



VERIFICATION REPORT FOR “INSTALLATION OF HIGH EFFICIENCY WOOD BURNING COOKSTOVES IN ZIMBABWE – PROJECT 2”



Document Prepared by Earthood Services Private Limited

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Summary:

- A brief description of the verification and the project**

Earthood Services Private Limited (hereafter referred to as ESPL) has been contracted by C-Quest Capital SGM ZM Stoves Private Limited to conduct the verification of the registered project activity (VCS ID 2890) – “Installation of high efficiency wood burning cookstoves in Zimbabwe – Project 2” regarding the relevant requirements of VCS program guidelines and standard (VCS Standard Version 4.4/01/ and VCS Program Guide Version 4.3/02/).

The verification includes confirming the implementation of the registered monitoring plan as described under VCS PD, version 2.3/3/ and application of the monitoring methodology VMR0006: “Methodology for Installation of High Efficiency Firewood Cookstoves”, version 1.1/09/.

The grouped project activity involves distribution and installation of high efficiency wood burning TLC-CQC stoves for household cooking purpose in Zimbabwe. These high efficiency TLC-CQC Rocket Stoves (ICS) replace the existing inefficient, conventional open fire stoves. These improved cookstoves will burn wood more efficiently as compared to the baseline stoves and thus will save the amount of wood burnt in cooking purpose and emissions associated with it. The grouped project activity also reduces deforestation in the host country and

minimizes the health risks associated with indoor smoke pollution. Further, the grouped project activity also reduces the time for collection of firewood for women and children.

- **The purpose and scope of verification**

Purpose: The objective of the verification is to perform a complete and independent review of the registered grouped project activity against the applicable VCS requirements and monitoring methodology VMR0006: “Methodology for Installation of High Efficiency Firewood Cookstoves”, version 1.1/09/, including the compliance with the registered monitoring plan. The verification is the periodic independent review and ex post determination by Earthood of the monitored reductions in GHG emissions that have occurred as a result of the registered VCS project activity during a defined monitoring period.

Scope: The verification scope includes an independent and objective examination of the monitoring report (MR). The MR is evaluated in light of the applicable criteria and decisions made by the VCS Secretariat, including the approved baseline and monitoring methodology and registered VCS PD. The verification was conducted in accordance with the VCS standard, Version 4.4/01/, the VCS programme guide Version 4.3/02/ as well as a review of the registered PD/03/, Final Validation report/08/ and monitoring methodology VMR0006: “Methodology for Installation of High Efficiency Firewood Cookstoves”, version 1.1/09/.

- **The monitoring period**

This is the first monitoring under VCS and the monitoring period covered under this verification is from 14/10/2021 to 15/09/2022.

- **The method and criteria used for verification**

The verification process, which was conducted following Earthood’s internal quality procedures, consisted of the following phases:

- i. Document review, involving:
 - a) Review of data and information
 - b) Cross-checks between information provided in the monitoring report and information from sources using all available resources without regard to the project proponent’s information.
- ii. On-site assessment, including:
 - a) Evaluation of the registered VCS grouped project activity's implementation and operation in accordance with the registered VCS PD.
 - b) Evaluation of information flows for creating, collecting, and reporting monitoring parameters.
 - c) Interviews with relevant stakeholders to ensure that the operating and data collection procedures in the final monitoring period are carried out in line with the registered monitoring plan.

- d) Cross-referencing information from the monitoring report with data from other sources, such as project database, monitoring survey sheets, or other comparable data sources.
 - e) A review of the monitoring equipment, including calibration performance and observations of monitoring procedures in relation to the VCS PD and the methodology chosen.
 - f) Examine the calculations and assumptions used to determine GHG data and emission reductions.
 - g) Identifying quality control and quality assurance systems in place to avoid or detect and remedy any errors or omissions in the provided monitoring parameters.
- iii. The final verification report and opinion, as well as the resolution of lingering difficulties.

- **The number of findings raised during verification**

A risk-based approach has been followed to perform this verification and there are no uncertainties associated with this verification. During the current verification, a total of 05 findings were raised, which includes 03 Corrective Action request (CARs), 00 Forward Action request (FARs) and 02 Clarification request (CLs).

The project proponent has successfully resolved all raised issues.

- **Any uncertainties associated with the verification**

The VCS MR/4.2/, emissions reduction calculations/05/, and accompanying documents provided are all in compliance with VCS criteria. The verification was completed with a reasonable level of assurance and no uncertainties were found related with the project activity verification.

- **Summary of the verification opinion**

Earthood certifies that the project is implemented in accordance with the registered VCS PD and the applied baseline and monitoring methodology. The project implementation is in line with the information provided in the final Monitoring Report. The monitoring procedures are inline with the monitoring methodology and the emission reductions achieved during the current monitoring period are calculated without material misstatements. VVB's verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. Earthood planned and performed the verification by obtaining evidence and other information and explanations that Earthood considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated. Based on the information evaluated we confirm that the emission reductions from the grouped project activity, 'Installation of high efficiency wood burning cookstoves in Zimbabwe – Project 2' during the monitoring period 14/10/2021 to 15/09/2022 amounts to 194,507 tons of CO_{2e}.

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1 INTRODUCTION

1.1 Objective

Earthood has been contracted by C-Quest Capital SGM ZM Stoves Private Limited to undertake the verification of the project titled 'Installation of high efficiency wood burning cookstoves in Zimbabwe – Project 2' (VCS ID – 2890). The assessment team have reviewed the GHG data collected to date for the monitoring period from 14/10/2021 to 15/09/2022 covered in the current verification.

The purpose of the verification is to review the monitoring results and verify that monitoring methodology was implemented according to the registered monitoring plan and monitoring data, used to confirm the reductions in anthropogenic emissions by sources is sufficient, definitive, and presented in a concise and transparent manner. In order to establish that the grouped project activity has been implemented in line with registered design and conservative assumptions, as documented, the monitoring plan, monitoring report, and the project's compliance with applicable VCS, and host party requirements are specifically verified. This verification is a thorough and independent assessment of the registered project activity against the applicable VCS requirements by the VVB. The verification process shall determine whether registered project activity complies with the requirement of the latest VCS guidelines, applicability conditions of the monitoring methodology, relevant host country regulations and guidance issued by the VCS Board.

1.2 Scope and Criteria

The scope of verification is to assess the claim and assumptions made in the VCS monitoring report/4.2/ against the VCS criteria, including but not limited to, VCS standard version 4.4/01/, applied methodology/09/ and other relevant rules and requirement established for VCS project activities.

- To verify the project implementation and operation with respect to the registered VCS PD.
- To verify the implemented monitoring plan with the registered VCS PD and applied baseline and monitoring methodology.
- To verify that the actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the registered monitoring plan.

- To evaluate the GHG emission reduction data 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.

The verification is not meant to provide any consultation towards the project proponent. However, stated request for clarification and/or corrective actions request may have provided inputs for improvement of the project design. The verification shall ensure that the reported emission reductions are complete and accurate in order to be certified.

1.3 Level of Assurance

☒ Reasonable level of assurance

☐ Limited level of assurance

The level of assurance of the verification report falls under reasonable assurance engagement as selected by the client. Reasonable assurance is a high level of assurance regarding material misstatement, but not an absolute one.

Reasonable assurance includes the understanding that there is a remote likelihood that material misstatements will not be prevented or detected on a timely basis. To achieve reasonable assurance, the auditor needs to obtain sufficient appropriate audit evidence to reduce audit risk to an acceptably low level. This means that there is some uncertainty arising from the use of sampling, since it is possible that a material misstatement will be missed.

The evidence used to achieve a reasonable level of assurance is specified in section 2.3 and 2.4 of this report.

1.4 Summary Description of the Project

The grouped project activity “Installation of High Efficiency Wood Burning Cookstoves in Zimbabwe - Project 2” entails distribution and installation of high efficiency TLC wood burning stoves for household cooking purposes in Zimbabwe. The grouped project activity has applied the approved baseline and monitoring VCS methodology; VMR0006 version 1.1/09/. As per the registered PD/03/ and validation report/08/, the project expects to disseminate 375,000 fuel efficient (ICS) TLC-CQC Rocket stoves and each household will receive 2 improved cookstove in order to meet their cooking requirements.

During the onsite audit, the verification team has checked that the ICS distributed under the project is TLC-CQC Rocket stove which reduces the amount of non-renewable biomass used for cooking and emission released associated with the burning of wood. The project activity is undergoing first verification. The project ICS will burn more efficiently and will not only help in saving fuel but also will help to prevent deforestation in the host country Zimbabwe. Therefore, the project reduces greenhouse gas emissions and thereby contributes to sustainable development.

As per the registered PD, each ICS distributed was considered as an instance of a project activity. The start date of the grouped project activity is 14/10/2021, which is also the date on which the first ICS was installed under the grouped project activity. A total of 202,006 stoves were installed under the project by the end of the current monitoring period. These project stoves replace the inefficient, conventional open fire stoves in the baseline. The crediting period of the project is from 14/10/2021 to 13/10/2031 (fixed – 10 years). This is the first monitoring period of the project i.e., 14/10/2021 to 15/09/2022 and the total emission reductions achieved under this monitoring period are 194,507 tCO₂e.

Based on the assessment of the document, the assessment team is able to confirm that the project activity is fully functional and implemented as described in the registered VCS PD/03/ and MR/4.2/.

2 VERIFICATION PROCESS

The registered VCS project is undergoing first verification under its 10 years crediting period, the approach adopted to ensure the quality of emission reduction is described in the following sections.

2.1 Method and Criteria

The verification approach consists of two phases:

In the first phase, Earthood completed a strategic review and risk assessment of the project activities and processes in order to gain a full understanding of:

- Activities associated with all the sources contributing to the project emissions and emission reductions, including leaking if relevant.
- Protocols used to estimate or measure GHG emissions from these sources.
- Collection and handling of data.
- Controls on the collection and handling of data.
- Means of verifying reported data.
- Compilation of the verification Report.

At the end of this phase, Earthood produced a Verification Checklist which, based on the risk assessment of the parameters and data collection and handling processes for each of those parameters, describes the verification approach and the sampling plan.

In the second phase, Earthood verified the implementation of the monitoring plan and the data presented in VCS MR for the current monitoring period. This involves desk review of the Monitoring Report, on-site interviews of project proponent representative's and on-site visit to the households of project ICS beneficiaries. This verification report describes the findings of this assessment.

2.2 Document Review

The verification is performed as document review of the registered VCS PD/03/ & monitoring report/4.2/ Validation report/08/ and associated documents as stated in detail in appendix 1 of this document. The assessment is performed by a verification team as a protocol. The cross check between information provided in the monitoring report/4.2/, VCS PD/01/ and information from sources other than those used, if available, the team's sectoral or local expertise and, if necessary, independent background investigations.

2.3 Interviews

In accordance with VCS standard, version 4.4/01/, para 4.1.9 "A site visit that includes a visit to facilities and/or project areas shall be conducted at validation. Such a site visit shall be conducted at verification under the following circumstances:

- 1) The first verification of the project after validation;
- 2) Verification of project baseline reassessments; and
- 3) Verifications that assess a project description deviation where the deviation impacts the applicability of the methodology, additionality or the appropriateness of the baseline scenario"

The assessment team has carried out onsite interviews in order to verify the information included in the project documentation and to gain additional information regarding the compliance of the project with the registered monitoring plan and requirement of the applied methodology.

The on-site inspection and interviews for the project location by the assessment team was conducted from 20/03/2023 to 24/03/2023 at and the following stakeholders were interviewed/33/. During the on-site audit, the interviews of the field personnel (Surveyors – Enumerators) were also conducted to verify the details regarding the survey techniques and the process involves in the monitoring survey data collection. The information for the same can be found below.

Interviews with the representatives of Project Proponent and Field Assistance:

S. No.	Name	Organization	Date of interview	Topic covered	Team Member
1.	Jabulani B Matore	CQC	20/03/2023	Project Design and implementation status	Jahnabi Kalita, Shreya Garg and Munatsi Chuma
2.	Mohit Narvariya	CQC		Monitoring system, roles and responsibility	
3.	Tawanda Mutyenbiti	Taonabiz, implementation partner		Procedure for monitoring data collection	
4.	Maureen Trodzo	CQC		Robustness and accuracy of data collection and transfer	
5.	Ruth Kiuner	RADCO, implementation partner		QA/QC procedures & training conducted	
6.	Tim Kiuner	RADCO, implementation partner		Criteria and compliance of new instances added during MP	
7.	Blandina Chikungwa	RADCO, implementation partner		Ongoing grievance mechanism	
8.	Tim John	RADCO, implementation partner			
9.	Tashinga Kavumbura	Taonabiz, implementation partner			
10.	Janah Gwanzwa	Taonabiz, implementation partner			
11.	Shumiraish e Chatindo	CQC			
12.	Antonia Peart	Investment Director, CQC	29/07/2024		Sushant Vashisht
13.	Vijaybhai Patel	Head, R&D, CQC			

14.	Adam Leroux	Finance, CQC		Robustness of the Stove Champion Program, Monitoring system, roles, responsibilities and training Data Collection for monitoring data	
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For cross-checking of the monitoring survey results, in line with standard for 'Sampling and Surveys for CDM Project Activities and Programmes of Activities' v09.0/18/, the assessment team has visited 11 end user households in Zimbabwe/33/. The interviews with the project beneficiaries have been conducted with help of translator/interpreter to overcome the language barrier. The information of the end users interviewed, and the topics covered during the onsite audit are given in the table below.

Interviews with the ICS End Users:

S.No.	Name of the end user	Date of Interview	Topics covered	Team Member
1.	Afreda Benny	20/03/2023-24/03/2023	Verification of the participation in monitoring survey	Jahnabi Kalita, Shreya Garg and Munatsi Chuma
2.	Mavis Karonga		Verification of the survey answers and results provided by PP	
3.	Letwine Makumbe		Operation and usage pattern of stoves to check the number of stoves operational during the year, N _{y,j,i}	
4.	Nyarai Chimuroyi		Feedback on the ICS installed	
5.	Masire Richard		Training and Ongoing support provided by PP for operation of project ICS	
6.	Agnes Sikariyoti		Social and Environmental Benefits from the project activity	
7.	Patrica Mafusire			
8.	Euritah Murombo			
9.	Getrude Makamba			
10.	Pamela Mulambo			
11.	Walker Mapondera			

			Cooking practice prior to the installation of project activity stoves (i.e. baseline usage)	
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VVB has conducted interviews with the end-users for the follow-up survey conducted to cross-check the results of the monitoring survey (Follow-up survey) for the current monitoring period by the PP.

Interviews with the ICS End Users (MP1 Follow-up Survey):

S.No.	Name of the end user	Date of Interview	Topics covered	Team Member
1.	Muchaneta Nikisi	25/10/2023	Verification of the participation in monitoring survey	Jahnabi Kalita, Divij Varshney
2.	Kiniriya moses			
3.	Edith Shereni		Verification of the survey answers and results provided by PP	
4.	Mavis Makaza			
5.	Nyangu Mudzagada		Operation and usage pattern of stoves to check the number of stoves operational during the year, N _{y,j,i}	
6.	Juliet Maguma		Feedback on the ICS installed	
7.	Demetria Chinyerere		Training and Ongoing support provided by PP for operation of project ICS	
8.	Alice Pfumai			
9.	Maines Nyakunda		Social and Environmental Benefits from the project activity	
10.	Mavis karonga			
11.	Nyarai Chimuroyi		Cooking practice prior to the installation of project activity stoves (i.e. baseline usage)	

Through the onsite interviews conducted by the verification team and comparing them with the evidence and survey conducted by the PP, the assessment team confirms the project is implemented in line with the registered PD/03/. There is no change in the registered monitoring and the operational plan.

2.4 Site Visits

As already discussed in the above section, physical site inspection is done for the current verification in line with para 4.1.9 of the VCS standard, version 4.4/01/. An on-site was undertaken by the assessment team on 20/03/2023 to 24/03/2023 to carry out the following:

- An assessment of the implementation and operation of the registered project activity as per registered VCS PD/03/ and MR/4.2/.
- A review of information flows for generation, aggregation and reporting of the monitoring parameters.
- Interview with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the registered monitoring plan in the PD/03/.
- A cross check between information provided in the monitoring report and data from other sources such as monitoring survey forms, monitoring survey results spreadsheets, technical specifications, or similar data sources.
- A review of calculation and assumptions made in determining the GHG data and emission reduction.
- Relevant QA/QC procedure were checked to prevent, identify, and correct, any error in the reported monitoring parameters.

VVB Sampling Approach:

There are 202,006 number of ICS installed by end of the current monitoring period and thus for applicable monitoring parameters, the PP has used the CDM Sampling standard “Sampling and Surveys for CDM Project Activities and Programme of Activities” version 09/18/ for determining the sample size to achieve 90/10 confidence precision. A monitoring survey was done by the PP/35/ with consideration of random sample selection as per sampling plan in the registered VCS PD/03/. This in accordance with the procedures mentioned in the registered PD/03/.

Therefore, in line with para 28 of CDM Sampling Standard version 9.0/18/ “When the project participants or the coordinating/ managing entity have applied a sampling approach, the DOE may apply acceptance sampling as described in the steps indicated in paragraphs 29 -38 below as part of validation/ verification activities”, the assessment team has applied the Acceptance Sampling approach for the on-site audit as a part of verification to validate the results of the PP’s monitoring sampling survey.

The assessment team has applied the acceptance sampling in line para 28-31 of the sampling standard v09.0/18/. The verification team determined the sample size for acceptance sampling by evaluating the following, using its own professional judgment and guidance in the Standard 'Sampling and surveys for CDM project activities and programme of activities' /18/:

- The proportion of discrepancies between the CME's data and verification team's (field or onsite inspection results) data that can be considered acceptable. This is referred to as the AQL (Acceptable Quality Level): 0.5% was considered in this verification.
- The proportion of discrepancies between the CME's data and verification team's (field or onsite inspection results) data that would be considered unacceptable. This is the UQL (Unacceptable Quality Level): 20% was considered in this verification.
- The producer risk: 10% was considered.
- The consumer risk: 10% was considered.

A random sample selection process was chosen from the project proponent's monitoring survey results. Document review of project information including project design in PD, monitoring survey details provided by PP, Validation report, previous verification was done and based on its own professional judgement AQL of 0.5 and UQL of 20% was selected. The Producer Risk and Consumer risk are assumed to be 10% each. Acceptance number taken for the sample size is 0.

Considering the above input values, a sample size of 11 was required as per Table (Sample size and acceptance number based on AQL, UQL, and producer and consumer risks) in the referred Standard /18/. Accordingly, the acceptance number (c) thus determined for the sample size is 0. A sample size of 8 meets the criteria. The samples to be surveyed by assessment team were randomly selected from the list of monitored samples using the random sample generator on Microsoft excel.

VVB has picked 11 samples from the sampling frames with 3 households extra as backup for the purpose of onsite inspection to check the acceptability of PP's sampling results or otherwise. The verification team observed that the sampling survey results of the PP for all the stoves checked were found to be consistent with VVB's survey results. The sampling method used is in line with Standard: Sampling and surveys for CDM project activities and programme of activities /18/. In all, the verification team conducted onsite surveys for 11 households.

2.5 Resolution of Findings

The objective of the step is to identify, discuss, and conclude on the issues related to the monitoring, implementation and operations of the registered project activity that could impair the capacity of the registered project activity to achieve emission reductions or influence the monitoring and reporting of emission reductions. This is done based on the desk review and on-site assessment. The verification team prepares and/or updates a verification protocol (internal document) that records the conformities and nonconformities, which may be of following types:

CAR (Corrective Action Request) is raised if one of the following occurs:

- Non-compliance with the monitoring plan, the applied methodology or the standardized baseline are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient.
- Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants.
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions.
- Changes to the key sustainable development indicators.
- Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

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

Forward Action Request (FAR) is raised during verification if the monitoring and reporting require attention and/or adjustment for the next verification period.

All CARs and CLs raised by the Earthood during verification shall be resolved prior to submitting a request for issuance. All the findings that are raised and communicated to project participant during the verification are included under Appendix 4. The section also includes the responses by the project participants and an assessment by the verification team if it was closed out or otherwise.

The total of 02 CLs, 03 CAR and 00 FARs were raised in the current verification and successfully closed.

2.5.1 Forward Action Requests

The grouped project activity is undergoing first verification in VCS. No FAR was raised during the current monitoring period. There are also no open FARs from the registered PD and validation report applicable for the current monitoring period.

Details for which can be checked from Appendix 4 of this verification report.

2.6 Eligibility for Validation Activities

This section is not applicable for present verification as Earthood hold the accreditation for the validation of project under sectoral scope 03.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project is registered under VCS only (VCS ID – 2890).

PP has submitted the declaration/23/ which states that the net GHG emission reductions generated by the project activity will not be used for compliance with any other emission trading program or to meet binding limits on GHG emissions for the same monitoring period.

3.2 Methodology Deviations

There are no methodology deviations identified during the current monitoring period.

3.3 Project Description Deviations

There are no project description deviations identified during the current monitoring period.

3.4 Grouped Project

The project activity is a group project. It involves distribution of energy efficient TLC-CQC Rocket Stoves for household cooking purpose in Zimbabwe. A total of 202,006 cookstoves were installed during the current monitoring period as confirmed from the installation database/38/.

New project activity instances were not added during the crediting period which was verified from the installation database/38/ and onsite interviews with the PP representatives. Hence, the eligibility criteria for the group project activity is not applicable.

CAR 02 was raised regarding the method of evaluation of the eligibility criterion for a grouped project activity. This issue was resolved and closed.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The project activity is a group project. It involves distribution of energy efficient TLC-CQC Rocket Stoves for household cooking purpose in Zimbabwe. A total of 202,006 cookstoves were installed during the current monitoring period as confirmed from the installation database/38/. The installation and implementation are in line with the details provided in the registered PD. The province wise distribution of stoves for the current monitoring period as confirmed from the installation database/38/ is as follows:

Province	Number of cookstoves distributed
----------	----------------------------------

Harare	2,824
Manicaland	23,846
Mashonaland Central	68,502
Mashonaland East	57,200
Mashonaland West	49,634

The stoves distributed are TLC-CQC rocket stoves/38/ which significantly reduces the fuel usage and emissions while cooking. The working conditions of all the distributed stoves were verified during the on-site audit and found to be in operational condition. The assessment team confirms that the stoves are in working condition.

The project proponent of the project activity is C-Quest Capital SGM ZM Stoves Private Limited who owns the rights to carbon credits generated from the project activity.

The assessment team has interviewed the end users during the on-site audit/33/ and confirmed that the project has been implemented as planned and as mentioned in the VCS PD/03/, the records available and the monitoring survey forms. The project has been implemented as described in the revised VCS PD/03/ and no discrepancy was identified between the project implementation and the project description. The data and variables provided in the monitoring report are same as stated in the approved PD/03/. PP has submitted a monitoring survey sheet/34/ as well and its monitoring survey records/35/ where 68 households were surveyed during the current monitoring period. VVB has applied acceptance sampling approach to check the acceptability of PP's monitoring sampling results.

Further, the verification team confirms through on-site inspection that PP has conducted regular spot checks to check the status of ICSs as mentioned in the MR/4.2/ and registered VCS PD/03/. Further, the procedures used by PP to address the concerns regarding the replacement of the part damaged or broken parts were checked and confirmed during the on-site audit/33/ through interviews with the project beneficiaries. All the beneficiaries confirmed that they have been given training on how to use the stoves during the installation and are also aware of the procedures/contact details to the PP in case of any stove is damaged or broken. In such case the PP guides them on re-build or replaces the necessary parts if needed.

As confirmed during the onsite interviews with the implementation partners, PP has informed them about the registration of the project activity under VERRA for the generation of VCUs. It was also checked through mails and public notice issued /24/to the manufacturers of the TLC-CQC Rocket Stoves parts as well as the implementing partners in Zimbabwe that PP has clearly communicated the final and uncontested rights to the carbon credits generated from the registered project activity will lie with the PP, C-Quest Capital SGM ZM Stoves Private Limited.

This is the first verification of the project and the total emission reductions achieved under this monitoring period i.e., from 14/10/2021 to 15/09/2022 are 194,507 tCO₂e.

Therefore, the assessment team concludes the following:

- There are no material discrepancies between project implementation and the project description provided in the registered PD/03/.
- The monitoring plan is implemented inline with the registered monitoring plan and monitoring system (i.e., process and schedule for obtaining, recording, compiling, and analysing the monitored data and parameters) is appropriate.

- There are no material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description/03/ and the applied methodology/09/.
- All the ex-ante parameters which are used in the calculations of the emission reductions are consistent with the VCS PD/03/.
- The GHG emission reductions or removals generated by the project have not included in another emission trading program or any other mechanisms that includes GHG allowance trading/23/.
- The project has not received or sought any other form of environmental credit or has become eligible to do so since validation/08/.
- The project activity is registered under VCS only.

In view of the information's verified above, the assessment team is able to conclude that the project has been implemented as described in the project description.

Issue in CAR 02 was raised regarding the implementation status of the project activity. This issue was resolved and closed.

4.2 Safeguards

4.2.1 No Net Harm

The project activity does not involve any negative environmental or socio-economic impacts, as the project activity involves:

- Distribution of energy efficient improved cookstoves which requires less amount of fuel compared to the open fire stoves, which will indeed help in reducing the burden of collection fuel on the women. Thus, promoting gender equality.
- The cooking practice or habit on the project stove is identical to the practice followed on the baseline stoves. Therefore, the project does not force the population into any practice or habit that they will not eagerly take up.
- The grouped project activity is about distribution of improved cooking devices which are energy efficient and release less smoke and toxic pollutant in environment compared to the baseline stoves.
- The grouped project activity will be creating employment for the people during different phases which will help to increase the economic growth of that area.

Hence, no mitigation measure is required.

4.2.2 Local Stakeholder Consultation

The project activity is undergoing its first verification and local stakeholder consultation was appropriately conducted prior to validation as the way of informing the stakeholders about the project design and maximize participation from stakeholders.

The verification team has also confirmed through on-site audit that PP has conducted regular spot checks to check the status of improved cookstoves distributed. Further, the information regarding the procedure for replacement of damaged or missing parts was also checked.

During the local stakeholder consultation meetings, all the major points raised by the stakeholders were addressed. The responses are also included in section 2.2 of the registered PD/03/ and MR/4.2/.

Local implementation partners are responsible for taking concerns about project activities and communicating them to PP while the project is in progress. As a result, ongoing stakeholder communication is carried out via the grievance mechanism. It was confirmed during the on-site audit/33/ that PP has a robust grievance mechanism and a proper ongoing communication with stakeholders and no negative feedback were received from the end users, for the current monitoring period. The Project Proponent has disclosed its feedback and grievance redressal mechanism in Section 2.2 of the MR/4.2/, and the same was verified from the Stakeholder Feedback evaluation form/30/ and Grievance Redressal Register/31/ provided by the PP. According to the assessment team, based on on-site interviews and observations/33/, the grievance redressal system would handle concerns that may occur throughout project design and implementation.

In case of any support or if replacement of any stove part is required, the stove users can contact the local implementation partner. The contact details for the same, were shared during the time of installation. In case of any feedback the beneficiaries are able to contact the site team/ representative of the PP and register their grievance.

The grievance addressal procedure has been designed and is being implemented in accordance with section 2.2 of the MR/4.2/ and that it is effective in accomplishing its goal, according to the on-site interviews/33/ and document review. The verification team confirmed that the grievances raised by the end users during the current monitoring period were resolved by the PP effectively as confirmed from the summary of complaint and summary of complaint redress form/40/ provided by the PP.

Issue in CAR 01 was raised regarding the ongoing local stakeholder consultation. This issue was resolved and closed.

4.3 AFOLU-Specific Safeguards

This section is not applicable as the project is a non-AFOLU project.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The assessment team has reviewed the monitoring plan and found out that the monitoring of GHG emission reduction from the project activity was implemented in accordance with the registered PD/03/. The monitoring plan has been implemented as per the applied methodology and all the parameters in the monitoring plan had been sufficiently monitored as per the applied methodology VMR0006: Methodology for Installation of High Efficiency Firewood Cookstoves, Version 1.1/09/.

Data and Parameters monitored:

1. Number of project devices of type i and batch j operational during year y , $N_{y,i,j}$

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring/ Reading/ Recording frequency	As per the applied methodology and registered PD, the parameter is to be recorded once every two years. However, PP has carried out the monitoring survey during the current monitoring period.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes/No)	Yes, measuring and reporting frequency is in accordance with registered monitoring plan and methodology.
	Monitored Value	181,806
	Monitoring equipment	Not applicable
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per manufacturer's specifications?	Not applicable
	Calibration Frequency/ interval	There is no calibration required since the value is obtained from the installation database.
	How are the values in the monitoring report verified?	The value of the parameter recorded as total 202,006 Stoves installed & 181,806 operational stoves was confirmed from the installation database/ 38/. The proportion of operational cookstoves was initially monitored through annual monitoring surveys by the project developer and reported 91.18 % operability. The verification team cross-checked this

		parameter by applying acceptance sampling across the monitored samples database. Since all stoves were found operational during the acceptance sampling and the site observations were consistent with the monitoring data, the monitoring survey records were accepted. However, internal investigations by PP's management later revealed new information regarding the monitoring surveys, uncertainty in the accuracy of data provided since the representativeness of population was compromised. Therefore, the results from monitoring surveys are now discarded. As an alternative, the data from stove champion program/46/ was considered, However, the Project Participant has conservatively adopted a threshold of 90% as the minimum number of stoves in operation. Stove champion program is a follow up program conducted by the PP. Stoves champions program is an internal quality control program conducted by the PP, where personnel from the different areas of the host country are appointed to check, train and help the locals for the use of the ICS distributed in the area. Training material of the stove champions has been provided, and PP has confirmed that detailed and thorough trainings have been provided to the
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		persons and hence, the data collection is accurate and reliable. For this project and monitoring period, the stove champion data reflected that 72,145 number of samples were covered during the period 19/08/2022 to 17/08/2023. The Stove champion survey recorded operability of the stoves and it reflected that 92.55% of stoves were working during this period/46/. However, the Project Participant has conservatively adopted a threshold of 90% as the minimum number of stoves in operation. The sampling approach applied by the PP for stove champion program is in line with the registered VCS-PD where the reliability levels were set at 90% confidence and 10% precision as per VMR0006, version 1.1. The achieved precision level for the parameter is 0.14% as confirmed by the VVB from the reliability calculation sheet/45/ provided by the PP. As an additional cross-check, the value obtained from stove champion program was 92.55%. In order to further cross-check the reliability of the value applied, VVB reviewed other GHG programs and registries to identify similar projects. However, there were no similar projects implemented in the host country for the cross check. Therefore, VVB has have cross checked the value against the usage rate in projects implemented in other
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		Sub-Saharan African countries. The average value was calculated as 91.7% for these projects, i.e., 37 projects of Kenya with average usage rate of 90.7% 14 project of Malawi with usage rate of 87.1%, three projects of Mozambique with usage rate of 92.8%, Tanzania (94.4%), Uganda (92.6%) & Zambia (98.9%). This data was confirmed from the secondary data sheet provided by PP, and it was noted that all projects under review apply improved cookstove technologies and usage rate across various MPS has been averaged. In absence of country specific data, this approach has been accepted to estimate the expected cookstoves operability and subsequently, a capping of 90% has been adopted by the PP, which follows the principle of conservativeness. Based on VVB's experience with several projects in the region, the application of 90% usage rate for initial monitoring periods is reasonable in cases where follow-up surveys are regularly conducted by PP in addition to the monitoring surveys. Consequently, this revised value (90% usage rate) is considered acceptable, and the ER sheet has been updated accordingly. These revisions are reflected in the revised verification report.
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		The VVB confirms that the value reported in the MR is consistent with the value reported in the ER sheet, stove champion data and the secondary data provided by the PP.
	If applicable, has the reported data been crosschecked with other available data?	The results were initially cross verified through acceptance sampling of the monitoring survey conducted by the PP during the current monitoring period. The monitored samples checked by the VVB during on-site visit inspection/33/ were also questioned on the operability of the project stove, and all the responses were checked with the available information in the monitoring surveys/34, 35/ which was found as sufficiently following the requirements. Based on new information provided by PP, the value is now cross-checked with the latest stoves champions data/46/ as provided by the PP, where the stoves operability rate is 92.55%. However, the Project Participant has conservatively adopted a threshold of 90% as the minimum number of stoves in operation which is found to be an acceptable approach.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensure correct transfer of data and reporting of emission reduction and all necessary QA/QC processes are in place.

Findings	No findings were raised.
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. The verification team is able to confirm that the project is implemented as per the registered PD and there is no discrepancy observed between the actual monitoring system and the monitoring plan set out in the registered PD and the applied methodology. The emission reduction calculation for the project activity is estimated based on the biomass saved by the ICS. Since 100% data was verified, the team can ascertain that the values taken for emission reduction calculation are free from material errors.

2. Efficiency of the improved cookstove type i and batch j during year y, $\eta_{\text{new},y,i,j}$

Means of verification	Criteria/Requirements	Assessment/Observation																						
	Measuring/ Reading/ Recording frequency	The parameter is measured and recorded during validation and thereafter calculated annually.																						
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes/No)	Yes, measuring/calculating and reporting frequency is in accordance with monitoring plan and methodology.																						
	Monitored Value	The values have been calculated. So, the efficiency of the stoves is checked and verified as: <table><tr><th>Year (y)</th><th>$\eta_{new,i,y}$</th></tr><tr><td>1</td><td>32.43%</td></tr><tr><td>2</td><td>32.11%</td></tr><tr><td>3</td><td>31.78%</td></tr><tr><td>4</td><td>31.47%</td></tr><tr><td>5</td><td>31.15%</td></tr><tr><td>6</td><td>30.84%</td></tr><tr><td>7</td><td>30.53%</td></tr><tr><td>8</td><td>30.23%</td></tr><tr><td>9</td><td>29.92%</td></tr><tr><td>10</td><td>29.63%</td></tr></table>	Year (y)	$\eta_{new,i,y}$	1	32.43%	2	32.11%	3	31.78%	4	31.47%	5	31.15%	6	30.84%	7	30.53%	8	30.23%	9	29.92%	10	29.63%
	Year (y)	$\eta_{new,i,y}$																						
1	32.43%																							
2	32.11%																							
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6	30.84%																							
7	30.53%																							
8	30.23%																							
9	29.92%																							
10	29.63%																							
Monitoring equipment	Not applicable																							
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with	Not applicable																							

	local/national standards, or as per manufacturer's specifications?	
	Calibration Frequency/ interval	Not applicable
	How are the values in the monitoring report verified?	The efficiency of the cookstoves is defined as per the vintage year of operation as defined in the applied methodology/09/ and registered PD/03/. The value for the first year is considered based on the manufacturer's specification/20/. The registered PD defines, the efficiency of the improved cookstoves with estimation of loss in efficiency per year using equation 5 of the applied methodology/09/.
	If applicable, has the reported data been crosschecked with other available data?	The reported data is cross checked with Manufacturer's specification/20/, registered PD/03/and calculation provided in the ER sheet/05/ for yearly loss.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	This is a calculated parameter and transfer of data, calculation and reporting in ER calculation is correct.
Findings	No findings were raised.	

Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. The verification team is able to confirm that the project is implemented as per the registered PD and there is no discrepancy observed between the actual monitoring system and the monitoring plan set out in the registered PD and the applied methodology. The emission reduction calculation for the project activity is estimated based on the biomass saved by the ICS. Since 100% data was verified, the team can ascertain that the values taken for emission reduction calculation are free from material errors.
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3. Annual quantity of woody biomass used by improved cookstoves in tonnes per device of type i and batch j, determined in the first year of the implementation of the project through a sample survey, $B_{y=1,new,i,j,survey}$

Means of verification	Criteria/Requirements	Assessment/Observation													
	Measuring/ Reading/ Recording frequency	The value is monitored in the first year of the project implementation and after that fixed for the crediting period.													
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes/No)	Yes, measuring and reporting frequency is in accordance with monitoring plan and methodology.													
	Monitored Value	0.8541													
	Monitoring equipment	In accordance with the applied methodology and validated registered PD, the parameter is determined during the first verification though sample surveys/35/. This was confirmed during the on-site visit/33/. A weighing scale was used to measure the amount of wood being used by the cookstove during the First monitoring period. The details were checked from calibration certificates/28/ and the user manuals of the weighing scale/27/. <table><tr><th>Weighing Scale Model Type</th><th colspan="2">Other Details</th></tr><tr><td rowspan="4">H-110</td><td colspan="2">Manufactured by American Weigh Scales</td></tr><tr><td>Date of Calibration</td><td>25-October - 2022</td></tr><tr><td>Acceptable tolerance</td><td>0.15lb/60g</td></tr><tr><td>Accuracy Class</td><td>OIML M2</td></tr></table>			Weighing Scale Model Type	Other Details		H-110	Manufactured by American Weigh Scales		Date of Calibration	25-October - 2022	Acceptable tolerance	0.15lb/60g	Accuracy Class
Weighing Scale Model Type	Other Details														
H-110	Manufactured by American Weigh Scales														
	Date of Calibration	25-October - 2022													
	Acceptable tolerance	0.15lb/60g													
	Accuracy Class	OIML M2													

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			Calibration Frequency	Before use as per user manual (self-calibration)
			Moisture Meter	Date of Calibration
			Giant Viking Wood/ Building Material MM MT1905	24-July -2023
				Measurement Range
				Wood: 6 to 60%
				Resolution
				Wood: 0.1%
				Accuracy
				±2%
				Operating Environment
				Temperature: 0 – 40°C
			Scale No.	QC8151061(2), QC8150468(7), QC8150883(3), QC8150514(5), QC8151079(8), QC8150513(1), QC8150506(4), QC8150307(6)
			Dimensions	1.0 x 2.5 x 5.2
			Scale No.	1,2,3,4,5,6,7, 8,9,10
			Calibration Frequency	Before use as per user manual (self-calibration)

	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per manufacturer's specifications?	Yes, the accuracy of the monitoring equipment is 0.05lb which was verified from the user manual/27/ of the weighing scale.
	How are the values in the monitoring report verified?	PP has conducted a follow-up survey (24hr Field Assessment Test) for the current monitoring period from 24-07-2023 to 08-08-2023 to determine the value of the parameter. The survey was conducted by the PP as a conservative measure due to the subjectivity involved in the first monitoring survey. The approach applied by the PP has been verified and found to be more conservative than the previous monitoring survey. The procedure and process of the test has been verified through the SOP shared/44/ and interviews conducted with the end-users and PP's representative/43/. Since, two stoves were distributed to the household average value of the firewood used on both the project stoves was checked and verified from the survey report/34//35//42/. The approach applied by the PP is found to be appropriate since, due to the presence of two stoves in the households, one stove would be more used than the other, same has been observed through the survey results, where wood consumed in one stove is more than the

		other. Additionally, VVB has checked and compared the results of the previous survey and follow-up survey, and it is observed that the value of the parameter has been reduced in the new survey method from 1.0669 Tonnes (previous survey) to 0.8541 (follow-up survey) giving a more accurate and conservative value for the parameter, hence, the value is found to be more conservative and accepted by the VVB. .	
	If applicable, has the reported data been crosschecked with other available data?	Not Applicable.	
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data ensure correct transfer of data and reporting of emission reductions management. QA/ QC processes are in place.	
Findings	CAR 03 was raised and resolved.		
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. The verification team is able to confirm that the project is implemented as per the registered PD and there is no discrepancy observed between the actual monitoring system and the monitoring plan set out in the registered PD and the applied methodology. The emission reduction calculation for the project activity is estimated based on the biomass saved by the ICS. Since 100% data was verified, the team can ascertain that the values taken for emission reduction calculation are free from material errors.		

4. The operating lifetime of the project device, Life span

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring/ Reading/ Recording frequency	The parameter was calculated once at the beginning of project improved cookstove installation.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes/No)	Yes, measuring and reporting frequency is in accordance with monitoring plan and methodology.
	Monitored Value	10
	Monitoring equipment	The value is measured based on the manufacturing specification. So, there is no monitoring equipment.
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per manufacturer's specifications?	Not Applicable
	Calibration Frequency/ interval	Not Applicable
	How are the values in the monitoring report verified?	The value used has been verified from the manufacturing specifications/20/ of the improved cookstoves and from the registered VCS PD/03/.
	If applicable, has the reported data been crosschecked with other available data?	Not Applicable

	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data ensures correct transfer of data and reporting of emission reductions management. QA/ QC processes are in place.
Findings	No findings were raised.	
Conclusion	This parameter has been verified from manufacturer's specifications provided by the PP. The emission reduction calculation for the project activity is estimated based on the biomass saved by the ICS. Since 100% data was verified, the team can ascertain that the values taken for emission reduction calculation are free from material errors.	

The details of the parameters fixed at the beginning of the project are given below:

Ex-ante parameters:

Parameter	Value	Unit	Assessment
$f_{NRB,y}$	0.88	Fraction	The fraction of woody biomass saved is calculated by C4 Eco solutions/22/ in line with applicable methodological CDM Tool 30, version 3.0. The value has been checked with the registered PD/03/ and is found consistently reported and used during the current monitoring period.
$NCV_{woodfuel}$	0.0156	TJ/tonne	The value used for Net calorific value of the non-renewable woody biomass is a default value from the 2006 IPCC Guidelines/37/. The value has been checked with the registered PD/03/ and is found consistently reported and used during the current monitoring period.
EF_{wf,CO_2}	112	tCO ₂ /TJ	The value taken for CO ₂ emission factor for the use of wood is a default value from the 2006 IPCC Guidelines/37/. The value has been checked with the registered PD/03/ and is found consistently reported and used during the current monitoring period.
$EF_{wf,non\ CO_2}$	26.23	tCO ₂ /TJ	The value taken for non-CO ₂ emission factor for the use of wood is a default value from the 2006 IPCC Guidelines/37/. The value has been checked with the registered PD/03/ and is found consistently reported and used during the current monitoring period.
η_{old}	0.1	Fraction	The value for efficiency of baseline cookstove is taken from default methodology/37/ used. The value has been checked with the registered PD/03/ and is found consistently reported and used during the current monitoring period.
η_p	0.345	Fraction	The value for efficiency of project stove is taken from the manufacturer's specifications/20/. The value has been checked with the registered PD/03/ and is found consistently reported and used during the current monitoring period.

Sampling approach:

By the end of current monitoring period, the project activity has installed 202,006 number of the ICS / PAIs. For as defined in the registered PD, the PP has applied sampling approach for measurement and determination of the parameter $N_{y,i,j}$ (i.e. Number of ICS installed and operating till the end of the current monitoring period - “Number of project devices of type i and batch j operational during year y”) and $B_{y=1,new,i,j,survey}$ (i.e. Quantity of woody biomass used by the improved cookstoves till the end of the current monitoring period - “Annual quantity of woody biomass used by improved cookstoves in tonnes per device of type i and batch j, determined in the first year of the implementation of the project through a sample survey”).

The sampling approach was checked and verified by the assessment team as below:

Determination of the Sample Size:

Emission reductions for the group project activity is being claimed for this monitoring period i.e., 14/10/2021 to 15/09/2022 with total number of installed stoves being 202,006. In line with the VCS PD/03/ and applied methodology VMR0006 version 1.1/09/, PP has calculated the sample size considering the confidence level of 90% and precision 10% with simple random sampling technique. In doing so, it has considered an expected proportion (p) of 85%, which is a conservative approach as compared to the range of 90%. This calculation gives a sample size of 68.

The formula used for the calculation of sample size of parameter $N_{y,i,j}$ is:

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

Where:

n = Sample size

N = Population size

p = Expected proportion, 0.85

1.645 = Represents the 90% confidence required

0.1 = Represents the 10% relative precision

$$n \geq \frac{1.645^2 \times 202,006 \times 0.85(1 - 0.85)}{(202,006 - 1) \times 0.1^2 \times 0.85^2 + 1.645^2 \times 0.85(1 - 0.85)} = 47.74$$

For estimating the sample size for the quantity of woody biomass used by the improved cookstoves, PP has considered the expected mean to be 2 and expected standard deviation to be 1.

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

Where:

$$V = (SD/m)^2$$

n = Sample size

N = Population size (Total number of households/ICS)

m = Expected mean

SD = Expected standard deviation

1.645 = Represents the 90% confidence required

0.1 = Represents the 10% relative precision

$$n \geq \frac{1.645^2 * 202006 * \left(\frac{1}{2}\right)^2}{(202006 - 1) * 0.1^2 + 1.645^2 * \left(\frac{1}{2}\right)^2} = 67.63$$

As sampling units for parameters $N_{y,j,j}$ and $B_{y=1,new,i}$ survey are the same, a single survey was conducted for these two parameters, choosing the parameter with the biggest sample size. Therefore, 68 samples were covered by the PP.

As under this project activity two stoves have been distributed in each household and the survey is conducted considering the beneficiary/household as a sample in place of stove. This is more appropriate approach as it widens the range of survey and stove numbers. Thus, a total of 68 households were surveyed by the PP. Thus, the PP has calculated and surveyed appropriate number of samples and also there is no oversampling involved in the project.

Selection of Samples for Survey:

The PP has used the random selection technique for the selection of the monitoring survey samples. A random auto-number generator has been used and based on the same samples were selected.

The process for selection of random numbers, screenshots of the process/21/ and generated numbers are submitted by the PP and checked. Out of total beneficiaries 68 samples are randomly selected and further used for monitoring survey purpose.

The verification team has accessed the screenshots of random numbers/21/ generated during sample selection. It was concluded that the PP has used a robust and accurate mechanism for selection of monitoring survey samples and all the samples selected for the monitoring survey are randomly selected.

Conduction of Monitoring Survey:

Selected sample details are conveyed to the field team, which has visited each sample householder and collected the details.

The assessment team has interviewed the person involved in the monitoring survey/33/ and has also witnessed the demonstration of the step-by-step collection of the information during the survey. The verified details of the survey process are as below:

- A special mobile application prepared by the PP for survey is used, in which the surveyors receive the question to be asked and details to be verified during the survey. This was assessed by the assessment team during the on-site audit while interviewing the field team/33/.
- The surveyor takes the feedback from beneficiaries, checks operating condition of the stoves, and upload the details along with the details and photograph of the respondent/beneficiaries.
- The GPS coordinates of location during the survey are also noted down and survey results do not get submitted without GPS results.

The monitoring survey forms/35/ are submitted by the PP from their server and checked by the verification team for details including photographs of the project ICS and GPS locations of the beneficiaries.

Thus, the assessment team is of the opinion that the PP has established and followed a robust and accurate procedure for conducting monitoring survey. The survey personnel were well trained and competent enough to carry out the survey and understand the gravity of correct data collection requirement. Further, preparedness for conducting survey was adequate and survey plan was robust. The integrity and correctness of the survey data is reasonably assured.

The sampling surveys have been carried out by the well-trained personnel. Some of them were interviewed by the verification team during audit as details provided under section 2.3.

Analysis of Results:

The parameter that was monitored during the survey is:

- $N_{y,i,j}$: Number of project devices operational during year y.
- $B_{y=1,new,i,j,survey}$: Quantity of woody biomass used by improved cookstoves

The parameter was surveyed by a questionnaire and visually inspected the operational status of ICS installed. End users' interview was also conducted during survey to confirm the operational status and Quantity of woody biomass used by improved cookstoves.

The table summarizes the Sampling results:

Monitored Parameter	Sample size	Actual Samples Surveyed (ICS)	Precision achieved	Means of verification

Number of stoves in operation ($N_{y,i,j}$)	68	136	6.20%	During the initial monitoring of the PA, 136 samples were surveyed by the PP and the achieved precision was 0%. However, the stove champion monitoring data reflected that 72,145 number of samples were covered during the period 19/08/2022 to 17/08/2023/46/. The sampling approach applied by the PP is in line with the registered VCS-PD where the reliability levels were set at 90% confidence and 10% precision as per VMR0006, version 1.1. The achieved precision level for the parameter is 0.14% as confirmed by the VVB from the reliability calculation sheet/45/ provided by the PP.
Quantity of woody biomass used by improved cookstoves ($B_{y=1,new,i,j,survey}$)	68	136	9.83%	The precision calculation has been verified through a review of the survey result sheet, document reference /34/. The data has been cross-checked for consistency and accuracy with the applied methodology, and it was found to be appropriate.

				Hence, VVB concluded that the version incorporates the verification process and emphasizes the adherence to applied Methodology & registered VCS PD.
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Verification of the Sampling survey by the Assessment team:

- The assessment team has checked and verified the ICS installation records/38/ as provided by the PP and total number of installed stoves are verified as 202,006. Thus, the PP has correctly considered the population size N in determination of sample size.
- The registered PD mentions the 90/10 confidence/precision ration for sample determination and the same has been correctly applied.
- The expected proportion is considered as 85%. Based on experience and professional judgement, the assessment team feels are reasonably conservative estimate by the PP in selection of sample size.
- The sample survey questions used, and survey process is robust and is able to provide the result for determination of operational stove from the selected samples.
- The monitoring survey activities have been carried out in compliance with the monitoring frequency and procedures mentioned in the applied methodology/09/ for the parameters under consideration.
- The followed approach by the PP to conduct the monitoring surveys after the MP ensures that the information collected post MP duration through the survey is representative as well accurate for the MP under consideration. For example- if the stoves are reported as operational during the survey, then it is more representative of the functionality of the stoves throughout the MP for which ERs are being claimed. To support the definitiveness in this claim, PP has also implemented grievance redressal measures to gather information on any negative feedback from end user, for example regarding non-operational status of the stoves during the MP.
- The monitoring survey has been carried out by the well-trained personnel. Monitoring parameters, $N_{y,j,j}$ and $B_{y=1,new,i,j,survey}$ are monitored through monitoring sample surveys. Verification team has checked the survey records and sample size calculation and it is found to in line with the applied methodology/09/ and registered PD/03/.
- The assessment team used the acceptance sampling approach (in line with para 28 of CDM Sampling Standard/18/) and a sample size of 11 was determined (determined through table 2 of the CDM Sampling Standard/18/), based on 0.5% Acceptable quality level and 20% unacceptable quality level (based on the VVB's professional judgement) with 10% of producer risk and 10% of consumer risk (maximum errors as indicated in CDM Sampling standard) in line with para 30 and 31 of "Sampling and surveys for CDM projects activities and programmes of activities" version 09.0/18/ respectively. Thus, the acceptance number taken by the assessment team is 0.
- 11 samples from the survey data were randomly selected and communicated to the PP for audit. All 11 samples were checked and verified by the team.

- Assessment team interviewed all 11 samples, and as two stoves were distributed in each household, the operational status of the stoves was checked. it was observed that all the 22 stoves were operational and hence, no discrepant records were observed with the survey data of the PP.

Furthermore, the emission reductions have been calculated in accordance with the applied methodology VMR0006 version 1.1/09/ and VCS PD/03/. The PP has used the monitoring data and ex-ante fixed data including default values as mentioned in VCS PD and applied methodology. The values used for calculation of GHG emission reductions have been thoroughly checked by the verification team and is found to be appropriate and correct.

Emission reduction calculations:

Baseline Emissions: The project activity is about the replacing the traditional three stone fir pot with the improved energy efficient rocket stoves. Therefore, equations 1 and 2 from the applied methodology is used in calculation of net GHG emissions.

$$ER_y = \sum_i \sum_j ER_{y,i,j} \quad \text{Equation (1)}$$

where,

i	Indices for the situation where more than one type/model of improved cookstove is introduced to replace three-stone fire
j	Indices for the situation where there is more than one batch of improved cookstove of type i
ER _y	Emission reductions during year y in t CO ₂ e
ER _{y,i,j}	Emission reductions by improved cookstove of type i and batch j during year y in t CO ₂ e

$$ER_{y,i,j} = B_{y,savings,i,j} \times NCV_{wood\ fuel} \times f_{NRB,y} \times (EF_{wf,CO2} + EF_{wf,non\ CO2}) \times N_{y,i,j} \times 0.95 \quad \text{Equation (2)}$$

where,

$B_{y,savings,i,j}$	Quantity of woody biomass that is saved in tonnes per improved cookstove of type i and batch j during year y
$NCV_{wood\ fuel}$	Net calorific value of the non-renewable woody biomass that is substituted or reduced (IPCC default for wood fuel, 0.0156 TJ/tonne)
$f_{NRB,y}$	Fraction of woody biomass that can be established as non-renewable biomass (f_{NRB})
$EF_{wf, CO2}$	CO ₂ emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 112 tCO ₂ /TJ)
$EF_{wf, non\ CO2}$	Non-CO ₂ emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 26.23 tCO ₂ /TJ)
$N_{y,i,j}$	Number of improved cookstoves of type i and batch j operating during year y
0.95	Discount factor to account for leakage

The amount of woody biomass saved due to implementation of improved cookstoves will be calculated using the equation below:

$$B_{y,savings,i,j} = B_{y=1,new,i,survey} \times \left(\frac{\eta_{new,i,y}}{\eta_{old}} - 1 \right) \quad \text{Equation (4)}$$

where,

η_{old}	Efficiency of baseline cookstove
$\eta_{new,i,y}$	Efficiency of the improved cookstove type i and batch j determined through water boiling test (WBT) Alternatively, efficiency may be determined using Equation 5.
$B_{y=1,new,i,survey}$	Annual quantity of woody biomass used by improved cookstoves in tonnes per device of type i and batch j, determined in the first year of the implementation of the project through a sample survey.

$$\eta_{new,i,y,j} = \eta_p \times (DF_n)^{y-1} \times 0.94 \quad \text{Equation (5)}$$

where,

η_p	Efficiency of project stove (fraction) at the start of project activity.
$(DF_n)^{y-1}$	Discount factor to account for efficiency loss of project cookstove per year of operation (fraction). This value may be based on actual monitoring or based on manufacturer's declaration on expected loss in efficiency or through publicly available literature on relevant industry standards. Alternatively default value of 0.99 efficiency loss per year can be considered.
0.94	Adjustment factor to account for uncertainty related to project cookstove efficiency test.

For year 2021

Vintage 1: 79 days (14/10/2021 to 31/12/2021)

$B_{y=1,new,i,survey} = 0.8541$ tonnes/household/year

$\eta_{new,y,i,j} = 0.3245 * (0.99)^{1-1} * 0.94 = 0.3243$

$B_{y,savings,i,j} = 0.8541 * ((0.3243/0.1) - 1) = 1.9157$ tonnes

$ER_{y,i,j} = 1.9157 * 0.0156 * 0.88 * (112+26.23) * 0.90 * 0.95 * 0.22 = 0.666$ tCO₂e

Therefore, Total ERs = 498 tCO₂e

For year 2022

Vintage 1: 258 days (01/01/2022 to 15/09/2022)

$B_{y=1,new,i,survey} = 0.8541$ tonnes/household/year

$\eta_{new,y,i,j} = 0.3245 * (0.99)^{1-1} * 0.94 = 0.3243$

$B_{y,savings,i,j} = 0.8541 * ((0.3243/0.1) - 1) = 1.9157$ tonnes

$ER_{y,i,j} = 1.9157 * 0.0156 * 0.88 * (112+26.23) * 0.90 * 0.95 * 0.71 = 2.187$

Therefore, Total ERs = 194,009 tCO₂e

Project Emissions: Instead of accounting for project emissions independently, the methodology evaluates emission reductions as a function of the reduced amount of non-renewable biomass fuel use in the improved cookstoves relative to the baseline stoves. The equations are evaluated in Equation 1 and Equation 2.

Leakage Emissions: Leakage is considered as 0.95, which is default value in accordance with VMRO006 version 1.1/09/.

Verification team confirms that all the parameters are correctly used in the calculations, all results are verifiable and transparent, all assumptions are described and based on verifiable evidence and calculations are done in accordance with the pre-defined formulae from registered VCS PD/03/. The total number of emission reductions achieved during the current monitoring period (14/10/2021 to 15/09/2022) are 194,507 tCO₂e.

The verification team has checked and confirmed the calculations in the emission reduction calculation sheet/05/. The consistency and formula were verified and found to be accurate.

CL 02 was raised regarding the sampling plan. The issue was resolved and closed.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

The assessment team confirms that the calculation and data is authentic. The quality of the supporting documents submitted for verification are adequate. The assessment team has checked the quality and maintenance of the supporting documents during the on-site visit to confirm the authenticity of the documents and to check the appropriate calculations. The assessment team confirms that proper evidence is available for the whole monitoring period and the same is verifiable and the data collection system meets the requirement of the monitoring plan and the applied methodology according to the assessment carried out.

The assessment team confirms the quality of evidence to determine the GHG reductions are satisfactory and the detailed information regarding the roles and responsibilities have been provided in the monitoring report.

4.6 Non-Permanence Risk Analysis

Not applicable for the project activity.

5 VERIFICATION OPINION

Earthood was contracted by C-Quest Capital SGM ZM Stoves Private Limited, has performed the independent verification of the emission reductions for the VCS project activity (VCS ID- 2890) “Installation of High Efficiency Wood Burning Cookstoves in Zimbabwe - Project 2” in Zimbabwe for the monitoring period 14/10/2021 to 15/09/2022 (inclusive of both days) as reported version 2.1 dated 26/08/2024. The C-Quest Capital SGM ZM Stoves Private Limited is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emission reductions from the project activity.

It is our responsibility to express an independent verification statement on the reported GHG emission reductions from the project activity. Earthood commenced the verification based on the baseline, monitoring methodology VMR0006 version 1.1 and, the monitoring plan mentioned in the registered VCS PD.

Earthood's verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. Earthood planned and performed the verification by obtaining evidence and other information and explanations that Earthood considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

In our opinion the GHG emission reductions reported for the project activity for the period 14/10/2021 to 15/09/2022 (inclusive of both days) fairly stated in the final Monitoring report version 2.1 dated 26/08/2024. The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology VMR0006., Version 1.1 and the VCS standard, version 4.4.

The current monitoring period is from 14/10/2021 to 15/09/2022 (inclusive of both days), so all the emission reductions achieved during the monitoring falls under the vintage year of 2021 and 2022.

Verification period: From 14-October-2021 to 15-September-2022

Verified GHG emission reductions and removals in the above verification period, broken down by calendar year:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2021 (14-October-2021-- 31-December-2021)	N/A	N/A	N/A	498
2022 (01-January-2022-- 15-September-2022)	N/A	N/A	N/A	194,009
Total	N/A	N/A	N/A	194,507

The actual emission reductions for this monitoring period are 194,507 tCO₂e. Whereas the estimated emission reductions for this monitoring period are 431,980 tCO₂e. Thus, there is a variation 54.97% (negative) in the total ERs as demonstrated below:

Year	Ex-ante emissions reductions /removals	Achieved emissions reductions /removals	Percent difference	Justification for the difference
2021 (14-October-2021– 31-December-2021)	101,265	498	-99.5%	Ex-ante assumptions stated that 375,000 stoves would be in use for the first year (14-October-2021 – 31-December-2021), but only 2,258 stoves were in use, leaving a significant gap between the expected and actual levels of emission reduction.
2022 (01-January-2022– 15-September-2022)	330,715	194,009	-41.33%	PP has calculated the ex ante emission reductions based on the total number of cookstoves distributed in the current MP. The difference in ex-ante and ex-post emission reductions can be attributed to the calculation method applied which accounts for average annual emission reductions across the 10 years crediting period. The actual ERs are compared here with the average ex-ante ERs from the 10 years CP; however, since this is the first monitoring period of the project, the actual ERs are expected to be higher in the initial years of crediting period when distributed devices are still new and have higher efficiency and operability. This is also confirmed from the registered PDD, according to which the estimated emission reductions were highest during year 1 which is much higher than the average annual ex-ante value used for the comparison.

				Hence the explanation provided by the PP is found to be valid and appropriate.
Total	431,980	194,507	-54.97%	The stoves have been distributed throughout 2021, starting from October, and the ex-ante has been calculated as all stoves being operational from day one, due to variable in operational days of the stoves, lower actual ERs has been achieved. Also, due to the lower value of the parameter By,new,I,survey than estimated the ERs has been reduced, which has been verified through the survey results. Hence, the explanation provided by the PP is found to be valid and appropriate

Approved by:



Kaviraj Singh

Managing Director

Earthood Services Private Limited

Date: 15/09/2024

Place: Gurgaon, Haryana

APPENDIX 1: DOCUMENT REFERENCES

S. No.	Title	References	Provider
1.	VCS Standard	Version 4.4 Dated: 17/01/2023	Others
2.	VCS Program Guide	Version 4.3 Dated: 17/01/2023	Others
3.	VCS PD	Version 2.3 Dated: 05/04/2023	PP
4.1	Initial Monitoring report	Version 1.0 Dated: 07/03/2023	PP
4.2	Final Monitoring report	Version 2.1 Dated: 26/08/2024	PP
5.	ER Calculation Sheet	Corresponding to final MR	PP
8.	Validation report for the project activity	Version 1.2 Dated: 27/04/2023	Others
9.	VMR 0006: Methodology for Installation of High Efficiency Firewood Cookstoves	Version 1.1 Dated: 22/07/2021	Others
10.	TOOL30: Calculation of the fraction of non-renewable biomass	Version 3.0	Others
11.	VCS Monitoring report template	Version 4.2	Others
12.	VCS verification report template	Version 4.2	Others
13.	VCS webpage for the project, https://registry.terra.org/app/projectDetail/VCS/28905	-	Others
14.	Efficiency (34.5%) test report of ICS as per water boiling test (WBT) by third party (Aprovecho Research Center)	Dated: October 2015	PP
15.	End User Agreement and Proof of start date	Dated: 14/10/2021	PP
16.	Geocoordinates of the project location https://www.geodatos.net/en/coordinates/zimbabwe	-	Others
17.	Zimbabwe environmental laws and regulations: 1. http://extwprlegs1.fao.org/docs/pdf/zim47834.pdf 2. http://extwprlegs1.fao.org/docs/pdf/zim181644.pdf 3. http://extwprlegs1.fao.org/docs/pdf/zim181839.pdf	1. Environmental Management Act, 2003 2. EIA and Ecosystems Protection Regulations SI 7, 2007 3. Atmospheric Pollution Control Regulations SI 72, 2009	Others
18.	Standard for Sampling and Surveys for CDM Project Activities and Program of Activities	Version: 09.0	Others
19.	Guidelines for Sampling and Surveys for CDM Project Activities and Program of Activities	Version: 04.0	Others
20.	TLC Cookstove Construction Brochure/Manufacturer's Specifications	-	PP

21.	Random number generator screenshot	-	PP
22.	Report for 'Calculation of the fraction of non-renewable biomass (f_{NRB})' by C4 EcoSolutions	Dated: 20/01/2022	PP
23.	Declaration from the PP that the project has not claimed or will not claim carbon credits under any other scheme after registration of the project under VCS	Dated: 22/08/2022	PP
24.	SCOPE 3 Public Notice & Emails	-	PP
25.	Local Stakeholders Consultation Report	-	PP
26.	Project Description Presentation by CQC	-	PP
27.	User Manual of weighing scale and Moisture Meter	-	PP
28.	Calibration Certificate of weighing scale and moisture meter	Weighing Scale: 25/10/2022 and 24/07/2023 Moisture Meter: 24/07/2023	PP
29.	Employment records	-	PP
30.	Stakeholder Feedback evaluation form	-	PP
31.	Grievance Redressal Register	-	PP
32.	Training Manual	-	PP
33.	On-site visit evidence	Meeting recordings and photographs with household and Local Stakeholder Committee	Others
34.	Sampling sheet of monitoring survey conducted by PP	-	PP
35.	Monitoring Survey forms for the samples selected by the PP	-	PP
36.	FAO, Global Forest Resources Assessment 2010, Country Report, Zimbabwe https://www.fao.org/3/am325e/am325e.pdf	-	Others
37.	2006 IPCC Guidelines for National Greenhouse Gas Inventories; Volume 2 Energy	Chapter 1 Introduction Chapter 2 Stationary Combustion	Others
38.	ICS installation database	-	PP
39.	Grievance Redressal Policy and Procedure	Manual 1.2	PP
40.	Summary of complaint and summary of complaint redress form	Dated: 10/11/2022 and 11/11/2022	PP
41.	MP1 Follow up survey sheets	-	PP
42.	Earthhood's Follow up survey interviews	-	Others
43.	Fuel Measurement Test (Follow up survey) SOP	-	PP
44.	Revised Monitoring survey sheet	-	PP
45.	Reliability calculation sheet	-	PP
46.	Stove Champion survey sheet	19/08/2022 to 17/08/2023	PP
47.	Stove Champion training Material	-	PP

48.	Stove Champion Training Documents a. Attendance sheet b. Training Images	-	PP
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APPENDIX 2: ABBREVIATIONS

Abbreviations	Full texts
AFOLU	Agriculture, Forestry and Other Land Use
BE	Baseline Emission
CAR	Corrective Action Request
CL	Clarification Action
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DOE	Designated Operational Entity
DVR	Draft Validation Report
EF	Emission Factor
ER	Emission Reduction
ESPL	Earthood Services Private Limited
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GP	Grouped Project
ICS	Improved Cook Stoves
IPCCC	Intergovernmental Panel on Climate Change
MP	Monitoring Plan
MR	Monitoring Report
NA	Not Applicable
PA	Project Activity
PD	Project Description
PE	Project Emission
PP	Project Participant
QA/QC	Quality Assurance / Quality Control
QMS	Quality Management System

TR	Technical Review
VCS	Verified Carbon Standard
VCS-PD	VCS – Project Description
VCU	Verified Carbon Unit
VVB	Validation/verification Body
XLS	Emission Reduction Calculation Spread Sheet

APPENDIX 3: COMPETENCY STATEMENTS

Competence Statement			
Name	Jahnabi Kalita		
Education	M.Sc. Environment Management		
Experience	1 year+		
Field	Environment, Climate change		
Approved Roles			
Team Leader	Yes (VM)		
Validator	Yes (VM)		
Verifier	Yes (VM)		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Trainee	Yes		
Reviewed by	Shifali Guleria, Quality Manager	Date	24/09/2022
Approved by	Deepika Mahala, Technical Manager	Date	24/09/2022

Competence Statement	
Name	Shreya Garg
Country	India
Education	M.Sc. (Climate Science & Policy), TERI University
Experience	9 Years +
Field	Climate Change
Approved Roles	
Team Leader	YES
Validator	YES
Verifier	YES

Methodology Expert	AMS.I.A., AMS.I.C., AMS.I.D., AMS.I.F., AMS.II.D., AMS.II.G., AMS.II.J., AMS.III.AV., AMS.III.BL, ACM0002, ACM0012		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (TA 1.1, TA 1.2, TA 3.1, TA 13.1)		
Reviewed by	Shifali Guleria	Date	21/12/2022
Approved by	Deepika Mahala	Date	21/12/2022

Competence Statement			
Name	Charu Patwal		
Education	M.Sc. Environmental Science		
Experience	2 years 4 months		
Field	Research & Sustainability		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Trainee	YES		
Reviewed by	Shifali Guleria (Quality Manager)	Date	10/05/2022
Approved by	Deepika Mahala (Deepika Mahala)	Date	10/05/2022

Competence Statement	
Name	Munatsi Chuma
Education	Bachelor's degree in Industrial and Manufacturing Engineering
Experience	2+ years
Field	Power and Electricity
Approved Roles	
Team Leader	No
Validator	No
Verifier	No
Methodology Expert	No

Local expert	Yes (Zimbabwe)		
Financial Expert	No		
Technical Reviewer	No		
TA Expert	No		
Reviewed by	Shreya Garg	Date	15/06/2020
Approved by	Ashok Kumar Gautam	Date	15/06/2020

Competence Statement			
Name	Shifali Guleria		
Education	M.Sc. (Environmental Studies and Resource Management), TERI University		
Experience	3+ year		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	YES (AMS-I.A., AMS-II.G., AMS-II.E., AMS-III.A.V., AMS-I.D, ACM0002, ACM0025)		
Local expert	YES		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (1.2, 3.1)		
Reviewed by	Deepika Mahala	Date	02/03/2023
Approved by	Kaviraj Singh	Date	02/03/2023

APPENDIX 4: FINDINGS

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

FAR ID	-	Section no.	Date : DD/MM/YYYY
Description of FAR			
NA			
Project proponent response			Date : DD/MM/YYYY
NA			
Documentation provided by project proponent			
NA			
VVB assessment			Date: DD/MM/YYYY
NA			

Table 2. CL from this validation

CL ID	01	Section no.	NA	Date : 17/03/2023
Description of CL				

- For evaluating section 1.10 of the MR, PP is requested to provide the evidence that they have notified the manufacturer of the TLC CQC rocket stoves as well as the implementing partners about the project and potential risk of Scope 3 emissions double claiming. Also, "Evidence of the public statement(s) and email(s) must be provided in this report or attached as an appendix" as stated in the VCS MR template guidelines. - In the Verra registry webpage the SDGs which will be targeted by PP are SDG 1 to SDG 5, SDG 7, SDG 8, SDG 13 & SDG 15. However, under the SD contributions table, SDG 1 and SDG 2 have not been mentioned. PP is requested to clarify the same.	
Project proponent response	Date : 28/03/2023
- Public statement for the project VCS2890 is available under the section "public notice" on the project developers' website, screenshot of the same is attached in appendix B of the revised MR. The copies of the emails sent to manufacturers and implementing partners have been provided to the VVB and screenshots of the same are added in appendix B of the revised MR. - The SDGs visible on the verra registry page are part of the SDVista component of the same project. SDVista program of the same project is currently under validation. The PP will not be claiming SDG1 & SDG2 under the SDVista program and the verra registry page will be updated on submission of request for registration. Hence, the PP has decided not to include the SDG1 & SDG 2 under the "Sustainable development contributions" table in the MR report.	
Documentation provided by project proponent	
Revised MR, Copy of emails sent to manufacturers and implementing partners	
VVB assessment	Date: 17/04/2023
- VVB has checked the PP's website where under the "Public Notice", PP has provided the details of the project activity as well as the potential risk of double claiming of Scope 3 emissions under the grouped project. The same has been verified from the copies of emails sent to the manufacturers of the TLC-CQC Rocket Stoves parts and the implementing partners in Zimbabwe about the implementation of the project. In the email it has been informed about the potential risk of double claiming of Scope 3 emissions under the grouped project. Also, the screenshots of the same have been provided in Appendix B of the monitoring report. CLOSED. - The SDG 1 and SDG 2 are part of the SDVista program, however, since the project is being registered under both SDVista and VCS, both SDGs are mentioned on the project page. The SDVista program of this project is still under validation process, the PP confirms that the Verra registry page for this project will be updated post registration of the project under SDVista. CLOSED. Hence, CL 01 is closed.	

CL ID	02	Section no.	4.4	Date : 17/03/2023
Description of CL				
Following clarifications are required for section 4.3 of the Monitoring report v1.0, - For calculating the sample size, it has been mentioned that "During 1st and 2nd verification, 100% of ICS were found to be in operation". As the project is undergoing for first verification, PP is requested to clarify why second MP verification has been included here. - It has been mentioned that "To compensate for any attrition, outliers or non-response associated with the sample, 20% extra samples have been additionally selected. Therefore the sample size for parameters $N_{y,l,j}$ and $B_{y=1,new,l}$, survey calculated for the monitoring survey is 85". However, it has been observed in the summary table of the sample sizes and results that the sample size has been considered as 68.				
Project proponent response				Date : 28/03/2023

1. This was a typographical error which is now corrected in the revised MR. 2. Total sample size calculated as per the sampling plan is 68. For detailed calculation refer to the “sample size calculation” of the sampling sheet provided for reference. 20% extra samples have been additionally selected to compensate for any attrition, outliers or non-response. The total samples shortlisted for the monitoring survey is 85. The paragraph in section 4.3 of the MR has been rephrased for better clarity.	
Documentation provided by project proponent	
Revised MR	
VVB assessment	Date: 17/04/2023
- The revised PD has been reviewed. PP has only considered first verification as it was the typographical error which has now been corrected. CLOSED. - VVB has verified from the “2.0 Sampling & Survey Sheet_2890_Zimbabwe-2” worksheet that the PP has selected 85 samples in total for the monitoring survey which includes 20% non-response. Also, the total sample size calculated using the sampling plan is 68 as confirmed from the tab ‘Sample Size Calculation’ of the same worksheet. CLOSED. Hence, CL 02 is closed.	

Table 3. CAR from this validation

CAR ID	01	Section no.	4.2.2	Date : 17/03/2023
Description of CAR				
In accordance with VCS standard version 4.4, section 3.18.4, “the project proponent shall establish mechanisms for ongoing communication with local stakeholders to allow stakeholders to raise concerns about potential negative impacts during project implementation.” PP is requested to clarify how section 2.2 of the monitoring report complies with VCS standard v4.4 requirements pertaining to ongoing communication. Also, briefly describe the process and outcomes from ongoing communication with local stakeholders in accordance with the VCS MR template guidelines.				
Project proponent response				Date : 28/03/2023
PP conducts routine spot audit and maintains a grievance register to keep account of all ongoing communications with the stakeholders. Details of the same have been added in section 2.2 of the MR and a copy of spot audit report and grievance record for the monitoring period is provided for the reference.				
Documentation provided by project proponent				
Spot Audit Report				
VVB assessment				Date: 17/04/2023
PP has updated Section 2.2 of the VCS PD and has included the routine spot audit mechanism as well as a means of on-going communication with the local stakeholders. PP has briefly described the various measures which ensure that project-affected communities and individual stakeholders’ grievances are addressed. Feedback forms and Grievance Redress Policy shared by the PP provides the VVB with sufficient evidence that the grievance mechanism maintained by the PP is in place. VVB has assessed the Spot Audit Report provided by the PP which also includes the general observations and resolutions by the PP. VVB thus confirms that the mechanism for on-going communication with local stakeholders is maintained by the PP is in place with para 3.17.4 of VCS standard, v 4.3. Further, the interviews with PP representatives conducted by the verification team also confirmed that no negative comments were received from the stakeholders.				
Hence, CAR 01 is closed.				

CAR ID	02	Section no.	4.1	Date : 17/03/2023
Description of CAR				

- Under section 3.1 of the MR, PP is required to provide the implementation status of the project activity along with relevant dates. However, details of the ICS implemented/installed during the current monitoring are not provided. Thus, PP is requested to transparently mention following information in the MR: - Status of the ICS installed and operating at the start of MP. - No. of ICSs installed with dates during the MP. - Last date of the ICS installed in the MP. - Status of random/spot check surveys conducted during the monitoring period. - PP is required to provide the "Method of evaluation", as per the respective monitoring period, instead of the description mentioned in PD at the time of validation in section 3.3 of the MR. Being a group project, the PP is required to provide relevant information about new instances of the project activity included in the monitoring period and demonstrate and justify how each new instance of the project activity(s) meets the eligibility criteria set out in the project description. The demonstration needs to be more specific to the applicable instances with objective supporting evidence/basis to be provided.	
Project proponent response	Date : 28/03/2023
- Section 3.1 of the MR has been updated with the above-mentioned information. - No new project activity instance has been added under the grouped project in this monitoring period. Section 3.3 of the MR has been updated.	
Documentation provided by project proponent	
Revised MR	
VVB assessment	Date: 17/04/2023
- PP has incorporated the operating status of the ICS, number of ICS installed along with dates during the MP, last date of the ICS installed in the MP and the dates of spot surveys conducted in line with the MR template guidelines. VVB has verified the following details from the ER sheet and sampling survey sheet and it was found to be appropriate. CLOSED. - The revised MR has been reviewed. PP has updated the section as during the monitoring period, no new project activity instances were introduced to the grouped project which is in accordance with the MR template guidelines. CLOSED.	
Hence, CAR 02 is closed.	

CAR ID	03	Section no.	4.4	Date : 17/03/2023
Description of CAR				
In accordance with the MR template guidelines, PP is requested to mention the type, accuracy class and serial number of the equipment used to monitor the parameter $B_{y=1,new,i,j,survey}$. Also, mention the validity of the calibration of the weighing scale.				
Project proponent response				Date : 28/03/2023
The information related to type, accuracy class, etc. has been updated in "data/parameter" table for the parameter " $B_{y=1,new,i,j,survey}$ ".				
Documentation provided by project proponent				
-				
VVB assessment				Date: 17/04/2023
PP has mentioned the type, accuracy class, calibration frequency and serial number of the equipment used to monitor the parameter $B_{y=1,new,i,j,survey}$. The same has been verified from the calibration certificates and the user manual of the equipment used. However, serial numbers couldn't be verified. PP is requested to substantiate.				
Hence, CAR 03 is open.				
Project proponent response				Date : 17/04/2023

The scales do not have a unique serial number given by the manufacturer. So, the PP decided to assign unique numbers ex. Scale 1, Scale 4 etc. to the weigh scales to properly distinguish each scale and perform the calibration separately. The calibration certificate mentions the calibration that is performed for each scale separately. Please find attached a sample photo of a weigh scale with a unique number written on the back.

Documentation provided by project proponent

Sample photo of the scale

VVB assessment

Date: 18/04/2023

The weighing scale provided by the manufacturer does not contain any unique serial number and hence PP has assigned the unique numbers at the back of the weighing scale to distinguish each scale in order to perform the calibration. VVB has verified from the weighing scale photograph provided by the PP and confirms that the weighing scale has the unique serial numbers written on the back.

Hence, CAR 03 is closed.

Table 3. FAR from this validation

FAR ID	NA	Section No.	Date : DD/MM/YYYY
Description of FAR			
NA			
Project proponent response			Date : DD/MM/YYYY
NA			
Documentation provided by project proponent			
NA			
VVB assessment			Date: DD/MM/YYYY
NA			