Amit Anand
CEO



Carbon Check (India) Private Limited

Certificate of Competency

Mr. Kiran K V

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

- | | | | |
|---|--|---|--|
| <input checked="" type="checkbox"/> Validator | <input checked="" type="checkbox"/> Verifier | <input type="checkbox"/> Team Leader | <input checked="" type="checkbox"/> Technical Expert |
| <input type="checkbox"/> Technical Reviewer | <input type="checkbox"/> Health Expert | <input type="checkbox"/> Gender Expert | <input type="checkbox"/> Plastic Waste Expert |
| <input checked="" type="checkbox"/> SDG+ | <input checked="" type="checkbox"/> Social no-harm(S+) | <input checked="" type="checkbox"/> Environment no-harm(E+) | <input type="checkbox"/> CCB Expert |
| <input type="checkbox"/> Financial Expert | <input checked="" type="checkbox"/> Local Expert for India | | |

in the following Technical Areas:

- | | | | | |
|----------------------------------|--|----------------------------------|--|---|
| <input type="checkbox"/> TA 1.1 | <input checked="" type="checkbox"/> TA 1.2 | <input type="checkbox"/> TA 2.1 | <input checked="" type="checkbox"/> TA 3.1 | <input type="checkbox"/> TA 4.1 |
| <input type="checkbox"/> TA 4. n | <input type="checkbox"/> TA 5.1 | <input type="checkbox"/> TA 5.2 | <input type="checkbox"/> TA 7.1 | <input type="checkbox"/> TA 8.1 |
| <input type="checkbox"/> TA 9.1 | <input type="checkbox"/> TA 9.2 | <input type="checkbox"/> TA 10.1 | <input type="checkbox"/> TA 13.1 | <input checked="" type="checkbox"/> TA 13.2 |
| <input type="checkbox"/> TA 14.1 | <input type="checkbox"/> TA 15.1 | | | |

Issue Date

1st January 2023

Expiry Date

31st December 2023



Mr. Vikash Kumar Singh
Compliance Officer



Mr. Amit Anand
CEO



Carbon Check (India) Private Limited

Certificate of Competency

Mr. Amit Anand

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

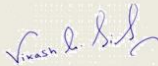
- | | | | |
|--|--|---|--|
| <input checked="" type="checkbox"/> Validator | <input checked="" type="checkbox"/> Verifier | <input checked="" type="checkbox"/> Team Leader | <input checked="" type="checkbox"/> Technical Expert |
| <input checked="" type="checkbox"/> Technical Reviewer | <input type="checkbox"/> Health Expert | <input type="checkbox"/> Gender Expert | <input checked="" type="checkbox"/> Plastic Waste Expert |
| <input checked="" type="checkbox"/> SDG+ | <input checked="" type="checkbox"/> Social no-harm(S+) | <input checked="" type="checkbox"/> Environment no-harm(E+) | <input checked="" type="checkbox"/> CCB Expert |
| <input checked="" type="checkbox"/> Financial Expert | <input type="checkbox"/> Local Expert for India and South Africa | | |

in the following Technical Areas:

- | | | | | |
|---|---|----------------------------------|---|---|
| <input checked="" type="checkbox"/> TA 1.1 | <input checked="" type="checkbox"/> TA 1.2 | <input type="checkbox"/> TA 2.1 | <input checked="" type="checkbox"/> TA 3.1 | <input type="checkbox"/> TA 4.1 |
| <input type="checkbox"/> TA 4. n | <input type="checkbox"/> TA 5.1 | <input type="checkbox"/> TA 5.2 | <input checked="" type="checkbox"/> TA 7.1 | <input checked="" type="checkbox"/> TA 8.1 |
| <input type="checkbox"/> TA 9.1 | <input type="checkbox"/> TA 9.2 | <input type="checkbox"/> TA 10.1 | <input checked="" type="checkbox"/> TA 13.1 | <input checked="" type="checkbox"/> TA 13.2 |
| <input checked="" type="checkbox"/> TA 14.1 | <input checked="" type="checkbox"/> TA 15.1 | | | |

Issue Date
1st January 2023

Expiry Date
31st December 2023



Mr. Vikash Kumar Singh
Compliance Officer