



REDUCED EMISSIONS FROM IMPROVED AND EFFICIENT COOKING IN UGANDAN COMMUNITIES



VKU Certification Pvt. Ltd.

Prakoshth Number 1-S, Leaf Tower, Second Floor, Plot NO. 01, IRIS LEAF Gram, Talawali Chanda, Indore, 453771, M.P.,
India

URL: <http://vkucertification.com> | e-mail: info@vkucertification.com

Report ID	VKU.VER.217.25_VCS_3045
Project title	Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities
Project ID	VCS 3045
Verification period	01-January-2024 to 31-December-2024 (inclusive of both the dates)

Original date of issue	22-August-2025
Most recent date of issue	05-June-2026
Version	3.0
VCS Standard Version	4.7
Client	PERSISTENTCLIMATE INDIA PRIVATE LIMITED
Prepared by	VKU Certification Private Limited
Approved by	Dr. Vikas Kumar Aharwal (Director)
Work carried out by	Barun Kumar – Team Leader & Technical Expert T.A 3.1 Vivek Kumar Ahirwar – Technical Reviewer & Technical Expert T.A 3.1 Ravikant Soni - Financial Expert Swati Vats - Project Trainee Maurice Kabikabule – Local Expert (Uganda)

Summary:

VKU Certification Pvt. Ltd. (hereafter referred to as VKU) has been commissioned by PERSISTENTCLIMATE INDIA PRIVATE LIMITED to verify the greenhouse gas emission reductions reported for the project activity titled “Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities”. The verification covers the monitoring period from **01-January-2024 to 31-December-2024** (inclusive of both dates), under a **10-year fixed crediting period** starting from **02-January-2021 to 01-January-2031** (inclusive of both dates), in accordance with the relevant requirements of VCS Standard version 4.7, dated 16-April-2024/01/.

Purpose: The purpose of this verification is to provide an independent review and ex-post determination by a third-party entity of the monitored GHG emission reductions and the project's contributions to sustainable development. It also aims to verify that the monitoring methodology has been implemented in accordance with the monitoring plan, as outlined in the registered Joint VCS PD & MR/13/, the GS SDG monitoring matrix, and the applied, approved monitoring methodology/05/. Furthermore, it confirms that the monitoring data used to demonstrate the reductions in anthropogenic emissions by sources is sufficient, definitive, and presented in a concise and transparent manner.

The verification scope of the project is:

- To verify that the project is implemented as described in the registered VCS Joint PD & MR/13/

- To assess the project's compliance with other relevant rules including the host country legislation (Uganda).
- To confirm that the monitoring system is implemented and fully functional to generate voluntary carbon units without any double counting.
- To establish that the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation.
- To verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures describes in the monitoring plan of registered VCS Joint PD & MR/13/, which also includes the sampling of ICS as per the CDM sampling guidelines /07/ and CDM sampling standard/08/.
- To evaluate the GHG emission reduction data/15/ and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.
- To verify that reported GHG emission data is sufficiently supported by evidence.

Verification was conducted using VKU's procedures in-line with the requirements specified in the VCS program guide version v4.4/04/, VCS standard version 4.7/01/, VCS validation and verification manual version v3.2/02/ and applying standard auditing techniques.

The verification consisted of a desk review, random acceptance sampling of the ICS units, an onsite audit assessment, resolution of outstanding issues, and the issuance of the final verification report and certification.

The assessment team ensured that the reported emission reductions are complete and accurate, in accordance with the applicable VCS requirements, in order to be certified. Consequently, the assessment team detected no further uncertainties.

The GHG emission reductions were calculated based on the approved methodology **VM0050 – Energy Efficiency and Fuel-Switch Measures in Cookstoves, Version 1.0/05/**, and the monitoring plan included in the registered VCS Joint PD & MR/13/.

VKU followed a risk-based approach to perform this verification. During the process, 02 Corrective Action Requests (CARs), 02 Clarification Requests (CLs), and 00 Forward Action Requests (FARs) were identified. These were related to the operation, monitoring, and GHG emission reduction calculations of the VCS project activity, in accordance with all relevant VCS requirements and the applied baseline and monitoring methodology. All CARs and CLs were successfully closed following the necessary corrections and clarifications provided by the client. Details of these issues and their resolutions are presented in Appendix 04 of this verification report.

Summary of the verification conclusion:

In conclusion, it is VKU's opinion that the project activity "Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities" (VCS Project ID: **3045**) meets all relevant requirements of

the **VCS Standard and guidelines**, and correctly applies the baseline and monitoring methodology **VM0050 – Energy Efficiency and Fuel-Switch Measures in Cookstoves**, Version 1.0/05/.

The monitoring system is in place, and the emission reductions have been calculated without any material misstatements. Therefore, VKU certifies that the emission reductions achieved during the **third monitoring period**, from **01 January 2024 to 31 December 2024** (inclusive of both dates), under the **fixed 10-year crediting period** from **02 January 2021 to 01 January 2031** (inclusive of both dates), amount to **107,641 tCO₂e**.

CONTENTS

1	INTRODUCTION	7
1.1	Objective	7
1.2	Scope and Criteria	8
1.3	Level of Assurance.....	9
1.4	Summary Description of the Project	10
2	VERIFICATION PROCESS	11
2.1	Method and Criteria.....	11
2.2	Document Review	15
2.3	Interviews	19
2.4	Site Visits	22
2.5	Resolution of Findings	34
2.6	Eligibility for Validation Activities	35
3	VALIDATION FINDINGS	35
3.1	Methodology Deviations.....	35
3.2	Project Description Deviations.....	36
3.3	New Project Activity Instances in Grouped Projects.....	36
3.4	Baseline Reassessment	36
4	VERIFICATION FINDINGS.....	37
4.1	Project Details	37
4.2	Safeguards and Stakeholder Engagement	41
4.3	Accuracy of Reduction and Removal Calculations.....	54
4.4	Quality of Evidence to Determine Reductions and Removals.....	62
4.5	Non-Permanence Risk Analysis.....	75
5	VERIFICATION OPINION.....	75
5.1	Verification Summary	75
5.2	Verification Conclusion	76
5.3	Ex-ante vs Ex-post ERR Comparison	77
	APPENDIX 1: COMMERCIALLY SENSITIVE INFORMATION	79
	APPENDIX 2: ABBREVIATIONS.....	80

APPENDIX 3: QUESTIONNAIRES FOR END USERS INTERVIEW	82
APPENDIX 4: AUDIT FINDINGS	86
APPENDIX 5: COMPETENCE STATEMENTS	95

1 INTRODUCTION

1.1 Objective

This report summarizes the findings of the verification of the project, conducted in accordance with the **VCS Requirements, UNFCCC criteria for CDM**, and additional criteria designed to ensure consistent project operations, monitoring, and reporting.

The objectives of this verification exercise, through the review of objective evidence, are to establish:

- An independent evaluation of the project activity by an accredited validation and verification body (VKU Certification Pvt. Ltd.) against the requirements of the VCS Program Guide Version 4.4/04/ and VCS Standard Version 4.7/01/;
- Confirmation that the project activity has been implemented and is operating in accordance with the VCS Project Description (**Joint PD & MR/13/**), and that all physical features (including technology, project equipment, and monitoring systems) are in place;
- Verification that the **Monitoring Report/14/**, **Emission Reduction Spreadsheet/15/**, and other supporting documentation are complete;
- Assurance that data is recorded and stored in line with the **monitoring methodology-VM0050- Energy Efficiency and-Fuel-Switch-Measures-in-Cookstoves-v1.0/05/** and the approved **monitoring plan** as per joint PD-MR/13/;
- Confirmation that the monitoring system is implemented as per the monitoring methodology VM0050- Energy Efficiency and-Fuel-Switch-Measures-in-Cookstoves-v1.0/05/ and fully functional to generate **Verified Carbon Units (VCUs)** without any instances of **double counting/19/**;
- Verification that the reported data is accurate, complete, consistent, transparent, and free from material errors or omissions, through a review of the monitoring records and emissions reduction calculations, in line with **VCS Standard Version 4.7/01/**, **ISO 14064-3/09/**, and **ISO 14065/09/**.

The verification process is designed to confirm the seamless implementation and full functionality of the monitoring system, ensuring accurate generation of VCUs without duplication. Additionally, a detailed examination of the monitoring records and emissions reduction calculations has been performed to ensure data precision (within the limits of applicable sampling requirements), completeness, consistency, transparency, and the absence of any material errors or omissions. This is intended to establish the overall reliability and integrity of the reported data.

1.2 Scope and Criteria

The scope of this verification is to conduct an independent, objective review and ex-post determination by an accredited third-party entity of the monitored greenhouse gas (GHG) emission reductions and the contribution to sustainable development from the project “Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities” (VCS Project ID: **3045**) for the period from **01 January 2024 to 31 December 2024** (inclusive of both dates).

The verification was conducted based on the following key documents and information sources:

- **Joint Validation and Verification Report /11/**
- **Registered VCS Joint PD & MR /13/**
- **Previous Verification Report /12/**
- **Monitoring Report /14/**
- **Emission Reduction Calculation Spreadsheet /15/**
- Supporting evidence submitted by the project proponent to the VKU assessment team
- Information collected through interviews conducted during the onsite assessment/37//38/.

Additionally, publicly available information was considered to the extent that it was relevant and accessible.

The verification was carried out in accordance with the following guidance and protocols:

- **VCS Program Guide Version 4.4 /04/**
- **VCS Standard Version 4.7/01/**
- **VCS Program Definitions Version 4.5 /03/**
- **VCS Validation and Verification Manual Version 3.2/02/**
- VM0050: Energy Efficiency and Fuel-Switch Measures in Cookstoves, Version 1.0/05/
- Correction and Clarifications to VM0050, dated 03-February-2025/05/
- CDM Tool 30 Calculation of the fraction non-renewable biomass, Version 04.0/06/
- **VKU.SOP.04 – Process Requirements/34/**

The project has been assessed against the requirements of the VCS Standard Version 4.7 /01/, VCS Program Guide Version 4.4 /04/, VCS Validation and Verification Manual Version 3.2 /02/, and other relevant rules and guidance. A risk-based approach was employed during the verification, with a focus on the identification of significant reporting rules and the reliability of project monitoring.

The methods and criteria used for the verification process included the following key phases:

- Desk Review of the Monitoring Report /14/, Emission Reduction Spreadsheet/15/, and supporting documents and evidence listed in Section 2.2 of this report for the current monitoring period. This was conducted in accordance with the VCS Program Guide Version 4.4 /04/, VCS Standard Version 4.7/01/, VCS Program Definitions Version 4.5/03/, VCS Validation and Verification Manual Version 3.2/02/, and the Registered Joint PD & MR/13/;

Onsite Audit Interviews/36/, using focused questionnaires/39/ (Appendix 3) and a Field Assessment Checklist, were conducted to cross-verify the monitoring survey results/17/ presented in the Survey Sheet with End-Users, Stakeholders, and Project Proponent representatives involved in the project's implementation;

Resolution of Outstanding Issues, completion of a completeness check, and issuance of the Final Verification Report along with the applicable VCS Verification Deed of Representation.

This verification was conducted in a manner that avoids the provision of consultancy to the project proponent. However, requests for clarifications and/or corrective actions raised during the process may have indirectly supported the improvement of the monitoring system, in alignment with the requirements of **ISO 14064-3** and **ISO 14065/09/**.

1.3 Level of Assurance

All revisions of the verification report, prior to submission to the client, were subjected to an independent internal technical review to confirm that all verification activities were completed in accordance with VKU's procedures, and with a **reasonable level of assurance**.

This verification report is based on the Monitoring Report/14/, the registered VCS Joint PD & MR /13/, supporting documentation made available to the assessment team, and information gathered through interviews conducted during the onsite audit/37/.

The technical review was conducted by reviewer(s) who are qualified in accordance with VKU's internal qualification procedures.

Table 01: The assessment team consists of the following personnel

Role/Qualification	Last Name	First Name
Team Leader & Technical Expert TA 3.1	Kumar	Barun
Project Trainee	Vats	Swati
Local Expert (Uganda)	Kabikabule	Maurice

Table 02: The technical reviewer consists of the following personnel

Role/Qualification	Last Name	Middle Name	First Name
Technical Reviewer & Technical Expert TA 3.1	Ahirwar	Kumar	Vivek

The **threshold for quantitative materiality**, with respect to the aggregate of errors, omissions, and misrepresentations relative to the total reported GHG emission reductions and/or removals, is limited to **5%**, in accordance with **Section 4.1.10 of the VCS Standard Version 4.7/01/**.

As the project falls under the **“project”** category as defined by the VCS Standard Version 4.7/01/, given that the annual emission reductions are **less than 300,000 tonnes of CO₂e**—the applicable materiality threshold is 5% of the total emission reductions achieved during the monitoring period.

Based on the **actual reported emission reductions of 107,641 tCO₂e**, the materiality threshold for this verification is calculated to be **5382.05 tCO₂e**.

1.4 Summary Description of the Project

The grouped project “Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities” aims to reduce greenhouse gas emissions by distributing fuel-efficient Improved Cookstoves (ICS) across various regions of Uganda.

PERSISTENTCLIMATE INDIA PRIVATE LIMITED (PersistentClimate), the Project Proponent, ensures compliance with the applicable VERRA monitoring methodology through robust data collection, regular household surveys, and systematic record-keeping to support accurate and conservative quantification of GHG reductions and Sustainable Development Impacts.

The project improves access to clean cooking technologies by replacing traditional stoves with high-efficiency, low-emission ICS, thereby reducing firewood and charcoal use. This leads to significant GHG emission reductions, supports forest conservation, improves indoor air quality, and reduces the physical burden of cooking.

Under this grouped project, the following three stove models were initially deployed:

1. **Burn Kuniokoa** (Wood-fired)
2. **Burn Jikokoa** (Charcoal-fired)
3. **Masupa Stove** (Charcoal-fired)

End users were informed that the use of ICS contributes to the generation of **carbon finance**, which is reinvested to support wider access to ICS and to offset project implementation costs.

Relevant Implementation Dates:

- Start of Commissioning: 02 January 2021
- Monitoring Period: 01-January-2024 to 31-December-2024
- Crediting Period Duration: 10 years (02 January 2021 – 01 January 2031)

Table 03: Survey Dates

First monitoring survey: survey dates	01-Sep-2022 to 04-Sep-2022
Second Monitoring Survey: Survey dates	19-December-2023 to 30-December-2023
Third monitoring survey: Survey dates	02-January-2025 to 08-January-2025

Table 04: Total Number of ICS

Stove Model	Fuel used	Total Number of Distributed ICS
Jikokoa	Charcoal fired Stove	13,027
Masupa	Charcoal fired stove	45,217
Kuniokoa	Wood fired stove	549

The project achieved a total emission reduction of **107,641 tCO₂e** during the monitoring period from **01 January 2024 to 31 December 2024** (inclusive of both days).

2 VERIFICATION PROCESS

The registered VCS grouped project activity “Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities” (VCS ID: **3045**) is undergoing its **third verification**, conducted by **VKU Certification Pvt. Ltd.**, for the **3rd monitoring period** from **01-January-2024 to 31-December-2024** (inclusive of both dates).

2.1 Method and Criteria

The verification was conducted using VKU’s internal procedures, aligned with the requirements specified under the VCS Program, including the VCS Program Guide Version 4.4/04/, VCS Standard Version 4.7/01/, and the VCS Validation and Verification Manual Version 3.2/02/. The project activity qualifies as a grouped project under the VCS framework.

Scope of Assessment	Date
Date of contract signing with VKU	11-February-2025
Submission of document to VKU	20-March-2025
Desk (Document) review	08-July-2025 to 18-July-2025
Onsite Audit	19-July-2025 to 21-July-2025
Audit findings sent on	29-July-2025

The verification team carried out a risk analysis and developed a strategic audit plan before the commencement of onsite audit.

Risk Analysis and Detailed Audit Testing Planning:

To identify potential reporting risks and define the required audit testing procedures for residual risk areas, **Table 05** was used. The structure and content of Table 05 are presented below:

Table 05:

Identification of potential reporting risk (Risk that could lead to material errors, omissions or misstatements)	Identification, assessment of potential risk	Assessment of the records/information/interview with personnel to check controls/mitigation measures
The following potential risks were identified and divided and structured according to the possible areas of occurrence: 1. Dysfunction of installed equipment 2. Maloperation by operational personnel.	The low risk has been identified in the course of the monitoring project implementation. The following measures were taken to minimize the corresponding risks. 1. Internal data review 2. Training 3. Internal check of QA/QC measures of involved parties.	Check of trainings Check of responsibilities Check of QA/QC documentation

Note: The risk assessment is performed and the results are provided in the **table 11** of this report.

The assessment team applied **sampling methods** for the verification of GHG emission reductions in accordance with **Paragraph 26** of the UNFCCC: Standard: Sampling and Surveys for CDM Project Activities and Programmes of Activities, **Version 09.0/08/**.

The GHG emission reductions are calculated based on the **approved baseline** and the **applied methodology-VM0050 – Energy Efficiency and Fuel-Switch Measures in Cookstoves**, Version 1.0/05/. Additionally, the assessment team used **Tool 30: Calculation of the Fraction of Non-Renewable Biomass, Version 04/06/**, to support the emission reduction calculations.

- **Scope: 03** – Energy Demand
- **Project Type:** Type II – Energy Efficiency Improvement Projects
- **Project Structure:** Grouped Project Activity

In alignment with the standard guidelines of ISO 14064-3:2019 (Clause 6) and ISO 14065:2020 (Clause 9)/09/, the assessment team developed and followed a defined procedure for conducting the verification of the project activity “Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities” (VCS ID: 3045). This procedure was consistently applied throughout the audit process.

The verification process consisted of the following phases:

1. Document (Desk) Review: During this phase, all documents initially provided by the client, along with publicly available documents relevant to the verification, were thoroughly reviewed. The key documents assessed included:

- The VMR0006, v1.1 registered version of the Joint VCS PD & MR/10/, including additional annexes and attachments, as well as the monitoring plan contained within the Joint PD & MR/10/;
- The VM0050, v1.0 registered Joint VCS PD & MR/13/, updated ex-ante and MP02 ex-post GHG emission reduction calculation spreadsheets/13/, and requantification report/12/.
- The Monitoring Report/14/, including the claimed emission reductions for the project and documentation from previous verifications/12/;
- The Emission Reduction Calculation Spreadsheet/15/;
- The Usage Survey Form and Results/17//18/;

Other supporting documents, such as publicly available information on the VERRA website, the UNFCCC website, and relevant background materials, were also reviewed as part of the desk review.

2. Strategic Analysis: The assessment team conducted a strategic analysis to understand the nature, scale, and complexity of the project activity. This analysis helped determine the type, extent, and focus of the verification activities required. The outcomes of the strategic analysis were used to inform the subsequent risk assessment. Refer to Table 05 of this verification report for details.

3. Risk Assessment: A comprehensive risk assessment of the GHG statement was performed to identify potential risks of material misstatement or nonconformity with the applicable criteria. This assessment guided the scope and depth of verification procedures applied.

4. Planning and Notification to VERRA: During the desk review, all relevant documents provided by the client and publicly available sources were examined. In accordance with Paragraphs 4.1.12 and 4.1.13 of the VCS Standard Version 4.7/01/, the assessment team completed the strategic analysis and risk assessment, which concluded that an onsite audit was appropriate for this project. As part of the planning process, the assessment team submitted the Notice of Verification Services (NOVS) form/40/ to VERRA, notifying them of the planned audit. This NOVS form was submitted to the VERRA registry at least 15 business days prior to the scheduled audit date, in compliance with VCS requirements.

In line with Clause 3.3.1.1 of the Validation and Verification Manual (Version 3.2)/02/ and the guidance provided in Annex A.2.4.6 of ISO 14064-3/09/, the VVB conducted a risk assessment to identify areas that may result in material discrepancies and to assess residual risks to the integrity of the GHG emission reduction statement.

5. Evidence-Gathering Activities: The assessment team adopted a risk-based approach to develop appropriate evidence-gathering activities aimed at collecting adequate and relevant evidence to support verification conclusions. This approach was used to assess whether the greenhouse gas (GHG) statement complies with the applicable criteria, while considering the principles outlined in the relevant GHG standards and programs.

6. Audit and Sampling Plan: An audit and sampling plan was developed in alignment with the contractual terms, scope, objectives, level of assurance, and materiality threshold. This plan was specifically designed for the onsite audit and is documented under VKU.F24W. Audit/29/ and VKU.F93 Sampling Plan_VKU.VER.217.25_VCS_3045/30/.

The sampling strategy followed the guidance outlined in:

- UNFCCC; Guidelines for Sampling and Surveys for CDM Project Activities and Programme of Activities, Version 04.0/07/;
- UNFCCC; Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities, Version 09.0/08/.

Given the relative homogeneity of the population (for each stove type) with respect to the sampling objectives, stratified random sampling method was employed to verify the relevant parameters.

7. Evidence-Gathering Plan: The evidence-gathering plan was developed based on the results of the risk assessment conducted by VKU's Assessment Team. It was specifically designed to reduce verification risk to an acceptable level. The plan outlines the type and extent of evidence-gathering activities, as referenced in document.

8. Client Confirmation and Approval: The onsite audit plan was shared with the client via email for their review and formal confirmation/approval prior to execution.

9. Onsite Assessment: The onsite assessment involved interviews with key stakeholders and an evaluation of the actual project scenario. The VVB assessed project implementation and monitoring. This verification report includes a transparent disclosure of the onsite assessment process/25&26/.

10. Resolution of Discrepancies: Any non-conformities identified during the verification process are addressed through Corrective Action Requests (CARs) and Clarification Requests (CLs). Upon the successful closure of all raised CARs and CLs, the final verification report, including a positive verification opinion, is issued. If any essential issues remain unresolved, a final report with a negative verification opinion is issued instead. The final report provides a comprehensive summary of the verification findings against all applicable criteria.

11. Independent Review: An independent technical review is conducted prior to finalizing the verification report. This review is carried out by a qualified GHG auditor who is independent of the verification team and not involved in the decision-making process. The reviewer evaluates the entire verification process, including the opinion and findings prepared by the verification team leader. Based on this assessment, the reviewer may confirm or recommend modifications to the verification opinion. This step also allows for improvements in the structure and clarity of the report.

12. Final Verification: Following a completeness check, the final verification report and certification are issued, concluding the verification process.

2.2 Document Review

During the document review, VKU applied standard auditing techniques to assess the quality, consistency, and completeness of the information provided. The verification was primarily based on the review of the VCS Monitoring Report of the current monitoring period for the project activity "Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities", Version 3.1, dated 04-June-2026/14/, and the accompanying Emission Reduction Spreadsheet, v2.0, dated 15-April-2026/15/.

In addition, the MR/14/ has been assessed against the registered VCS Joint PD & MR, Version 4.1, dated 03-Novemeber-2025/13/. Particular attention was given to the monitoring plan described in the documentation.

In accordance with Clause 3.26.3 of the VCS Standard Version 4.7/01/, the Project Proponent is required to make available all necessary supporting documents and data to substantiate the claims made in the monitoring report. VKU confirms that all relevant documents and datasets required for verification were provided as requested.

The documentation reviewed during the verification is listed in Table 06 of this report.

Table No.06: Reference table

Background Documents/Weblinks	
01.	VCS Standard version 4.7 dated 16-April-2024
02.	VCS Validation and Verification Manual version 3.2 dated 19-October-2016
03.	VCS Program Definitions Version 4.5 dated 16-April-2024
04.	VCS Program Guide version 4.4 dated 29-August-2023 VCS Registration and Issuance Process Version 4.5 Dated 16-April-2024
05.	VCS VM0050- ENERGY EFFICIENCY AND FUEL-SWITCH MEASURES IN COOKSTOVES version 1.0 dated 09-October-2024 Correction and Clarifications to VM0050, dated 03-February-2025 VCS Methodology Change and Requantification Procedure Version 4.0
06.	CDM Validation & Verification Standard Version 3.0 Dated 09-September-2021 CDM Tool 30- Calculation of the fraction of non-renewable biomass version 4.0
07.	<u>UNFCCC: guidelines for Sampling and Surveys for CDM Project activities and Programmes of Activities, Version 4.0</u>
08.	<u>UNFCCC: Standard for Sampling and Surveys for CDM Project activities and Programmes of Activities, Version 09.0</u> Kitchen Performance Test Protocol Version 4.0
09.	• <u>ISO 14064-1: 2018</u> • <u>ISO 14064-2: 2019</u> • <u>ISO 14064-3: 2019</u> • <u>ISO 14065: 2020</u> • <u>ISO/IEC 17029: 2019</u>

10.	PersistentClimate India Private Limited: <u>Registered VCS Joint Project Description & Monitoring Report for “Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities”</u> Version 03 dated 05-February-2023
11.	4K Earth Science Private Limited: <u>Joint Validation & Verification report for the project "Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities" version 04 dated: 06-February-2023</u>
12.	Verification Report for 2 nd Monitoring Period (01-August-2022 to 31-December-2023) Requantification verification report for 2 nd Monitoring Period (01-August-2022 to 31-December-2023), version 1.1, dated 04-November-2025.
Supporting documents Submitted by PP to VVB	
13.	Registered PersistentClimate India Private Limited: • <u>Registered VCS Joint Project Description & Monitoring Report for “Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities”</u> Version 4.1, date of issue 03-November-2025. • Ex-ante Emission reduction calculation sheet: <u>“VCS 3045 Ex-ante ER Calculation Requantified VM0050 03112025 V1.2.xlsx”</u>.
14.	PersistentClimate India Private Limited: VCS Monitoring Report for VCS 3045 “Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities”, Version 3.0, dated-15 April 2026 Version 3.1 dated 04-June-2026
15.	PersistentClimate India Private Limited: Emission Reduction calculation spreadsheet for VCS 3045 “Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities” Version 2.0, date-15 April 2026
16.	Manufacturer’s Specification for ICS
17.	Monitoring Survey questionnaire (attached with ER calculation sheet)
18.	PersistentClimate India Private Limited: Monitoring Survey Records for the current Monitoring Period from 01-January-2024 to 31-December-2024, including both the dates

19.	Declaration to avoid double counting, non-inclusion of project in other standards and Scope 3 (supply chain)
20.	Grievance records for the current Monitoring Period from 01-January-2024 to 31-December-2024 (Including both the dates)
21.	Project Installation database for the ICS distributed
22.	Employment Record and Company Composition List (Based on Gender) as evidence for Human Right and Gender Equality
23.	End-User Agreement
24.	Training record of survey members
25.	Project KPT Sheet Project KPT photographs
VKU Documents	
26.	VKU.F62W.Field Assessment Checklist_VKU.VER.217.25_VCS_3045
27.	VKU.F46W. Attendance Sheet for Audit_VKU.VER.217.25_VCS_3045
28.	VKU.F56W.Risk Assessment_VKU.VER.217.25_VCS_3045
29.	VKU.F24W. Audit Plan_VKU.VER.217.25_VCS_3045
30.	VKU.F93W. Sampling Plan_VKU.VER.217.25_VCS_3045
31.	VKU.F72W.Evidence Gathering Plan_VKU.VER.217.25_VCS_3045
32.	Evidence Gathering Activities_VKU.VER.217.25_VCS_3045
33.	VKU.F70W. Strategic Analysis Plan_VKU.VER.217.25_VCS_3045
34.	VKU Certification Pvt Ltd: VKU.SOP.04. Process Requirements
35.	Google Earth Software Application (https://earth.google.com/)
36.	Onsite Inspection Photographs dated 19-July-2025 to 21-July-2024 for the current monitoring period
37.	Onsite Interview of stakeholders and end-users dated 19-July-2025 to 21-July-2025
38.	VKU's Internal Procedure on Sampling Method & Guidance: VKU.F74A.Sampling Plan Method and Guidance

39.	Sampling Survey Questionnaire put to use by VKU's Assessment team during Onsite visit with End Users
40.	Notice of Validation/Verification Services Form- VKU.VER.217.25_VCS_3045

2.3 Interviews

The verification team interviewed eight (08) randomly selected end-users, during the onsite site visit. These samples were randomly selected from the monitoring survey excel sheet. The **sample size** was determined by the VVB using **Acceptance Sampling Techniques**, in accordance with applicable guidelines.

The assessment team conducted an **onsite assessment** of the project activity from **19-July-2025 to 21-July-2025** (both dates inclusive). During this period, representatives of the Project Proponent were interviewed by the assessment team/37/.

Table 06 below provides a detailed summary of the interviews conducted by the assessment team. This table lists the key personnel interviewed, as documented in the VKU.F46W Attendance Sheet/27/, which was duly signed by the PP and other representatives during the opening and closing meetings. The interviews primarily focused on individuals responsible for monitoring the project activity, data collection and management, and those overseeing quality assurance and quality control (QA/QC) procedures.

Table no 07: Details of Personnel Interviewed during Onsite audit:

S. No.	Date	Name and Role	Organization	Topic
1	19-July-2025 to 21-July-2025	Lister Byamugisha	EZYLIFE HOLDINGS LTD	- Description of the project activity - Monitoring plan - ICS operational status - Emission reductions calculations - ICS implementation - Monitoring plan and monitoring arrangements - Data recording, data archiving, QA/QC procedures - Training to maintain cookstove
2		Maumo Grace	EZYLIFE HOLDINGS LTD (Monitoring)	
3		Ivan Mukhowe	EZYLIFE HOLDINGS LTD (Logistics)	

4		Prakash K Mishra	PERSISTENT CLIMATE INDIA PRIVATE LIMITED (CEO & Founder)	- ICS commissioning details and operational status - CSR (Corporate Social Responsibility) activities - Trainings regarding raising awareness about cookstove projects - Description of the project - Project implementation - Emission reduction calculations - Ownership, avoidance of double counting - Grievance mechanism - Sustainable Development Goals (SDGs) - Awareness campaigns - Awareness on stove usage and maintenance - Project investment - Documentation - Benefits of the project activity. - Monitoring and ongoing communication with End Users.
5		Ankit Ojha	PERSISTENT CLIMATE INDIA PRIVATE LIMITED (Associate Consultant)	
6		Devahita Ashwin Anand	PERSISTENT CLIMATE INDIA PRIVATE LIMITED (Associate Consultant)	

The **assessment team**, along with the **concerned project personnel**, engaged in discussions covering a wide range of topics, including the **description and implementation** of the project activity, **technical specifications**, **distribution of cookstoves**, **monitoring surveys**, use of the **helpline number**, **training sessions**, and the **grievance resolution procedure**.

The assessment was informed by feedback received during the **onsite audit**, particularly through interviews with key personnel/37/, and was supported by documentation outlined in **VKU.F62W – Field Assessment Checklist for Sample Selected by VVB for Energy Demand & Distribution Projects/26/**.

In addition, the assessment team conducted interviews with **end users (beneficiaries)** during the onsite audit/37/ to verify the effective implementation of the **grievance mechanism** and the process for **resolving complaints**, as described in the **Monitoring Report/14/** submitted by the Project Proponent. These interviews were guided by a structured questionnaire (refer to **Appendix 3** of this report) and aimed to cross-verify the monitoring survey findings and records.

Furthermore, the verification team observed that the **Project Proponent** provided accessible and transparent channels for **end users to voice feedback and concerns**, demonstrating efforts to ensure ongoing community engagement and responsiveness.

Table no 08: Details of Personnel Interview/Focussed Group Discussion with end users/beneficiaries

Topic of Discussion that was conducted with the end-users included:

- Interview during onsite audit on the number of project devices operating during the year y ($N_{y,i,j}$)
- Evaluation of the baseline scenario, usage of pre-project device (if any)

S. No.	Date	Name	Location	Stove Id	Stove Model
1.	19-July-2025 to 21-July-2025	Wamakubo David ¹	Mbale	201648379	Kuniokoa
2.		Husien Ali	Mbale	142142586	Kuniokoa
3.		Kinume Lovisa	Sironko	PCEL-MAS-CH-2598	Masupa
4.		Anna Mukwana	Sironko	PCEL-MAS-CH-60003	Masupa
5.		Nadunga Leya	Sironko	PCEL-MAS-CH-30126	Masupa
6.		Zemeyi Sarah	Mbale	131152174	Jikokoa
7.		Maganda Esther	Mbale	131583180	Jikokoa
8.		Mukhuya Aidah	Sironko	PCEL-MAS-CH-45073	Masupa

¹ AT initially selected 8 samples through random sampling, which were approved in accordance with VKU's internal procedures. However, during the onsite audit, one sample with the serial number 'PCEL-MAS-CH-45244' was found to be unavailable. Consequently, the lead auditor randomly selected an alternative sample, with serial number '201648379', from the monitoring survey conducted by the PD.

2.4 Site Visits

During the desk review, all documents initially provided by the client, along with publicly available materials relevant to the verification, were thoroughly examined. In accordance with paragraphs 4.1.12 and 4.1.13 of the VCS Standard version 4.7/01/, the assessment team conducted a risk assessment and initially planned an onsite audit. However, following the desk review, the baseline reassessment and additionality demonstration were conducted during the MP2 requantification verification, for which a site visit was conducted simultaneously.

Based on an independent risk assessment and upon request from the Project Proponent, the VVB decided to conduct an onsite assessment. This decision aligns with clause 3.3.1.1 of the Validation and Verification Manual Version 3.2/02/ and the guidelines in Annex A.2.4.6 of ISO 14064-3/09/, where a risk assessment identified potential areas of material discrepancy and residual risk.

Nevertheless, VKU's assessment team conducted an onsite audit for the current (third) verification of the project from 19-July-2025 to 21-July-2025 (inclusive of both the dates).

PP's sampling approach:

With the objective of obtaining an unbiased estimate of the population, the Project Proponent employed a stratified random sampling technique using a 90/10 confidence/precision level for all monitored parameters. The verification team confirms that this sampling approach is aligned with Section 8.4 of the applied methodology/05/ and Paragraph 22 of the CDM Sampling Standard Version 09.0/08/.

As per the registered Joint PD & MR/13/, the project qualifies as a small-scale activity. Therefore, the adoption of a 90/10 confidence/precision level is appropriate and compliant with the requirements of the CDM Sampling Standard Version 09.0/08/. The verification team reviewed the approach and found it to be both methodologically sound and fully compliant.

Table NO.09: Monitored parameters

Sl.no.	Monitoring Parameters	Parameter Type	Monitoring Frequency
1	N _{j,k,y} Number of commissioned project devices of type j from batch k in year y	Mean	Every time that new project devices are distributed
2	n _{j,k,y}	Proportion	Annually

	Proportion of commissioned project devices of type j from batch k that remain operating in year y (fraction)		
3	BC _{b,i,y} Fuel used per baseline device type i during year y	Mean	Every Five years
4	BC _{p,j,k,y} Average quantity of fuel used by project device type j from batch k during year y	Mean	Biennial

Development of the verification and sampling plan (acceptance sampling):

The audit team has formally documented its audit plan as well as determined the evidence gathering plan. The audit plan is developed based on key elements of the verification process as per the criteria of engagement. The plan identifies and addresses the following:

- a) Level of Assurance
- b) Materiality
- c) Standards of evaluation & reporting for the verification including the assessment criteria
- d) Scope and objectives
- e) Assessment team and the roles of team members
- f) Schedule of verification activities

Verification approaches

- a) **AS: Acceptance Sampling**
- b) **SPL: Sampling Approach** (all data available)
- c) **CDC: Complete data check** of data including all data aggregation steps
- d) **COM: Full data check** at higher data aggregation levels and sampling at original data levels document the rationale for the decision

The team leader has devised a comprehensive sequence of events to ensure a thorough, transparent, and timely completion of the assessment. This detailed plan includes all essential steps required to reach a well-founded final opinion. Such careful planning supports a methodical and structured assessment process, preventing any critical aspects from being overlooked.

In addition to the organized sequence of events, the team has incorporated various tools and methodologies to streamline the assessment planning process. These tools serve as support mechanisms for collecting and analysing necessary information, thereby improving the efficiency

and accuracy of the assessment. This approach ensures the inclusion of all relevant factors and upholds a rigorous and unbiased assessment methodology.

Table 10: Step 1- Identification of Materiality threshold

Check the relevant box against applicable threshold level	Threshold as per Section 4.1.10 of VCS Standard version 4.7/01/	Related to
☒	5 %	Quantitative materiality, as defined by reporting standards, stipulates that the threshold for materiality—regarding the aggregate of errors, omissions, and misrepresentations, whether individually or collectively—for any reported value related to total GHG emission reductions and/or removals, should not exceed five percent as per the VCS Standard version 4.7 clause 4.1.10/01/. In other words, discrepancies below this five percent threshold are considered immaterial and do not significantly affect the overall accuracy of the report. The verification of this materiality threshold was conducted through the sampling survey carried out by the Project Proponent and the acceptance sampling performed by the assessment team during the onsite audit. Based on these findings, the reported results were accepted as valid and found to be in compliance with the established materiality criteria.

Table no.11 Step 2- Identification of risks, their level and assessment

S.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/ mitigation measures
		Risk level	Potential actions causing risk	
1.	Monitoring parameter	Medium	Monitoring not done as per the registered Joint PD & MR	To mitigate risks associated with the project's claims, a thorough review of the VCS Joint Project Description and Monitoring Report (Joint PD & MR), along with the Monitoring Plan, was conducted in alignment with VCS requirements. This review ensures that the claims are consistent with and compliant with the established VCS guidelines, as stated in the VCS Standard Version 4.7/01/ and the adopted methodology for the project, i.e., VM0050, Version 1.0/05/. Through an in-depth assessment involving interviews and documentation review, the Assessment Team ensured that the risks arising from potential non-compliance with monitoring requirements were minimized within the acceptable uncertainties defined by the sampling guidelines/07/ and methodology/05/. Furthermore, to verify the plausibility of the monitoring parameters, project-specific evidence

				related to the host country (Uganda) and the regions where ICS units were distributed was cross-checked. This included interviews with relevant stakeholders—such as end-users and beneficiaries—who provided valuable insights and feedback on the project's implementation and effectiveness. Additionally, the Verification Team conducted interviews during the onsite audit, which confirmed that the monitoring procedures were implemented in accordance with the registered Monitoring Plan. By employing these rigorous review and verification processes, the project effectively addresses and mitigates potential risks, thereby ensuring the accuracy, transparency, and reliability of the reported data and claims.
2.	Project design: Information on project design without adequate controls related to data, evidences (project/sector related)	Low	Project design incorrectly described thus leading to incorrect delineation of the baseline scenario, causal change, threats to the project	To mitigate associated risks, a comprehensive review of the project claims stated in the VCS Joint Project Description and Monitoring Report/13/ was conducted. This review assessed the claims against VCS requirements to ensure both compliance and accuracy.

				The Verification Team carried out a detailed assessment of baseline delineation in accordance with the methodology and the registered Joint PD & MR/13/. This assessment is documented in Section 3.4 of this report. Additionally, background documents such as the monitoring survey report, which includes country-specific studies on non-renewable biomass (fNRB), were cross-checked with project-specific evidence from the host country and regions. This process helped verify the credibility of the claims made in the project documentation. To gather further insights, interviews with relevant stakeholders/37/ were conducted. These interviews provided valuable perspectives from individuals directly involved in or impacted by the project, contributing to a more comprehensive understanding of the project's implementation and performance. In relation to leakage, the default value of 0.95—as specified in the methodology/05/—was applied. This value accounts for potential leakage and supports the
--	--	--	--	--

				accuracy of calculations and assessments. By undertaking these measures, the project effectively mitigates risks, enhances transparency, and strengthens the reliability and credibility of the reported claims.
3.	Accuracy of the monitoring survey	Medium	Inadequately delineated monitoring plan may lead non-compliance	To mitigate risks associated with the accuracy of the monitoring plan, the following measures were undertaken: Review of the Monitoring Survey Report and the VCS Joint Project Description & Monitoring Report/13/: This review assessed the alignment of the monitoring plan with the reported data and claims, ensuring consistency, accuracy, and completeness. Evaluation of Compliance with VCS Requirements: The monitoring plan was examined to confirm adherence to the standards and guidelines

				outlined by the VCS Program. 3. Assessment of the Applied Sampling Tool: The sampling methodology employed within the monitoring plan was evaluated for its appropriateness and effectiveness in ensuring reliable, representative data collection. 4. Onsite Interviews with the Project Proponent (PP), Associates, and End-Users: These interviews enabled the verification of the monitoring plan's feasibility and appropriateness. Stakeholder feedback helped validate the accuracy of collected data and the effectiveness of implemented monitoring procedures. By implementing these measures, the project effectively mitigates risks related to the accuracy of the monitoring plan, ensuring that the reported data and claims remain
--	--	--	--	--

				reliable, transparent, and in compliance with the relevant VCS requirements.
4.	Competence of personnel involved in conducting monitoring like surveys	Medium	Interview of the personnel involved and check the training records conducting such monitoring.	To mitigate risks associated with the monitoring surveys, the following steps were undertaken: 1. Review of Training Records/24/: The training records of personnel responsible for conducting the surveys were reviewed to ensure that all individuals involved in the monitoring process had received appropriate training and possessed the necessary skills and knowledge to perform accurate and reliable surveys. 2. Adherence to Defined Monitoring Responsibilities: Clearly defined roles and responsibilities for the monitoring team were followed throughout the survey process. This ensured that

				all required data was consistently collected, recorded, and analyzed in a systematic and standardized manner. 3. Verification of Training Records/24/ Through Stakeholder Interviews/37/: Interviews were conducted with relevant stakeholders to confirm the validity of the training records. This process also allowed for identification and resolution of any discrepancies or concerns. By thoroughly reviewing training documentation/24/ and verifying it through stakeholder interviews/37/, the project effectively mitigates risks associated with monitoring surveys/17/. This approach ensures that only trained personnel conduct the surveys and that monitoring responsibilities are appropriately executed, thereby enhancing the accuracy and reliability of the collected data.
--	--	--	--	--

Sampling Plan:

Due to the large number of project activity instances across Uganda, it is impractical to assess each instance individually. To address this, the verification team employed appropriate sampling methods, carefully selected to ensure statistical validity and reliability.

These methods are thoroughly documented and clearly explained in the verification report, ensuring transparency and clarity regarding the verification process. The number of instances included in the project—eligible for monitoring and the generation of Verified Carbon Units (VCUs)—is determined proportionally, based on the compliance rate observed within the sampled population.

This approach enables a representative and efficient assessment of the overall project activity, while ensuring the accuracy and integrity of the verification outcomes.

☐	No sampling approach has been used by the VVB to verify the project's compliance with SD Vista requirements.
☒	A sampling approach has been applied by the VVB to verify the project's compliance with VCS requirements for the aspects derived in step 2 above. The statistical approach of sample size (i.e., 8) calculation is provided below.

AS: Acceptance Sampling

The assessment team applied a random sampling approach for the onsite audit, in accordance with Paragraph 26 of the Standard: Sampling and Surveys for CDM Project Activities and Programmes of Activities, Version 9.0/08/. In line with this provision, the team adopted acceptance sampling as the preferred methodology.

By adhering to the principles of precision and reliability, the team consciously selected acceptance sampling—a well-established technique that enables systematic and representative evaluation of project instances. Through strict compliance with these sampling guidelines, VKU's Assessment Team ensures a robust, accurate, and comprehensive assessment of the project activities, thereby upholding the highest standards of evaluation.

Based on the Project Proponent's (PP's) sampling survey sheet, the assessment team opted for an **AQL of 0.5%** and an **UQL of 20%**, with a **producer risk of 10%** and a **consumer risk of 20%**. These values were selected based on the VVB's professional judgment, in alignment with Paragraph 39(c) of the Standard: Sampling and Surveys for CDM Project Activities and Programme of Activities, Version 9.0/08/, which states that if the VPA/CPA is located in a Least Developed Country (LDC), higher producer and consumer risks (up to a maximum of 20%) may be applied.

The Republic of Uganda qualifies as a Least Developed Country; therefore, the application of a 10% producer risk and a 20% consumer risk is in line with the standard requirements, specifically Paragraphs 30 and 31 of the same standard.

Accordingly, the VVB determined the sample size to be 8 (based on the serial numbers of distributed cookstoves), with an acceptance number of 0, selected randomly. This approach is consistent with VKU's internal procedures outlined in VKU.F74A.Sampling Plan Method and Guidance, and it complies with the CDM Sampling Standard/08/

Sample size and acceptance number based on AQL, UQL, and producer and consumer risks as per Sampling and Survey Standard v09.0

Producer Risk		5%		5%		5%		5%	
Consumer Risk		5%		10%		15%		20%	
AQL	UQL	Sample Size (n)	Acceptance Number (c)	Sample Size (n)	Acceptance Number (c)	Sample Size (n)	Acceptance Number (c)	Sample Size (n)	Acceptance Number (c)
0.5%	10%	46	1	38	1	33	1	29	1
0.5%	15%	30	1	25	1	22	1	10	0
0.5%	20%	22	1	18	1	9	0	8	0
1.0%	10%	61	2	52	2	33	1	29	1
1.0%	15%	30	1	25	1	22	1	19	1
1.0%	20%	22	1	18	1	16	1	14	1
Producer Risk		10%		10%		10%		10%	
Consumer Risk		5%		10%		15%		20%	
AQL	UQL	Sample Size (n)	Acceptance Number (c)	Sample Size (n)	Acceptance Number (c)	Sample Size (n)	Acceptance Number (c)	Sample Size (n)	Acceptance Number (c)
0.5%	10%	46	1	38	1	19	0	16	0
0.5%	15%	19	0	15	0	12	0	10	0

0.5%	20%	14	0	11	0	9	0	8	0
1.0%	10%	46	1	38	1	33	1	29	1
1.0%	15%	30	1	25	1	22	1	10	0
1.0%	20%	22	1	18	1	9	0	8	0

In order to conduct on-site interviews, a randomized sampling approach was used to shortlist households for verification of project fuel consumption monitoring. The StatTrek Random Number Generator (<https://stattrek.com/statistics/random-number-generator>) was used to assign random values, VVB randomly selected the sample for project fuel consumption from the sample selected by PP. This tool provides a statistically sound and transparent method for generating random numbers and supports reproducibility through the use of seed values and documented outputs.

Each household in the database was assigned a unique identifier. VVB randomly select the sample from the project fuel consumption (KPT) survey and usage/monitoring survey conducted by PP.

The stove details—including unique serial number, date of installation, type of Improved Cookstove (ICS), name of user, and address—were verified and found to be consistent with the information reported in the installation database /21/. No inconsistencies were observed for any of the eight randomly selected end-users (sampled), which represent the Project Proponent's (PP's) samples for the purpose of the Onsite audit and document review. This assessment of the selected samples was conducted to confirm the implementation status of the project activity with respect to stove types, serial numbers, locations, operational status, and related parameters of the ICS units.

2.5 Resolution of Findings

The objective of this phase of verification is to address any outstanding issues that require clarification in order to enable VKU to reach a positive conclusion regarding the Joint Project Description and Monitoring Report. To ensure transparency, a customized verification protocol has been developed specifically for this project. This protocol clearly outlines the requirements, verification methods, and outcomes related to the evaluation of the identified criteria.

The verification protocol consists of three categories presented in tables, with columns described below.

A **Corrective Action Request (CAR)** is raised under the following circumstances:

- Non-conformities with the monitoring plan or methodology are identified in monitoring and reporting, or the evidence provided is insufficient to demonstrate conformity;
- Errors are found in the application of assumptions, data, or emission reduction calculations that could affect the accuracy of the reported emission reductions;

- Issues raised as Forward Action Requests (FARs) in previous assessments (validation or verification reports) have not been adequately addressed by the Project Proponent.

A **Clarification Request (CL)** is raised when information is insufficient or unclear, preventing the verification team from determining whether applicable VCS requirements have been met.

A **Forward Action Request (FAR)** is raised in cases where a requirement or information is not fulfilled in the current verification but does not impact additionality, the baseline scenario, or emission reduction calculations. Such items are to be addressed in future verifications to ensure continued methodological eligibility and transparency.

In accordance with Clause 4.1.21 of the VCS Standard Version 4.7, the assessment team has documented a summary of findings, which includes: **00 FARs**, **02 CL**, and **02 CAR**, all of which were successfully closed. Detailed information is provided in **Appendix 04** of this report.

2.5.1 Forward Action Requests

Based on the review of the previous Joint VCS Validation/Verification Report and earlier verification reports, the VVB confirms that no Forward Action Requests (FARs) were raised requiring closure during this verification (01-January-2024 to 31-December-2024, inclusive of both days), and no FARs have been raised in the current verification either.

2.6 Eligibility for Validation Activities

VKU has not undertaken any validation activities as part of the verification hence this section is not applicable.

3 VALIDATION FINDINGS

3.1 Methodology Deviations

During the current monitoring period (MP03: from 01 January 2024 to 31 December 2024, inclusive of both dates), the verification team confirms that no methodology deviations or changes have been identified or requested by the PP.

The verification team confirms that the project had previously undergone a methodology transition (re-quantification) during MP02, wherein the methodology was changed from VM0006 “Energy Efficiency and Fuel Switch Measures in Thermal Applications,” Version 1.1 to VM0050 “Energy Efficiency and Fuel-Switch Measures in Cookstoves,” Version 1.0/05/, in accordance with the VCS Methodology Change and Requantification Procedure, Version 4.0/05/. This deviation has been approved by VERRA and registered project documents can be found on webpage of [VCS ID: 3045](#). The Assessment team has thoroughly reviewed the justification for the methodology change, as well as the applicability, emission reduction calculation framework, and monitoring provisions under VM0050. Based on this review, the assessment team confirms the following:

- The methodology change has been implemented in full compliance with VERRA’s procedural requirements.
- VM0050 is technically more specific to the project activity and better reflects the operational characteristics of improved cookstove distribution projects in terms of technology, monitoring parameters, and emission reduction quantification.
- The transition maintains the conservativeness of emission reduction estimates, with no adverse effect on the environmental integrity or reliability of the GHG statements.
- **No deviations from the methodology have been applied during the current monitoring period (01-January-2024 to 31-December-2024, inclusive of both the dates).**

In conclusion, the VVB finds the applied methodology (VM0050) to be appropriate, applicable, and consistent with VCS requirements, and confirms that the change supports accurate and conservative quantification of GHG emission reductions for the monitoring period under review.

3.2 Project Description Deviations

No discrepancies or deviations were identified in the project description during the current monitoring period (01-January-2024 to 31-December-2024-inclusive of both the dates). The verification team confirms that there are no deviations affecting the applicability of the methodology, additionality, or the appropriateness of the baseline scenario. Verification team further cross-verified accuracy and consistency of project description during the onsite audit.

3.3 New Project Activity Instances in Grouped Projects

No new project instances were added during the current monitoring period; therefore, this section is not applicable.

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes ☒ No

VKU's assessment team conducted the 3rd verification of this grouped project for the monitoring period from 01 January 2024 to 31 December 2024 (both dates inclusive).

4 VERIFICATION FINDINGS

4.1 Project Details

Item	Evidence gathering activities, evidence checked, and assessment conclusion:				
	Audit type	Period	Program	Validation/verification body name	Number of years
Audit history	Validation/verification	02-january-2021 to 31-july-2022	VCS	4K Earth Science Private Limited (4KES)	1 year 6 months 30 days
	Verification	01-August-2022 to 31-December-2023	VCS	VKU certification private limited	1 year 5 months
	Requantification	01-August-2022 to 31-December-2023	VCS	VKU certification private limited	1 year 5 months
	Verification	01-January-2024 to 31-December-2024	VCS	VKU certification private limited	1 year

	Evidence Gathering Activities: In line with the requirements stated in ISO 14064-3:2019(E), Section 6.1.3, and program requirements, the assessment team performed a desk review during the pre-engagement stage to confirm the duration of the current monitoring period, the last monitoring period, and the crediting period of this project activity. In addition to the desk review, the VVB also confirmed the audit history through personnel interviews and focused group discussions with the PP during onsite audit. Evidence Checked: While contracting VKU to perform this verification, the PP provided project activity details, including the audit history (i.e., crediting period, monitoring period, and number of verifications). VKU initially confirmed the audit history by cross-checking these details with the Joint Project Description & Monitoring Report/13/ and previous verification reports/12/, both of which are approved by Verra and accessible to the VVB on Verra's official website. VVB's Conclusion: The VVB concludes that the activities performed and evidence collected to confirm the audit history are in line with the requirements of ISO 14064-3/09/ and VCS Standard Version 4.7/01/. The information has been found accurate and satisfactory by VKU's assessment team.
Double counting and participation under other GHG programs	Project's GHG Program Status, Cross-Verification of GHG Benefits & Rejection by Other GHG Programs: Each project ICS has a unique serial number recorded in the project database/21/, linked to household details to prevent duplication. The assessment team verified that the project has not been applied under any GHG program other than VCS for the current monitoring period (01-January-2024 to 31-December-2024, inclusive). It is registered solely under VCS with Project ID 3045. This was verified through the Verra registry, and a similar search was conducted across CDM, GS, GCC, and UCR registries using comparable project titles, capacities, and Project Proponent details. No matching project was identified in these or any other registries. An independent check was also conducted to verify whether the project has claimed benefits under any other GHG-related program for the current monitoring period. Based on this assessment and the declaration submitted by the Project Proponent/19/, the assessment team confirms that there is no double counting of emission reductions. The project has not been rejected by any other GHG program. The relevant declaration/19/ was reviewed and found accurate. Additionally, issuance records on the Verra website were cross-checked to confirm that the emission reductions claimed are not, and will not be, double counted. The assessment team accepts this conclusion. During the on-site verification, the assessment team inspected the sampled project ICSs and confirmed that all serial numbers are unique to this project. In addition, the team reviewed the project database/21/, monitoring survey

	sheet/17/, and the no double-counting declaration/19/ submitted by the PP, thereby verifying that no double-counting or overlap with other carbon initiatives exists.
No double claiming with emissions trading programs or binding emission limits	The project is not included in any emissions trading program or mechanism involving GHG allowance trading. Verification through Declaration: The PP, via declaration/19/, confirmed that the net GHG emission reductions or removals generated by the project will not be used for compliance under any emissions trading program or to meet binding GHG emission limits under two mechanisms for any specific monitoring period.
No double claiming with other forms of environmental credit	The project has not sought or received another form of GHG-related environmental credit. Issuance Records Confirmation: The assessment team has also cross-checked the issuance records available on the Verra website and has confirmed and ensured that the emission reductions generated from the project activity are not, and will not be, double-counted. Hence, this claim is accepted by the assessment team.
Supply chain (scope 3) emissions double claiming	The VVB confirms the following: The declaration/19/ submitted by the Project Proponent, PersistentClimate India Private Limited, was cross-checked. The declaration confirms that no emission reductions from the project activity "Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities (VCS 3045)" are claimed under Scope 3 inventories. PersistentClimate India Private Limited, the undersigned project implementer of the improved cookstoves (ICS) distributed under the project activity, has declared the following: 1. Acknowledgment that the project "Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities (VCS 3045)" will generate Verified Carbon Units (VCUs) representing emission reductions or removals achieved through the project activity. 2. Confirmation that PersistentClimate India Private Limited will not report any of the emission reductions or removals represented by these VCUs in their Scope 3 GHG emissions inventory. 3. An understanding that claiming these emission reductions in their Scope 3 inventories would constitute double counting and compromise the environmental integrity of the project.

	Based on the review, the assessment team confirms that the declaration provided by PersistentClimate India Private Limited is consistent with the requirements and guidelines of the Verified Carbon Standard (VCS) and the project activity.
Sustainable development contributions	As per the VCS Standard Version 4.7/01/ and updated version 4.6 of Appendix 03: Document History and Effective Dates, for V4.2, serial number 04 states that “it is required by project proponents to demonstrate contributions to a minimum of three SDGs in all monitoring reports verified after the effective date. Effective immediately for all projects that request registration on or after 20-January-2023. Projects that request registration before 20 January 2023 shall demonstrate contributions to at least three SDGs by 20 January 2025.” This is the project’s third periodic verification of the first crediting period for the monitoring period 01-January-2024 to 31-December-2024 (inclusive of both start and end dates). Since this project is registered before 20 January 2023, the PP must demonstrate contributions to at least three SDGs by 20-January-2025. For the current monitoring period, the PP is voluntarily showing contributions to five SDGs, as indicated below: SDG Target 3.9 Project Specific Indicator – % users reporting reduction in Smoke/PM emissions after shifting to ICS: The efficient cookstove leads to a reduction in fuel consumption and, as a consequence, to an improvement in indoor air quality. This has positive impacts on decreasing health-related issues like respiratory problems, eye and throat irritations. The assessment team cross-checked the SDG impact by the monitoring survey report, which includes questions related to SDG 3. The change in smoke level, incidence of coughing, incidence of difficulty in breathing, and incidence of itchy eyes due to replacement of the conventional stoves by the use of ICSs are included. The percentage changes in these parameters are also included in the monitoring survey forms. As per the monitoring survey results, a 100% reduction of smoke was monitored, which resulted in a 100% reduction in the incidence of itchy eyes among ICS end users. As a result, households confirmed less smoke from the improved stove usage, which leads to improved air quality. Hence, the assessment team confirms that the SDG indicator is correct and applicable for the current monitoring period. SDG Target 5.4 Proportion of time spent on unpaid domestic and care work, by sex, age and location: Women and girls perform the majority of unpaid domestic work. This leaves them with less time to rest, study, and realize their economic potential, causing time poverty. Women are widely recognized as being principally responsible for natural resource collection. The assessment team confirmed the above-claimed SDG from the monitoring survey report and interviews conducted during the Onsite audit of the project. Hence, the assessment team confirms that the SDG indicator is correct and applicable for the current monitoring period.

	SDG Target 7.3 Project Specific Indicator – Number of project households predominantly using clean cooking devices such as project ICSs: For this project, the baseline scenario is the number of households using traditional cookstoves. This project increases the adoption rate of efficient cookstoves, and the outcome of SDG 7 will be measured by the number of efficient cookstoves distributed during the project. The assessment team confirmed the above-claimed SDG from the project implementation database/21/. Hence, the assessment team confirms that the SDG indicator is correct and applicable for the current monitoring period. SDG Target 8.1 Project Specific Indicator- Monetary saving after using the project ICS: The implementation of the ICS cookstove dissemination project activity has contributed to the annual growth rate of real GDP, for which a survey was undertaken to estimate monetary savings after implementing the energy-efficient stove. The assessment team confirmed the above-claimed SDG during the Onsite audit by interviewing the end users/37/, who confirmed that the use of ICS saved their time, energy, and money by 50% or more, supporting their economic growth. Hence, the assessment team confirms that the SDG indicator is correct and applicable for the current monitoring period. SDG Target 13.0 Tonnes of greenhouse gas emissions avoided: The implementation of the ICS cookstove dissemination project activity led to emission reductions of 107,641 tCO₂e in the current monitoring period (01-January-2024 to 31-December-2024, inclusive). The assessment team evaluated the calculation of emission reductions for this monitoring period/15/ and also assessed the application of the correct methodology and formulae for the project activity. Hence, the assessment team confirms that the SDG indicator is correct and applicable for the current monitoring period.
Additional information relevant to the project	The assessment team confirms that, as per the information provided in the monitoring report submitted by the PP, no commercially sensitive information has been excluded from the public versions of the project documents. This is in conformance with VCS Program requirements on permissible exclusions. The information was cross-verified through interviews with the PP representatives.

4.2 Safeguards and Stakeholder Engagement

4.2.1 Stakeholder Identification

There has been no change in stakeholder makeup since validation. Therefore, in accordance with the VCS Verification Report Template v4.4 – which requires completion of the stakeholder table only if changes have occurred – the table is not applicable for the current monitoring period.

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Stakeholder identification	N/A The Stakeholder makeup has not changed since validation. Hence, this is not deemed applicable.
Legal or customary tenure/access rights	N/A, the project activity involves distribution of improved cookstoves to individual households, there are no legal or customary tenure/access rights to territories and resources, including collective and conflicting rights, held by stakeholders, indigenous people (IPs), local communities (LCs), or customary rights holders.
Stakeholder diversity and changes over time	N/A The Stakeholder makeup has not changed since validation. Hence, this is not deemed applicable.
Expected changes in well-being	The project is positively transforming the local environment by lowering fuel consumption, reducing smoke and particulate matter (PM) emissions, and decreasing household fuel expenses. It is also enhancing the social and economic well-being of stakeholders by saving time spent on cooking and creating local employment opportunities in operations, management, manufacturing, distribution, and logistics. It has been checked by the assessment team during onsite assessment of the project activity and with the help of supporting documents.
Location of stakeholders	The geographical boundary of the project is the host country of Uganda. The project does not impact any areas outside this defined boundary. It has been checked by the assessment team during onsite assessment of the project activity.
Location of resources	The project involves distribution of improved cookstoves to individual households and communities and it does not interfere with rights to lands, territories and/ or resources. By reducing the demand for biomass fuel, the project helps ease pressure on local forests and supports the conservation of natural resources on the customary lands of stakeholders. It has been checked by the assessment team during onsite assessment of the project activity.

4.2.2 Stakeholder Consultation and Ongoing Communication

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Ongoing consultation	Evidence Gathering Activities: 1. Desk review of project documents 2. Interview of Site personnel and stakeholders 3. Evidence collection Evidence Checked: 1. Registered VCS Joint PD & MR 2. Verification by conducting interviews with relevant stakeholders during the onsite audit. 3. Grievance Register Assessment Conclusion: The project has established and maintained mechanisms for ongoing stakeholder consultation. Feedback and grievances are actively solicited and documented through multiple channels, including house visits, field monitoring surveys, and a grievance register maintained at the distribution partners' office. These practices demonstrate a continuous effort to engage with stakeholders and address concerns in a timely and transparent manner. Based on the document reviewed and through the interviews conducted with the end-users and site personals during onsite assessment of the project activity, the assessment team concludes that the ongoing stakeholder consultation process is adequately implemented and in line with the project's stated communication strategy.
Date(s) of stakeholder consultation	06-June -2022 (at time of validation). Verification Team confirmed that this information is correct during the desk review, as per the registered joint VCS PD & MR/10//13/and also other submitted evidences
Communication of monitored results	The monitoring results are communicated from the distributors to the end users through the house visit by distributor's representatives. The same has been confirmed in interview with the stakeholders during onsite audit of the project activity.
Consultation records	Verification Team confirmed that the Grievance registered is placed at the office of distribution partner. The same has been verified at time of onsite audit and PP also submitted the pictures of grievance register as evidences. All grievances registered on phone calls, messages, representative of distribution partner noted those in

	grievance register. The assessment team confirmed this based on the response from the end-users and also from the PP during the onsite audit.
Stakeholder input	The minutes of the meeting were recorded by the project participant. There are no updates to the project design. It has been checked with the help of supporting documents submitted by the PP and with the help of interviews conducted with the site personals and end-users.

4.2.3 Free, Prior, and Informed Consent

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Consent	A default distribution agreement for end users including the provision that emission reductions generated by the stove are owned by the project proponent is provided for the project instance. Evidence Gathering Activity: Onsite Audit Desk Review Evidence Checked: Samples of End User agreement cum carbon waiver agreement which is signed by the end users for free/subsidised given improved cookstove without expiration and which does not require a future additional permission. Assessment Conclusion: Verification Team found that emission reductions generated by the stove are owned by the project proponent is provided for the project instance and in compliance with the registered joint PD & MR/13/ and VCS Standard v4.7 para 3.18.8/01/.
Outcome of FPIC discussion	The project devices (project cook stoves) are installed in the households of these beneficiaries on their own will and PP is having transparent agreements with these concerned. Thus, it can be said that the project has not encroached on land, relocated people without consent, and forced physical or economic displacement. Waiver of carbon credits from the end users is submitted to the VVB for this instance.

4.2.4 Grievance Redress Procedure

Item	Evidence gathering activities, evidence checked, and assessment conclusion
------	--

Grievance received and steps taken to resolve the grievance including the outcomes of the resolution	There have been no grievances recorded for the current monitoring period. Evidence Gathering Activity: Onsite Audit and Desk review Evidence Checked: Grievance Register Assessment Conclusion: As per the Onsite audit and submitted grievance register, it is concluded that there are no grievances recorded for the current monitoring
Grievance redress procedure	Stakeholders are encouraged to provide ongoing feedback or report grievances as part of continuous stakeholder engagement. Communication with stakeholders occurred during house visits, and during the monitoring survey, field staff recorded feedback from local stakeholders. Additionally, a grievance register is available at the office of the distribution partners. Stakeholders and end users are well informed about how to report issues with their cookstoves or difficulties in using them. They have been provided with the contact number and address of the responsible person for grievance redressal. However, as of the latest monitoring survey, no end user or stakeholder has made any calls or submitted grievances. Evidence Gathering Activity: Onsite audit and desk review Evidence Checked: Grievance records and interviews with end users, cross-verified with the registered Joint PD&MR/13/ Assessment Conclusion: It is concluded that the grievance redress procedure is in accordance with the registered PD & MR/13/ and is considered transparent, based on the findings of the onsite audit.

4.2.5 Public Comments

Comments received	Actions taken by the project proponent	Evidence gathering activities, evidence checked, and assessment conclusion
No comments received during the stakeholder consultation and the 30-day listing period.	NA	As this is 3rd verification, it is concluded that para 4.1.5, 4.1.6, 4.1.7 of VCS Standard version 4.7/01/ are not applicable for the current monitoring period for the given project activity.

4.2.6 Risks to Local Stakeholders and the Environment

4.2.6.1 Management Experience

Evidence gathering activities- Assessed through the onsite visit and Interviews with the project proponent & site personnel.

Evidence checked- Onsite visit, interviews & focussed group discussion

Conclusion - Based on the onsite visit, stakeholder interviews, and review of the organizational policies/37/, it is concluded that the project activity is maintained by PERSISTENTCLIMATE INDIA PRIVATE LIMITED, with EZYLIFE HOLDINGS LTD serving as the local distribution partner.

The VVB evaluated the PP's management capacity through a review of the registered VCS Joint PD & MR/13/ and onsite interviews/37/. The assessment team confirmed that the PP has a formal organizational structure, an experienced team, and a history of managing similar projects, including implementation, operations, and safeguards.

The PP demonstrates sufficient institutional capacity to implement and monitor the project in line with the VCS Standard v4.7/01/ and has access to additional internal and external expertise as needed. The VVB concludes that the PP possesses the required experience and resources for ongoing compliance and effective project delivery.

4.2.6.2 Risk Assessment

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Natural and human induced risks to stakeholders' wellbeing	Evidence Gathering Activity: Onsite Audit and Desk Review Evidence Checked: Survey Records and cross verification with registered Joint PD & MR/13/ Assessment conclusion: As per the survey records provided by the PP and the registered VCS Joint PD & MR/13/, the project activity promotes the use of improved cookstoves, which enhance stakeholder health by reducing exposure to indoor air pollution and associated health risks. There are no identified natural or human-induced risks that could negatively impact stakeholder well-being.
Risks to stakeholder participation	Evidence Gathering Activity: Onsite Audit and Desk Review Evidence Checked: Survey Records/17//18/ and cross verification with registered Joint PD & MR/13/

	Assessment conclusion: As per the survey records provided by PP and registered VCS Joint PD & MR/13/, it is concluded that there is no risk to local stakeholders in terms of their participation or engagement during project activity. The same has been verified during onsite assessment of the project activity.
Working conditions	Evidence Gathering Activity: Onsite Audit and Desk Review Evidence Checked: Grievance records/20/, interview with local stakeholders/37/ and cross verified with MR/14/. Assessment conclusion: As per the grievance register submitted by PP and onsite interview with local stakeholders, it is concluded that there is no risk associated with the working conditions during the operation of project activity.
Safety of women and girls	Evidence Gathering Activity: Onsite Audit and Desk Review Evidence Checked: Survey records/18/, onsite interview/37/ and MR/14/. Assessment conclusion: As per the survey records and onsite interviews with end-users and local stakeholders, it is concluded that due to improved cookstoves, the wood consumption has reduced and it has lessened the trips of women and girls for wood collection. Hence the risk of women safety has been mitigated by the project.
Safety of minority and marginalized groups, including children	Evidence Gathering Activity: Onsite Audit Desk Review Evidence Checked: Survey records/18/, Onsite interview/37/ and MR/14/. Assessment conclusion: it is concluded by assessment team that as per the survey records and onsite interviews the project has no potential risk associated with the safety of children, minority and marginalized groups. The same has been cross verified with registered VCS Joint PD & MR/13/.
Pollutants (air, noise, discharges to water, generation and release of hazardous materials and chemical pesticides and fertilizers)	Evidence Gathering Activity: Onsite Audit Desk Review Evidence Checked: Manufacturer specification/16/, Survey records/18/, Onsite interview/37/ and MR/14/. Assessment conclusion: As per the survey records and efficiency of ICS cross verified from manufacturer's specification and WBT results, the project improves air quality and produces less pollutants as compared to the baseline stove. This is also cross verified from interviews with end users and registered Joint PD & MR/13/. hence, it is concluded that there is no risk associated with pollutant emissions caused by project activity.

4.2.7 Respect for Human Rights and Equity

4.2.7.1 Labor and Work

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Discrimination	Evidence Gathering Activity: Onsite Audit and Desk Review Evidence Checked: Feedback of End Users for Project Implementation Assessment conclusion: The given project is for community and people of Uganda, specifically help in improving the life of Women and People of Uganda. As per the interview taken by the verification, beneficiaries are satisfied with the distributed Improved Cookstove.
Sexual harassment	Evidence Gathering Activity: Onsite Audit and Desk Review Evidence Checked: Feedback of End Users for Project Implementation Assessment conclusion: The given project is for community and people of Uganda, specifically help in improving the life of Women and People of Uganda. As per the interview taken by the verification, beneficiaries are satisfied with the distributed Improved Cookstove.
Gender equity in labor and work	Evidence Gathering Activity: Onsite Audit and Desk Review Evidence Checked: Onsite interviews and registered VCS Joint PD & MR/13/ Assessment conclusion: As per the observation verification team concluded that Equal opportunities have been provided in the context of gender equity and pay for labor and work. The same has been verified through the employment record and company composition list (based on gender)/22/.
Forced labor	Evidence Gathering Activity: Onsite Audit and Desk Review Evidence checked: Registered Joint PD&MR/13/ and Onsite assessment https://bills.parliament.ug/attachments/Laws%20of%20Uganda%20(Acts)%20-%20THE%20EMPLOYMENT%20ACT,%202006.pdf Assessment conclusion: Project has positive impact on the life of beneficiaries as per the survey report and onsite audit observation. Hence, it is concluded that there is no forced labour.
Child labor	Evidence Gathering Activity: Onsite Audit and Desk Review

	Evidence checked: Registered Joint PD&MR/13/ and Onsite assessment https://bills.parliament.ug/attachments/Laws%20of%20Uganda%20(Acts)%20-%20THE%20EMPLOYMENT%20ACT,%202006.pdf Assessment conclusion: Project has positive impact on the life of beneficiaries as per the survey report and onsite audit observation. Hence, it is concluded that there is no child labour.
Human trafficking	Evidence Gathering Activity: Onsite Audit and Desk Review Evidence checked: Registered Joint PD&MR/13/ and Onsite assessment https://bills.parliament.ug/attachments/Laws%20of%20Uganda%20(Acts)%20-%20THE%20EMPLOYMENT%20ACT,%202006.pdf Assessment conclusion: Project has positive impact on the life of beneficiaries as per the survey report and onsite audit observation. Hence, it is concluded that there is no human trafficking.

4.2.7.2 Human Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
No risks identified	Evidence Gathering Activities: Onsite Audit and Desk Review of MR (section 2.3.2) Evidence Checked: Observation, and Grievance Register for current monitoring period and registered joint PD&MR/13/ Assessment Conclusion The project is a voluntary initiative undertaken by the PP, and no risks or issues related to internationally recognized human rights are expected from its implementation. The PP demonstrates a clear commitment to respecting human rights and is not complicit in any form of violence or human rights abuse. During the assessment, no specific risks were identified concerning the rights of Indigenous Peoples (IPs), Local Communities (LCs), or customary rights holders. The project design and implementation have considered these groups, and no adverse impacts have been reported or observed. Preventative measures are in place, including adherence to international human rights frameworks and the adoption of internal policies aimed at safeguarding the rights and welfare of all

	stakeholders involved in or affected by the project. The project aligns with internationally proclaimed human rights standards. The PP's practices and policies are adequate to prevent potential human rights violations and ensure inclusivity and protection for all communities, including IPs and LCs. No further mitigation measures are required at this time
--	--

4.2.7.3 Indigenous Peoples and Cultural Heritage

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
Preservation and protection of cultural heritage -Not Applicable.	Evidence gathering activities: Onsite Audit and Desk Review of Monitoring Report Evidence Checked: Cross verified the location where Improved Cookstove were distributed, during the onsite audit. Assessment ConclusionIt is concluded that the given project activity does not involve Indigenous Peoples or impact any cultural heritage. Since the project activity involves the production and distribution of cookstoves, which are entirely manufactured outside the beneficiaries' land, no tangible cultural heritage has been affected. Furthermore, there have been no negative impacts on the intangible cultural heritage of the stakeholders. On the contrary, the project promotes cultural harmony by involving diverse groups without interfering with their customs, traditions, or beliefs. Therefore, the project continues to preserve and protect cultural heritage as part of its implementation.

4.2.7.4 Property Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
Not Applicable.	Evidence gathering activities: Onsite Audit and Desk review Evidence checked: Interview with End Users/37/ and registered Joint PD&MR/13/ Assessment Conclusion: The project involves the distribution of Improved Cookstoves in Uganda and does not involve any land

	acquisition or physical infrastructure development on beneficiaries' land. No property rights are violated as a result of this project activity. There is no evidence to suggest that the project affects lands, territories, or resources owned, occupied, or used by Indigenous Peoples, Local Communities, or customary rights holders. The implementation of the project has been carried out with full respect for existing land tenure systems, and no disputes or grievances related to land or property have been reported. The project fully respects property rights and land use. It does not impact the lands or resources of Indigenous Peoples, Local Communities, or customary rights holders, and is therefore compliant with applicable safeguards and ethical standards related to land and property.
--	--

4.2.7.5 Benefit Sharing

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Summary of the benefit sharing plan	Evidence Gathering Activities: Onsite Audit and Desk Review Evidence Checked: Carbon Wavier Agreement Assessment Conclusion: It is confirmed that the implemented project involves the distribution of Improved Cookstoves (ICS) among households and communities in Uganda, with the objective of replacing traditional, unimproved cookstoves and open fires used for cooking. The PP has ensured that the project does not encroach upon private, stakeholder, or government property, nor does it involve the relocation of individuals or communities without their prior informed consent and, where applicable, appropriate compensation. The project does not result in any form of forced physical or economic displacement. Based on the evidence reviewed, the Verification Team confirms that this aspect of the project is consistent with Clause 3.19.22 of the VCS Standard, Version 4.7/01/. This clause is deemed not applicable, as the project does not affect property rights, land usage, or access to natural resources.

Benefit sharing during the monitoring period

Verification Team confirmed that the project does not impact property rights, usage or resources. Hence this is not applicable.

4.2.8 Ecosystem Health

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Impacts on biodiversity and ecosystems	Evidence gathering activities: Desk-review of registered Joint PD & MR/13/, Personal interview & focussed grouped discussion. Evidence checked: Registered Joint PD&MR/13/ and previous verification reports/12/ Assessment Conclusion: This project activity is characterized by its positive impact on biodiversity and the ecosystem. By reducing deforestation caused by traditional fuel gathering practices, the project helps preserve local flora and fauna. Additionally, the promotion of improved cook stoves leads to more efficient use of resources, further benefiting the environment. Overall, the project contributes to the conservation of biodiversity and the enhancement of the local ecosystem.
Soil degradation and soil erosion	Evidence gathering activities: Desk-review of registered PD and MR, Personal interview & focussed grouped discussion. Evidence checked: Registered Joint PD & MR/13/ and previous verification report/12/ Assessment Conclusion: No Soil Degradation and soil erosion due to the given project activity.
Water consumption and stress	Evidence gathering activities: Desk-review of registered PD and MR, Personal interview & focussed grouped discussion. Evidence checked: Registered Joint PD & MR/13/ and previous verification report/12/ Assessment Conclusion: There are no water consumption and stress due to the given project activity.

4.2.8.1 Rare, Threatened, and Endangered species

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Species or habitat	Evidence gathering activities: Onsite Audit and Desk Review Evidence checked: Not Applicable Assessment Conclusion: The given project is distribution of improved cookstove which falls under sub sectoral scope 3.1. therefore, not include planting and introduction of species. Hence, it is concluded that is section is not applicable as per para 3.19.27 of VCS Standard v4.7/01/ for the given project activity.
Areas needed for habitat connectivity	Not Applicable

	Evidence gathering activities, evidence checked, and assessment conclusion
Habitats for rare, threatened, and endangered species	Not applicable. The project involves the distribution of Improved Cookstoves which are mainly manufactured/assembled locally in Uganda.
Areas for habitat connectivity	Not applicable. The project involves the distribution of Improved Cookstoves which are mainly manufactured/assembled locally in Uganda.

4.2.8.2 Introduction of Species

The given project activity involves distribution of Improved Cookstove, verification team confirmed that there is no involvement of Introduction of species. Hence, below tables are not applicable.

Species introduced	Evidence gathering activities, evidence checked, and assessment conclusion
N/A	N/A

Existing invasive species	Evidence gathering activities, evidence checked, and assessment conclusion
N/A	N/A

Evidence gathering activities, evidence checked, and assessment conclusion	
Invasive species	Not Applicable, since this table is not required for projects with no planting or species introduction

4.2.8.3 Ecosystem conversion

Item	Evidence gathering activities and evidence checked
Ecosystem conversion	Evidence gathering activities: Onsite Audit and Desk Review Evidence checked: Not Applicable Assessment Conclusion: Since the project activity is not an Afforestation and Reforestation (ARR) project, Agroforestry and Agro-silvopastoral Systems (ALM) project, Wetland Restoration and Conservation (WRC) project, nor an Avoided Conversion of Grasslands and Shrublands (ACOGS) project, the information related to these specific project types is not applicable. This means that the project does not fall under any of these categories and therefore does not need to be evaluated based on the criteria specific to these types of projects.

4.3 Accuracy of Reduction and Removal Calculations

The equations and choices provided in the methodology/05/ and all other methodological tools are correctly quoted in the MR/14/. The emission reductions of the project activity are calculated using the formulae mentioned in the applied methodologies; VM0050 version 1.0 /05/. The verification team has reviewed the emission reduction spread sheet (ER sheets /15/ and checked all the formulae and found they are correct and are in accordance with the monitoring plan of the Joint PD & MR/13/ and the applied monitoring methodology/05/. The appropriateness of default values used in the monitoring report is elaborated below:

Table No. 12 Data and parameters Available at the time of validation or Ex-Ante parameters

S. No	Data/parameters	Unit	Value applied	Assessment
01.	EF _{b,i,CO2} EF _{p,j,CO2}	t CO2/TJ	112 t CO2/TJ	The value of 112 tCO ₂ /TJ has been correctly sourced from the 2006 IPCC Guidelines, consistent with VM0050 (v1.0), Section 9.1, Table for EF _{b,i,CO2} , and EF _{p,j,CO2} . This value is appropriate for firewood

				combustion and is recognized under Option 3 of the methodology's hierarchy. The use of this factor for both baseline and project wood fuel combustion is deemed conservative and acceptable. Accepted – Value is consistent with VM0050 and IPCC defaults.
02	EF_{b,i,nonCO2} EF_{p,j,nonCO2}	t CO2/TJ	9.46 t CO2e/TJ (AR5 GWP)	The default value of 9.46 tCO₂e/TJ has been applied for non-CO₂ emissions, as per IPCC 2006 Guidelines (AR5 GWP) and VM0050 (v1.0), Section 9.1. The application of this default for both baseline and project combustion scenarios are compliant. Accepted – Consistent with methodological default.
03	CF	unitless	4 tonnes of dry wood input per tonne of charcoal output	The Project Proponent applied a default value of 4 tonnes of dry wood input per tonne of charcoal output for the wood-to-charcoal conversion factor (CF), as specified in section 9.19 of VM0050 v1.0. This value reflects a conservative and standardized estimate for traditional charcoal production practices and is applicable when country-specific data is unavailable. The use of the default value ensures methodological consistency and avoids underestimation of baseline emissions associated with charcoal use. The parameter CF has been correctly applied using the approved default from VM0050 v1.0. The assessment team considers its application to be appropriate, conservative, and in full compliance with the methodology/05/.

04	$NCV_{b,i}$ $NCV_{p,j}$	TJ/tonne	0.0156 TJ/tonne	The Project Proponent used the default values of 0.0156 TJ/tonne, as specified in section 9.1 of VM0050 v1.0/05/. The VVB confirms that the value is correctly applied for both baseline and project fuels and is consistent with the methodology.
05	$\eta_{old,avg}$	Fraction	1) For three-stone fire using firewood or a cookstove with no improved combustion air supply or flue gas ventilation, default value of 15% 2) For other baseline devices- 25% (For Others types- CDM TOOL 33). Weighted average= 17.90%	The Project Proponent determined a weighted average thermal efficiency of 17.90% for the baseline stoves, based on the proportion of stove types identified during the baseline survey. For traditional three-stone fires and stoves without improved combustion or ventilation, the default efficiency of 15% was applied, as per VM0050 v1.0. For other traditional baseline devices, a default of 25% was used in line with CDM TOOL 33. The assessment team reviewed the baseline survey data, the categorization of stove types, and the calculation of the weighted average. The application of default values and the computation method were found to be consistent with methodological requirements and appropriately justified.
06	Hhi	Equivalent standard male adults	4.54	The Project Proponent applied a household size of 4.54 equivalent standard male adults, based on primary data collected during the baseline KPT. The VVB verified the baseline KPT sheet and confirms that the value is representative, well-documented, and consistent with VM0050 v1.0/05/.

07	BC _{ex-ante,b,i}	tonnes	4.31	The Project Proponent applied values of 4.31 tonnes, based on baseline KPT results. The VVB verified the sampling approach, data consistency, and adherence to VM0050 v1.0/05/. The value is reasonable and in line with methodology requirements.
----	---------------------------	--------	------	--

Methods and formulae set out in the project description for calculating actual emissions for current monitoring period.

According to applied methodology VM0050 version 1.0/05/ the emissions are calculated as below:

Baseline Emissions

Baseline emissions as per the applied methodology “VM0050, v1.0” are calculated as follows:

$$BE_y = \sum_{i,j,k} EC_{i,y} \times N_{j,k,y} \times n_{j,k,y} \times (EF_{b,i,CO2} \times f_{NRB,y} + EF_{b,i,nonCO2}) \quad (1)$$

Where,

BE _y	Baseline emissions during year y (t CO ₂ e)
EC _{i,y}	Average energy consumption of baseline device type i in year y (TJ)
N _{j,k,y}	Number of commissioned project devices of type j from batch k in year y
n _{j,k,y}	Proportion of commissioned project devices of type j from batch k that remain operating in year y (fraction)
EF _{b,i,CO2}	CO ₂ emission factor for fuel used by baseline device type i in the baseline scenario (t CO ₂ /TJ)
f _{NRB,y}	Fraction of woody biomass that is established to be non-renewable used by baseline device in year y; this variable is not considered for fossil fuels (fraction)
EF _{b,i,nonCO2}	Non-CO ₂ emission factor for fuel used by baseline device type i in the baseline scenario (t CO ₂ e/TJ)
i	Baseline device type and its respective fuel type
j	Project device type and its respective fuel type

The average energy consumption of baseline device type i is calculated as follows:

$$EC_{i,y} = BC_{b,i,y} \times NCV_{b,i} \quad (2)$$

Where,

BC _{b,i,y}	Fuel used per baseline device type i during year y (tonnes)
NCV _{b,i}	Net calorific value of baseline fuel for baseline device type i (TJ/tonne)

Cross-check of EC_{i,y} to address stove stacking has been done as per section 8.1.1 of the VM0050 V1.0/05/: Baseline consumption from the back calculation is calculated as follows:

$$EC_{est,y} = EC_{p,y} \times \frac{\eta_{new,avg,y}}{\eta_{old,avg}} \quad (3)$$

Where:

EC _{est,y}	Back-calculated energy consumption of the potential mix of devices and fuels in the baseline in year y (TJ)
EC _{p,y}	Energy used in project scenario by project devices during year y (TJ)
η _{new,avg,y}	Weighted average efficiency of project devices in year y (fraction)
η _{old,avg}	Weighted average efficiency of baseline devices that are replaced by project devices (fraction)

Note: Where the results indicate that baseline consumption (EC_{i,y}) is higher than that indicated by back-calculation from the project scenario (EC_{est,y}) then the back-calculation results (EC_{est,y}) will be applied in Equation (1) as a conservative cap.

EC_{p,y} determined as follows:

$$EC_{p,y} = \sum_{j,k} BC_{p,j,k,y} \times NCV_{p,j} \quad (4)$$

Where:

BC _{p,j,k,y}	Average quantity of fuel used by project device type j from batch k during year y (tonnes or m3)
NCV _{p,j}	Net calorific value of project fuel used in project device type j (TJ/tonne or TJ/m3)

Determination of Baseline Emissions (BE_y) is as follows:

Parameter	Value	Unit	Description	Source
BE _y	239,135	t CO2e	Baseline emissions during year y	Calculated

EF _{b,i,CO2}	112	t CO ₂ /TJ	CO ₂ emission factor for fuel used by baseline device type i in the baseline scenario	Meth Default
f _{NRB,y}	0.65	fraction	Fraction of woody biomass that is established to be non-renewable used by baseline device in year y; this variable is not considered for fossil fuels	CDM TOOL 30, V4.0
EF _{b,i,nonCO2}	9.46	t CO ₂ e/TJ	Non-CO ₂ emission factor for fuel used by baseline device type i in the baseline scenario	Meth Default
N _{y,1Masupa}	44,114	Number	Number of commissioned project devices of type j from batch k in year y	Database, Monitoring survey
N _{y,2 Burn Jikokoa}	12,709	Number	Number of commissioned project devices of type j from batch k in year y	Database, Monitoring survey
N _{y,3Kuniokoa}	536	Number	Number of commissioned project devices of type j from batch k in year y	Database, Monitoring survey
N _{y,Total ICS}	57,359	Number	Number of commissioned project devices of type j from batch k in year y	Database, Monitoring survey
n _{j,k,y}	0.90	Proportion	Proportion of commissioned project devices of type j from batch k that remain operating in year y	Monitoring Survey
EC _{i,y}	0.056	TJ	Average energy consumption of baseline device type i in year y	Calculated
Stove _{year} (Weighted Average)	1.00	year		Calculated

The Assessment team has reviewed the baseline emissions calculation in accordance with VM0050 v1.0. The applied equations, including determination of EC_{i,y}, EC_{p,y}, and the back-calculation (EC_{est,y}) for stove stacking, are consistent with methodological requirements.

Project Emissions:

As per the applied methodology VM0050, version 1.0, to calculate project emissions shall use the equations 6 and 7 from the applied methodology.

$$PE_y = PE_{energy,y} + PE_{others,y} \quad (6)$$

Where,

PE _y	Project emissions during year y (t CO ₂ e)
PE _{energy,y}	Project emissions from energy consumption of project devices in year y (t CO ₂ e)
PE _{others,y}	Project emissions from other sources in year y (t CO ₂ e)

PE_{energy,y} from Biomass, Fossil Fuels, or Bioethanol

$$PE_{energy,y} = \sum_j \sum_k BC_{p,j,k,y} \times N_{j,k,y} \times NCV_{p,j} \times n_{j,k,y} \times (EF_{p,j,CO_2} \times f_{NRB,y} + EF_{p,j,nonCO_2}) \quad (7)$$

Where,

EF _{p,j,CO₂}	CO ₂ emission factor for fuel used by project device type j in the project scenario (t CO ₂ /TJ)
EF _{p,j,nonCO₂}	Non-CO ₂ emission factor for fuel used by project device type j (t CO ₂ e/TJ)

The project involves the distribution of biomass-based improved cookstoves exclusively to the target end-users, equations (8), (9), and (10) of the applied methodology are not applicable. The beneficiaries procure the biomass fuelwood either from nearby fields or the market, which has been confirmed by the Assessment team during onsite assessment of the project activity. Therefore, equation (9) is not applicable. Therefore, PE_{others} is equal to zero.

Determination of Project emission (PE energy y) as per equation (7) of VM0050 V1.0 is as follows:

Parameter	Value	Unit	Description	Source
BC _{p,j,k,y}	1.89	tonnes/hh/year	Average quantity of fuel used by project device type j from batch k during year y	Project KPT
EF _{p,j,CO₂}	112	t CO ₂ /TJ	CO ₂ emission factor for fuel used by project device type j in the project scenario	Meth Default

$EF_{p,j,nonCO2}$	9.46	t CO2e/TJ	Non-CO2 emission factor for fuel used by project device type j	Meth Default
$PE_{energy,y}$	125,829	tCO2e	Project emissions from energy consumption of project devices in year y	Calculated
PE_y	125,829	tCO2e	Project emissions	Calculated

Leakage Emissions:

In accordance with methodology VM0050, v1.0, an adjustment factor of 0.95 is applied to the GHG emission reductions in Equation 11 i.e., $0.95 \times (BE_y - PE_y)$, to account for leakage emissions associated with reduced use of non-renewable biomass.

Net GHG emission reductions are calculated as follows:

$$ER_y = (BE_y - PE_y) \times 0.95 - LE_{RB,y} \quad (11)$$

ER_y Emission reductions during year y (t CO2e)

$LE_{RB,y}$ Leakage emissions associated with use of renewable biomass during year y (t CO2e)

VVB's Opinion:

VVB carefully examined the monitoring data collected during the specified period to confirm its accuracy and completeness. This scrutiny aimed to identify any potential errors, inconsistencies, or outliers that could affect the quality of the data. After confirming the accuracy of the monitoring data, the project proponent proceeded with data analysis. They used appropriate statistical methods and techniques to process the collected data and derive meaningful insights from it. By analysing the data, they could identify trends, patterns, and any significant changes related to the emissions reductions or environmental performance of the project. Based on the results of the data analysis, the project proponent estimated the emissions reductions achieved as outlined in the monitoring report. This estimation is crucial for evaluating the project's effectiveness in reducing greenhouse gas emissions or achieving its intended environmental goal. Hence, the verification team found it is in line with the sampling guideline/07/ and Joint PD & MR/13/ found the sampling approach conservative and appropriate, based on the provisions of the sampling guideline and the same has been Joint PD & MR/13/. Emission reductions have been calculated in accordance with the applied methodology VM0050 version 1.0, and VCS Joint PD & MR/13/. The PP has used monitored data and ex-ante fixed data including default values as mandated/permitted by the applied methodology. The values used for the calculation of GHG emission reductions have been thoroughly checked by the verification team and was found appropriate and correct.

4.4 Quality of Evidence to Determine Reductions and Removals

During the verification of the reported emission reductions, VKU ensured that a clear audit trail existed, containing the necessary evidence and records to support and verify the stated figures. All source documents forming the basis for assumptions and other information underlying the GHG data are referenced above.

In assessing the audit trail, VKU examined the following:

1. Whether sufficient evidence was available, both in terms of frequency and coverage over the full monitoring period.
2. The source and nature of the evidence.
3. Whether comparable information from sources other than those used in the monitoring report /14/ was available. VKU cross-checked the monitoring report against these other sources to confirm the accuracy of the reported figures. The sources and data referenced are detailed in Section 2.2 above.

All records required for monitoring are archived in accordance with the requirements of the registered monitoring plan. No significant gaps in evidence or missing data were identified during the verification process. Accordingly, the verification team confirms that the monitoring system maintains the required quality standards to ensure the reliability of the monitored data. All internal data are subjected to established QA/QC procedures.

The operational status of the project's Improved Cookstoves (ICS) is monitored through a sample survey conducted in line with the CDM sampling and survey guidelines, applying a 90/10 confidence/precision level. This 90/10 threshold is a methodological choice fixed at the time of validation. The survey form and supporting photographs were reviewed to validate the monitoring results reported in survey.

To enhance the reliability of the survey and ensure QA/QC, training was provided to data collectors prior to conducting survey. This training was further verified through documentation submitted by the PP/24/. It is also noted that the achieved precision level is below 10%, thereby meeting the required confidence/precision threshold.

The monitored results are found to be consistent with the findings of the on-site audit.

Monitoring Plan: As per the per onsite audit, assessment team found that monitoring plan is as per the registered Joint PD&MR/13/.

Monitored Parameters:

The project involves introduction of improved cook stoves as energy efficiency measure:

S.No.	Monitoring Parameters	Parameter Type	Monitoring Frequency
1	N _{j,k,y} Number of commissioned project devices of type j from batch k in year y	Mean	Every time that new project devices are distributed
2	n _{j,k,y} Proportion of commissioned project devices of type j from batch k that remain operating in year y (fraction)	Proportion	Annually
3	BC _{b,i,y} Fuel used per baseline device type i during year y	Mean	Every Five years
4	BC _{p,j,k,y} Average quantity of fuel used by project device type j from batch k during year y	Mean	Biennial

During the interview/37/, the verification team identified QA/QC procedures demonstrating that:

- An operational and management system for the project activity is in place;
- Monitoring data are centralized;

- Monitoring data were cross-checked with the database/21/; and
- All operational staff were trained prior to assuming their roles.

Based on this, the verification team confirmed that monitoring of the project activity has been implemented in accordance with the monitoring plan outlined in the registered VCS Joint PD & MR/13/. The registered VCS Joint PD & MR /13/ clearly describes the monitoring framework, with the PP being responsible for its implementation.

The VKU verification team applied a random acceptance sampling approach in line with the CDM Sampling Guideline Version 04/07/ and the CDM Sampling Standard/08/. A total of 08 random household samples were verified (each household having one cookstove), with the acceptance number (c) set to 00. These samples were selected from the monitoring survey conducted by the project participants, which followed the CDM Sampling Standard version 09/08/.

All of the cookstoves were found to be operational based on the data provided by the Project Participants. This meets the required sample size, as explained in Section 2.4 above, to ensure the accuracy of reported information. VKU confirms that the project cookstoves were operational in all households interviewed/37/. Each cookstove has a unique identification number (ID), which is documented in the end-user agreement and is consistent with the project database /21/.

In addition to the serial number, other key information—such as stove model, end-user name, address, installation date, and location—was also recorded and found to be consistent during the onsite audit/36/.

The VKU verification team assessed the baseline scenario during the onsite audit through interviews with end-users/37/. It was observed that the targeted population previously used traditional stoves fueled by non-renewable firewood and/or fossil fuels for cooking.

It is noted that no changes were observed or identified during the Onsite audit that may affect the additionality of the project. Specifically:

- No new components have been added, nor has there been any extension or modification of the applied technology.
- No project sites have been added or removed.
- No changes have been made to the actual operational parameters relevant to the determination of emission reductions that are within the control of the PP.
- No changes were identified that could impact the scale of the project activity or the applicability of the baseline and monitoring methodology.

The applied methodology, **VM0050 version 1.0/05/**, remains applicable and was found to be consistent with the registered Joint PD & MR/13/.

The VKU verification team confirms that all emission sources within the project boundary have been appropriately considered. Monitoring of all parameters during the monitoring period was conducted in accordance with the registered monitoring plan.

The table below outlines the data and parameters relevant to the monitoring plan.

Table No. 13 Data and Parameters Monitored

S.No .	Parameters	Value applied				Assessment
01.	Nj,k,y (Number)	Number of Stoves Models	Unit	Count Before Discount (Refer the Installation Summary in ER Sheet)	Count after discount (Refer the C16, C 17 & C18 cells in tab "ER Calculation")	The Project Proponent reported the number of installed improved cookstoves by model for the monitoring period, as follows: Masupa – 44,114, Burn Jikokoa – 12,709, and Kuniokoa – 536, after applying discounting for multi stove usage factor.
		Ny,1Masupa	Number	45,217	44,114	
		Ny,2 Burn Jikokoa	Number	13,027	12,709	
		Ny,3Kuniokoa	Number	549	536	To account for the potential overestimation of stove usage, the PP calculated the average number of stoves per user. To ensure conservative and transparent calculations, the PP applied an adjustment where, in cases of multiple stoves purchased, each household was considered to have received only one ICS, even if they initially acquired more. This methodology helps prevent any overestimation of emissions reductions. The final values used for Masupa (44,114), Jikokoa (12,709), and Kuniokoa (536) in the Ex-post ER sheet align with this calculation method, which considers the multi-

			stove usage and adjustment factor. The assessment team reviewed the Installation Summary in the ER calculation sheet/15/, cross-checked installation records/21/, and verified the discounting approach applied to account for stove attrition and operational status. The method aligns with VM0050 v1.0/05/, which allows for application of a conservative discount based on verified field performance. The reported values for Nj,k,y are consistent with monitoring records, conservatively adjusted, and in compliance with VM0050 v1.0. The assessment team finds the parameter accurately reported and acceptable.								
02.	nj,k,y (fraction)	<table><tr><td></td><td>n,j,k,y</td></tr><tr><td>n,j,k,y_Masupa</td><td>0.9</td></tr><tr><td>n,j,k,y_Burn Jikokoa</td><td>0.9</td></tr><tr><td>n,j,k,y_Kuniokoa</td><td>0.9</td></tr></table>		n,j,k,y	n,j,k,y_Masupa	0.9	n,j,k,y_Burn Jikokoa	0.9	n,j,k,y_Kuniokoa	0.9	The Project Proponent applied a usage rate of 0.9 for all stove models (Masupa, Burn Jikokoa, and Burn Kuniokoa), The Project Proponent applied a usage rate of 0.9 for all stove models (Masupa, Burn Jikokoa, and Burn Kuniokoa) in line with the capped value of 90% prescribed by the applied methodology. The
	n,j,k,y										
n,j,k,y_Masupa	0.9										
n,j,k,y_Burn Jikokoa	0.9										
n,j,k,y_Kuniokoa	0.9										

			monitoring survey conducted by the PP during the current period indicated a usage rate of 100%; however, as per the requirements of the applied methodology, the usage rate was capped at 90%. This approach was found to be consistent with the methodology and is considered accurate. The assessment team verified the sampling approach, survey records/17/18/, and calculation of usage rates/15/, and confirms that the retained sample met the 90/10 confidence/precision threshold. The applied rates are supported by field data and align with VM0050 v1.0. The assessment team finds the application of $n_{j,k,y} = 0.9$ to be appropriate, conservative, and methodologically compliant.
03.	$f_{NRB,y}$ (fraction)	0.65	The project proponent has determined the fraction of non-renewable biomass ($f_{NRB,y}$) using a locally derived f_{NRB} value as calculated via CDM Tool 30: Calculation of the Fraction of Non-Renewable Biomass

		(Version 4.0)/06/. The value was based on a Calculated based on CDM TOOL30 v4.0/06/ and applying an uncertainty discount of 26% In line with VM0050 v1.0 and as per best practice, the PP has applied a 26% uncertainty discount to the originally derived fNRB value, resulting in a final applied value of 0.65 for emission reduction calculations: This discount reflects methodological conservativeness and accounts for uncertainties inherent in renewable biomass availability assessments, particularly in regions with limited national data. The assessment team reviewed: • The original fNRB calculation methodology under Tool 30 v4.0/06/ • Justification for applying the 26% discount • Supporting documentation from prior validation • Consistency of the applied value
--	--	--

			across the emission reduction calculations The parameter is ex-ante fixed for the crediting period, as per methodology rules, and does not require periodic reassessment unless significant biomass market or land use changes occur.
04.	Date of commissioning of batch j	02/01/2021	The Project Proponent reported 02/01/2021 as the commissioning date for Batch 1, representing the date the first improved cookstove was distributed. The assessment team reviewed the installation records and confirms that the date is consistent with the distribution data.
05.	BC _{b,i,y}	4.31	The applied methodology VM0050 requires periodic reassessment of baseline fuel consumption through measurement campaigns such as Kitchen Performance Test. As required under VM0050 v1.0, the baseline fuel consumption must be reassessed at least once every 5 years.

			The Project Proponent reported monitored baseline fuel consumption as 4.31 tonnes, based on data collected through the baseline KPT conducted during the monitoring period. The assessment team reviewed the sampling approach and survey records. The retained sample met the required 90/10 confidence/precision threshold, and the reported values reflect the average annual fuel consumption for each baseline stove type as observed under real-use conditions. The assessment team confirms that the values for $BC_{b,i,y}$ are based on representative and quality-controlled survey data, and their application is methodologically appropriate and acceptable for emission reduction calculations.
06.	$\eta_{new,avg,y}$	0.34	The Project Proponent determined the weighted average efficiency of the project devices for year y by applying a linear decrease approach to the thermal efficiencies of each model. The initial thermal efficiency

			for each model was established using manufacturer-certified values, obtained through the Water Boiling Test (WBT). As per the methodology, the PP selected Option (b) for efficiency monitoring, applying a linear degradation model from initial efficiency down to a terminal value of 25% across the expected stove lifespan. The VVB reviewed: • Manufacturer certified values that is determined via Water Boiling Test • Application of the degradation curve in the ER sheet • Traceability of efficiency values per stove type The approach aligns with the methodology's requirement for fixed ex-ante efficiency when Option (b) is selected.
--	--	--	--

			The reported efficiencies are well-supported, conservatively adjusted, and compliant with the methodology.
07.	BC _{p,j,k,y}	1.89	The parameter BC_{p,j,k,y} represents the average annual fuel consumption per project stove and is used to calculate project emissions under VM0050 v1.0/05/. The project proponent selected Option 1 from Section 9.2 of the methodology, which requires a Kitchen Performance Test (KPT)/25/ conducted in accordance with the CDM Standard for Sampling and Surveys for PoAs/08/. Data Collection and Crosschecks: - The KPT/25/ was carried out using calibrated digital weighing scales and moisture content meters, by a trained team following a standard protocol. - Daily per-capita fuel use data was collected, then scaled using household size to estimate annual

			per-household consumption. - The resulting average was 1.8865936 tonnes/HH/year, which is below the baseline consumption and reflects meaningful savings. - As part of verification, the assessment team reviewed raw KPT sheets/25/, and confirmed alignment of calculations in the ER spreadsheet/15/. Additionally, the value was crosschecked against: - Other similar KPT studies conducted by the same PP in the project region. - Published literature values for ICS fuel consumption in comparable African rural settings These comparisons confirmed the conservativeness and realism of the applied value.
--	--	--	--

			The use of Option 1 with statistically valid sample size estimation, proper distribution adjustment, and oversampling reflects best practices in field-based monitoring. The applied value of 1.89 tonnes for $BC_{p,j,k,y}$ is: • Statistically robust • Methodologically compliant with VM0050/05/ • Conservatively chosen and well-substantiated The parameter is transparently monitored, conservatively applied, and fully aligned with VM0050.
--	--	--	--

The verification team has reviewed and confirmed the accuracy of the emission reduction calculations presented in the spreadsheet. The Monitoring Report/14/ is supported by the Emission Reduction Spreadsheet/15/. The consistency of the data, as well as the formulas used in the calculations, were verified and found to be accurate.

VKU is of the opinion that the applied method for calculating emission reductions is both accurate and results in a conservative estimation. It aligns with the applicable requirements outlined in Section 3.15 of the **VCS Standard Version 4.7/01/**.

Furthermore, the verification of the GHG statement was conducted in accordance with the principles and procedures outlined in **ISO 14064-3:2019/09/**.

PP Sampling Plan and Samples

The Verification Team concluded that the PP's sampling plan and sample size calculation, as outlined in the MR Section 4.3/14/, are correct, transparent, and fully compliant with the registered Joint PD & MR /13/, the CDM Sampling Standard /08/, and the CDM Sampling Guideline/07/.

A total of 40 samples were monitored by the PP, and according to the survey records/17/, 100% of the cookstoves were found to be operational. This finding was further confirmed by the VVB during the on-site audit through interviews conducted/37/ with randomly selected end users, all of whom verified the operational status of the cookstoves.

4.5 Non-Permanence Risk Analysis

This is not an AFLOU project, hence non-permeance risk is not applicable to the present project activity.

5 VERIFICATION OPINION

5.1 Verification Summary

VKU Certification Pvt. Ltd. (hereinafter referred to as VKU) confirms that it has conducted the third verification of the project activity titled "Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities", for the monitoring period from 01-January-2024 to 31-December-2024 (inclusive of both start and end dates), under [VCS Registry Project ID 3045](#).

The verification was carried out in accordance with the relevant requirements for Verified Carbon Standard (VCS) activities. The Project Proponents have reported emission reductions amounting to 107,641 tonnes of carbon dioxide equivalent (tCO₂e) for the specified monitoring period.

These reported emission reductions have been assessed and verified in line with the applicable requirements outlined in the VCS Standard, Version 4.7/01/.

The project proponents of the **"Reduced Emissions from Improved and Efficient Coking in Ugandan Communities"** are responsible for:

- Preparing greenhouse gas emissions data and reporting the greenhouse gas emission reductions from the project, based on the methodology outlined in the monitoring plan contained in the registered joint PD&MR/13/.
- Developing and maintaining records and reporting procedures in accordance with that plan, including the calculation and determination of the project's greenhouse gas emission reductions.

It is the responsibility of VKU to provide an independent verification opinion on the project's conformity with the requirements of the VCS Standard version 4.7/01/ and the applied GHG program, based on the reported greenhouse gas emission reductions from the project.

VKU is responsible for issuing an independent verification opinion regarding the project's compliance with the requirements of the VCS Standard version 4.7/01/ and the applied GHG program, based on the reported greenhouse gas emission reductions from the project.

Based on documented evidence and confirmation through a Onsite assessment of the project, VKU confirms that:

- The project has been implemented and operated in accordance with the joint Project Description and Monitoring Report/14/;
- The Monitoring Report/14/, Emission Reduction Calculation sheet/15/, and other supporting documents provided are complete, verifiable, and in compliance with the applicable requirements of VCS Standard Version 4.7/01/;
- Monitoring has been conducted in accordance with the applied baseline and monitoring methodology;
- The Monitoring Plan in the registered Project Description, Version 4.1, dated 03 November 2025/13/, and the Monitoring Report/14/, aligns with the applied baseline and monitoring methodology/05/.

VKU's verification approach is based on an understanding of the risks associated with the reporting of GHG emission data and the controls in place to mitigate these risks. VKU Certification planned and performed the verification by obtaining evidence, information, and explanations deemed necessary to provide a **reasonable level of assurance** that the reported GHG emission reductions are fairly stated.

In accordance with the VCS Standard Version 4.7, clauses 4.1.23, 4.1.24, and 4.1.25, VKU is of the opinion that the GHG emission reductions stated in Monitoring Report/14/ for the project "Reduced Emissions from Improved and Efficient Coking in Ugandan Communities" in Uganda, for the period from 01-January-2024 to 31-December-2024 (inclusive of both start and end dates), are **fairly and correctly stated**.

5.2 Verification Conclusion

Table No. 14: Opinion/Conclusion by Validation-Verification Body

Opinion	Final Documents	Monitoring Period	Emission Reductions achieved	Remarks
Positive opinion ☒ Negative Opinion ☐	Monitoring Report Emission Reduction Sheet	01-January-2024 to 31-December-2024 (Inclusive of both the days)	107,641 tCO₂e	The GHG emission reductions are calculated on the basis of approved methodology, VM0050 version 1.0

Adverse Opinion ☐				/05/ and the monitoring plan included in the registered VCS Joint PD and MR/13/
Unmodified Opinion ☒				
Modified Opinion ☐				

Hence VKU is able to certify that the emission reduction from the project during the current monitoring period 01-January-2024 to 31-December-2024 (Inclusive of both start and end dates) amounts to **107,641 tCO₂e** assessed in line with the applicable VCS requirements set out in section 3.15 of VCS Standard version 4.7/01/.

The VVB hereby issues a resolutely **positive and unmodified opinion**, which is drafted diligently and accurately in strict accordance with ISO 14064-3:2019, /09/ Section 09, and the precise provisions of Clause 9.7.1.6 & 9.7.2 of ISO 14065:2020/09/ This opinion is fully aligned with the exacting requirements delineated in ISO/IEC 17029:2019, Section 9.7/09/

Our verification process provides a robust and **reasonable level of assurance** regarding the veracity of the reported GHG emission reduction data. This data is devoid of any material misstatements and is steadfastly supported by the evidence furnished by the Project Proponent (PP).

Verification period: 3rd From 01-January-2024 to 31-December-2024 (inclusive of both the dates)

Verified GHG emission reductions and carbon dioxide removals in the above verification period:

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Reduction VCU (tCO ₂ e)	Removal VCU (tCO ₂ e)	Total VCUs (tCO ₂ e)
2024 (01-January-2024 to 31-December-2024)	239,135	125,829	0	107,641	-	107,641
Total	239,135	125,829	0	107,641	-	107,641

5.3 Ex-ante vs Ex-post ERR Comparaison

Net GHG Emission Reduction for total project activity instances under the given projects are:

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
2024 (01-January-2024 to 31-December-2024)	159,291	107,641	32%	Due to difference in the number of stoves distributed during the monitoring period.
Total	159,291	107,641	32%	Due to difference in the number of stoves distributed during the monitoring period.

APPENDIX 1: COMMERCIALLY SENSITIVE INFORMATION

This section is Not Applicable as per the Onsite Interview with Project Proponent.

Section	Information	Justification	Assessment method and conclusion
NA	NA	NA	NA

APPENDIX 2: ABBRIVIATIONS

Abbreviations	Full texts
BE	Baseline Emissions
BE _f	Baseline Emission Factor
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification Request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DNA	Designated National Authority
EB	Executive Board
EF	Emission Factor
ER	Emission Reductions
FAR	Forward Action Request
GHG(s)	Greenhouse gas(es)
GWP	Global Warming Potential
HH	Household
IPCC	Intergovernmental Panel on Climate Change
MoV	Means of Verification
MR	Monitoring Report
N/A	Not Applicable
OSV	On Site Visit
PAI	Project Activity Instances
PDD	Project Design Document
PP(s)	Project Proponent(s)
QA/QC	Quality Assurance /Quality Check
Ref.	Document Reference

SS(s)	Sectoral Scope(s)
SOF	Sample Operational Factor
TA(s)	Technical Area(s)
UNFCCC	United Nations Framework Convention on Climate Change
VCU	Verified Carbon Unit
VCS	Verified Carbon Standard
VKU	VKU Certification Private Limited
VVS	Validation and Verification Standard
VVB	Validation and verification body

APPENDIX 3: QUESTIONNAIRES FOR END USERS INTERVIEW

Sr. No.....	Date.....
SECTION A: BASIC INFORMATION	
End-user/ Stakeholder's name <i>(Indicate relationship with owner in case is different person)</i>	
ID of the related sales agreement/Any relevant document	
Location with coordinates <i>(Village / District / Region / neighbourhood)</i>	
Device Model / Type/Size (fill according to applicability)	
Date of purchase/installation/distribution	
ID of the device	
How many dependants in the household? (Family Size)	
SECTION B: STOVE USAGE	
Is the device in operation?	Yes/No
How many improved cookstoves are used in the household?	
Is the old (baseline) stove still used?	Yes/No
If Yes: Why?	If Yes: Why? ☐ Faster ☐ Easier fire ☐ Stove problem ☐ Other: _____
Do you use the new stove every day?	Yes/No
If No: How many days per week do you use it?	☐ 1-2 days ☐ 3-4 days ☐ Every day
How many hours per day is the new stove used?	☐ 0-2 Hrs ☐ 2-4 Hours ☐ 4-6 Hours
Is there any other previous device in use actually? In which situations?	Yes/No If Yes, type: For which meals?

Were there any repairs, breakage/ replacements of the cookstove since installation? How many times?	Yes/No
Do you know how to contact CME/PP/PD in case of any problem/complaint/suggestion?	Yes/No
SECTION C: COOKING HABITS	
What do you cook on this stove?	☐ Rice ☐ Beans ☐ Meat ☐ Roots ☐ Pulses ☐ Other: _____
How many meals cooked per day? (Per day preferentially, other measures allowed)	☐ Breakfast ☐ Lunch ☐ Dinner
How much time it takes to prepare one meal (Baseline Device) (Breakfast/lunch/dinner time for preparing any one meal can be compared)	
How much time it takes to prepare one meal (Project Device) (Breakfast/lunch/dinner time for preparing any one meal can be compared)	
Section D: Kitchen Performance Test (KPT)	
Is there any test that has been conducted for your device by CME/PP/PD? (e.g., efficiency tests i.e., WBT, KPT etc)	Yes/No
When was this test conducted? (Ask for estimated month and year)	
For how many days?	
Did you change your cooking during the test?	Yes/No
If yes, how?	
How much it saves? (% of firewood save/Currency/day preferentially, other measures allowed but trying to keep homogeneity)	☐ < 30% saving ☐ 30 % – 50 % saving ☐ >50 % saving
SECTION E: FUEL USAGE	
Which was the previous used fuel?	Firewood/Charcoal/Coal/LPG/others-
What is the current cooking fuel?	☐ Firewood ☐ Charcoal ☐ Mix ☐ Other: _____

Where do you get fuel?	☐ Collect from forest/farm ☐ Buy from shop ☐ Both
How far do you travel to collect or buy fuel?	☐ < 30 min ☐ 30 min – 1 hour ☐ > 1 hour
How many times per month do you collect fuel?	With new stove : ____ times/month With old stove : ____ times/month
SECTION F: HEALTH & COMFORT	
Cooking inside home? Outside?	☐ Inside ☐ Outside
Opinion about:	☐ Less smoke observed ☐ Respiratory wellness improved ☐ Decrease in Allergies ☐ No Itching in eyes ☐ Time-saving ☐ Fuel Saving
What is the source of fuel used?	Collection from Nearby forest/Agriculture land/anyland ☐ Purchase from shop ☐ Both ☐
What does the end-user do with wood ash?	
SECTION G: USER SATISFACTION	
The user is happy with the stove. <i>(Include any comments of the user)</i>	Yes/No If no, please comment
Would you tell your friend or neighbour to use the same stove?	
Any comments from the user?	

Signature/Thumb Impression of the end-user:	
--	--

(If the end-user doesn't want to sign, respect the decision)

APPENDIX 4: AUDIT FINDINGS

Registry-	VERRA
Project ID	VKU.VER.217.25 VCS 3045
Registry ID	VCS 3045
Project Title:	Reduced Emissions from Improved and Efficient Cooking in Ugandan Communities
Client/ Project Representative:	PERSISTENTCLIMATE INDIA PRIVATE LIMITED
CARs/FARs/CLs raised by:	Team Leader- Barun Kumar (T.A 3.1)
Total No. of Findings	Corrective Action Request – 02 Clarification Request – 02 Forward Action Request – 00
Number and Date of findings raised:	At the time of Assessment – 02- 01 CAR and 01 CL (R01; dated 29/07/2025) At the time of Technical Review - 01 CL (Dated: 13/08/2025) At the time of Project Review Report by Registry - 01 CAR (Dated 01/06/2026)
Applicable Methodology/standards:	VM0050-Energy Efficiency and fuel-switch measures in cookstoves version 1.0
Audit Date:	19-July-2025 to 21-July-2025
Type of Activity:	Verification

Finding No. 01	Date: 29-07-2025
Finding Type- CAR ☒ CL ☐ FAR ☐	
Stage of finding raised:	
Desk Review	☒
On-site/remote/hybrid assessment	☐
Technical Review	☐
Project Review Report by Registry	☐
Requirement	
- VM0050- Energy Efficiency and fuel-switch measures in cookstoves version 1.0 - VCS Standard version 4.7 - VCS MR Template version 4.4 - KPT protocol version 4.0	
Non-Conformity	
Section 1.1	

1. The value of total GHG emission reduction generated in the current monitoring period is inconsistent with the Ex-post ER Sheet. Section 4.2 2. The number of ICS (count after discount) mentioned as monitored value of parameter ‘Nj,k,y’ is inconsistent with the Ex-post ER Sheet. Section 5.4 3. The value of Baseline emission is inconsistent with the Ex-post ER Sheet. Project KPT Sheet 4. The stove ID is not mentioned in the project KPT sheet. 5. PP has not mentioned the moisture content of the initial stock of solid fuels as per the requirement of KPT protocol version 4.0-Procedure for fuel consumption patterns clause 3. Baseline KPT Sheet 6. The date on which the baseline KPT was performed is not mentioned in the Baseline KPT Sheet.	
Evidence	
• VCS Monitoring Report for 3rd Monitoring Period version 1.0 dated 19-March-2025 • Ex-post ER Sheet • Project KPT Sheet • Baseline KPT Sheet	
1st Response from PD	Date:
1. The value of total GHG emission reductions generated in the current monitoring period has now been revised and aligned with the Ex-post ER Sheet. 2. The number of ICS (count after discount) mentioned as the monitored value of parameter ‘Nj,k,y’ has been revised and is now consistent with the Ex-post ER Sheet. 3. The value of the Baseline Emission has been reviewed and corrected. It is now consistent with the Ex-post ER Sheet. 4. The stove ID is now mentioned in the Project KPT sheet. 5. The moisture content of the initial stock of solid fuels has now been included as per Clause 3 of the KPT Protocol v4.0. 6. The date on which the baseline KPT was performed is already mentioned in the Baseline KPT Sheet, specifically in Column E.	
Documents provided by PD for review	
1st Review by Assessment Team	Date: 05/08/2025
Section 1.1 1. PP has corrected the value in the MR and now it is found to be consistent with the Ex-Post ER Sheet. Hence, the finding is closed. Section 4.2 2. PP has corrected the number of ICS (count after discount) and now it is found to be consistent with the Ex-Post ER Sheet. Hence, the finding is closed.	

Section 5.4

3. PP has corrected the value of Baseline emission and now it is found to be consistent with the Ex-post ER Sheet. **Hence, the finding is closed.**

Project KPT Sheet

4. PP has now mentioned the stove ID in the project KPT Sheet. **Hence, the finding is closed.**

5. PP has now mentioned the moisture content of the initial stock of solid fuels in the Project KPT sheet and it is found to be appropriate. **Hence, the finding is closed.**

Baseline KPT Sheet

6. PP has now mentioned the date on which Baseline KPT was performed on the Baseline KPT Sheet. **Hence, the finding is closed.**

Finding 01 is closed.

Finding No. 02	Date: 29-07-2025
Finding Type- CAR ☐ CL ☒ FAR ☐	
Stage of finding raised:	
Desk Review	☒
On-site/remote/hybrid assessment	☐
Technical Review	☐
Project Review Report by Registry	☐
Requirement	
• VM0050- Energy Efficiency and fuel-switch measures in cookstoves version 1.0 • VCS Standard version 4.7 • VCS MR Template version 4.4 • KPT protocol version 4.0	
Non-Conformity	
Section 4.2 1. Provide evidence to verify the efficiency of the project device during the current monitoring period, in accordance with the requirements of the applied methodology—Section 4, Clause 8-project devices using renewable biomass (fuel-switch) or non-renewable biomass (improved efficiency) must be single-pot, multi-pot, portable, or in-situ cookstoves with an initial thermal efficiency of at least 25%.	
Project KPT sheet 2. The PP conducted KPT in the month of January. However, it is unclear to the AT how the PP ensured compliance with the methodological requirement (Appendix 4-How to approach seasonality with KPT) to provide a description of seasonality at the project location, as well as the observed and expected impacts of these seasonal variations on cooking practices and cooking energy use during the KPT. 3. Provide evidence to verify the KPT conducted during the current monitoring period, in accordance with the requirements of the applied methodology—specifically the section on measurement methods and procedures for parameter nj,k,y. The methodology requires that the	

adoption survey must include: (a) kitchen observations, which involve visual and physical checks of the stove and its components, along with photographic evidence.	
Evidence	
- VCS Monitoring Report for 3rd Monitoring Period version 1.0 dated 19-March-2025 - Project KPT Sheet	
1st Response from PD	Date:
1. The efficiency of the project stove was already validated during the validation of the project. Since this is the third monitoring period and no new project technology has been introduced during the current MP, the project device remains the same as during the validation stage. However, for reference and completeness, the evidence verifying the thermal efficiency of the project device is being submitted. 2. PP acknowledges the requirement under Appendix 4 of the applied methodology to describe seasonality and its potential impact on cooking practices and energy use. In line with this, the PP confirms that baseline KPTs were conducted during November–December and project KPTs in January, all of which fall within Uganda’s dry season. These months are characterized by consistent fuel availability and stable cooking behaviors, ensuring both KPTs were conducted under comparable seasonal conditions. As per the methodological guidance, one valid approach is to perform both baseline and project KPTs at the same time of year, ensuring results are conservative and representative. The PP has adhered to this option. Prior project experience and interactions with local households during the KPT surveys confirm that there is no significant seasonal variation in cooking energy demand or fuel availability during this period. Fuelwood supply remains stable, and cooking frequency and practices are largely unchanged across the dry season. This consistency supports the conclusion that the timing of the KPTs does not introduce seasonal bias. Given the close timing and seasonal alignment of the KPTs, no seasonal bias is introduced. The PP considers the seasonality requirement fully addressed, and the KPT results to be representative and in full compliance with the methodology. 3. The parameter $n_{j,k,y}$ mentioned by the AT refers to the proportion of stoves still in regular use during the monitoring period and is not related to the Kitchen Performance Test (KPT). Please note that the adoption survey and the KPT were conducted on the same end users. Photographic evidence for both the KPT and the usage survey has already been submitted. Additional evidence for the KPT is also being submitted.	
Documents provided by PD for review	
1st Review by Assessment Team	Date: 05/08/2025
Section 4.2 1. PP has provided the evidence to verify the efficiency of the project device. Hence, the finding is closed. Project KPT Sheet 2. PP has clarified that they have performed both baseline and project KPTs at the same time of year, ensuring results are conservative and representative and it is found to be appropriate to the assessment team. Hence, the finding is closed. 3. PP has clarified that the adoption survey and the KPT were conducted on the same end users and has provided photographic evidences to verify the same and it is found to be appropriate to the assessment team. Hence, the finding is closed.	

Finding 02 is closed.

Finding No. 03	Date: 13/08/2025
Finding Type- CAR ☐ CL ☒ FAR ☐	
Stage of finding raised:	
Desk Review	☐
On-site/remote/hybrid assessment	☐
Technical Review	☒
Project Review Report by Registry	☐
Requirement	
• VM0050- Energy Efficiency and fuel-switch measures in cookstoves version 1.0 • VCS Standard version 4.7 • VCS MR Template version 4.4	
Non-Conformity	
Table 1: Sustainable Development Contributions 1. The duration for which SDG 3.9 is claimed is unclear. Section 1.12 2. It is unclear how the emission reduction aligns with SDG 7. Section 3.1 3. The proportion of stoves in operation during the current monitoring period could not be determined. Section 5.4 4. PP has requantified the Ex-Ante ER, unable to understand why PP has not cover these issues in the ex-ante ER calculation. Appendix 1 5. The statement mentioned in Appendix 1 of this report is contradictory to section 1.13 of this report.	
Evidence	
VCS Monitoring Report Version 1.0 dated 19-March-2025	
1st Response from PD	Date:
1. The claimed SDG impact for indicator 3.9 is for current monitoring period (01-January-2024 to 31-December-2024 (inclusive of both days)). The same has been updated in section 1.12 of the revised MR. 2. SDG 7 (“Affordable and Clean Energy”) is directly linked to the dissemination of improved cookstoves (ICS) under the project. The number of project households predominantly using clean cooking devices, such as the project ICSs, forms the basis for determining the usage rate and quantity of stoves in operation, which are key parameters in the emission reduction calculation. Therefore, the achieved emission reductions are directly aligned with and contribute to the achievement of SDG 7. 3. The total number of stoves distributed under the current monitoring period is mentioned in the project database and the ER calculation sheet (tab “<i>Installation Summary</i>”, cell numbers C1 to	

C20), which is 58,793 units (13,027 Jikokoa, 549 Kuniokoa, and 45,217 Masupa). To determine the proportion of stoves in operation during the current monitoring period, the project has applied the usage rate obtained from the monitoring survey in line with the applied methodology. The monitoring survey conducted during the current monitoring period has been submitted as supporting evidence. 4. The section has been revised. the explanation for the difference between ex-ante estimated ERs and monitored ERs has been updated to more accurately reflect the parameters applied during the current monitoring period. These refinements were incorporated into the monitored ER calculation to ensure accuracy and conservativeness. While such adjustments were not reflected in the ex-ante estimates, they are required at the monitoring stage based on actual survey findings. Accordingly, the updated explanation for the difference has been included in the MR. 5. Section 1.13 of the revised MR has been updated as per the statement mentioned in Appendix 1.	
Documents provided by PD for review	
1st Review by Assessment Team	Date: 21/08/2025
Table 1: Sustainable Development Contributions 1. PP has now mentioned the duration for which SDG 3.9 is claimed and it is found to be appropriate. Hence, the finding is closed. Section 1.12 2. PP has clarified that the number of project households predominantly using clean cooking devices, such as the project ICSs, forms the basis for determining the usage rate and quantity of stoves in operation, which are key parameters in the emission reduction calculation and also reduction in the total biomass usage in the project area is linked to the project ICS usage and therefore, the achieved emission reductions are directly aligned with and contribute to the achievement of SDG 7, which is found to be appropriate. Hence, the finding is closed. Section 3.1 3. PP has now mentioned the usage rate and proportion of stoves operational under the current monitoring period in the Monitoring Report. Hence, the finding is closed. Section 5.4 4. PP has revised the section correctly in the MR and has updated the explanation for the difference between ex-ante estimated ERs and monitored ERs which is found to be appropriate. Hence, the finding is closed. Appendix 1 5. PP has updated the statement mentioned in section 1.13 of the Monitoring Report and now it aligns with Appendix 1 of the report. Hence, the finding is closed. Finding 03 is closed.	

Finding No. 04	Date: 01/06/2026
Finding Type- CAR ☒ CL ☐ FAR ☐	

Stage of finding raised:	
Desk Review	☐
On-site/remote/hybrid assessment	☐
Technical Review	☐
Project Review Report by Registry	☒
Requirement	
VCS Standard Version 4.7	
VM0050 ENERGY EFFICIENCY AND FUEL-SWITCH MEASURES IN COOKSTOVES	
Non-Conformity	
1. The project has not submitted a revised KML file showing the areas where the project has implemented the/distributed the project instances. 2. There are repeated serials in the database. For example, Masupa database has 4 repeated serials, and Serial 142141068 is found in both Kuniokoa and JikoKoa databases. 3. The permanence risk table in Section 5.4 contains numbers, but the monitoring period is not included.	
Evidence	
VCS MR Project 3045 01012024 31122024 Ex-post ER_MP3_15042026 Master End User Database-VCS 3045.xlsx	
1st Response from PP/PD	Date: <i>Mention date of response Submission here</i>
1. The PP would like to clarify that no new cookstoves were distributed during the current Monitoring Period (MP03). The project activity during MP03 covers the same set of project stoves that were included under MP02. Accordingly, the project implementation area remains unchanged from the previous monitoring period. The KML file showing the locations of the distributed project instances was already submitted during the MP02 verification and remains applicable for the current monitoring period. Therefore, no revised KML file was required for MP03. 2. Regarding the repeated serials in the tab “Masupa Database” within the Excel file titled “Master End User Database-VCS 3045.xlsx”, the PP confirms that in the tab “Masupa Database”, four entries were identified where the same serial number had been inadvertently assigned to different end users due to manual data entry errors during database compilation. However, a cross-check of the consolidated database in the tab “End User Database” confirmed that there are no duplicate serial numbers associated with Masupa stoves. These entries in the “Masupa Database” have now been corrected based on the information available in the “End User	

Database” and further verified against the corresponding sales receipts. The revised database now reflects the correct serial numbers for all these records. Regarding serial number 142141068, the PP identified that the same serial number had been inadvertently assigned to different end users due to a manual data entry error during database compilation. The serial number has now been corrected in the database and revised based on the corresponding sales invoices records. The updated database has been cross-checked against the invoice records to ensure consistency and uniqueness of serial numbers. The sales receipts related to both stove records are being submitted as supporting evidence for verification. The PP confirms that the issue was limited to a data entry error and does not result in any double counting of stoves or end users within the project database. 3. The Permanence Risk Table in Section 5.4 is not applicable, as this grouped project is not an AFOLU project. The table has now been removed from the revised MR.	
Documents provided by PP/PD for review	
<i>PP/PD will list out here the documents submitted to support the response</i>	
1st Review by Assessment Team	Date: 04/06/2026
1. The PP has confirmed that no new cookstoves were distributed during the current monitoring period (MP03) and that the monitoring period covers the same set of project cookstoves included in the previous monitoring period (MP02), which has also been checked by the Assessment team during desk review of the project documents and onsite audit of the project activity. Consequently, the project implementation area has remained unchanged. The Assessment team verified the monitoring records and confirmed that no additional project instances were introduced during MP03. As the project boundary and distribution locations remain the same as those verified during MP02, the previously submitted KML file continues to be applicable for the current monitoring period. 2. The Assessment team has reviewed and assessed the revised “Master End User Database” along with the supporting sales receipts/invoices submitted by the PP. The Assessment team verified that the duplicate serial numbers identified within the “Masupa Database” tab were the result of manual data entry errors during database compilation. The Assessment team cross-checked the corrected records against the consolidated “End User Database” and the corresponding sales receipts and confirmed that the serial numbers have been updated appropriately in tab “Masupa Database” and that each stove is uniquely assigned to a single end user. With respect to serial number 142141068, the Assessment team reviewed the relevant sales invoice records and confirmed that the duplication across the Kuniokoa and Jikokoa databases	

resulted from a data entry error. The serial number has been corrected in the revised database based on the underlying sales documentation.

Furthermore, the Assessment team performed a review of the updated project database and confirmed that no duplicate stove serial numbers remain within or across the stove-type databases. The Assessment team also confirmed that the project monitoring system includes reconciliation checks against sales records and the consolidated end-user database to identify and correct duplicate serial numbers, thereby preventing double counting of project stoves and end users.

Based on the review of the revised project database and supporting evidence, the Assessment team concludes that the identified duplicate serial numbers were attributable to data entry errors only, have been appropriately corrected, and do not result in double counting within the project database.

3. The Assessment team confirms that the grouped project is a cookstove project and does not fall under the AFOLU sector. Therefore, the Permanence Risk Assessment and the associated Permanence Risk Table are not applicable to the project activity. The inclusion of the table in the previous version of the Monitoring Report was inadvertent.

The Assessment team verified that the non-applicable Permanence Risk Table has been removed from Section 5.4 of the revised Monitoring Report.

Finding No. 04 is closed.

2nd Response from PP/PD

Date: *Mention date of response Submission here*

PP/PD will provide point wise response here

Documents provided by PP/PD for review

PP/PD will list out here the documents submitted to support the response

2nd Review by Assessment Team

Date: *Mention date review of Submission here*

Mention here the review/feedback of response point wise

APPENDIX 5: COMPETENCE STATEMENTS

Team Leader and Technical Expert T.A.3.1: Barun Kumar



Certification Pvt. Ltd.

VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Barun Kumar
Nationality	Indian
Countries of Experience	India, South Africa, Kenya, Uganda, DR Congo, Zambia, Madagascar, Fiji, Egypt, Singapore
Educational Qualification	B.Sc. (Environmental Science and Water Management) M.Sc. (Ecology & Environmental Sciences)
Year of Experience	13 Years +
Area of Expertise	Climate Change & Environment
Eligible Sectoral Scope	SS 1 – TA 1.2 - Renewables SS 3 – TA 3.1 – Energy Demand SS 6 – TA 6.1 – Construction SS 7 – TA 7.1 – Transport SS 13 – TA 13.1 – Solid waste and wastewater SS 14 – TA 14.1 – Forestry He is a GS Approved Auditor
Approved for Registries	☒ VCS ☒ SD Vista ☐ Plastic Credit ☒ GS4GG ☒ UCR ☒ UWR ☒ ICR ☒ CERCARBONO ☒ CR-i

Roles approved in VKU

Project Trainee	NO
Validator/Verifier Trainee	NO
Validator	YES
Verifier	YES
Team Leader	YES
Technical Reviewer	YES
Local Expert (India & South Africa)	YES
TA Expert (1.2, 3.1, 6.1, 7.1, 13.1, 14.1)	YES
Financial Expert	NO

Reviewed by	Apoorva Gupta (Quality Manager)	Date	25/04/2025
Approved by	Dr. Vikas Kumar Aharwal (Director)	Date	25/04/2025

Project Trainee: Swati Vats



Certification Pvt. Ltd.

VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Swati Vats
Nationality	Indian
Countries of Experience	India
Educational Qualification	B.Sc. (Hons.) in Forestry M.Sc. in Environmental Science
Year of Experience	Fresher
Area of Expertise	NA
Eligible Sectoral Scope	NA
Approved for Registries	☒ VCS ☒ SD Vista ☒ Plastic Credit ☒ GS4GG ☒ UCR ☒ UWR ☒ ICR ☒ CERCARBONO ☒ CR-i

Roles approved in VKU

Project Trainee	YES
Validator/Verifier Trainee	NO
Validator	NO
Verifier	NO
Team Leader	NO
Technical Reviewer	NO
Local Expert (<i>Country Wise</i>)	NO
TA Expert (<i>X.X</i>)	NO
Financial Expert	NO

Reviewed by	Apoorva Gupta (Quality Manager)	Date	07/04/2025
Approved by	Barun Kumar (Technical Manager)	Date	07/04/2025

Local Expert (Uganda): Maurice Kabikabule



Certification Pvt. Ltd.

VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Mr. Maurice Kabikabule
Nationality	Ugandan
Countries of Experience	Uganda
Education Qualification	Bachelors in Business Administration
Year of Experience	8 years +
Area of Expertise	Financial Auditor and Risk Assessor
Eligible Sectoral Scope	NA

Roles

Project Trainee	NO
Validator/Verifier Trainee	NO
Validator	NO
Verifier	NO
Team Leader	NO
Technical Reviewer	NO
Local Expert (Country Wise)	YES
TA Expert (X.X)	NO
Financial Expert	NO

Reviewed by	Vandana Gupta (Quality Manager)	Date	24.08.2023
Approved by	Vivek Kumar Ahirwar (Technical Manager)	Date	24.08.2023

Technical reviewer and technical expert T.A.3.1: Vivek Kumar Ahirwar



Certification Pvt. Ltd.

VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Vivek Kumar Ahirwar
Nationality	Indian
Countries of Experience	India, Madagascar, Thailand, Nepal, South Africa, Vietnam, Mozambique, Kenya, Ethiopia, Spain, Singapore, Zimbabwe, Columbia, Zambia, Libya, Indonesia, Myanmar
Educational Qualification	B.E.(Mechanical) MTech. (Energy Management)
Year of Experience	15 Years +
Area of Expertise	Climate Change & Environment & Industry
Eligible Sectoral Scope	SS 1 – TA 1.1 Thermal Energy & Biomass SS 1 – TA 1.2 Renewable /Non-renewable SS 2 – TA 2.1 Energy Distribution SS 3 – TA 3.1 Energy Demand SS 13 – TA 13.1 Solid Waste and Wastewater He is a GS Approved Auditor
Approved for Registries	☒ VCS ☒ SD Vista ☐ Plastic Credit ☒ GS4GG ☒ UCR ☐ UWR ☒ ICR ☒ CERCARBONO ☒ CR-i

Roles approved in VKU

Project Trainee	NO
Validator/Verifier Trainee	NO
Validator	YES
Verifier	YES
Team Leader	YES
Technical Reviewer	YES
Local Expert (India)	YES
TA Expert (TA 1.1, 1.2, 2.1, 3.1, 13.1)	YES
Financial Expert	YES

Reviewed by	Apoorva Gupta (Quality Manager)	Date	09/04/2025
Approved by	Barun Kumar (Technical Manager)	Date	09/04/2025