VERIFICATION REPORT FOR FUEL EFFICIENT COOKING IN SOUTH AFRICA

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Summary:

The client TASC SA (PTY) LTD has appointed the validation/verification body Carbon Check (India) Private Ltd. to perform a verification of VCS Grouped Project Activity "Fuel Efficient Cooking in South Africa" in South Africa (hereafter "project activity") for the period from 01/02/2023 to 31/07/2023 and inclusion of a project instance "Vhembe (PI3-VH)".

TASC SA (PTY) LTD registered the grouped project activity "Fuel Efficient Cooking in South Africa" under the VCS and included the first project instance, Kruger 2 Canyons (PI1-K2C), on the same date and included the second project instance "Waterberg (PI2-WB)" during the monitoring period 1 and third project instance "Vhembe (PI3-VH)" during the monitoring period 3.

The project proponent applied the approved CDM Methodology: VMR0006 Methodology for Installation of High Efficiency Firewood Cookstoves v1.1. In addition, the Standard: Sampling and Surveys in CDM Project Activities and Programme of Activities version 9.0; Guidelines: Sampling and Surveys in CDM Project Activities and Programme of Activities version 4.0 are used; these documents include the requirements for sampling and surveys applied to clean development mechanism projects and programme of activities (PoA) and specifies the reliability requirements and describes appropriate sampling methods and what is expected to be provided in a sampling plan.

The verification consisted of the following three phases: i) a desk review of the Monitoring Report ii) Onsite Visit; iii) the resolution of outstanding issues and internal technical review followed by the issuance of the final verification report and opinion. In the course of the verification process 08 CARs, 06 CLs and 00 FARs were raised, all the CARs and CLs are closed now and the FAR shall be checked at the time of the next periodic verification. The list of Clarification and Corrective Actions Requests (CL and CAR) is presented in this report.

CCIPL confirms that the grouped project is implemented in accordance with the validated VCS-PD and the monitoring plan; and then, claimed emissions reductions are calculated without material misstatements. No uncertainties associated with the calculations of emission reductions have been observed by the verification team.

CCIPL has performed the verification of Fuel Efficient Cooking in South Africa on the basis of all issues and criteria of VCS Standard version 4.4 and VCS Program Guide version 4.3 for VCS projects and also on the criteria given to provide for consistent project operations, monitoring and reporting. Hence, in CCIPL's opinion the project correctly applies the baseline and monitoring methodology VMR0006 Methodology for Installation of High Efficiency Firewood Cookstoves v1.1 and meets the relevant UNFCCC requirements for the CDM Methodology, Voluntary Carbon Standard requirements and the relevant host country criteria.
Therefore, CCIPL is able to certify that the emissions reductions from the "Fuel Efficient Cooking in South Africa" project during the period from 10/02/2022 to 31/07/2023 amount to 1,203,743 tonnes of CO2e. The year-wise break up of verified emission reduction is as below:

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
2023 (01/02/2023 to 31/07/2023)	1,203,743	0	0	1,203,743
Total	1,203,743	0	0	1,203,743

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1 INTRODUCTION

1.1 Objective

TASC SA (PTY) LTD. (Project Proponent) has appointed CCIPL for 3rd verification service for the registered VCS grouped project - "Fuel Efficient Cooking in South Africa" (VCS Project ID 2505) located in South Africa against the requirements of the VCS Program and addition of new project instance in the grouped project.

Verification is the periodic independent review and ex post determination of both quantitative and qualitative information by a Validation and Verification Body (VVB) of the monitored reductions in GHG emissions that have occurred as a result of the VCS project activity during a defined monitoring period. The purpose of verification is to review the monitoring results and verify that the monitoring methodology was implemented according to the monitoring plan and monitoring data and used to confirm the reductions in emissions is sufficient, definitive and presented in a concise and transparent manner. Carbon Check's objective is to perform a thorough, independent assessment of the registered projects activities. In particular, the monitoring plan, monitoring report and the project's compliance are verified against the relevant criteria and guidance documents provided by VCS. This allows for the confirmation that the grouped project has been implemented in accordance with the registered VCS PD and conservative assumptions, as documented. And, also to confirm if the monitoring plan is in compliance with the VCS PD and approved monitoring methodology. The objective of this verification was to verify and certify emission reductions reported for the "Fuel Efficient Cooking in South Africa" for the period 01-February-2023 to 31-July-2023.

1.2 Scope and Criteria

The verification of this grouped project is based on the registered Project Description/B04/, the Monitoring Report of this monitoring period /01/, emission reduction calculation spread sheet /02/, supporting documents made available to the verifier and information collected through performing interviews and during the onsite visit assessment. Furthermore, publicly available information was considered as far as available and required.

Carbon Check has employed a risk-based approach in the verification, focusing on the identification of significant risks and reliability of project monitoring and generation of emission reductions.

The verification is carried out on the basis of the following requirements (latest available on VCS website at the time of verification), applicable for this grouped project activity:

- VCS Standard version 4.4
- VCS Program Guide version 4.3
- VCS Validation and Verification Manual version 3.2

- Program Definitions (v4.3)
- Registration & Issuance Process (v4.3)
- Approved VCS methodology (VMR0006 - Methodology for Installation of High Efficiency Firewood Cookstoves, version 1.1)
- Other relevant rules, including the host country legislation

The scope of this joint validation and verification, by independent checking of objective evidence, is as follows:

- To verify that the project is implemented as described in the project description
- To assess the project's compliance with other relevant rules including the host country legislation.
- To assess the implementation of the monitoring plan content as mentioned in the registered VCS-PD
- To confirm that the monitoring system is implemented and fully functional to generate voluntary emission reductions (VERs/VCUs) without any double counting and
- To establish that the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation /02/,
- 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 shall ensure that the reported emission reductions are complete and accurate in order to be certified.

1. The method and criteria used for verification consisted of the following phases:
2. Completeness check and desk review:
3. Onsite Visit;
4. Resolution of outstanding issues and issuance of final verification report and applicable VCS Validation and Verification Deeds of Representation.

Carbon Check (India) Private Ltd. conducts all its work under strict rules to safeguard impartiality and ensure the independence of the verification team. The verification does not provide any consulting or recommendations for the client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the monitoring activities.

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 engagements as selected by the Client. The verification team verified the complete monitoring data for all the parameters of the monitoring plan and confirms that the reported emission reductions are free from any type of material errors.

1.4 Summary Description of the Project

The grouped project activity 'Fuel Efficient Cooking in South Africa' is a grouped project activity and involves dissemination of improved energy efficient cookstoves (ICS) in South Africa. The ICS disseminated under this grouped project activity is based on rocket stove design principles, which reduces GHG emissions from biomass burning through improved combustion efficiency of wood fuel and decreased wood fuel consumption. Rocket Works Zama Zama rocket stove included in the grouped project activity, with a thermal efficiency of 38.30% is distributed in all three project instances (PI1-K2C, PI2-WB and PI3-VH).

The reported monitoring period for the grouped project activity is 01/02/2023 to 31/07/2023. This is the third monitoring period under VCS.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The method and criteria used for verification:

The verification consists of the following three phases:

1) Completeness check and desk review of the validation report, monitoring plan, monitoring report, monitoring methodology, VCS PD, applicable tools in particular attention to the frequency of measurements, quality of metering equipment's including calibration requirements, QA/QC procedures, any changes to the grouped project activity and new project activity instances and other relevant documents;
2) Onsite visit (including follow-up interviews with project stakeholders, when deemed necessary). The onsite visit assignment includes the following;
    - An assignment of implementation and operation of project activity with respect to validated VCS PD;
    - Review of information flows for generating, aggregating and reporting the monitoring parameters;
    - Interview with relevant personals to determine whether the operational and data collection procedures are implemented and in accordance with monitoring plan of the validated VCS PD;

- Cross check of information and data provided in the monitoring report with plant logbooks, inventories, purchase records or similar data sources;
- Check of monitoring equipment's, calibration frequency and monitoring practice in-line with methodology and validated VCS PD;
- Review of assumptions made in calculating the emission reduction;
- Implementation of QA/QC procedure in-line with the validated VCS PD and methodology requirement.

Resolution of outstanding issues and the issuance of the final Verification report and if applicable, the VCS Validation and Verification Deeds of Representation.

2.2 Document Review

The registered VCS PD/B04/, VCS MR /01/, emission reduction calculation spread sheet /02/, and supporting documents related to the project implementation, project design, monitoring and baseline were reviewed as per VCS standard version 4.4 requirements. The desk review included:

- A review of the data and information presented to verify completeness and consistency in accordance with VCS standard version 4.4 requirements;
- A review of the approved monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, quality of monitoring equipment (including calibration requirements) and the quality assurance and quality control (QA/QC) procedures;
- An evaluation of data management and the QA/QC system in the context of their influence on the generation and reporting of emission reductions.

Data input values were also checked from the records maintained by the project proponents. Results of calculations reported in the monitoring report were checked against data values as available from the project proponent in VER calculation sheet /02/.

These data values and other information related to project performance are available in the form of data records duly archived and maintained as per the quality assurance/quality control procedure specified as a part of monitoring plan in the registered VCS-PD.

Furthermore, the verification team used additional documentation by third parties like host-party legislation, technical reports referring to the project design or to the basic conditions and technical data.

2.3 Interviews

A physical onsite visit to the grouped project activity was undertaken from 11/09/2023 to 15/09/2023 to assess the implementation and operation of the grouped project activity and to review evidence, and interview key personnel to confirm evidence associated with the data generation, aggregation, and calculation and reporting of the monitoring parameters. The onsite visit assessment addressed:

- An assessment of the project implementation and operation as per the PD (including physical inspection to confirm physical existence and operation of project components);
- Review of information flows for generating, aggregating and reporting the monitoring parameters;
- Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan in the monitoring report /01/.

The key personnel interviewed, and the main topics of the interviews are summarized in the table below:

S. No.	Name	Organization	Topic	Audit team
/1/	Lize Kok	TASC SA (PTY) LTD.	Project implementation and operation, Project design, monitoring procedure, data and information flow, compliance of monitoring plan with monitoring methodology and approved VCS-PD, Roles and responsibility, Qualification and Training, CER calculation and completeness of monitoring report, Electronic Monitoring system, Data collection and data flow, Monitoring surveys, Sample size	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/2/	Nick Marshall	TASC SA (PTY) LTD.	Project implementation and operation, Project design	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/3/	Keneilwe Mmushi	TASC SA (PTY) LTD.	KPT survey process, training procedure and habit survey process, Ongoing communication with local stakeholders	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)

/4/	David Mpebe	TASC SA (PTY) LTD.	KPT survey process, training procedure and habit survey process, Ongoing communication with local stakeholders	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/5/	Hope Morema	TASC SA (PTY) LTD.	KPT survey process, training procedure and habit survey process, Ongoing communication with local stakeholders	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/6/	Oky Sibashi	TASC SA (PTY) LTD.	KPT survey process, training procedure and habit survey process, Ongoing communication with local stakeholders	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/7/	Leon Reynolds	TASC SA (PTY) LTD.	Project implementation and operation, Project design	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)

/8/	Mohau Rankapule	TASC SA (PTY) LTD.	KPT survey process, training procedure and habit survey process, Ongoing communication with local stakeholders	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/9/	Thapelo Motswene	TASC SA (PTY) LTD.	KPT survey process, training procedure and habit survey process, Ongoing communication with local stakeholders	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/10/	Gareth Commbes	TASC SA (PTY) LTD.	Ongoing communication with local stakeholders, Habit Surveys	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/11/	Brendon	TASC SA (PTY) LTD.	Project implementation and operation, Project design	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)

/12/	Owen Kgobola	TASC SA (PTY) LTD.	KPT survey process, training procedure and habit survey process, Ongoing communication with local stakeholders	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/13/	Patironi Baloyi (560446)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/14/	Esther Matiala Musetha (564293)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert))
/15/	Tsalani lizy Makhubeia (560274)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)

/16/	Mapula Tchueu (572958)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/17/	Agnes Rasoko (526379)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/18/	Mamoloko Pitjeng (295151)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/19/	Sophia Moshekwa (260734)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)

/20/	Athaiia Mokgopha (270128)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/21/	Pudding Kutumela (21807)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/22/	Mpfumelo Patricia Nitleni (097480)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/23/	Surprise Tingiko Ngobeni (234551)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)

/24/	Nobela Mthavini (321894)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/25/	David Masila (327399)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/26/	Maedi Magdelina Senanye (328820)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/27/	Surprise Peta (474358)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)

/28/	Dikeledi Mabale (515582)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/29/	Mphephu Chauke (525955)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/30/	Vonani Glenda Mbetsi (526410)	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/31/	Anna Tintswalo Khosa	Project Stove User	PI-3VH validation survey	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)

/32/	Basani Joyce Balogi	Project Stove User	PI-3VH validation survey	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/33/	Ndzucule California	Project Stove User	PI-3VH validation survey	Netshitumbu Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/34/	Margreth Maswanganyi	Project Stove User	PI-3VH validation survey	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/35/	Mamayila Hlungwani	Project Stove User	PI-3VH validation survey	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)

/36/	Maria Mabasa	Project Stove User	PI-3VH validation survey	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/37/	Mashudu Mavis Netangaheni	Project Stove User	PI-3VH validation survey	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/38/	Mihloti Mathebula	Project Stove User	PI-3VH validation survey	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/39/	Malulelse Nkateko	Project Stove User	PI-3VH validation survey	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)

/40/	Noriah Mashaba	Project Stove User	PI-3VH validation survey	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/41/	Olivia Shibambu	Project Stove User	PI-3VH validation survey	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/42/	Paulite Chauke	Project Stove User	PI-3VH validation survey	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/43/	Solomon Mathebula	Project Stove User	PI-3VH validation survey	Netshitumbu Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)

/44/	Themba Bernad Manganyi	Project Stove User	PI-3VH validation survey	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/45/	Tyein Chauke	Project Stove User	PI-3VH validation survey	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/46/	Witness Baloyi	Project Stove User	PI-3VH validation survey	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)
/47/	Maria Chabalala	Project Stove User	PI-3VH validation survey	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)

/48/	Muelelwa Ndou	Project Stove User	PI-3VH validation survey	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) Aluwani Balebale (Local Expert) Netshitumbu Tshimangadzo Witness (Local Expert/Technical Expert)

2.4 Site Visits

Carbon Check has conducted an onsite visit for the assessment of the grouped project activity from 11/09/2023 to 15/09/2023. A reasonable level of assurance has been maintained through the onsite visit for the purpose of verification as follows:

1) An assessment of the implementation and operation of the project activity as per the registered VCS PD /B04/
2) A review of information aggregating and reporting of the monitoring parameters
3) Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the MP (section 2.2 above)
4) A cross-check between the emission reduction information provided in the MR /01/ and data from other sources.
5) A review of calculations and assumptions made in determining the GHG data and ERs /01//02/, and
6) An identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters
7) The duly calibration/testing of all monitoring equipment was checked.
8) The monitoring processes, routines and documentations were audited to check their proper application.
9) The monitoring data were checked completely.

Sampling Approach:

PP has done baseline survey/07/ using 90/10 as confidence/precision. This is in line with the CDM guidance on “Sampling and surveys for CDM project activities and programmes of activities v04.0” /B05/. The sample size for each parameter is determined following guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities Ver. 4.0 (EB86, Annex 4) /B05/. PP has surveyed 300 households for the baseline survey of the PI3-VH. 100 sample for PI1-K2C and PI2-WB each was selected by the PP for the monitoring survey. This is deemed appropriate to the

verification team. In line with paragraph 26 of the Sampling Standard, the verification team has applied acceptance sampling approach through onsite visit on the baseline survey as part of validation. The project participant had applied sampling approach to determine the baseline, a representative baseline survey/07/ was conducted by the representatives of Project participant.

The verification team has chosen acceptance sampling in accordance with paragraph 28 of the sampling standard /B05/. Applying paragraph 39 (c) of the sampling standard, version 09 /B05/, a sample size of 18 households was chosen (with no discrepant records) for the monitoring survey and 18 samples for baseline survey. A sample size of 18 was determined, based on an AQL of 0.5% and UQL of 20%; producer risk of 5% and consumer risk of 10 % in determining the DOE's sample size Acceptance number (c) thus determined for the sample is 1. VVB interviewed 18 households from the baseline survey done by project participants and 18 households for the monitoring survey conducted by the project participants. The information provided in the baseline survey /07, has been cross-checked during the on-site inspection. As a part of acceptance sampling, the Verification team could confirm the baseline survey data /07/ with no discrepant records. Thus, PP's set of records has been accepted in line with § 33 of the CDM Standard Sampling and surveys for CDM project activities and programmes of activities, version 09 /B05/

2.5 Resolution of Findings

Material discrepancies identified in the course of the verification are addressed either as CARs, CLs or FARs. Corrective action requests (CAR) are issued, where:

i. Mistakes have been made with a direct influence on project results requiring adjustments of the VERs/VCUs monitoring report;
ii. Applicable methodological specific requirements have not been met.

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

A **forward action request (FAR)** should be issued, where:

i. The actual project monitoring and reporting practices requires attention and /or adjustment for the next consecutive verification period, or
ii. An adjustment of the MP is recommended.

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

A total of 08 CARs and 06 CLs had been raised for the verification of the project activity and all the findings have been closed.

2.5.1 Forward Action Requests

No FARs are raised.

2.6 Eligibility for Validation Activities

Validation/Verification body (VVB), Carbon Check (India) Private Ltd. holds accreditation for validation for the relevant sectoral scope 3 and is eligible for validation/verification for the project activity.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The grouped project is already registered with VCS as a grouped project activity (project ID is 2505). The grouped project activity is not registered under any other GHG program. The grouped project activity is eligible to participate under the VCS Program.

3.2 Methodology Deviations

No methodology deviations have been applied to the grouped project activity during the reported monitoring period.

3.3 Project Description Deviations

Two new parties are involved in the grouped project as implementation partners from the relevant PI start dates, (i.e. 20 August 2021 for PI1-K2C, 27 March 2023 for PI3-VH, and 3 September 2021 for PI2-WB). This Project Description Deviation is included due to an omission of the Implementation Partner details in Section 1.6 of the PDD.

The two involved entities are:

For PI1-K2C and PI3-VH:

Organization name	Kruger to Canyons Biosphere Region Non-Profit Company (K2C BR NPC)
Role in the project	Implementation Partner — PI1-K2C
Contact person	Marie-Tinka Uys
Title	Chief Operations Officer
Address	K2C Nodal Centre, Zandspruit Bush & Aero Estate, Hoedspruit, South Africa, 1380

Telephone	+27 (0)82 551 7261
Email	info@kruger2canyons.org
Website	www.kruger2canyons.org

For PI2-WB:

Organization name	Mogalakwena Training (Pty) Ltd
Role in the project	Implementation Partner — PI2-WB
Contact person	Peter Coombes
Title	Chief Executive Officer
Address	357 Hartbees Street, Waterkloof Ridge, Pretoria, South Africa, 0181
Telephone	+27 (0)83 576 4287
Email	peterc@kwenatraining.co.za

3.4 Grouped Project

The grouped project activity 'Fuel Efficient Cooking in South Africa' is a grouped project activity. The project was registered with one project instance (Project Instance 1 – Kruger 2 Canyons (PI1-K2C)) and the second project instance (Project Instance 2 – Waterberg (PI2-WB)) was included to the grouped project activity during the previous monitoring Period 1, third instance, PI3-VH, also added in the grouped project in this monitoring period i.e., 3rd monitoring period .

To assess the compliance of the new stoves distributed in the existing project instances PI1-K2C and PI2-WB, with the grouped project activity, and the stoves distributed in the new project instance PI3-VH following steps were undertaken:

1) Desk Review of the MR/01/ and compliance with the registered PD.
2) On-site audit to assess the implementation/ operation status and compliance to the eligibility criterion by the project instance as detailed in the section 3.3 of the MR.
3) Preparation of the draft verification report with assessment of the new project instance in accordance with the §3.5.16 of the VCS Standard version 4.2/B01/.

The compliance to the eligibility criteria of the grouped project activity is demonstrated below:

Eligibility criteria of the grouped project activity

The eligibility criteria have been provided clearly in section 3.3 of the MR/01/ and then justification provided for each of the project instances. The new stoves distributed in the existing project instances PI1-K2C and PI2-WB, and stoves distributed in the new project instance PI3-VH in South Africa meet the requirements of eligibility criteria and are thus eligible to be included in the grouped project activity.

Sl. No.	Eligibility criteria description in the PD for inclusion of PI3-VH	Means of proof (Information/document) required as listed in the PD	Assessment by the verification team
1	Project Instances (PIs) must meet the applicability conditions set out in the applied methodology. Each new PI must demonstrate compliance with the applicability conditions set out in the employed methodology: VMR0006.	PI3-VH is compliant with the applicability conditions set out in the applied VMR0006 methodology as demonstrated in Section 3.3.1 in this monitoring report. Please see details below.	PP has demonstrated the compliance with the applicability conditions of the methodology VMR0006, version 1.1/B02/ in the section 3.3.1 of the monitoring report/01/. Based on the review of the monitoring report/01/, it is confirmed that PI3-VH comply with the eligibility criterion and the condition stated.
2	Use the technologies or measures specified in the project description. Only ICS that conform with the GP description are to be distributed in the project. The ICS will be chosen to deliver a level of service at least equivalent to the baseline appliance.	The manufacturer's technology description describes the , RocketWorks Zama Zama rocket stove, to be distributed in PI3-VH, delivers a level of service at least equivalent to the baseline appliance as evidenced in the technology description.	PP has provided the manufacturer's technology description to confirm that the that the ICS distributed delivers a level of service at least equivalent to the baseline appliance. Based on the review of the technology description, it is confirmed that new stoves distributed in the PI3-VH comply with the eligibility criterion and the condition stated.
3	Apply the technologies or measures in the same manner as specified in the project description. The ICS distributed in the PIs will adhere to the GP description and replace biomass burned in the baseline scenario.	a) The manufacturer's technology description describes the applicability of the ICS technology to be distributed in PI3 VH. b) End users will be asked to state their source of energy and baseline appliance at the point of distribution and during the project monitoring. c) This information will be stored in the monitoring and data collection database.	PP has provided the manufacturer's specifications and the monitoring and sales database has been checked to confirm that the applied technologies and measures in the same manner as specified in the PD/B04/. Based on the review of the documents stated above, it is confirmed that stoves

			distributed in PI3-VH comply with the eligibility criterion and the condition stated.
4	Are subject to the baseline scenario determined in the project description for the specified project activity and geographic area. All new PIs will be implemented only in regions within the geographic borders of South Africa subject to the same baseline scenario determined in Section 3.4 of the latest version of the Project Description.	a) GPS/location data captured from each end user, and stored in the monitoring and data collection database will demonstrate the location of the PI within South Africa. b) PI3-VH is subject to the same baseline scenario described in Section 3.4 of the latest version of the Project Description as identified and demonstrated by a baseline survey, outlined in Section 3.4.4 below.	The boundary for the grouped project activity is provided as the geographical boundary of the host country, South Africa. The PI3-VH are located in South Africa. The baseline survey has been assessed for both the PIs in the previous monitoring period. Based on the review of the section 3.3.4 of the MR/01/ and the baseline survey, it is confirmed that new stoves distributed in the PI3-VH comply with the eligibility criterion and the condition stated.
5	Have characteristics with respect to additionality that are consistent with the initial instances for the specified project activity and geographic area. All new PIs will use the activity method for demonstration of additionality and of: Step 1: Regulatory Surplus There is no government mandated programme or policy in host country of this project ensuring the distribution of new project activity instances. Step 2: Positive List The inclusion of new project activity instances will comply with the positive list as it satisfies criterion 1 where it meets all the applicability conditions of the methodology. 1. Where the project activity installs or distributes stoves at zero cost to the end-user and has no other source of revenue other than the sale of GHG credits, the project activity shall be deemed	There is no government mandated programme or policy in South Africa ensuring the distribution of new project activity instances or fuel efficient cookstoves. 1. PI3-VH complies with the positive list in the methodology and satisfies criterion 1 as it meets all the applicability conditions of the methodology. 2. The End User Agreement will confirm that the PI "installs or distributes stoves at zero cost to the end-user and has no other source of revenue other than the sale of GHG credits" The PIs are not implemented as part of a government scheme nor are they supported by multilateral funds. This is evidenced through Agreements with investors (confidential parts of the document may be redacted). The CME confirms that PI3-VH	PP has confirmed/01/ that there are no South African government programmes or policy for cookstoves for dissemination of ICS. The end user agreement confirms that PI3-VH installs or distributes stoves at zero cost to the end-user and has no other source of revenue other than the sale of GHG credits. CME has also confirmed that the PI3-VH will not result in the diversion of official development assistance. Based on the review of the MR/01/ and the end user agreements, it is confirmed that new stoves distributed in the PI3-VH comply with the eligibility criterion and the condition stated.

	additional. 2. Project activities that are implemented as part of government schemes or are supported by multilateral funds cannot be considered additional even if the stoves are distributed free of cost or at a highly subsidized rate and hence are not eligible to use this methodology. PIs under the GP will not result in the diversion of official development assistance.	will not result in the diversion of official development assistance.	
6	Where a capacity limit applies to a project activity included in the project, no project instance shall exceed such limit. Further, no single cluster of project activity instances shall exceed the capacity limit, determined as follows: • Each project activity instance that exceeds one percent of the capacity limit shall be identified. • Such instances shall be divided into clusters, whereby each cluster is comprised of any system of instances such that each instance is within one kilometer of at least one other instance in the cluster. Instances that are not within one kilometer of any other instance shall not be assigned to clusters. • None of the clusters shall exceed the capacity limit and no further project activity instances shall be added to the project that would cause any of the clusters to exceed the capacity limit. The VMR0006 methodology does not contain a capacity limit.	A capacity limit does not apply under the VMR0006 methodology.	There are no capacity limits applicable under the methodology VMR0006, version 1.1/B02/. Based on the review of the MR/01/, it is confirmed that new stoves distributed in the PI3-VH comply with the eligibility criterion and the condition stated.
7	Occur within one of the designated geographic areas specified in the project description.	a) The geographic boundary of PI3-VH is demonstrated to be within South Africa (Figure 1).	PP has provided the location of the project instances. The project instances are located

	a) New project activity instances will be located within the geographic boundaries of South Africa and defined in the instance description document. b) GPS/location data captured from each end user will demonstrate the location of the project and of each PI.	and described in Section 3.3.3 below. b) The GPS/location data captured from each end user demonstrating the location of the PI will be provided at the time of verification. The GPS/location information will be stored in the monitoring and data collection database.	within the geographic boundaries of South Africa as provided in the section 3.3.3 of the MR/01/. The location data and GPS has also been confirmed through the review of monitoring and sales database for the grouped project activity. The revised KML of the PI3-VH is also provided by the project proponent. Based on the review of the MR/01/, location map and monitoring and sales database, it is confirmed that new stoves distributed in the PI3-VH comply with the eligibility criterion and the condition stated.
8	Comply with at least one complete set of eligibility criteria for the inclusion of new project activity instances. Partial compliance with multiple sets of eligibility criteria is insufficient. Compliance of new PIs will be evaluated exclusively against the eligibility criteria listed in this table.	PI3-VH complies with the full set of eligibility criteria for the inclusion of new project activity instances as described in this table and Table 2 of the PDD.	PP has confirmed that the PI3-VH comply with the full set of eligibility criteria for the inclusion of new project activity instances. Based on the review of the MR/01/, it is confirmed that new stoves distributed in PI3-VH comply with the eligibility criterion and the condition stated.
9	Be included in the monitoring report with sufficient technical, financial, geographic, and other relevant information to demonstrate compliance with the applicable set of eligibility criteria and enable sampling by the validation/verification body. New PIs will be described in the monitoring report with sufficient technical, financial, geographic, and other relevant information to demonstrate compliance with the applicable set of eligibility criteria and enable sampling by the validation/verification body.	The evidences relevant to PI3-VH for the local stakeholder engagements, baseline surveys and applicable provisions is submitted alongside this Monitoring Report, and summarized below in Section 3.3.4. Monitoring data for PI3-VH will be provided to the VVB at verification.	PP has provided the appropriate evidence for the local stakeholder engagements, baseline surveys and applicable provisions to confirm that monitoring report is provided with sufficient technical, financial, geographic, and other relevant information to demonstrate compliance with the applicable set of eligibility criteria and enable sampling by the validation/verification body.

	Monitoring data of PIs will be stored in the monitoring database, which will also allow for sampling by the validation/verification body. Evidence of relevant information such as local stakeholder engagements, baseline surveys and applicable provisions will be included when submitting for PI validation at verification.		Based on the review of the MR/01/, it is confirmed that new stoves distributed in PI3-VH comply with the eligibility criterion and the condition stated.
10	Be validated at the time of verification against the applicable set of eligibility criteria. New PIs will be submitted for validation against the applicable set of eligibility criteria at the time of verification.	PI3-VH conforms to the eligibility criteria set out in this table and will be validated at the time of verification.	Based on the review of the MR/01/, it is confirmed that stoves distributed in the PI3-VH and stoves distributed in the new instance PI3-VH comply with the eligibility criterion and the condition stated.
11	Have evidence of project ownership, in respect of each project activity instance, held by the project proponent from the respective start date of each project activity instance (i.e., the date upon which the project activity instance began reducing or removing GHG emissions). New PIs will demonstrate ownership by the project proponent, from the start date of the PI. Project ownership, as described in Section 1.7 of the latest version of the PDD, is applicable to all PIs included in this GP.	Project ownership of the Grouped Project, which includes all PIs, is demonstrated in Section 1.7 of the latest version of the PDD. This is confirmed as being with the Coordinating/ Managing Entity (CME) of the GP, which is TASC SA (Pty) Ltd. In addition, for PI3-VH, Similar to PI1-K2C and PI2-WB, the End User Agreement contains the unique serial number that is embossed onto each ICS and will be signed by the end user at the point of distribution. The End User Agreement includes the statement: "I understand that I have received the stove free of charge and that, in order to cover the costs of the stove, TASC SA (Pty) Ltd will claim the CO2 emissions reductions from the stove and sell these as carbon credits". PI3-VH is a unique project instance in the project boundary which is demonstrated in the unique serial numbers that will be tracked as part of the data collected at the point of distribution. As per section 3.7.1 of the VCS Standard v4.4, the End User	PP has provided the details of the project ownership for the grouped project activity. Furthermore, the end user agreements have ensured that the ownership of the credits is transferred to the PP. Based on the review of the MR/01/, it is confirmed that stoves distributed in the new instance PI3-VH comply with the eligibility criterion and the condition stated.

		Agreement is "An enforceable and irrevocable agreement with the holder of the statutory, property or contractual right in the plant, equipment or process that generates GHG emission reductions and/or removals which vests project ownership in the project proponent."	
12	Have a start date that is the same as or later than the grouped project start date. New PIs will have a start date that is the same as or later than the GP start date. Distribution of the efficient cookstoves in the respective PIs will begin at the start date of the GP, or later. Distribution data including distribution dates will be collected and stored on the distribution database. The sale of the first device marks the start date.	The start date of PI3-VH, evidenced as the sale of the first device in the database will be later than the start date of the GP as per section 1.8 of the latest version of the PDD. The start date of PI3-VH is 27 March 2023 and shown in Section 3.3.5 below.	The start date of the grouped project activity and also the first instance PI1-K2c is 20/08/2021. The start date of the project instance PI2-WB is 03/09/2021 and the start date of PI3-VH is 27/03/2023 as shown in section 3.3.5 of the MR/01/. Thus, it is confirmed that the start date of distribution is later than the grouped project start date. Based on the review of the MR/01/, it is confirmed that the stoves distributed in the new instance PI3-VH comply with the eligibility criterion and the condition stated.
13	Be eligible for crediting from the start date of the instance through to the end of the project crediting period (only). New PIs will be eligible for crediting from the start date of the instance through to the end of the project crediting period (only). New PIs will be eligible for crediting from the start date of the instance through to the end date of the project crediting period on 19 August 2031.	PI3-VH is eligible for crediting from the start date of the instance until the end of the project crediting period on 19 August 2031.	The new ICS distributed in the PI3-VH are eligible for crediting from the start date of the PIs to the end date of the grouped project activity crediting period. Based on the review of the section 1.6 of MR/01/, it is confirmed that new stoves distributed in the new instance PI3-VH comply with the eligibility criterion and the condition stated.

Overall, verification team confirms that the new project activity instance, PI3-VH is included during the monitoring period 3 and inclusion of new stoves distributed in the existing project instances PI1-K2C and PI2-WB comply with the eligibility criteria.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The implemented grouped project activity involves distribution of fuel efficient improved cookstoves (ICS) to local communities in South Africa, who rely on baseline open-fire wood-fuelled cooking. The ICS disseminated under this grouped project activity is based on rocket stove design principles, which reduces GHG emissions from biomass burning through improved combustion efficiency of wood fuel and decreased wood fuel consumption. During the monitoring period, a total of 183,063 Rocket Works Zama Zama rocket stoves were distributed in the three applicable project instances (PI1-K2C PI2-WB and PI3-VH) of the grouped project activity in South Africa. Overall, a total of 625,926 ICS have been distributed in the project activity since the start date of the grouped project activity. A total of 183,063 stoves were distributed during the reported monitoring period (MP3), 48,947 in PI1K2C, 73,614 in PI2-WB and 60,502 in PI3-VH.

In the absence of project activity, the uses of low efficiency three stone stoves would be continued and resulted into higher biomass consumption. It is assumed that in the absence of the project activity, the baseline scenario would be the use of non-renewable biomass for meeting similar thermal energy needs. The monitoring period 01/02/2023 to 31/07/2023 covered all these stoves.

During the onsite visit, CCIPL was able to verify that the project has been implemented as planned and as mentioned in the registered VCS-PD by visiting a sample of 18 households from the Habit Surveys, selected at random from the records available at the offices of the PP and the survey samples. It was observed during the onsite surveys that validation survey participants were using a 3- stone fire as a baseline device, thus, all the samples were accepted.

CCIPL verification team performed samples among households included in the monitoring system. The samples were chosen from the list of households where the usage surveys were carried for the monitoring parameters $N_{y,i,j}$ and μ_y.

To verify the result of the calculation of confidence/precision, CCIPL has followed the Guideline: Sampling and surveys for CDM project activities and programmes of activities, version 4/B05-2/ and Standard: Sampling and surveys for CDM project activities and programmes of activities, version 9/B05-1/.

The project is registered under VCS with VCS ID 2505 in South Africa. The project crediting period under VCS is valid from 19/08/2021 to 19/08/2031. Project participant has provided confirmation during the onsite visit assessment that the carbon credits claimed under VCS will not be double counted under any other program.

Overall, the grouped project was implemented as described in the registered/included VCS-PD/B04/. Verification team confirmed that the grouped project activity and project instance implementation is in accordance with the project description contained in the registered/included VCS-PD/B04/. No material discrepancies were identified between project implementation and the project description.

Based on the above assessment, verification team concluded that all physical features of the project activity in the registered VCS-PD/B04/ are in place and that the project participant has operated the grouped project activity as per the registered VCS-PD/B04/.

The grouped project activity has been implemented that result in the sustainable development contributions described in the monitoring report/01/. The project contributes to the following SDGs:

SDG13: Tonnes of greenhouse gas emissions avoided or removed; Contribution for the reported monitoring period is 1,203,743 tCO_2e.

SDG 3: Number of households with improved indoor and ambient air quality due to reduced; 80% of the surveyed households reported reduction in smoke while cooking on the project ICS vs. the baseline fire in this monitoring period.

SDG 7: Number of households with access to clean fuels and technology. 183,063 households received ICS during this monitoring period.

SDG 12: Domestic fuel consumption. Contribution for the reported monitoring period is a reduction of domestic fuel consumption by an average of 2.25 t/HH/yr.

The SDGs are defined by the project proponent based on the project activity and deemed appropriate for the type of project activity.

Overall, the project has been implemented in accordance with the registered VCS-PD/B04/. No deviations have been proposed by the project proponent during the monitoring period.

4.2 Safeguards

4.2.1 No Net Harm

The grouped project activity involves distribution of improved cookstoves. No potential negative environmental or socio-economic impacts have been identified for the grouped project activity. This was also confirmed through the review of the VCS PD/B04/, MR/01/ and confirmed during the onsite visit.

4.2.2 Local Stakeholder Consultation

Local stakeholder consultations were conducted prior to the implementation of the Project Instances following the implementation plan for engaging with local stakeholders outlined in the latest Project Description. PP has also provided for a mechanism for ongoing communication with the local stakeholders of the project activity. The community members are consulted in sensitisation meetings (pre and post distribution), the sensitisation meetings are part of the ongoing communication with local stakeholders. These meetings aim to demonstrate the ICS usage and maintenance, as well as introduce the social-, economic- and environmental benefits of using the ICS and are being held at village level. TASC and the Implementation Partners (IPs) of the project collaborate to conduct these meetings. Relevant local tribal authorities are consulted during the sensitisation process and the appropriate permissions obtained to hold the meetings. Continued engagement with the communities are planned

and implemented by TASC and the IPs throughout the project lifecycle. The contact details of TASC and of the respective IPs are provided during the meetings and on the how-to guide distributed with the stoves. According to the MR/01/ section 2.2, no potential negative environmental or socio-economic impacts have been identified for the project.

The details for the project proponent and the respective implementation partners have been provided for the continuous grievance mechanism. All the meetings carried out during the monitoring period for the project instances are provided in the section 2.2 of the monitoring report/01/. The details of the comments made by the local stakeholders during the consultation process are provided in the section 2.2 of the monitoring report/01/. All the information provided in the MR/01/ section 2.2 and the evidence provided in the supporting documents as Local Stakeholders community meeting records /05/ are consistent and proves the appropriateness of the local stakeholder consultation conducted for this monitoring period.

4.3 AFOLU-Specific Safeguards

For non-AFOLU projects, this section is not required.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The monitoring has been carried out in accordance with the provision of monitoring plan; the verification team reviewed if:

- The monitoring of reductions in GHG emissions resulting from the VCS project activity were implemented in accordance with the monitoring plan contained in the registered VCS-PD.
- The monitoring plan and the applied methodologies had been properly implemented and followed by the project participants.
- All parameters stated in the monitoring plan, the applied methodologies and relevant standards and requirements had been sufficiently monitored and updated.
- The responsibilities and authorities for monitoring and reporting were in accordance with the responsibilities and authorities stated in the monitoring plan.

The monitoring system and all applied procedures are in compliance with the monitoring plan contained in the registered VCS-PD/B04/ and the applied methodology VMR0006 version 1.1/B02/, based on the information included in the final monitoring report, there are several procedures for data collecting depending on the methodology applicable for each step of the project. Organizational Structure has been provided in the MR along with the roles and responsibilities.

The parameters and sampling measures taken are detailed below:

Parameter	Description of Parameter	Sampling approach (outcome in brackets)

$N_{y,i,j}$	Number of project devices of type i and batch j operating during year y	Visual inspection of the premises to see if the project stove is operational and in use. Interview with end user to verify that project stove is still in use (Yes/No)
$B_{y=1,new,i,j,survey}$	Quantity of woody biomass used by project devices in tonnes per device of type i.	This parameter is not monitored during the monitoring period as PP has applied the values determined in the first year of the implementation of the project through a sample survey.
μ_y	Adjustment to account for any continued use of pre-project devices during the year y	Interview with end user and visual inspection to determine if a pre-project (replaced) stove is still being used in addition to project stove (Yes/No)
B_{old}	Annual quantity of woody biomass that would have been used in the household in the absence of the project activity to generate useful thermal energy equivalent to that provided by the project devices.	Interview with end user and visual inspection to determine pre-project wood usage

PP conducted sampling surveys to gather information needed for the monitoring of $N_{y,i,j}$ and μ_y parameters.

Sampling captured information on monitoring variables with required confidence/precision (90/10 for individual PIs on an annual basis, or 95/10 confidence/precision basis for groups of PIs or sampling on a biennial basis). PP has applied 95/10 confidence/precision for sampling as a group of PIs is being sampled together. A simple random sampling was used.

Based on a population of 625,926 households, a sample size of 100 was determined for all three PIs based on expected proportion of 0.86, 0.99, and 0.88 for PI1-K2C, PI2-WB, and PI3-VH, respectively, a sample size of 100 has been determined for all three PIs, PI1-K2C, PI2-WB, for the monitoring parameter $N_{y,i,j}$. The applied confidence interval and precision level is 95/10 (appropriate for a group of PIs). The expected proportion is thus in accordance with the §5 of the Appendix 1 of the sampling guidelines, version 4/B05-2/. In accordance with the section 8.4 Option (b) of the VMR0006, version 1.1 of the methodology/B02/, i.e. Project target population > 1000: Minimum sample size 100, PP has applied a sample size of 100 for all three PIs, PI1-K2C, PI2-WB, for the parameter $N_{y,i,j}$ and μ_y. The relative precision obtained in 6.6%, 1.7%, 6.1% for PI1-K2C, PI2-WB, and PI3-VH, respectively, for the parameter $N_{y,i,j}$. The relative precision for the parameter μ_y is 7%, 4.2%, and 6.1% in PI1-K2C, PI2-WB, and PI3 VH, respectively.

In line with §26 of the Sampling Standard, version 9/B05-1/, the verification team has applied an acceptance sampling approach for onsite visit as part of the verification. Now as the PP had applied sampling approach, the verification team has chosen acceptance sampling for the parameter $N_{y,i,j}$ and μ_y in accordance with the §28 of the sampling standard, version 09 /B05-1/.

VVB used sampling during verification for checking the PP's sample size. In accordance with the §31 and §32 of the sampling standard, version 09/B05-1/, a sample size of 18 was selected for verification of monitoring survey and 18 samples for validation of baseline survey for PI3-VH was

required based on an AQL of 0.5 % and UQL of 20 %, producer risk 5 % and consumer risk 10 %. The AQL and UQL selected is based on the Table 2 of the sampling standard, version 09/B05-1/ and complies with the requirements provided in §31 and §32 of the sampling standard, version 09/B05-1/. Acceptance number (c) thus determined for the sample is 1. It was observed that out of the 18 samples for Habit Surveys, all 18 stoves were found to be operational. It was observed out of the 18 samples for validation survey, all the respondents were part of the KPT survey conducted by the PP. Thus, no discrepant records were observed with the MR /01/ and the ER sheet /02/ with an acceptance number of c=1. Thus, PP's set of records has been accepted in line with §38 of the sampling standard, version 09 /B05-1/. VVB team has cross verified these sample documents during the onsite visit interviews.

Emission reduction (ER)

The methodology does not calculate baseline and project emissions separately.

The steps taken and the equations and parameters applied in the VCS-PD/B02/ to calculate the project emissions, baseline emissions, leakage and emission reductions comply with the requirements of the selected methodology including applicable tool(s).

Quantification of baseline emissions:

According to section 8.4 of methodology VMR0006, version 1.1/B02/, emission reductions shall be calculated as:

$$ER_y = \sum_i \sum_j ER_{y,i,j}$$

Where;
i = Indices for the situation where more than one type of project device is introduced to replace the pre-project devices

j = Indices for the situation where there is more than one batch of project device

ER_y = Emission reductions during year y in tCO_2e

$ER_{y,i,j}$ = Emission reductions by project device of type i and batch j during year y in tCO_2e

Since the grouped project activity involves the deployment of improved cookstove, the following equation 2 is applicable as per methodology VMR0006, version 1.1/B02/:

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

$B_{y,savings,i,j}$: Quantity of woody biomass that is saved in tonnes per cookstove device of type i and batch j during year y

$f_{NRB,y}$: Fraction of woody biomass that can be established as non- renewable biomass (fNRB) (refer to CL02 and CL03 for assessment of fNRB value for PI3-VH)

$NCV_{wood\ fuel}$: Net calorific value of the non-renewable woody biomass that is substituted (IPCC default for wood fuel, 0.0156 TJ/tonne)

$EF_{wf, CO2}$: CO2 emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 112 tCO2/TJ)

$EF_{wf, non\ CO2}$: Non-CO2 emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 26.23 tCO2/TJ)

$N_{y,I,j}$: Number of project devices of type i and batch j operating during year y

0.95 : Discount factor to account for leakage

The quantity of woody biomass saved, $B_{y,savings,i,j}$, due to implementation of improved cookstoves can be estimated by one of the following options set out in Equations 3 and 4:

$$B_{y,savings,i,j} = B_{old} \times (1 - \frac{\eta_{old}}{\eta_{new,i,j}}) \quad \text{Equation 3}$$

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

The efficiency of the project stoves can be estimated using Equation 5:

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

η_p	Efficiency of project cookstoves (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 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.

<u>Quantification of project emissions:</u>

Project emissions are not applicable to the grouped project activity as the applied methodology, VMR0006, version 1.1/B02/, provides a direct equation for the calculation of emission reductions and does not provide calculations of project emissions separately.

Quantification of leakage emissions:

In accordance with the section 8.3 of the applied methodology, VMR0006, version 1.1/B02/, a default factor of 0.95 to account for leakage has been applied.

Verification team confirms that all relevant assumptions and data are listed in the project description, including their references and sources and that all data and parameter values used in the project description are considered reasonable in the context of the project and all estimates of the baseline emissions can be replicated using the data and parameter values provided in the project description. No uncertainties associated with the calculations of emissions have been observed by the verification team.

Project Emission (PE)

Not Applicable.

Leakage (L)

Not Applicable.

According to the applied methodology, a net-to-gross adjustment factor of leakage of 0.95 is applied to calculate the emission reductions for the monitoring period.

Ex-ante parameters:

Parameter	Value	Source	Assessment
$B_{old,p}$	5.49 (PI1-K2C) 5.00 (PI2-WB) 3.98 (PI3-VH)	Field Baseline Survey Report by TASC	The baseline fuelwood consumption data is sourced from the baseline survey conducted by TASC in the applicable geographical boundary. The results were cross-checked the MR with the set if the records provided by the PP for MP1/B04/. The sampling for this parameter was conducted by the VVB with the reference to the para 28 of CDM Sampling and surveying standard /B05/, according to the table 2 of CDM Sampling and surveying standard /B05/, the total samples selected were 18 and the acceptance number c

			is 1. According to the survey conducted by validation and verification team, there was 1 discrepant record for this parameter, hence the set of records provided by PP is deemed appropriate according to the para 33 of CDM Sampling and surveying standard /B05/,
$f_{NRB,b,y}$	0.89 (PI1-K2C) 0.99 (PI2-WB) 0.88 (PI3-VH)	Calculated based on the CDM TOOL 30 "Calculation of the fraction of non-renewable biomass" v3.0 for PI1-K2C, PI2-WB and PI3-VH.	The assessment of the values for the PI3-VH is provided in the monitoring period 3/B04/ and the assessment of the values for the PI2-WB is provided in the monitoring period 1. The values for PI1-K2C have been cross checked with the registered PD/B04/.
$EF_{WF,CO2}$	112 tCO_2e/TJ	VMR0006 methodology default/B02/: IPCC default for wood fuel	The value has been cross-checked with the methodology, VMR0006, version 1.1/B02/.
$EF_{WF,non-CO2}$	26.23 tCO_2e/TJ	VMR0006 methodology default/B02/: IPCC default for wood fuel	The value has been cross-checked with the methodology, VMR0006, version 1.1/B02/.
η_p	38.3 %	Rocket Works' Zama Zama wood stove; South Africa lab efficiency test (stove model distributed in the first two monitoring periods)	The value has been cross-checked with the registered PD/B04/.

Monitored parameters:

Data / Parameter	Number of project devices of type i and batch j operating during year y ($N_{y,i,j}$)

Measuring frequency	At least once every two years
Recording frequency	At least once every two years
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment	Survey Form
Value(s) of monitored parameter	PI1-K2C = 293,818 PI2-WB = 221,537 PI3-VH = 53,241
Is accuracy of the monitoring equipment as stated in the PD?	NA
Calibration frequency /interval	NA
Is the calibration interval in line with the monitoring plan of the PD?	NA
Company performing the calibration	NA
Did calibration confirm proper functioning of monitoring equipment? (Yes / No)	NA
Is(are) calibration(s) valid for the whole reporting period?	NA
If applicable, has the reported data been crosschecked with other available data?	Yes, the reported data has been cross-checked with the monitoring usage survey records and the data has been found consistent. Sampling approach has been assessed above. The reported value also represents the operational stoves during the monitoring period and since 86 out of the 100 for PI1-K2C, 99 out of 100 in PI2WB and 88 out of 100 in PI3-VH users surveyed reported that they use the stoves, a factor of 0.86 for PI1-K2C, 0.99 for PI2-WB and 0.88 for PI3-VH has been used to calculate the proportion of operational stoves. In the survey conducted by the validation verification team, the proportion of project devices in-use in the project scenario was 100%, hence the value calculated by the PP is deemed to be appropriate because it is more conservative.

How were the values in the monitoring report verified	The values in the monitoring report were verified through the comparison with the values in the ER sheet/02/ and the raw data provided therein.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place.

Data / Parameter	Efficiency of the device of each type i and batch j implemented as part of the project activity ($\eta_{new,i,j}$)
Measuring frequency	Annually
Recording frequency	Annually
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the stated measuring and reporting frequency of the parameter is in accordance with the MR and the methodology deviation provided.
Type of monitoring equipment	NA
Value(s) of monitored parameter	0.3637 for stoves distributed in this monitoring period (for stoves less than 1 year old) 0.3600 for stoves older than one year (for stoves more than 1 year old and less than 2 year old)
Is accuracy of the monitoring equipment as stated in the PD?	The value of the parameter is determined based on the equation 5 of the methodology, VMR0006, v1.1/B02/.
Calibration frequency /interval	NA
Is the calibration interval in line with the monitoring plan of the PD?	NA. The value of the parameter is determined based on the equation 5 of the methodology, VMR0006, v1.1/B02/.
Company performing the calibration	NA
Did calibration confirm proper functioning of monitoring equipment? (Yes / No)	NA

Is(are) calibration(s) valid for the whole reporting period?	NA
If applicable, has the reported data been crosschecked with other available data?	This monitored data has been cross-checked with the ER sheet/02/.
How were the values in the monitoring report verified	The values in the monitoring report were verified through the comparison with the values in the ER sheet/02/.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place.

Data / Parameter	Quantity of woody biomass used by project devices in tonnes per device of type i ($B_{y=1,new,I,J,survey}$)
Measuring frequency	Determined in the first year of project implementation
Recording frequency	Determined in the first year of project implementation
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	This parameter is not monitored during the monitoring period as the value is determined during the first year of the project implementation. The values determined in the first year of project implementation have been used by the project proponent.
Type of monitoring equipment	NA
Value(s) of monitored parameter	NA.
Is accuracy of the monitoring equipment as stated in the PD?	NA
Calibration frequency /interval	NA
Is the calibration interval in line with the monitoring plan of the PD?	NA
Company performing the calibration	NA

Did calibration confirm proper functioning of monitoring equipment? (Yes / No)	NA
Is(are) calibration(s) valid for the whole reporting period?	NA
If applicable, has the reported data been crosschecked with other available data?	NA
How were the values in the monitoring report verified	NA
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	NA

Data / Parameter	Adjustment to account for any continued use of pre-project devices during the year y (μ_y)
Measuring frequency	At least one every two years
Recording frequency	At least one every two years
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment	Monitoring survey
Value(s) of monitored parameter	PI1-K2C = 0.22 PI2-WB = 0.42 PI3-VH = 0.41
Is accuracy of the monitoring equipment as stated in the PD?	NA
Calibration frequency /interval	NA
Is the calibration interval in line with the monitoring plan of the PD?	NA

Company performing the calibration	NA
Did calibration confirm proper functioning of monitoring equipment? (Yes / No)	NA
Is(are) calibration(s) valid for the whole reporting period?	NA
If applicable, has the reported data been crosschecked with other available data?	Yes, the reported data has been cross-checked with the monitoring usage survey records and the data has been found consistent. Sampling approach has been assessed above.
How were the values in the monitoring report verified	The values in the monitoring report were verified through the comparison with the values in the ER sheet/02/ and the raw data provided therein.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place.

Data / Parameter	Efficiency of baseline stove (η_{old})
Measuring frequency	Fixed for each individual household at the time of project implementation
Recording frequency	Fixed for each individual household at the time of project implementation
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment	NA
Value(s) of monitored parameter	0.1
Is accuracy of the monitoring equipment as stated in the PD?	NA
Calibration frequency /interval	NA

Is the calibration interval in line with the monitoring plan of the PD?	NA
Company performing the calibration	NA
Did calibration confirm proper functioning of monitoring equipment? (Yes / No)	NA
Is(are) calibration(s) valid for the whole reporting period?	NA
If applicable, has the reported data been crosschecked with other available data?	Yes, the reported data has been cross-checked with the methodology default value of 0.1 as used by the project participant/B02/.
How were the values in the monitoring report verified	The values in the monitoring report were verified through the comparison with the values in the ER sheet/02/ and the methodology, VMR0006, version 1.1/B02/.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place.

Data / Parameter	Operating lifetime of project device (**Life Span**)
Measuring frequency	Once at point of distribution
Recording frequency	Once at point of distribution
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment	NA
Value(s) of monitored parameter	5 years
Is accuracy of the monitoring equipment as stated in the PD?	NA

Calibration frequency /interval	NA
Is the calibration interval in line with the monitoring plan of the PD?	NA
Company performing the calibration	NA
Did calibration confirm proper functioning of monitoring equipment? (Yes / No)	NA
Is(are) calibration(s) valid for the whole reporting period?	NA
If applicable, has the reported data been crosschecked with other available data?	Yes, the reported data has been cross-checked with the manufacturer declaration on the stove lifetime/06/.
How were the values in the monitoring report verified	The values in the monitoring report were verified through the comparison with the values in the manufacturer declaration on the stove lifetime/06/.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place.

Data / Parameter	Net calorific value of the non-renewable woody biomass, renewable biomass, briquettes or pellets used in project devices ($NCV_{biomass}$)
Measuring frequency	Annual
Recording frequency	Annual
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment	NA
Value(s) of monitored parameter	0.0156 TJ/tonne

Is accuracy of the monitoring equipment as stated in the PD?	NA
Calibration frequency /interval	NA
Is the calibration interval in line with the monitoring plan of the PD?	NA
Company performing the calibration	NA
Did calibration confirm proper functioning of monitoring equipment? (Yes / No)	NA
Is(are) calibration(s) valid for the whole reporting period?	NA
If applicable, has the reported data been crosschecked with other available data?	Yes, the reported data has been cross-checked with the methodology, VMR0006, version 1.1/B02/. PP has used the IPCC default value for wood fuel.
How were the values in the monitoring report verified	The values in the monitoring report were verified through the comparison with the values in the methodology, VMR0006, version 1.1/B02/.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place.

A comparison of the emission reductions observed for monitoring period 1, monitoring period 2 and monitoring period 3 has been provided in the section 5.4 of the MR/01/. The emission reductions per stove in the reported monitoring period for stoves with age less than 1 year is 5.6387 tCO_2e/stove/ year for PI1, 4.3009 tCO_2e/stove/ year for PI2 and 3.0587 tCO_2e/stove/ year for PI3. The emission reductions per stove in the reported monitoring period for stoves with age more than 1 year and less than 2 years old is 5.6171 tCO_2e/stove/ year for PI1, 4.2844 tCO_2e/stove/ year for PI2 and 3.0470 tCO_2e/stove/ year for PI3. The emission reductions per stove during the previous 2nd monitoring period were 3.157 tCO_2e/stove/ year and 3.883 tCO_2e/stove/ year in the 1st monitoring period. Thus, presenting an increase compared to the previous monitoring period. PP has provided the reasons for the change in the per unit emission reductions in the section 5.4 of the MR. The justification provided by the PP has been assessed by the verification team:

S. No.	Justification	Assessment
1	the increase in per-ICS ERs for this MP was expected for the following reasons:	PP has justified the increase in the per unit emission reduction. According to the habit survey conducted the adoption rates of the project stoves

	1) Stove adoption rates were expected to increase. Distributed household device projects typically see usage and adoption rates increase in the early stages of project development, as end-users familiarize themselves with the technology and its benefits. The PP has over a decade experience in ICS carbon projects and in a previous CDM PoA, developed by the PP and hosted in Zambia using similar technology and with a similar end user profile, observed the qualitatively surveyed increase in ICS adoption (i.e. usage rates) from the first to second monitoring periods from 58% to 88% (a 67% increase). In this MP, the adoption rate of stoves increased from an average of 82% to 91% (a 10.9% increase) 2) Similarly, the continued baseline stove usage factor decreased from an average of 41.7% to 35%. The PP and PI Implementers deployed community and project support teams in all three PIs. These permanent teams were established specifically to support and encourage the widespread adoption and use of the ICS amongst end-users. Using multiple stakeholder engagement platforms (described in Section 3.1 above) have led to an increase in use of project ICS. In this monitoring period, 10 permanent monitors were employed across the two PIs. The teams presented at 43 community meetings, visited 659	increased in MP3 compared to MP2 by 67%. Project implementors conducted community meetings, records of which are provided by the PP in the supporting documents which lead to increase in the adoption of the project cookstoves. Thus, supporting the increase in per-ICS ERs in MP3.

	project households, and posted several social media and newsletter posts as described in Section 2.2 and 3.1 above. The combination of the above factors has led to an increase in per-ICS ERs from MP2 to MP3.	

PP provided the spreadsheets used for calculating the GHG emission reductions. CCIPL has reproduced all these calculations to obtain the same results, hence, they are deemed quantified correctly in accordance with the project description and applied methodology; consistent with the evidence provided and cross-checked by CCIPL. Furthermore, appropriate methods and formulae for calculating baseline emissions, project emissions and leakage have been followed, and assumptions and emission factor correctly applied and justified.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

CCIPL was able to confirm that the calculations are based on authentic data. The spreadsheets used to calculate the VCU calculations, and all figures were tracked, checked and found to be consistent.

The quality of supporting evidence submitted to the VVB for verification is adequate and found to be verifiable. The transfer of carbon rights and other supporting documents related to quality and maintenance were checked by the verification team during the onsite visit audit assessment to confirm the authenticity of the documents and to check the correctness of the calculation.

The verification team can confirm that sufficient evidence is available for the whole monitoring period and the same is verifiable and that the data collection system meets the requirements of the monitoring plan and the applied methodology according to the assessment carried out onsite visit audit assessment and in the document review.

4.6 Non-Permanence Risk Analysis

As the project activity is a non-AFOLU project activity no risk related to non-permanence has been identified for the project activity.

5 VERIFICATION OPINION

Carbon Check (India) Private Limited has performed the verification of the grouped project activity "Fuel Efficient Cooking in South Africa" in South Africa, with regards to the relevant requirements for VCS project activities.

The conclusions can be summarised as follows:

- The project is implemented and installed as planned and described in the registered VCS PD/B04/ and the grouped project activity confirms with the verification criteria for project and their GHG emission reductions or removals set out in the VCS rules.
- The monitoring plan is in accordance with the applied approved methodology, i.e. VMR0006, version 1.1/B02/ and monitoring plan as sought out in the registered VCS-PD/B04/.
- The monitoring system is in place and functional. The project has generated verifiable GHG emission reductions.

As the result of the verification of project activities, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. Carbon Check (India) Private Ltd. herewith confirms that the project has achieved emission reductions in the below mentioned reporting period as follows. The project complies with the verification criteria for projects and their GHG emissions reductions or removals set out in VCS rules. The GHG statement provided herein is the responsibility of the project proponent and project conforms with the verification criteria for projects and their GHG emission reductions or removals set out in VCS Standard Version 4.4. The project has been implemented in accordance with the project description and subsequently validated variations (project instance inclusions and project description deviations).

For the project description deviation included in the project activity, the project conforms with the validation criteria for projects set out in VCS standard version 4.4

The level of assurance of the verification report falls under reasonable assurance engagements as selected by the Client. The verification team verified the monitoring data for all the parameters of the monitoring plan based on the sampling measures used by the project proponent and confirms that the reported emission reductions are free from any type of material errors.

Verification period: From 01-February-2023 to 31-July-2023

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

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
Year 2023 (01-	1,203,743	0	0	1,203,743

February-2023 to 31-July-2023)				
Total	1,203,743	0	0	1,203,743

The summary of emission reductions for each vintage with the comparison of values reported in the ex-ante estimates is provided below:

Year	*Ex-ante emissions reductions /removals*	***Achieved emissions reductions/removals***	***Percent difference***	***Justification for the difference***
Year 2023 (01-February-2023-- 31-July-2023)	1,892,504	1,203,743	-36.39%	Although more stoves were distributed in the project scenario than in the ex-ante calculations (625,926 vs. 382,000) the different discounts applied resulted in the lower achieved emission reductions. 1. the baseline quantity woody biomass was reduced by an average of 36% to account for continued baseline stove usage alongside the ICS in the project scenario. 2. an average 11% reduction was further applied to the ERs to account for project stoves that are not in use.
Total	1,892,504	1,203,743	-36.39%	Although more stoves were distributed in the project scenario than in the ex-ante calculations (625,926 vs. 382,000) the different discounts applied resulted in the lower achieved emission reductions. 1. the baseline quantity woody biomass was reduced by 36% to account for continued baseline stove usage alongside the ICS in the project scenario.

				2. an 11% reduction was further applied to the ERs to account for project stoves that are not in use.

APPENDIX 1: REFERENCES

S. No.	Document
/01/	VCS Monitoring Report version 2 dated 21/11/2023
/02/	ER spread sheet corresponding to /01/
/03/	Project Device Distribution Database for: 1. Project Instance 1 2. Project Instance 2 3. Project instance 3
/04/	Habit Survey records for, and KPT records: 1. Project Instance 1 2. Project Instance 2 3. Project Instance 3
/05/	Local Stakeholders community meeting records
/06/	Rocket works SeTAR emission test report 12/02/13
/07/	PI3-VH BASELINE SURVEY AND fNRB
/B01/	1. VCS Standard, version 04.4 2. VCS Program Guide version 04.3 3. VCS Validation and Verification Manual, version 03.2 4. Registration and Issuance Process v4.3 5. VCS Program Definitions version v4.3
/B02/	1. VCS Methodology: VMR0006 ver. 1.1 – Methodology for Installation of High Efficiency Firewood Cookstoves
/B03/	VCS MR Template version 4.2
/B04/	1. Registered VCS-PD (version 4.0 dated 18/02/2022 and the corresponding Validation Report) 2. Monitoring Report (version 4.0 dated 14/06/2022 and the corresponding Verification Report) for the 1st monitoring period
/B05/	1. Standard for sampling and surveys for CDM PAs and PoAs, version 09 2. Guidelines for sampling and surveys for CDM project activities and programme of activities (version 04.0)

APPENDIX 2: ABBREVIATIONS

CA	Corrective Action / Clarification Action
CER	Certified Emission Reduction
CAR	Corrective Action Request
CCIPL	Carbon Check (India) Private Ltd.
CDM	Clean Development Mechanism

CER	Certified Emission Reduction
CL	Clarification Request
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
DOE	Designated Operational Entities
DVR	Draft Validation Report
EB	CDM Executive Board
EF	Emission Factor
FA	Final Approval
FAR	Forward Action Request
FVR	Final validation Report
GHG	Greenhouse gas(es)
IPCC	Intergovernmental Panel on Climate Change
OSV	On Site Visit
QC/QA	Quality control/ Quality assurance
TA	Technical Area
TASC	The African Stove Company Limited
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VVB	Validation / Verification Body

APPENDIX 3: COMPETENCY CERTIFICATE

Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Mr. Anubhav Dimri

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

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☒ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	☐ CCB Expert
☒ Financial Expert	☒ Local Expert for India, South Africa and Spanish speaking countries		

in the following Technical Areas:

☒ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☒ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☒ TA 13.1	☐ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date
1st January 2023

Expiry Date
31st December 2023

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Mr. Kiran K V

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

for the following functions and requirements:

☒ Validator	☒ Verifier	☐ Team Leader	☒ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	☐ CCB Expert
☐ Financial Expert	☒ Local Expert for India		

in the following Technical Areas:

☐ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☐ TA 13.1	☒ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date
1st January 2023

Expiry Date
31st December 2023

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Ms. Aluwani Balebale

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

for the following functions and requirements:

☐ Validator	☐ Verifier	☐ Team Leader	☐ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☐ SDG+	☐ Social no-harm(S+)	☐ Environment no-harm(E+)	☐ CCB Expert
☐ Financial Expert	☒ Local Expert for South Africa		

in the following Technical Areas:

☐ TA 1.1	☐ TA 1.2	☐ TA 2.1	☐ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☐ TA 13.1	☐ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date
7th September 2023

Expiry Date
6th September 2024

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Mr. Netshitumbu Witness

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

for the following functions and requirements:

☒ Validator	☒ Verifier	☐ Team Leader	☒ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☐ SDG+	☐ Social no-harm(S+)	☐ Environment no-harm(E+)	☐ CCB Expert
☐ Financial Expert	☒ Local Expert for RSA		

in the following Technical Areas:

☐ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☒ TA 13.1	☐ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date
1st January 2023

Expiry Date
31st December 2023

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Ms. Indumathi C

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

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☒ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	☐ CCB Expert
☒ Financial Expert	☒ Local Expert for India and Sri Lanka		

in the following Technical Areas:

☒ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☒ TA 13.1	☒ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date

1st January 2023

Expiry Date

31st December 2023

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

APPENDIX 4: LIST OF FINDINGS

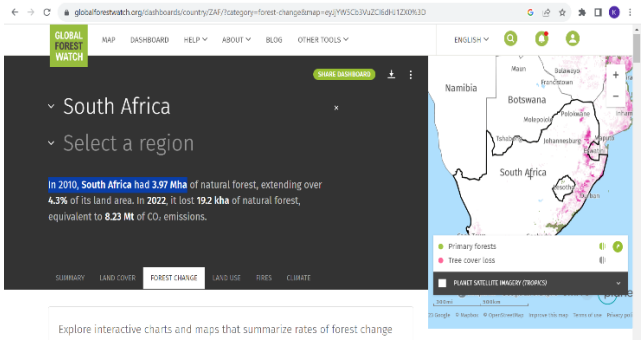
TABLE 1: CORRECTIVE ACTION REQUESTS (CARs) AND CLARIFICATION REQUESTS (CLs)

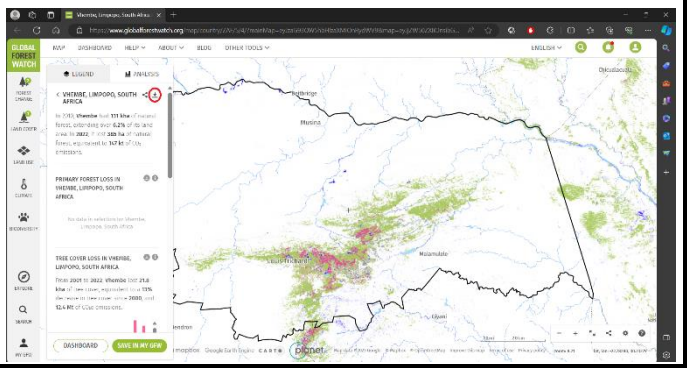
Finding	**CL 01**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *(VVB)*	In table 7 the change in ERs for MP2 to MP3 in PI1-K2C, the value in MR is mentioned as 27%, in the ER summary given in the ER sheet the same value is 30%, PP is requested to clarify the discrepancy.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	Table 7 of the MR was updated to reflect the 30% change in ERs from MP2 to MP3, corresponding to the 30% as seen on the ER sheet.		
VVB Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	Table 7 of MR has been revised to reflect the 30% change in ER which is found to be consistent with the ER sheet.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	**CL 02**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *(VVB)*	In the fNRB calculation for baseline of PI3-VH the value of H is calculate by HW and N (terminology according to the equation 3 tool 30 version 3), but in the tool 30 version 3 the calculation of H according to the equation 3 is calculated as "$H = HW \times N + CE$ + NE" where HW = Average consumption of wood fuel per household, including fuelwood and charcoal, in the applicable area in the relevant period (tonnes//household) CE = Commercial woody biomass consumption for energy applications (e.g. commercial, industrial or institutional uses of woody biomass in ovens, boilers etc.) that are extracted		

	from forests or other land areas in the applicable area in the relevant period (tonnes) NE = Commercial woody biomass consumption for non-energy applications (e.g. construction, furniture) that are extracted from forests or other land areas in the applicable area in the relevant period (tonnes) N = Number of households consuming wood fuel within the applicable area in the relevant period (number) PP is requested to clarify the exclusion of CE and NE from the calculation of the H.
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	CE and NE are excluded due to the minimal industrial activity in PI3-VH that consumes woody biomass (See page 178 of the 2023/2024 IDP attached). The main source of biomass consumption is from residential use. CE and NE are additional wood consumers as defined in the description of the finding. By incorporating these factors in the fNRB equation, the overall wood consumption increases which increases the fNRB value. Therefore, for the sake of fNRB conservativeness, H was calculated by HW and N only.
VVB Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	In the provided frrb report, The source of Pforest,I to be added as footnote reference which can be verified. Also, the source of value for Fforest,I is hardcoded. PP is requested to provide the reference to the source which can be verified.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☒ Outstanding finding (not closed) ☐ The finding is closed
Corrective Action or clarification #2 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	References and hyperlinks have been added to the fNRB report and calculation sheet for Vhembe. Please see documents labelled " 2023-10-18 fNRB assessment for Vhembe Municipality clean", 2023-10-18 fNRB assessment for Vhembe Municipality track changes" and " 2023-10-18 TASC Baseline and fNRB Vhembe".
VVB Assessment #2 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	As per fnrb report, the value for MAIforest,i is 1.5 tonnes d.m. ha-1 yr-1, while in the calculation provided in fnrb calculation sheet, the value of 1 tonnes d.m. ha-1 yr-1 has been considered for MAiforest,i. PP is requested to clarify the inconsistency.

	It has been observed that PP referred to the The Global Forest Watch database for obtaining the values for parameter Fforest,I and PForest,i. But the provided reference does not actually provide the actual value of these parameters. VVB based on review of https://municipalities.co.za/overview/129/vhembe-district-municipality observed that the total land area of Vhembe district municipality is 25597 km2 . Figure 4 of document "fNRB assessment for the Vhembe Municipality" tells that 6.2% of total area of Vhembe district is natural forest. Therefore 6.2% of 25597 km2 which equals to 158,701 ha of natural forest, while the area of natural forest presented in fnrb report is 112,492 ha which is less conservative that the former value. PP is requested to clarify the choice of the non-conservative selection of data. Also, PP is requested to clarify how the value for Pforest,I has been obtained. Moreover, as per Tool30, the following sources can be used for parameter Fforest,I and Pforest,i (a) Global Forest Resources Assessment by the Food and Agriculture Organization of the United Nations (FAO); (b) Official statistics; (c) Project-specific survey data. The source used for these parameters (Global Forest Watch database) is not as per the requirement of Tool30. PP is requested to clarify on appropriateness of the source used.
Corrective Action or clarification #3 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	1. The value was erroneously stated in the fNRB report and has been amended. Please see the updated versions of the fNRB report labelled "2023-10-31 fNRB assessment for Vhembe Municipality track changes" and "2023-10-31 fNRB assessment for Vhembe Municipality clean". 2.The screenshot of Global Forest Watch in Figure 4 provides the natural forest area of 131 000ha for 2010 in the top block of information for Vhembe on the left. This value was then adjusted to account for the tree loss each year between 2010 and 2020 to obtain the natural forest area in 2020. This adjustment can be seen in the fNRB calculation spreadsheet. The protected areas were

	calculated by analyzing each forested area for the nature reserves indicated on Global Forest Watch. These forested areas were captured in the excel spreadsheet and used to calculate the total forested area within a protected area. 3. The FAO data is reported only at a national average level, whereas the Global Forest Watch data provides more detailed information, enabling analyses at subnational level. Therefore, the Global Forest Watch data sets provide data at a more granular level than the FAO data, which likely accounts for the discrepancy between the data on the Global Forest Watch dashboard and FAO data contained in the country report. The data sets from GFW are compiled from official statistics from highly regarded sources including Hansen, UMD, USGS and NASA. Accordingly, the use of Global Forest Watch data sets has been validated in at least two VCS project activities. These include the first two project activity instances included under this VCS grouped project, validated by TUV Nord and CarbonCheck, as well as the registered VCS grouped project Recipe for Change Grouped Project (#2384), validated by Carbon Check.
VVB Assessment #3 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	The value has been made consistent between fnrb report and calculation sheet. Thus this clarification is closed. As per global forest watch data, the forest cover in south africa in the year 2010 is 3970000 ha. (please see the screenshot attached).  But the global forest resource assessemnt report 2010 table 2 tells that the forest area of south africa is 9241000 ha. How can the date from global forest watch can be considered reliable considering the huge discrepancy between global forest resource assessment report and global forest watch data. The GFW interface screenshot attached in the fnrb report (figure 4) tells that the forest cover in 2010 in vhembe district is 131,000 ha and by 2020, 959 ha of forest cover has been lost. But in the fnrb calcualtion, the forest loss value from 2010 to 2020 PP has considered is 18,508 ha, and the source of this calcaultion

	is also not provided. PP is requested to provide clarification on the same. PP is requested to provide the most conservative fnrb value.
Corrective Action or clarification #4 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The fNRB calculation considers a region specific value for Vhembe. The FAO Forest Resources Assessment does not provide granular enough data to conduct a regional analysis. As a result the data from Global Forest Watch was used. A comparison with the FAO report cannot be made due to this lack of granularity. The datasets used by Global Forest Watch are produced by the Global Land Analysis and Discovery (GLAD) laboratory at the University of Maryland. The laboratory produces high quality data that is commonly used in GIS analyses. Since the data used by Global Forest Watch comes from a reputable peer-reviewed source, it is considered accurate and suitable for an fNRB analysis specifically for the Vhembe region. The 959 ha tree loss references is for a single year only, i.e. it is the tree loss in 2021 not the total tree loss by 2021 from 2010. The tree loss data is also produced by GLAD and can be downloaded from the Global Forest Watch website as indicated in the screenshot below (button at the red circle). The resulting spreadsheet can be filtered on the 'Subnational 2 tree loss ha' tab for the Vhembe municipality. https://www.globalforestwatch.org/map/country/ZAF/5/4/?mainMap=eyJzaG93QW5hbHlzaXMiOnRydWV9&map=eyJjZW50ZXIiOnsibGF0IjotMjIuNzgyNzk4NjE2MTM1ODIsImxuZyI6MzAuMjMyNzg1MjI1MDMxNzIzfSwiem9vbSI6OC4xNDI3OTI0NjU1NzI3NTQsImNhbkJvdW5kIjpmYWxzZX0%3D To download the data, press the button circled in red on the Global Forest Watch dashboard, this will download the data set and the values used in the fNRB calculation can be found in the "Subnational 2 tree cover loss" tab of the excel spreadsheet. You can filter column C of the sheet for Vhembe, which will present the values used in the calculation. 

	We would like to emphasise that this dataset has been used previously and accepted in various projects registered with the VCS, these include the first two project activity instances included under this VCS grouped project, validated by TUV Nord and Carbon Check, as well as the registered VCS grouped project Recipe for Change Grouped Project (#2384), validated by Carbon Check. This sets president that this is a trusted/accepted dataset. Furthermore, in Table 2, p8 of the Nuwarinda et al. the natural resource distribution of the Vhembe region is presented for 1990, 2013 and 2018. In this table it is seen that the forested area (indigenous forest) for Vhembe in 1990 and 2013 is 13,211.91 ha and 16,880.49 ha respectively. Which is far less than the forest area in Vhembe as per the global forest watch data used in the fNRB report (131k). In the fNRB calculation if the forest cover area is smaller, it would yield a higher fNRB, thus using the global forest watch data can be considered conservative. Even if you are to use the values for indigenous forest and natural woodland combined for 1990 and 2013 respectively, the values would still be lower than the Global Forest Watch value and would yield a higher fNRB if used. The fNRB calculation has been updated by the PP to use the FAO default per capita wood use value in order to determine the annual consumption. This reduced the fNRB value for Vhembe to 0.88 and had resulting changes in the ER calculation sheet and MR. You will note in the text of the MR that we as the PP has changed the consumption value in the fNRB calculation as a way of being more conservative. Thus, the 3rd party fNRB report remains unchanged.
VVB Assessment #4 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	As per the calculation provided by the third party fNRB report provided earlier, the baseline survey data was used for determining the per capita wood used. Now the FAO default per capita wood is used to determine the annual consumption for fNRB calculation, which is more conservative. The research provided by the PP, "Nuwarinda et al." reported the forest cover data that is less than the data provided by the Global Forest Watch, making the Global Forest Watch data for forest cover conservative, hence being used in the fNRB calculation in the third party report. The value for fNRB for Vhembe is used as 0.88 which is conservative and used for ER calculation. Hence, CL02 is closed.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 03		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *(VVB)*	In the baseline fNRB report for PI3-VH the value for fuel consumption per household per year is given 5.49 t/hh/yr which is the value for the region under Kruger 2 Canyon (PI1), but in the baseline survey for PI3 the value of the above mentioned parameter is given as 3.98 t/hh/yr for the region Vhembe, PP is requested to clarify the use of value from the of PI1-K2C, while the value for the parameter specific for the region in which fNRB is calculated has already been determined through the baseline survey for PI3-VH.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The baseline fNRB study was commissioned before the baseline fuel use study commenced. In addition, limited peer-reviewed literature quantifying household fuelwood consumption are available. Therefore, the PI1-K2C wood consumption value of 5.49 t/hh/yr informed the fNRB study. PI1-K2C and PI3-VH instances are neighbouring regions stretching across the same Limpopo Province. Households were expected to have similar socio-economic profiles and similar energy usages and practices. In addition, subsequent to the completion of the Baseline survey campaign, the household consumption parameter was substituted with the survey results in Cell B14 in the Excel Workbook titled "2023-03-14 TASC Baseline and fNRB Vhembe". This substitution did not result in a change in the final fNRB value.		
VVB Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	It has been observed that the value of household fuelwood consumption for PI3 has been used in the fnrb assessment of PI1 instead of the value from PI1which is deemed to be acceptable to VVB		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CL 04		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *(VVB)*	Value of the parameter Bold for PI3-VH in the ER sheet and table 4 of MR is given as 3.49 and in the baseline survey the value is 3.98, PP is requested to clarify this discrepancy.		

Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The parameter Bold for PI3-VH in the ER sheet and Table 4 of the MR have been updated from 3.49 to 3.98 to correspond to the baseline survey results. An updated Baseline Habit survey workbook is provided alongside this document, titled "Vhembe_Baseline_Habit_Survey (clean)_v1.1"
VVB Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	It has been observed that the correct value of Bold has been consistently applied in MR and ER sheet
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	**CL 05**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *(VVB)*	As per the registered PDD, it has been observed that the equation 3 of methodology VMR006 version 1.1 has been opted to calculate the Bysavings,l,j value. Also, since the baseline stove is still in usage in the project scenario, equation 6 of methodology version 1.1 has been used for calculating the parameter Bold as per MR provided. In the section 5.2 of MR, it has also mentioned that parameter Nnew,l,j will be determined either through KPT or using equation 5 of methodology version 1.1 and parameter μy is determined through questionnaires and evidence collection from the household. However, it the section 5.4 of MR, it has been stated that KPT were conducted to measure the household wood consumption to account for fuel use in all appliances in use in the household which also include fuelwood consumption from baseline stove still in use. From the review of the monitoring survey sheet, it has been observed that PP has calculated the value for μy through the following method. μy = average of total wood consumed by household (determined through KPT) – expected wood consumed in the project stove. The expected wood consumed in the project stove is determined by calculating the difference between the baseline fuelwood consumption (determined through baseline KPT) and Bysavings,l,j (calculated through equation 3 of methodology version 1.1). PP is requested to clarify how this quantification procedure is in line with the applied methodology and registered PDD.		

Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The monitoring and calculation approach described in the first two paragraphs in the finding above, as well as in the PDD, still apply to this monitoring report. Equation 3 was applied to determine By,savings,i,j, while Equation 6 was applied to adjust Bold for continued baseline stove usage (Bold,adjusted). ηnew,i,j was determined using Equation 5. The parameter table for uy in the PDD states: If both the improved cookstove and baseline cookstoves are used together then surveys shall be conducted to record the average continued operation of baseline cookstoves in a sample of households As the PDD also states (Section 5.3.2): "Field-based monitoring activities to determine monitored parameter values will be either a field survey, KPT or WBT", in determining uy, habit surveys are complimented by household fuel use surveys following the KPT Protocol. During this monitoring period, the KPT measurements are considered as a survey component, which is used in combination with the qualitative questionnaire to inform the percentage of household cooking needs being met by either the project ICS or the continued use of baseline fires. The finding incorrectly surmises the calculation of uy in the MR to be the average of total wood consumed by household (determined through KPT) – expected wood consumed in the project stove. In the MR, uy is described as the proportion of household cooking needs still being met by the baseline fire. This proportion is calculated as follows: 1) Using Equation 3, we calculate the expected amount of the baseline fuel consumption that would continue to be used on a project ICS, in a project scenario where there is no continued baseline fire usage. This we call "Bused" in the survey worksheets and is calculated using results of Equation 3 (Bold – By,savings) 2) Bused is then subtracted from the total household fuel consumption, as determined by KPTs, for each monitored household in the project scenario. This determines each households' residual fuel usage on the baseline fire. 3) This residual household fuel usage is then divided by the total household fuel usage to obtain a per-household parameter proportion uy 4) We then average this value from all monitored households to obtain the project parameter proportion uy Bold,adjusted is then calculated as per Equation 6 of the methodology. This approach to quantify uy is in accordance with the PDD and methodology due to the following:

	• All the equations applied to quantify the ERs, as described above, are in accordance with the PDD and the VMR0006 v1.1 methodology. • The monitoring plan presented in Section 5.3.2 in the PDD states: "Field-based monitoring activities to determine monitored parameter values will be either a field survey, KPT or WBT". All the survey elements are therefore described and eligible in the PDD. • In Section 5.2 of the PDD and in Section 9.2 of VMR0006 v1.1, parameter table uy states: "If both the improved cookstove and baseline cookstoves are used together then surveys shall be conducted to record the average continued operation of baseline cookstoves in a sample of households." And: "The surveys should be designed to capture the cooking habits and stove usage of households in the region, including quantification of use of baseline cookstoves, by formulating questions and/or collecting evidence to determine the frequency of usage of both the improved cookstoves and baseline cookstoves." Complimenting the user habit survey questions with wood use measurements provides a robust and accurate way to capture the household cooking habits by collecting evidence and quantifying continued baseline stove use. • This approach is possible because baseline household wood use surveys and quantification with KPTs were conducted for each PI. Therefore, the impact of introducing an ICS to a household on the baseline fuel use in the project scenario can be determined. • This approach presents a conservative method as any additional household fuel usage in the project scenario, vs. the baseline expected amount, is considered to be consumed on the baseline fire.
VVB Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	In the section 4.2 of MR, PP has stated the following under the data/parameter table for Uy "The surveys should be designed to capture the cooking habits and stove usage of households in the region, including quantification of use of baseline cookstoves, by formulating questions and/or collecting evidence to determine the frequency of usage of both the improved cookstoves and baseline cookstoves. For example, if there were 3 baseline cookstoves in a household and it was determined during the survey that use of one of them continues during the crediting period then a conservative adjustment factor of 0.33 is applied to Bold. Another example would be the case where there was only one baseline cookstove per household and its use during the project period continues along with the improved cookstove to meet 25% of the cooking needs of the household in which

	case the adjustment factor will be 0.25. Another example would be to interview the household and have them estimate the time of usage of the baseline cookstoves and improved cookstove on an average day". In the explanation above, PP has mentioned that "in determining uy, habit surveys are complimented by household fuel use surveys following the KPT Protocol. During this monitoring period, the KPT measurements are considered as a survey component, which is used in combination with the qualitative questionnaire to inform the percentage of household cooking needs being met by either the project ICS or the continued use of baseline fires." 1. Why PP has not used the decreasing efficiency (in New) in calculating the Bused value for determining the Uy in different age groups. 2. PP has determined the total fuelwood consumption of the household using KPT survey. But the actual usage of baseline stove or project stove in these household are not monitored, but rather the usage of baseline stove in the project scenario has been determined by subtracting total usage in the household (determined through KPT) with the usage of project stove (estimated through equation Bold-Bsavings, bsavings = Bold –(1-nold/new)). How can this be considered as an accurate representation of usage of baseline stove in the project scenario, considering that the household may have been using the project stove at a rate lesser than the estimated. 3. Also, PP is the explanation above has mentioned that this approach is conservative. However, PP is requested to prove this by comparing the value of Uy which would have been obtained through habitat survey alone. 4. Moreover, the value for nold is given as 10% in the calculation. Verification team based on the review of cells AQ to BA of tab "habit surveys" of excel sheets "2505_MRV3_K2C_v1.2", "2505_MRV3_Vhembe_v1.2", and "2505_MRV3_Waterberg_v1.2" has observed that electric stove and gas stoves has also been identified as baseline stove. Therefore PP is requested to clarify the validity of values of Bold used and use of 10% value for nold.
Corrective Action or clarification #2 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	1. Nnew is used in the calculation for Bysavings. Bysavings is calculated according to Eq 3 which utilizes the Nnew values as determined with EQ 5 which calculates the new efficiency of the ICS based on stove age. These calculations are in the ERs Survey tab in the ER calculation sheet. Please see cells D32, 33, 41, 42, 50 and 51 for the Nnew calculations of the respective instances in the ER calculation sheet "ERs Survey" tab. Furthermore, when using the adjusted Nnew values (cells D32, 33, 41, 42, 50 and 51) in the calculation for Bysavings

	and Bused when calculating Uy, the parameter Uy is lower. Thus, using 0.383 is deemed more conservative as it yields a higher value for Uy. 2. By assessing usage rates of cooking appliances via KPTs, we are employing the most accurate monitoring practice available to us: the actual quantity of wood being used by the household is being measured/quantified, which is a more accurate than a surveyed approach that asks users questions around usage. Our extensive experience in the field tells us that interviewing householders derives inaccurate and inconsistent responses, which can change from the monitoring exercise to when auditor conduct site visits (the auditor will recall that we encountered this problem in the last MP, which resulted in inconsistencies in householder responses that led to a 9.09% deduction in emissions reductions at the verification stage). Household project fuelwood usage was monitored to be higher than what was expected if only the ICS was in use. Thus, it can be assumed that any fuel use in excess of the expected project fuel usage is used on the baseline device. It is not specified in the methodology or the PD exactly how Uy must be determined and so we have adopted the most accurate approach we have available to determine this parameter value, whilst adhering to the requirements of the methodology and PD. We have justified how Uy is calculated utilizing KPTs (complying with the 'survey' requirement of the Methodology and PD) which is designed to capture all household fuel use of the same type, regardless of device type or number of devices. If a household uses more wood than is expected from efficiency improvements, this extra wood usage is attributed to the continued use of a baseline open fire. Thus, if the amount of wood used on the project device and the quantity of wood used in the baseline device (project scenario) is known, a proportion of baseline vs. project device usage can easily be calculated by dividing the calculated baseline device wood usage quantity (project scenario) with the total wood consumption in the project scenario as determined with KPT's. This calculation logic is much more sound/accurate as it is determined through actual quantifiable measurements as opposed to subjective questions of householders around stove usage, which derive notoriously inaccurate responses. The VVB asks: How can this be considered as an accurate representation of usage of baseline stove in the project scenario, considering that the household may have been using the project stove at a rate lesser than the estimated The most accurate approach would be to measure project stove usage via KPTs and compare that with continued baseline stove usage, but this would be a deviation to the methodology (which we tried to employ in the previous MP, but was rejected). So we are using the calculation of

	BySavings that is in accordance with the methodology (equation 3) and upon which the emissions reductions of the project are calculated. Project stove fuel use is calculated by using equation 3, so this in accordance with the methodology, making it entirely consistent in the calculation of this parameter value. So, we firstly assess the fuel use of the project stove using equation 3 of the methodology and then deduct this from the total monitored fuel use of the household (determined via KPT), meaning that the approach is consistent with methodology and also derives the most accurate fuel usage rate from the household, as this is a measured approach. 3. We are employing surveys in compliance with the methodology and the PD. We first ask (in a habit survey) whether the household uses the baseline device or not (we also conduct a visual check of this to make sure). If they are continuing to use the baseline device, we then employ the KPT survey to determine at what extent each stove is used, which informs Uy (as discussed above). This is not a deviation from the methodology or the PD, as it employs the surveyed approach in the most accurate way. Our experience with the VVB from the previous MP verification tells us that we cannot rely on the 'straight survey' approach, because it yields erroneous data, and we must employ the more accurate measurement approach. 4. The Nold value of 10% was determined in the project baseline which was both validated by the VVB and certified by VERRA at the project registration stage. The habit survey question relating to the finding raised does not ask what baseline device the HH used prior to receiving the ICS, but rather "Do you still use another fire or stove other than your cookstove?" (Question 44 in the provided Habit Survey Question List). This is the first question in the approach to determining Uy (as discussed above). This is also why KPTs are the most accurate way of monitoring this parameter value, because they isolate fuel use in the household (i.e. only wood use), so that there is a clear like-for-like comparison between the baseline device and the project device using the same fuel; any other fuel use is not captured as it is not relevant to the project. Thus, the value for Nold is correct at 10% for baseline wood fires (as per the methodology), and was set during validation.
VVB Assessment #2 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	1. It has been observed that using the adjusted Nnew value is less conservative and therefore the justification provided by PP is deemed to be acceptable. 2. PP in the response above mentioned that "By assessing usage rates of cooking appliances via KPTs, we are employing the most accurate monitoring practice available to us: the actual

	quantity of wood being used by the baseline device is being measured/quantified, which is a more accurate than a surveyed approach that asks users questions around usage." Through the proposed approach, PP is accurately quantifying the total quantity of wood used in the individual households. The fuel usage of both baseline and project stoves are estimated values which is derived from this total value, and therefore cannot be considered accurate. As per section 9.2 of applied methodology, for monitoring parameter uy, The surveys should be designed to capture the cooking habits and stove usage of households in the region, including quantification of use of baseline cookstoves, by formulating questions and/or collecting evidences to determine the frequency of usage of both the improved cookstoves and baseline cookstoves, but as per the applied approach, only the total usage is quantified or determined, the usage of baseline cookstoves and improved cookstoves is not directly determined. PP is requested to clarify how is this approach in compliance with methodology. Considering the above statements "It is not specified in the methodology or the PD exactly how Uy must be determined and so we have adopted the most accurate approach we have available to determine this parameter value, whilst adhering to the requirements of the methodology and PD", "Project stove fuel use is calculated by using equation 3, so this in accordance with the methodology, making it entirely consistent in the calculation of this parameter value. So, we firstly assess the fuel use of the project stove using equation 3 of the methodology and then deduct this from the total monitored fuel use of the household (determined via KPT), meaning that the approach is consistent with methodology", and "Project stove fuel use is calculated by using equation 3, so this in accordance with the methodology, making it entirely consistent in the calculation of this parameter value." As per methodology, equation 3 has been specifically designed to be used directly in the ER calculation (equation 2), but not for determining the parameter Uy or project stove fuel use. Also, equation 3 has to be used to determine the quantity of biomass saved due to implementation of cookstove if all the baseline stoves are completely displaced by project stoves. Therefore, PP is requested to clarify how Usage of equation 3 for determining parameter Uy is in compliance with methodology.

	3. The approach used in this monitoring period is different from the approach used in the previous monitoring periods for determination of Uy value. The justification provided above by PP does not state how the applied approach is conservative compared to the approach used previously which is accepted by VERRA. PP is requested to justify the conservativeness of the current method compared to the previous ones. 4. It has been observed that cooking devices other than baseline or project stoves has been adopted by households. PP is requested to note that, in the absence of other cooking devices, the overall fuelwood usage value will be higher than the value obtained with the presence of other cooking devices in the household. The KPT performed in the household that also uses other cooking devices such as LPG and electric stoves therefore shows a lower total fuelwood usage in the KPT and therefore high ER value. PP is requested to clarify how the use of other project devise in the households will be adjusted in the ER calculation.
Corrective Action or clarification #3 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	1. Noted 2. i. The approach we are employing is the "most accurate we have available", although it is not the most accurate we can conceive. The most accurate would be to assess all fuel usage by KPT, but this was rejected by Verra in the last verification as being non-compliant with the methodology. So we are using the next most accurate approach that is compliant with the methodology; i.e. assessing Uy by KPT, which fits appropriately with the parameter definition (i.e. by formulating questions and/or collecting evidence to determine the frequency of usage of both the improved cookstoves and baseline cookstoves). It should be noted that employing surveys is a pure estimation of usage based on unreliable, word-of-mouth data, so is the least accurate approach available to us (as proven in the previous verification, where false information was provided by a sampled end user causing a significant deduction in ER values). We know the fuel usage on the project stove from Equation 3 of the methodology, which is the basis of the overall emissions reductions calculation, (also an estimation, but more accurate that a survey) and we simply subtract this from the total fuel usage as measured by KPT. We are trying to improve our monitoring processes and to avoid the type of error that occurred in the previous monitoring period, where false and inconsistent information was provided by households in the usage survey and verification stages. As the same VVB was party to this

	situation in the previous monitoring period, we find it difficult to understand why this more accurate, measured approach is not acceptable. **ii.** As stated in previous rounds of review, there is no set way as per the methodology to determine Uy, only an example of how it could be calculated (emphasis on "could"). Nowhere is it stated that one cannot use Equation 3 and KPTs to determine Uy. In the finding it is stated that "Also, equation 3 has to be used to determine the quantity of biomass saved due to implementation of cookstove if all the baseline stoves are completely displaced by project stoves." This is exactly the premise of how we calculate Uy, if all baseline devices were not in use anymore the project KPT value will/should be equal to the By,savings value calculated as per equation 3. However, we know that this is not the case and there is continued use of baseline devices in the project scenario resulting in a project KPT value that is higher than the By,savings value (equation 3). Thus, all wood use above the By,savings value calculated using equation 3 is attributed to the baseline devices and enables us to calculate a proportion of ICS vs. Baseline device use (Uy). 3. As stated previously, we have changed our approach because of the inconsistencies and errors that occurred in the previous monitoring period using the survey approach. It is because of this experience that we are implementing a more accurate, measured approach. Determining usage rates based on subjective questions like "how often do you use your stove in a week" etc. are inherently inaccurate and responses may change from day to day. This is what occurred in the previous MP and led to a significant deduction in ERs during the verification. We are trying to remove the fallibility of human responses via a survey, and use empirical data instead. By using KPT data, we are employing a more accurate and logical approach. The best approach should not be the most conservative approach but rather the most correct/accurate. Conservativeness is misinterpreted as more correct, which is not the case. It is generally agreed that the most robust way to determine emissions reductions from cookstove projects is through utilizing KPTs in the baseline and project scenarios and calculate the difference/savings for each monitoring period. 4. In an improved cookstove project the baseline scenario is compared with the project scenario (for each MP) and emission reductions are based on the reduction in fuel being used. This is also why KPTs are the most accurate way of monitoring this parameter value, because they isolate fuel use in the household (i.e. only wood use), so that there is a

	clear like-for-like comparison between the baseline device and the project device using the same fuel; any other fuel use is not captured as it is not relevant to the project as the project only places focus on the reduction of fuel wood being used. There may be variability in how fuel is being used in the household but without direct monitoring of this parameter, we will never know this, and it is clear to the PP (and should be clear to the VVB) that this cannot be accurately assessed via a survey. As noted above, this is not the most accurate approach to monitoring ICS projects, but it is more accurate than using surveys, which the PP has discovered deliver inaccurate, inconsistent results.
VVB Assessment #3 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	Based on the review of PP response and the monitoring procedure provided for determination of value of parameter uy in the PD can be acceptable as the value has been determined from "survey" as prescribed in the methodology.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	**CL 06**		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding *(VVB)*	In section 4.2 of MR, the table for parameter Ny,I,j. The value provided for parameter cannot be traced in the ER sheet. PP is requested to provide the value and it calculation in the ER sheet.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The calculation of Ny,i,j is included in the ER calculation sheet. The calculations and values for the 3 respective instances are presented in the "Summary" tab cells D6:F6. The following language has also been added in section 4.2 of the MR: ER Calculation Sheet "Summary" tab PI1-K2C: Cell D6 PI2-WB: Cell E6 PI3-VH: Cell F6		
VVB Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and*	The Value of parameter Ny,I,j has been found to be added in the ER sheet. The value is found to be consistent with MR and distribution records.		

VVB assessments (#2, #3, etc.) shall be added.	
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	**CAR 01**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(VVB)*	PP is requested to remove the following typos mentioned in the points bellow: In the section 3.3.1, table 3 of the MR PP has mentioned the column heading as "How PI2-WB complies", but the section heading mentions "Evidences of Compliance to Eligibility criterion 1- PI3-VH". In section 3.3.2 the title of the section mention PI2-WB, but the eligibility conditions are for PI3-VH, In the section 3.3.2 PP has mentioned "both PIs" but as one more PI is added to the GP it should be updated. In section 3.3.5 the title of the section mentions PI2-WB, but the eligibility is discussed is for PI3-VH. Title for the table 7 and table 8 should be updated according to the latest addition of PIs and the period of monitoring.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	In section 3.3.1Table 3, the column heading has been changed to "How PI3-VH Complies". In section 3.3.2 the title of the section has been corrected to "Evidences of Compliance to Eligibility criterion 2- PI3-VH". In section 3.3.2, the "both PIs" statement has been corrected to include the third PI. In section 3.3.5 the title of the section has been corrected to "Evidences of Compliance to Eligibility criterion 12- PI3-VH". The title for Table 7 has been updated to included all the PIs. The dates for monitoring periods have been added in Table 7. The title of Table 8 was updated to reflect the current MP.		

VVB Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	It has been observed that all changes has been carried out by PP according to the comments raised above. The values and data have been consistently applied in the MR
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	**CAR 02**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(VVB)*	For the parameter "ηnew,y" mentioned in table 5 of section 5.4 in the MR the value for the parameter is only mentioned for PI2-WB, although it is same for all the PIs, PP is requested to mention it for the other two PIs as well.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The parameter "ηnew,y" has been added for all the PIs.		
VVB Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	It has ben observed that the value of nnew,y has been added for all PIs in the table 5 of MR		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	**CAR 03**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(VVB)*	In the "ERs survey" sheet in the ER sheet, for the "Tech days" column the heading for all the PIs is mentioned as PI1-K2C, PP is requested to correct the same.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further*	The headings for all the columns have been corrected to PI3-VH.		

information for clarification as per finding)	
VVB Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	In ER sheet tab " ERs Survey", PP has provided the ER calculation of all the PIs separately. However, the tech days of all the PI is preceded by the heading "PI3-VH". PP is requested to provide the name of each PI in their respective cells.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☒ Outstanding finding (not closed) ☐ The finding is closed
Corrective Action or clarification #2 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The headings for the columns in the ER calculation sheet v1.2 have been corrected to PI1-K2C, PI2-WB and PI3-VH.
VVB Assessment #2 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	It has been observed that the tech days for each instances are provided with their respective headings.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	**CAR 04**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(VVB)*	PP is requested to correct the title of project proponent provided in the table in section1.3 of MR to maintain consistency with the registered PDD		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	Title of project proponent has been changed to correlate with registered PDD (Table in section 1.3).		
VVB Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	It has been observed that the tile of project proponent in section 1.3 o MR has been revised accordingly.		

Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	**CAR 05**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(VVB)*	In the section1.4 of MR, 'Role in the project" row is found to be missing in the table provided for PI2-WB and for PI1-K2C and PI3-VH table, the role of entity is not provided appropriately. PP is requested to correct the same.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The details of the entity have been correctly added and the missing information has been added in line with the VCS Monitoring Report Template in Section 1.4: Table for PI1-K2C and PI3-VH.		
VVB Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	It has been observed that the role in the project row is provided for PI2-WB, and the role of entity is provided appropriately for PI1 and PI3		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	**CAR 06**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(VVB)*	In the section 1.12 of registered PDD, PP has mentioned that "PI project boundaries will be defined both in terms of climatic regions in which they are located and a specifically described geographical area". The project boundary of PI1-K2C has been defined in the PDD as mentioned, however, the project boundary of Pi1, PI2, and PI3 is not defined in the MR as indicated in PDD. PP is requested to add the same.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	Section 1.7 in the MR was updated to reference the project instance boundary descriptions in the various the project documents. The project instance boundary descriptions can be found in the following references: - PI1-K2C is described in Section 1.12 of the PDD.		

	- PI2-WB is described in Section 3.4.3 of the "1st Monitoring Report: Fuel Efficient Cooking in South Africa" - PI3-VH is described in Section 3.3.3 This description was also added to the current MR in Section 1.7 as requested, stating "All PIs currently included in the GP are within the geographic borders of South Africa (Figure 1). All three PIs can be classified as being: 1. Within the hot- and temperate- interior climatic regions 2. Within the Limpopo and Mpumalanga Provinces of South Africa."
VVB Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	It has been observed that PP has provided the information as described in the PDD in section 3.3.3 of MR for PI3. The reference of this section has also been added in 1.7 of MR. The reference to description of project boundary for other PIs has also been added in section 1.7 of MR which is deemed to be acceptable to VVB.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	**CAR 07**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(VVB)*	In the table 1 provided in section1.11 of MR, PP has not provided the official list (https://unstats.un.org/sdgs/indicators/indicators-list/) of SDG target number and SDG indicator number with text in their respective columns as indicated in the VCS monitoring report template. PP is requested to correct the same. Moreover, the number of ICS mentioned under SDG 13 and SDG 7 contribution(183,063 ICS) is found to be inconsistent with the number of ICS mentioned in section 1.1 of MR (183,332 ICS). PP is requested to correct the inconsistency.		

	PP is also requested to provide the calculation of SDG 3 and SDG 12 contribution in the ER sheet.
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	Table 1 in section 1.11 in the MR has been amended accordingly. The targets and indicators identified in Table 1 do not align with the specific SDG targets and indicators as defined in the SDG Metadata repository.1 Self-defined targets and indicators are therefore reported in the MR. This is in line with the VCS Monitoring Report Template v4.2, which states "Where a project's self-defined measure for tracking a benefit does not align with an official SDG indicator, do not provide an indicator number. Instead, write a project-specific indicator that relates to the most appropriate SDG target (see the example in row 4 in the table below)." The number of ICS distributed in this MP was updated in Section 1.1 of the MR to be consistent with the ER calculation workbook and with the number reported in the SDG 13 and SDG 7 contribution in Section 1.11. The calculations for SDG 3 and 12 contributions have been added to the Summary sheet in the ER calculation workbook v1.1, and consistency improved in the MR Table.
VVB Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	The SDG indicators provided in table 1 of MR are self defined by PP as they do not align with the SDG official list of Targets and indicators. The Number of ICS mentioned under SDG 7 and 13 contributions has been made consistently with other sections of MR The value and description of SDG 3 provided in ER sheet tab "summary" is not consistent with the value and description of SDG mentioned in table 1 od MR. PP is requested to correct the inconsistency.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☒ Outstanding finding (not closed) ☐ The finding is closed
Corrective Action or clarification #2	The value for SDG 3 in table 1 has been corrected to a total number of households of 502 827. The calculation for this

[1] https://unstats.un.org/sdgs/metadata/

	value has also been added into the "Summary" tab of the ER calculation sheet in cell C30. The language in table 1 has been amended in the MR to be more aligned with the calculation in the ER calculation sheet.
VVB Assessment #2 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	It has been observed that the value and description of SDG 3 has been made consistent between MR and ER sheet.
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	**CAR 08**		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding *(VVB)*	In section 4.1 of PDD, it has been found that the column provided for Data/parameter section for Bold,p Is found to be empty. PP is requested to fill the column.		
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*	The formatting was checked upon saving the PDF to ensure the title row is filled in.		
VVB Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*	The column is found to be filed with the name of the parameter.		
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		
Corrective Action or clarification #2	The table for parameter Bold has been filled in the MR.		

TABLE 2: FORWARD ACTION REQUESTS

No FAR has been raised.

Finding	**FAR XX**		
Classification	☐ CAR	☐ CL	☐ FAR
Description of finding *(VVB)*			
Corrective Action or clarification #1 *(PP shall write a detailed and clear corrective action or further information for clarification as per finding)*			
VVB Assessment #1 *The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.*			
Conclusion *Tick the appropriate checkbox*	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☐ The finding is closed		