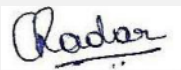




IMPROVED COOKSTOVE PROGRAMME BY SDG13 IN INDIA



Report ID	23062-VCS
Project title	Improved Cookstove Programme by SDG13 in India
Project ID	2533
Verification period	01-July-2023 to 31-December-2023
Original date of issue	13 March 2024
Most recent date of issue	03 Aug 2024
Version	02
VCS Standard Version	4.6

Client	SDG13 Ventures Pte Ltd
Prepared by	4K Earth Science Private Limited
Approved by	 Chandrakala R Managing Director
Work carried out by	Mr. Sanjay Kandari (Team Leader & Technical Expert TA 3.1) Mr. Ma Paa Puratchikkanal (Technical Reviewer TA 3.1)
Summary:	
SDG13 Ventures Pte Ltd has appointed the verification body '4K Earth Science Private Limited' to perform a verification of VCS Project Activity "Improved Cookstove Programme by SDG13 in India" in Madhya Pradesh state of India (hereafter "project activity") for the period from 01-July-2023 to 31-December-2023 (both days included). The project proponent 'SDG13 Ventures Pte Ltd' applied the VCS approved Methodology: VMR0006, version 1.1 "Methodology for Installation of High Efficiency Firewood Cookstoves". 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) On- site Visit; iii) the resolution of outstanding issues and internal technical review followed by the issuance of the final verification report and opinion. During the verification process 01 FAR, 04 CARs, 06 CLs and 00 FAR were raised, all the CARs and CLs are closed now and no FAR was raised during this verification. The list of Forward Action Request (FAR), Clarification and Corrective Actions Requests (CL and CAR) is presented in this report. '4K Earth Science Private Limited' confirms that the project is implemented in accordance with the validated VCS-PD and the monitoring plan; and then, claimed emissions reductions are calculated without material misstatements. '4K Earth Science Private Limited' has performed the verification of 'Improved Cookstove Programme by SDG13 in India' based on all issues and criteria of VCS Standard version 4.5 and VCS Program Guide version 4.4 for VCS projects and on the criteria given to provide for consistent project operations, monitoring and reporting. Hence, 4K Earth Science Private Limited in opinion that the project correctly applies the baseline	

and monitoring methodology VMR0006: “Methodology for Installation of High Efficiency Firewood Cookstoves, Version 1.1” and meets the relevant VCS requirements for the Methodology, Voluntary Carbon Standard requirements and the relevant host country criteria.

Therefore, 4K Earth Science Private Limited can certify that the emissions reductions from the “Improved Cookstove Programme by SDG13 in India” project during the period 01-July-2023 to 31-December-2023 amount to 665,052 tonnes of CO₂e.

The verification is based on the VCS PD, monitoring report (MR), Emission reduction calculation spread sheet (ER sheet); additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and supporting documents made available to the verification team by project proponent.

A risk-based approach has been followed to perform the verification of the project activity. During verification 01 FAR, 04 CARs, 06 CLs and 00 FAR were raised. All the FAR, CARs and CLs have been closed out successfully.

Based on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these, 4KES planned and performed our work to obtain the information and explanations that we considered necessary to provide sufficient evidence for us to give reasonable assurance that this reported amount of GHG emission reductions for the period is fairly stated.

As a result of the verification, the verification team confirms that:

- The project fulfils criteria of VCS Standard Version 4.5.
- The project is in line with all relevant VCS requirements.
- Relevant decisions, clarifications, and guidance from the CMP and the CDM Executive Board and VERRA;
- All information and references relevant to the project activity resulting in emission reductions;
- The monitoring is transparent, adequate and in line with applied baseline and monitoring methodology of VMR0006, v 1.1.

CONTENTS

1	INTRODUCTION	6
1.1	Objective	6
1.2	Scope and Criteria.....	6
1.3	Level of Assurance	7
1.4	Summary Description of the Project.....	7
2	VERIFICATION PROCESS.....	8
2.1	Method and Criteria	8
2.2	Document Review	10
2.3	Interviews	10
2.4	Site Visits	12
2.5	Resolution of Findings.....	13
2.6	Eligibility for Validation Activities	14
3	VALIDATION FINDINGS	15
3.1	Methodology Deviations.....	15
3.2	Project Description Deviations	15
3.3	New Project Activity Instances in Grouped Projects.....	15
3.4	Baseline Reassessment	20
4	VERIFICATION FINDINGS.....	20
4.1	Project Details	20
4.2	Safeguards and Stakeholder Engagement	21
4.3	Accuracy of Reduction and Removal Calculations.....	31
4.4	Quality of Evidence to Determine Reductions and Removals	45
4.5	Non-Permanence Risk Analysis	45
5	VERIFICATION OPINION.....	46
5.1	Verification Summary	46
5.2	Verification Conclusion	46
5.3	Ex-ante vs Ex-post ERR Comparison	47
	APPENDIX 1: COMMERCIALLY SENSITIVE INFORMATION	49
	APPENDIX 2: VERIFICATION OF SDGS	50

APPENDIX 3: ABBREVIATIONS	63
APPENDIX 4: FINDINGS	65
APPENDIX 4: REFERENCES	76

1 INTRODUCTION

1.1 Objective

4K Earth Science Private Limited has been contracted by, “SDG13 Ventures Pte Ltd’ to undertake verification and certification for the greenhouse gas (GHG) emission reductions reported from ‘Improved Cookstove Programme by SDG13 in India’ (VCS ID 2533)/09/ for the monitoring period 01-July-2023 to 31-December-2023. (Inclusive of both days), under the crediting period 01-January-2022 to 31-December-2031, in the initial monitoring report version 01 dated 08 Feb 2024, regarding the relevant requirements of VCS Standard Version 4.5. The VCS projects must undergo an independent third-party verification and certification of emission reductions as the basis for issuance of Voluntary Emission Reductions (VERs).

The objectives of this verification exercise are, by review of objective evidence, to establish that:

- The project activity has been implemented and operated as per the project description (PD) and that all physical features (technology, project equipment, and monitoring equipment) of the project are in place;
- Monitoring report/1/ and other supporting documents/2/10/11/12/08/ are complete;
- The data is recorded and stored as per the monitoring methodology and approved monitoring plan.
- 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.

1.2 Scope and Criteria

The verification scope is defined as an independent and objective review of monitoring report, VCS project description (VCS PD), including the monitored data, and other relevant documents made available to verifier and information collected through performing interviews during Onsite assessment of the project activity.

The project is assessed against the requirements of VCS standard version 4.5/13/ and related rules and guidance/13/. 4KES has, based on the recommendations in the latest version of Verified Carbon standard, and employed a rule-based approach (as criteria) in the verification, focusing on the identification of significant reporting rules and the reliability of project monitoring.

The aspects to be covered under the purview of verification are:

- Ensure that the project activity has been implemented and operated as per the VCS PD/09/ and that all physical features (technology, project equipment, and monitoring equipment) of the project are in place as per the documents provided by the client and during onsite audit;
- Ensure that the monitoring report/1/ and other supporting documents/2/10/11/12/08/ provided are complete
- Ensure that the practiced monitoring system and procedures comply with the monitoring systems and procedures described in the monitoring plan.
- Evaluate the data recorded and stored are as per the monitoring methodology/13/.

1.3 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 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 proposes the distribution of 500,000 Improved Cookstoves (ICS) to rural and peri-urban households in the state of Madhya Pradesh, India. The target population are the socio-economically poor and marginalized communities, who cook on traditional three-stone mud stoves using firewood and biomass. The project scenario is the introduction of an ICS, an energy-efficient alternative of the traditional mud stove and has two benefits –

- a) reduction in smoke due to efficient combustion, and
- b) reduction in the demand of biomass such as firewood in order to meet similar cooking energy requirements.

The ICS used in this project is the Jumbo Stove manufactured by 'Greenway Grameen Infra Pvt. Ltd.' having a combustion efficiency of 38% verified from the WBT tests reports and also from the validated efficiency during the validation by the validation VVB. It uses forced draft mechanism which makes the combustion of different biomasses more efficient. This project has been commissioned in 1st January, 2022, and during the current monitoring period, 73,090 new improved cookstoves have been deployed and verified from the database submitted to the verification team. As of 31st December, which is the end date of the current monitoring period and the last date of ICS installation, 274,405 stoves have been in operation in 55 districts. The site visit was undertaken by the verification team and found that the project technology is in accordance with the registered VCS PD/9/.

2 VERIFICATION PROCESS

The verification process was carried out in line with the requirements of VCS Version 4.5/13/. In addition, the verification team followed the guidelines of Standard auditing techniques and VVB's Procedures were also applied during the verification. A risk-based approach was followed to carry out verification and access all the factors and concerns that relate to the issuance of emission reductions from a project activity.

They include:

- Identification of all the sources contributing to the project emissions and emission reductions.
- Authenticity of the provided data is checked.
- A risk-based analysis is carried out to ensure a clear and transparent assessment. The risks involved in this process are mainly with the informational flows and data recording.

2.1 Method and Criteria

VVB follows a risk-based verification approach, wherein a desk review of the project documentation is undertaken, which is followed by onsite inspection by the members of verification team. The verification protocol is filled by the verification team that is based on standard auditing practices and VCS requirements.

The verification consisted of the following three phases

- Document review;
- On-site assessment;
- Resolution of any material discrepancy and the issuance of the final verification report and certification.

During the on-site verification, a random sampling approach has been used by the verification team to verify the reported values of the monitored parameters as listed in the MR which are determined through sampling by PP.

Sampling approach during verification audit is conducted in accordance with “Guidelines for Sampling and Surveys for CDM Project Activities and Programme Activities, Version 04.0”/13/ and the “Standard for Sampling and Surveys for CDM Project Activities and Programme Activities, Version 09.0”/13/.

The verification team followed the “Standard for Sampling and Surveys for CDM Project Activities and Programme Activities” version 09/13/ (Applicable to the monitoring of this group) esp. for

taking samples out of the PP's sample. Verification team had adopted the acceptance sampling approach to verify the sampling result of the PP for the applied verification period.

For the determination of DOE's acceptance sample size, verification team assumed the following factors:

1. Acceptable quality level (AQL) - 0.5%
2. Unacceptable Quality Level (UQL) – 15%
3. Producer risk- 5%
4. Consumer risk- 10 %

Verification team has determined acceptance sample size for all the sample survey parameters based on the “Table. Sample size and acceptance number based on AQL, UQL, and producer and consumer risks” of standard “Sampling and surveys for CDM project activities and programme of activities” version 09.0/14/. From the above assumed factors, the verification team determined the minimum sample size (n) as 25 minimum samples for the project and acceptance number (c) as one as per the choiced AQL/UQL, Consumer/Producer risk. The verification team shared the samples with PP during on-site visit.

During site visit/interviews, verification team visited sample household using the ICS system applying the random selection technique and considering equal weight to each technology implemented under the grouped project to cross check the data reported by PP. Verification team has checked the PP samples result with the on-site interview and results, monitoring forms, technical details of the project technology/10/, households data base as per the ER sheet/2/ and found no discrepancies. The result of the VVB's onsite survey is given below:

Parameters	VVB's Sample size (n)	No of PP's record beyond unacceptable level (C)	Accepted/ Rejected
Monitoring parameters as per MR (Mean and Proportion)	25 samples	1	Accepted

None of the PP's sampling monitoring records/data results were found discrepant during the VVB's verification site-visit. All the visited samples by verification team were showing similar result as reported by PP in its monitoring records. Onsite audit results/observation is found to be in line with PP's surveys and WBT results/06/. Further, the verification team reviewed all the primary monitoring records on-site to assess the consistency of information in MR and ER calculation spreadsheet and found the monitoring data to be correctly transcribed. Based on that, verification team concludes that sampling results and values presented by PP in the MR and spread sheet and results of survey and WBT are consistent with the onsite observation and interview with the end users & PP/7/.

Duration of Verification:

Verification Contract	05 -December-2023
Onsite audit	19-February-2024 & 22-February-2024
Draft Verification Report	02- March-2024
Final Verification Report	03 - Aug-2024

2.2 Document Review

A desk review is undertaken for the registered VCS PD, VCS MR, emission reduction calculation spread sheet, and supporting documents related to the project implementation, project design, monitoring and baseline were reviewed as per VCS version 4.5/13/ requirements, involving but not limited to:

- A review of the data and information presented to verify their completeness.
- A review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements and the quality assurance and quality control procedures.
- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.

The list of documents reviewed is included in the section 'References'.

2.3 Interviews

Details of interviews, topics covered, and additional information are presented below:

Dates:	19-February-2024 to 22-February-2024	
Key points discussed:	Name of person, interviewed	Designation, Organization
The questions asked were following but not limited to: I. Sampling requirements II. Data maintenance base	Ms. Sonal Kohli	President (Operations) SDG13 Ventures Pte. Ltd.
	Mr. Yogesh Sharma	Project Manager, SDG13 Ventures Pte. Ltd.
	Mr. Ashish Yadav	Warehouse Manager
	Mr. Prakash Chandra	Cluster Manager

III. Operational data, Calibration, Data collection, IV. QA/QC procedures, Calculation of ERs, V. Methodology of survey and randomization of population. VI. Desired con/precession and actual con/precession calculations procedure. VII. Double Counting		
Monitoring Survey, Baseline. The questions asked were following but not limited to: I. When did you purchase the ICS. II. Which model you are using. III. What was the baseline technology you were using prior to purchase of ICS. IV. Whether you have been surveyed by the PP or their representative. V. What questions the surveyor asked. VI. Do you still use the baseline stoves? VII. If yes, then how many meals per day you cook in the project stove and how many in baseline stove. VIII. Did you faced any challenges while operating the ICS? IX. If you discontinue the use of project stove then from when? X. Any employment generated by the stove manufacturer (To confirm the SDG)	1. Ms. Asha Patel 2. Ms. Laliteshwari 3. Ms. Usha Rangdale 4. Ms. Renu Dieria 5. Ms. Rameshwar 6. Mr. Dilip 7. Ms. Munni Bai 8. Ms. Munni Bai Thakur 9. Mr. Mahesh Sain 10. Mr. Amrit Lal Jhimar 11. Ms. Idi Bai 12. Mr. Dinesh Gehlot 13. Ms. Gita Bai 14. Ms. Sita Bai 15. Mr. Mukesh Chauhan 16. Mr. Rahul Chauhan 17. Ms. Mamta Rawat 18. Mr. Kamlesh Gehlot 19. Mr. Ramu Mandloi 20. Ms. Antar Bai 21. Mr. Barma Bhura Singh 22. Ms. Jhali Bai 23. Ms. Binda Bai 24. Ms. Khajar Bai 25. Ms. Neeru	End Users

XI.	Any training imparted by the stove manufacturer		
XII.	The level of smoke in baseline and project smoke		
XIII.	Does the project use less time in cooking or high compare to baseline?		
XIV.	What activities you do in case of time saving in project activity stove?		
XV.	Whether the project stove consume less firewood or higher firewood than baseline stove?		
XVI.	How much monitory saving you do in case of fuel saving in project stove? (To confirm the SDG)		

2.4 Site Visits

The VVB has conducted the on-site visit (Team Leader & Technical Expert) for the verification of the project activity. The on-site visit took place between 19-February-2024 to 22-February-2024 in Madhya Pradesh, India. The following was carried out during the on-site visit:

- An assessment of the project design and technical specification, project location, implementation status and operation of the project activity as per the MR;
- A review of information flows for generating, aggregating, and reporting the monitoring parameters;
- Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the MR/1/;
- A cross check between information provided in the MR/1/ and data from other sources such as user/device database, survey records or similar data sources;

- A check of the water filter is working and observations of monitoring practices against the requirements of the MR/1/, the applied methodology including applicable tool(s), and, where applicable, the applied standardized baseline;
- A review of calculations and assumptions made in determining the GHG data and emission reductions;
- An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.
- The assessment team has verified sufficient appropriate audit evidences, to reduce audit risk to an acceptably low level as requisite to achieve reasonable level of assurance for the current verification.

2.5 Resolution of Findings

The objective of this verification is to resolve any outstanding issues which need to be clarified for 4KES's positive conclusion on the project description. To guarantee transparency a verification checklist has been customized for the project. The protocol shows in a transparent manner the requirements, means of verification and the results from verifying the identified criteria. The validation/verification protocol consists of three tables; the different columns in these tables are described below.

A corrective action request (CAR) is raised if one of the following occurs:

- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impair the estimate of emission reductions;
- Issues identified in a FAR during validation/verification to be verified during verification have not been resolved by the project participants.

A clarification request (CL) is raised if information needs to be more to determine whether the applicable VCS requirements have been met.

In summary, 01 FAR, 6 CLs and, 4 CARs were raised during this verification which were closed successfully and details are given under Appendix 3 of this report.

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2.5.1 Forward Action Requests

No FAR was issued during the current verification, neither any FAR raised during the previous verification.

2.6 Eligibility for Validation Activities

N/A as the assignment is explicit to the verification activity.

3 VALIDATION FINDINGS

3.1 Methodology Deviations

This project did not apply any methodology deviations.

3.2 Project Description Deviations

This project did not apply any deviations from the registered project description.

3.3 New Project Activity Instances in Grouped Projects

The eligibility criteria govern from the registered PD and the corresponding version of VCS standard. Verification team would like to further state that all ICSs included till the end of the project are part of the first grouped project which has the estimation of 100,000 ICS/year.

All 14 eligibility criteria are now verified below as per the registered VCS PD.

Sl. No.	Eligibility criterion-Category	Eligibility criterion-Required condition	Supporting evidence for inclusion	Verification Remarks
1.	The geographical boundary of the project instances including any time-induced boundary consistent with the geographical boundary set in the Project Description.	The project boundary corresponds to the boundaries of the host country India. All the distributed ICS in a project instance shall be located within the geographical boundary of India.	In the project, ICS has been distributed in various districts of the state of Madhya Pradesh, India. The same can be checked through distribution records and end user agreements. Hence, eligibility criteria are met.	In the project, ICS has been distributed in various districts of the state of Madhya Pradesh, India. The database was verified and also the same was verified physically during the onsite assessment.
2.	Conditions that avoid double counting of emission reductions like unique identification of product and end user locations.	A unique numbering system for the ICS will be applied in each project instance, assigning a unique number to each ICS and	Each ICS distributed has a unique identity and corresponding end user details (name, address, etc.) are duly recorded. Additionally, unique ID of the ICS is	A unique numbering system for the ICS will be applied in each project instance, assigning a unique number to each ICS and allowing for clear

		allowing for clear identification for each ICS to which project instance/cluster it belongs.	displayed on the stove itself. The unique identification of the ICS can be verified and hence, eligibility criteria is met.	identification for each ICS to which project instance/cluster it belongs. The database/03/ was verified and also the same was verified physically during the onsite assessment.
3.	The specifications of the technology/measure, including the level and type of service, performance specifications including compliance with testing/certifications.	Project will consist of the distribution of ICS with a thermal efficiency of at least 25%, as per Water Boiling Test or compliance with Tier II and above as per ISO, to household users cooking with non-renewable biomass in the baseline scenario. The project instances will involve replacement of conventional firewood cookstoves for biomass fired ICS as defined in the VCS PD. Stove types replaced and implemented is defined in the VCS PD, and hence appliances will involve the efficiency improvements in the thermal applications of non-renewable biomass as per VMR006.	The Project Proponent has distributed single pot Greenway Jumbo cookstoves having a certified efficiency of 38%. Hence, eligibility criteria are met.	The Project Proponent has distributed single pot Greenway Jumbo cookstoves having a certified efficiency of 38%/06/. The test report verified to confirm the efficiency. The models are same as part of project so the validated efficiency during the registration was also verified.
4.	The conditions that ensure that the project instances meet the requirements pertaining to the demonstration of	The project must have characteristics with respect to the additionality requirements that are consistent with the initial instances	The additionality is determined using the financial barrier option in line with the applied approved methodology, VMR006.	The projects are distributed at the cost of INR 400 as verified during the onsite audit. Therefore, it complies the additionality approach

	additionality.	for the specified project activity and geographical area.	Step 1: The project implementation is not mandated by any government policy or regulation in the host country, India. Step 2: Not applicable Step 3: As the PP has sold ICS at more than 60% subsidy, hence the return from the project is negative and sale of VCU's will help in funding gap. Hence, project activity is additional. Hence, eligibility criteria are met.	established during the registration in the grouped VCS PD/9/.
5.	Where applicable, the conditions related to sampling requirements for the project in accordance with the "Standard for sampling and surveys for CDM project activities and Programme of Activities".	Monitoring will adhere to all the requirements related to sampling for a project instance, in accordance with the sampling guidelines including all the annexes and amendments till EB 86 Annex 04 and "Sampling and surveys for CDM project activities and Programme of Activities", version 09.0	Specification of the sampling methods applied and compliance with the sampling requirements are established in the PD. The sampling has been undertaken as per the sampling plan in the PD. Hence, eligibility criteria are met.	Monitoring adhered to all the requirements related to sampling for a project instance, in accordance with the sampling guidelines including all the annexes and amendments till EB 86 Annex 04 and "Sampling and surveys for CDM project activities and Programme of Activities", version 09.0/13/. The survey results for all instances implemented were verified and found that the approach is as per the registered VCS PD/09/. The sampling is validated in the subsequent sections of verification report.
6.	VER ownership	End users receiving ICS under the	A default distribution agreement for end	The agreements of the carbon waiver

		specific project instances contractually cede their rights to claim and own emission reductions under the VCS of the PP of the project.	users including the provision that emission reductions generated from the use of the ICS are owned by the PP is duly informed to and signed by each individual end user. The same can be checked by the VVB.	transfers have been verified during the onsite assessment. The HHS have transferred the carbon rights to the SDG 13 Ventures. Therefore, the ownership is established as per the VCS standard/13/.
7.	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: a) Each project activity instance that exceeds one percent of the capacity limit shall be identified. b) Such instances shall be divided into clusters, whereby each cluster is comprised of any system of instances such that each instance is within one kilometre of at least one other instance in the cluster. Instances that are not within one kilometre of any other instance shall not be assigned to clusters. c) 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 grouped project does not have any specified capacity limits applicable, since there are no capacity limits defined within the applied methodology, VMR0006, ver. 1.1. Therefore, this eligibility criteria is not applicable.	Not applicable.	Not applicable.

8.	Conditions to provide an affirmation that funding from Annex I parties, if any, does not result in a diversion of official development assistance	The new project instance shall be required to provide an affirmation that funding from Annex I parties, if any, does not result in a diversion of official development assistance	For this instance, no funding from Annex-1 parties is received and hence, no ODA declaration is required.	For this instance, no funding from Annex-1 parties is received and hence, no ODA declaration is required. This was confirmed by the top management during the onsite assessment.
9.	The Grouped project-specific requirements stipulated by the project proponent including any conditions related to undertaking local stakeholder consultations and environmental impact analysis, have been met	The local stakeholder consultation was conducted at a group project. Each new project instance/project will be implemented in a similar social economic context. The key stakeholders of the program both at group project activity and new project instance level is the same. To check for actions needed at the new project instance level for satisfying this eligibility criteria.	The local stakeholder consultation was done at grouped project level and was validated at registration. Therefore, no further action is needed in this regard. The project instance under current periodic verification is validated as the first actual instance. It is therefore having the same socio-economic context and target stakeholders. Hence, no further actions are needed at the new project instance level to satisfy the eligibility criteria.	The local stakeholder consultation was done at grouped project level and was validated at registration. Therefore, no further action is needed in this regard. There is no change in the make up of stakeholder type since validation.
10.	Have a start date that is the same as or later than the grouped project start date	All future instances shall have the start date after the date of first instance.	The project instance under verification is first project instance and start date of this project instance is same as start date of grouped project.	The project instance under verification is first project instance and start date of this project instance is same as start date of grouped project. The statement found correct by the verification team.
11.	Applicability of VCS methodology	All future instances shall fulfil all-applicability criteria of VCS methodology VMR0006, v1.1.	The project instance under verification is first instance and meets all the applicability condition of VMR0006 V1.1, the same is being validated during registration of grouped project activity.	The project instance under verification is first project and thus applicability criteria are met as the technology hasn't changed.
12.	Are subject to the baseline scenario	The new instance shall adhere the baseline	The project instance under verification is first	The baseline is same as no new instance added. .

	determined in the project description for the specified project activity and geographic area	requirements of the VMR0006, v1.1.	instance and baseline is already established in line with VMR0006 V1.1 as use of wood based traditional stoves, the same is being validated during registration of grouped project activity.	
13.	Be eligible for crediting from the start date of the project activity instance through to the end of the project crediting period (only).	The project instance will be only eligible for the crediting from its start date through to the end of the project crediting period (only).	The crediting period of project instance under verification is start date of project instance.	The crediting period of project instance under verification is start date of project instance, all ICS included will follow the same duration.
14.	Not be or have been enrolled in another VCS project	No project instance to be included which is part of another grouped or standalone VCS project	The project instance under verification is first instance included under grouped project and is not registered under any other grouped or standalone VCS project.	Assessment team has conducted the web search of various GHG registries to check whether the current project instance is listed/registered with any other GHG schemes. The search revealed that this project instance is not part of any other project. Further, PP has submitted a declaration to confirm that there is no double counting of this project.

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes

☒ No

4 VERIFICATION FINDINGS

4.1 Project Details

Item	Evidence gathering activities, evidence checked, and assessment conclusion:
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Audit history	The audit history provided in the MR/1/ was verified with the publicly available information on the VCS project webpage/09/ at VERRA registry. The audit history is correct and the VVB rotation is following the VCS requirements.
Double counting and participation under other GHG programs	Assessment team has conducted the web search of various GHG registries to check whether the current project instance is listed/registered with any other GHG schemes. The search revealed that this project instance is not part of any other project. Further, PP has submitted a declaration to confirm that there is no double counting of this project.
No double claiming with emissions trading programs or binding emission limits	N/A as the project is not part of emissions trading programs or binding emission limits.
No double claiming with other forms of environmental credit	N/A as the project project activity has not sought, received, or is planning to receive credit from another GHG-related environmental credit system, assess the evidence of no double claiming against VCS Standard/13/ requirements.
Supply chain (scope 3) emissions double claiming	N/A as the project and the VCU are not part of any supply chain.
Sustainable development contributions	Please refer to Appendix 2 wherein each of the SDG has been assessed separately by the verification team.
Additional information relevant to the project	The project data base is submitted on the confidential basis to the verification team. The same has been assessed under Appendix 1.

4.2 Safeguards and Stakeholder Engagement

4.2.1 Stakeholder Identification

Item	Evidence gathering activities, evidence checked, and assessment conclusion
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Stakeholder identification	Stakeholders were identified by the PP considering socio-economic, demographic and cultural characteristics which have been sourced from publicly available records such as census data, state government websites and published research papers. The stakeholder consultation is the ongoing and continuous process of the project. There is no change in the stakeholder's nature since validation. The stakeholder pattern has been validated during the validation and the same has been elaborated in the updated MR by the PP. The details included in the MR assessed correct by the validation team.
Legal or customary tenure/access rights	Not applicable, since the beneficiary households of the project have been provided with an improved cookstove for their personal, private use. Hence, there are no conflicting rights. The justification provided by the PP deemed reasonable in context of the project type.
Stakeholder diversity and changes over time	There is no change in the type of stakeholders during the monitoring period.
Expected changes in well-being	The project has positively impacted their lives by reducing smoke emissions and fuelwood consumption. Over time, the stakeholders have experienced improved well-being, fostering contentment within the tribal communities. Beneficiaries of the project can expect enhanced well-being through reduced drudgery in firewood collection, significant fuel savings, improved indoor air quality, health improvements and faster cooking times. Verification team undertaken the acceptance sampling wherein the various beneficiaries were interviewed as part of the verification process and found the project has created many positive changes in the lives. For example, the incidents of smoke, firewood consumption inter alia have been reduced significantly.
Location of stakeholders	The stakeholders of this project are in rural and peri-urban areas of Madhya Pradesh. The socio-economically poor sections of the society are targeted in the project activities. Verification team undertaken the acceptance sampling wherein the various beneficiaries were interviewed as part of the verification process and found the project has created many positive changes in the lives.

Location of resources	Not applicable, since this is an improved cookstove project.
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4.2.2 Stakeholder Consultation and Ongoing Communication

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Ongoing consultation	The project proponent took all appropriate measures and followed due process for communicating with, and informing the stakeholders about the project before verification and during this monitoring period through multiple awareness events and product demonstrations. The photographs, attendance sheet etc were submitted to the verification team to confirm the ongoing communication was undertaken at various dates as mentioned in the Appendix of the MR. Verification team undertaken the acceptance sampling wherein the various beneficiaries were interviewed as part of the verification process and found the project has created many positive changes in the lives.
Date(s) of stakeholder consultation	Multiple stakeholder consultations and awareness events have been conducted during this monitoring period, from 1st July, 2023 to 12th December, 2023. Dates have been appended in Appendix IV of the MR. The photographs, attendance sheet etc were submitted to the verification team to confirm the ongoing communication was undertaken at various dates as mentioned in the Appendix of the MR.
Communication of monitored results	Stakeholders are communicated about the monitored results through engagement events that are conducted from time to time in the project location. These events are demonstration events where the beneficiaries are informed about the fuel savings, positive climate impact and time savings due to the project activity.

	Verification team undertaken the acceptance sampling wherein the various beneficiaries were interviewed as part of the verification process and found the project has created many positive changes in the lives.
Consultation records	Attendance records, photos of the meeting and stakeholder feedback are recorded during the consultation meetings. Product demonstrations that have been conducted during the monitoring period in various venues throughout the project location have been attached in Annexure IV of the MR. Verification team undertaken the acceptance sampling wherein the various beneficiaries were interviewed as part of the verification process to confirm the stakeholder consultations and their participations.
Stakeholder input	Stakeholders were encouraged to ask questions regarding the project activities and provide their feedback, prior to verification. All questions raised by stakeholders were answered and documented by the PP and their representatives. No negative comments or suggestions on the proposed project activity were raised by any stakeholders during the meeting which could have any significant modification in the project description or its design. All the stakeholders expressed their satisfaction with the project activity and appreciated the societal and environmental benefits associated with it. Verification team undertaken the acceptance sampling wherein the various beneficiaries were interviewed as part of the verification process and found the project has created many positive changes in the lives. No compliant/negative comments were identified by the verification team during the onsite audit while interviewed the stakeholders.

4.2.3 Free, Prior, and Informed Consent

Item	Evidence gathering activities, evidence checked, and assessment conclusion
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Consent	Stakeholders were informed and their consent was sought before the stakeholder consultation meeting(s) through written notices published in local newspapers as part of validation process/09/.
Outcome of FPIC discussion	The project activity has not encroached on land, relocated people, forced physical or economic displacement without consent, since consent was obtained from all relevant stakeholders. Verification team undertaken the acceptance sampling wherein the various beneficiaries were interviewed as part of the verification process and found the project has created many positive changes in the lives. No compliant/negative comments were identified by the verification team during the onsite audit while interviewed the stakeholders.

4.2.4 Grievance Redress Procedure

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Grievance received and steps taken to resolve the grievance including the outcomes of the resolution	PP has the established procedure to handle the grievance, the grievance are collected based on the procedure provided. There were grievances by the ICS users on the O&M issues as reported by PP, resolved by the ground teams of PP and verified during the onsite audit. The grievance registers were verified during the onsite audit, acceptance sampling was undertaken to verify the correctness by asking the questions to the users pertaining to the grievance.
Grievance redress procedure	PP has the established procedure to handle the grievance, the grievance are collected based on the procedure provided.

4.2.5 Public Comments

This project was open for public comment from 30/06/2021 to 30/07/2021 when the PD was made available at VERRA registry, no comments received during that period.

Comments received	Actions taken by the project proponent	Evidence gathering activities, evidence checked, and assessment conclusion
N/A	N/A	N/A
N/A	N/A	N/A

4.2.6 Risks to Local Stakeholders and the Environment

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Risks to stakeholder participation	All stakeholders were notified via public newspapers and were welcome to participate in the stakeholder consultation meetings. PP has the the regular visits as part of the the project technology implementations wherein the stakeholders are engaged to provide their inputs. Verification team visited to the stakeholders and asked questions related to any fear on communication/participation. They were very happy with the services provided by the project participant. The stakeholders were identified by mapping out the potential ICS users, relevant government bodies, NGOs and agencies who were either directly impacted or had the direct/indirect relation with our project activity. The relevant stakeholders included government bodies such as the Ministry of Environment, Forests and Climate Change (MoEFCC) and Ministry of New and Renewable Energy (MNRE), given their regulatory oversight and interest in environmental and resource management. Additionally, we identified research institutions specializing in environmental studies and sustainable development, to ensure their validation of our project activities. We have reached out to these stakeholders via email and the same was validated during the validation.

Working conditions	The working conditions provided to the ground team employed for the project are in accordance with the laws of the land. HR manager informed that the working conditions are very organized, verification team also interviewed the staff and found that all were happily enjoying the work.
Safety of women and girls	Awareness and training are provided regarding the prevention of sexual harassment at regular intervals to all ground team members. Female workers were interviewed during the onsite assessment and they were satisfied with the safety.
Safety of minority and marginalized groups, including children	The project activities do not pose any risk to minorities or marginalized groups. In fact, it uplifts them by ensuring better access to cleaner cooking technology. Therefore, verification team agrees with the PP that the project technology has no risk in this category.
Pollutants (air, noise, discharges to water, generation of waste, release of hazardous materials)	The project activity provides clean cooking technology; hence it does not create any pollution in the project area. HHs informed to the verification team that the project stove has significantly reduced the kitchen air pollution. Moreover, the verification team also witnessed the live cooking in many houses wherein the smoke was negligible. HHs informed that in baseline stoves they used to have a lot of smoke,

4.2.7 Respect for Human Rights and Equity

4.2.7.1 Labor and Work

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Discrimination and sexual harassment	No discrimination or sexual harassment have been reported to occur in the monitoring period. Awareness and training regarding prevention of sexual harassment are continuously provided to the ground team members. Training records were verified, and it was concluded based on the training records, interview of the employees that the project proponent works as the

	laws of land. The HR manager is responsible for the inter complaints, and no such cases identified during the monitoring period.
Management experience	There is no new entity involved in the project. The project developer has developed projects that have successfully undergone multiple verifications. The management has the good experience, the senior managers were interviewed and have the found the sound knowledge.
Gender equity in labor and work	Equal opportunity is provided for work. Equal pay and wages have been provided to all employees, irrespective of gender. The project has given employment to 34 women during the monitoring period. The HR confirmed that the project has no discrimination in terms of Gender equity in labour and work. Women workers were interviewed and found satisfied.
Human trafficking, forced labor, and child labor	The project does not use victims of human trafficking, forced labour, and child labour and follows a strict onboarding procedure compliant with the laws of the land. The same was verified by the interview of top management.

4.2.7.2 Human Rights

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Human rights	The project activities are compliant with all applicable human right laws, and during the project activity, there has been no recorded cases where human rights were infringed upon by the project participant. The HR manager was interviewed along with the top management that human rights are ensured as per the land of the law.

4.2.7.3 Indigenous Peoples and Cultural Heritage

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Preservation and protection of cultural heritage	The project activities do not interfere with any indigenous people's cultures, traditions and lifestyles. In fact, the project ensures that these indigenous groups have access to better technologies such as improved cooking technologies to improve their overall well-being. Since the project is the implantation of energy efficient stoves, therefore it is only replacing the baseline technology with the more efficient technology.

4.2.7.4 Property Rights

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Disputes over rights to territories and resources	Not applicable as the project is the implantation of energy efficient stoves, therefore it is only replacing the baseline technology with the more efficient technology.
Respect for property rights	-

4.2.7.5 Benefit Sharing

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Summary of the benefit sharing plan	The project is distributed at the cost of INR 400 against the manufacturing/purchasing cost of INR 3,000. The users have transferred the carbon rights as the projects have distributed on highly subsidized rates, The HHs agreements were verified during the onsite audit.

Benefit sharing during the monitoring period	The subsidy I terms of ICS cost was provided and numbers are verified as part of SDG outcomes in the Appendix of verification report.
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4.2.8 Ecosystem Health

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Impacts on biodiversity and ecosystems	Not applicable as the project is the implantation of energy efficient stoves, therefore it is only replacing the baseline technology with the more efficient technology.
Soil degradation and soil erosion	Not applicable as the project is the implantation of energy efficient stoves, therefore it is only replacing the baseline technology with the more efficient technology.
Water consumption and stress	Not applicable as the project is the implantation of energy efficient stoves, therefore it is only replacing the baseline technology with the more efficient technology.
Usage of fertilizers	Not applicable as the project is the implantation of energy efficient stoves, therefore it is only replacing the baseline technology with the more efficient technology.

4.2.8.1 Rare, Threatened, and Endangered species

Item	Evidence gathering activities, evidence checked, and assessment conclusion
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Species or habitat	Not applicable as the project is the implantation of energy efficient stoves, therefore it is only replacing the baseline technology with the more efficient technology.
...	Not applicable as the project is the implantation of energy efficient stoves, therefore it is only replacing the baseline technology with the more efficient technology.

4.2.8.2 Introduction of Species

Not applicable as the project is the implantation of energy efficient stoves, therefore it is only replacing the baseline technology with the more efficient technology.

4.2.8.3 Ecosystem conversion

Not applicable as the project is the implantation of energy efficient stoves, therefore it is only replacing the baseline technology with the more efficient technology.

4.3 Accuracy of Reduction and Removal Calculations

The verification team has reviewed the emission reduction (ER) spread sheet/2/ and checked all the formulae and verified them to be correct and in line with the monitoring plan of the VCS PD and the applied monitoring methodology.

The monitoring system and all applied procedures are in compliance with the monitoring plan contained in the registered VCS-PD and the applied methodology VMR0006 “Methodology for Installation of High Efficiency Firewood Cookstoves” Version 1.1/13/, 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/1/ along with the roles and responsibilities.

The verification team has checked the ex-ante parameters and data stated in MR and compared with relevant section of the validated VCS PD that whether all parameters fixed ex-ante for the crediting period have been applied correctly.

The Ex-ante parameters are as follows:

S. No.	Ex-ante Parameter and unit	Description	Value	Consistent with the respective VCS PD
1	$f_{NRB,y}$ (Percentage)	Fraction of woody biomass saved by the project activity during year y that can be established as non-renewable biomass	0.901	The value is fixed ex-ante and considered at validation/registration. Therefore, the value has been fixed at the time of validation, subsequently applied for all the instances. The verification team has reviewed the f_{NRB} calculations and found them to be credible.
3	$NCV_{biomass}$ (TJ/tonne)	Net calorific value of the non-renewable woody biomass that is substituted	0.0156 (TJ/tonne)	Default value as per the methodology/13/ is applied which is in accordance with the requirements as verified by the verification team. The values were fixed at the time of validation. Hence accepted by the verification team.
4	η_{old} (Percentage)	Efficiency of the system being replaced (Traditional Cooking Stoves)	10 for wood fuel project (wood-fuel ICS) instance	The values were fixed at the time of validation of VCS PD/1/ and verified by the verification team.
5	Leakage (LE_y) (Fraction)	Leakage adjustment factor	0.95	Default value in methodology. The values were fixed at the time of validation of VCS group project. Hence accepted by the verification team.
6	η_P	Efficiency of project stove at the start of project activity	0.38	Validated ex-ante and verified from the data source at the time of validation/06/. All models included in the grouped project are Jumbo models therefore the same data source remains valid for the verification.
7	EF_{wf,CO_2}	CO2 emission factor for the use of wood fuel in baseline scenario	112 tCO ₂ /TJ	Default value in methodology. The values were fixed at the time of validation of validation.

				Hence accepted by the verification team.
8	$EF_{wf, non\ CO_2}$	Non-CO2 emission factor for the use of wood fuel in baseline scenario	26.23 tCO ₂ /TJ	Default value in methodology. The values were fixed at the time of validation of validation. Hence accepted by the verification team.

Monitored Parameters (Ex-Post)

The parameters and sampling measures taken are detailed below:

Parameter	Description of Parameter	Verified Value	Sampling approach (outcome in brackets)	Verification Approach by VVB
$N_{y,i,j}$	Number of project devices of type i and batch j operating during year y	100% (In relative terms) & 274,405 (In absolute terms)	Visual inspection of the premises to see if the project stove is operational and in use. Interview with end user if required to verify that project stove is still in use (Yes/No)	Verification team concluded that the monitoring parameter is monitored in line with the monitoring requirements. The parameter is monitored through the “Stove distribution database and survey records”. The database has been checked and found that the same is monitored by the by PP on at least biennial basis however PP has undertaken the survey more frequent thus this was considered accurate and conservative. Verification team has verified the monitoring parameter through Stove distribution database and survey records, onsite assessment and from the details given under the ER sheet and found consistent. The sampling approach and the results of the sampling by VVB are explained in the

				section 2.1 of this report. PP has demonstrated in the ER spreadsheet that required 95/10 confidence precession was met. The approach of calculating sample size, actual precession test inter alia were found meeting the CDM sapling guidance.
B_{y=1,new,i,j,survey}	Annual quantity of woody biomass used by improved cookstoves in tonnes per device of type i and batch j, determined in the first year of the implementat ion of the project through a sample survey.	1.245 Tonnes/household/year	Kitchen Performance Test (KPT) was conducted in line with the Standard for sampling and surveys for CDM project activities and programme of activities or guidelines provided in methodology Section 8.4 Option (b).	Determined in the first year of project implementation and the value was verified during the first verification by the then VVB and same results are used in the subsequent verifications as per the applied methodology VMR0006, v 1.1.. The value has been used correctly during the current monitoring period. The application of the parameter was found correct by the verification team based on following assessment. a. VVB would like to clarify the baseline firewood consumption has to be determined

				at the first year of implementation as per the methodology and the appropriateness of the same was assessed during the first verification by then VVB. Notwithstanding the methodology requires the survey not even the KPT, but the KPT method was opted by the PP being more credible than the survey. PP has used the CDM sampling guideline as elaborated in the updated MR for the mean parameter. b. The sample size calculated for 95/10 confidence/precession and verified during the first verification by then VVB and approved by VERRA. Same results are used in subsequent verification. c. Please note that the project is implemented in the state Madhya Pradesh, the samples were chosen to take representativeness within the state as verified from the results of KPT. Age must be 1 year as per the
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				methodology therefore the tests were undertaken for the year 1 stoves only, which comply the requirement of methodology. d. Specific dates are chosen as the measurement campaigns were to be undertaken in the first year of implementation, therefore the date chosen from 14 July 2022 to 30/08/2022. The project start date is 01 Jan 2022 therefore the 7th and 8th month was considered falling between the year 1.
$\eta_{new,i,j}$	Efficiency of the project device of each model/vintage	0.38 at start of operation Year 1= 0.357 Year 2=0.354 Year 3=0.350 Year 4=0.347 Year 5=0.343 Year 6= 0.340 Year 7= 0.336 Year 8= 0.332 Year 9= 0.329 Year 10= 0.326	“Efficiency of the improved cookstoves to be estimated using equation 5 of applied approved methodology where loss in efficiency per year is calculated, and therefore this parameter does not need to be monitored”	The monitoring of the parameter has been conducted following the VCS PD. Each age group efficiency has been correctly applied in the ER sheet. The application was found complying the requirements of equation 5 of the methodology. The verification team determined the implementation and operation management system through the audit interview with the PP.

				During onsite audit interview, verification team checked the procedures implemented for inclusion of project instances, roles and responsibilities, quality check etc. The verification team confirms that the implementation and operation of the project management system, including the record-keeping system, complies with the registered PD. Verification team has further checked the monitored data through onsite assessment interview, all the Efficiency test reports for ICS and the ER sheet. The data was found consistent. Based on local and sectoral expertise; verification team found the test reports in compliance with the requirements.
Date of commissioning of batch j	-	1 st January, 2022	Fixed and recorded at the time of commissioning/distribution of the last project device in the batch	The database was verified and found that the first batch has been started the distribution on 1 st January, 2022. The

				date is consistent with the previous verifications approved by VERRA.
Life Span	-	7 Years	As per the technical details provided by the Technology supplier.	The operating lifetime of the project device. The lifespan should be reported if the methodology equation 5 is adopted to determine the project stove efficiency. The technical specification sheet provided by the manufacturer was verified by the verification team. The models are same which were part of previous verifications therefore the lifetime is also same.
μ_y	Adjustment to account for any continued use of pre-project devices during the year y	0.9477	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)	The parameter is monitored through the "Stove distribution database and sample survey records". The database has been checked and found that the same is monitored by the project implementer and PP on at least biennial basis. The same was also confirmed during the onsite audit.

				The value arrived for this parameter (adjustment fractions) have been checked from the Sampling survey data and results, further cross checked the samples with the end user beneficiary agreement, excel Database, and household survey questionnaires and found to be correct. The value arrived for the fractions of days have been checked from the End user beneficiary agreement, Excel Database, and Household Usage Survey and found correct. This accounts for the exclusion of the fuel wood consumption of baseline stoves from the ER calculation in accordance with methodology Verification team has checked the samples based on the acceptance sampling and found OK. Hence the verification team was able to conclude that this parameter is being monitored &
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				recorded as per the monitoring plan. Verification team has checked the values of parameter in the ER sheet through sampling out of the samples selected by the PP through sample check of the Monitoring forms and site visit interview check. The sampling approach and the results of the sampling by VVB are explained in the section 2.1 of this report. Hence the verification team was able to conclude that this was monitored correctly. PP has demonstrated the confidence/precision 95/10 was. The approach has been considered by VVB adequate and meeting the sampling requirements The parameter is monitored through the “Stove distribution database and sample survey records”. The database has been checked and found that the same is monitored by the
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				project implementer and PP on at least biennial basis. The same was also confirmed during the onsite audit. The value arrived for this particular parameter (adjustment fractions) have been checked from the Sampling survey data and results, further cross checked the samples with the end user beneficiary agreement, excel Database, and household survey questionnaires and found to be correct. .
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Two different type of sampling surveys were performed: one gathered information needed for the monitoring of $N_{y,ij}$ and μ_y another one to the monitoring of $\eta_{new,ij}$ parameter.

Sampling captured information on monitoring variables with required confidence/precision (in that case as a single project is sampled, it is required a 95/10 confidence/precision for biennial monitoring). A simple random sampling was used.

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 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 methodology VMR006, version 1.1, emission reductions shall be calculated as:

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

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} LE_y = Leakage emissions in the year y

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

$$ER_{y,i,j} = B_{y,savings,i,j} \times N_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected fossil fuel}$$

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)

NCV_{biomass} : Net calorific value of the non-renewable woody biomass that is substituted (IPCC default for wood fuel, 0.0156 TJ/tonne, based on the gross weight of the wood that is „air-dried“)

EF_{projected fossil fuel} : Emission factor for the fossil fuels projected to be used for substitution of non-renewable woody biomass by similar consumers.

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

μ_y : Adjustment to account for any continued use of pre-project devices during the year y when applying equations 6 and 8 (fraction). Use 1.0 in other cases

B_{y,savings,i,j} is calculated using the following formula in accordance with equation 6 of the approved methodology:

$$B_{y,savings,i,j} = B_{y=1, new,i,survey} \times ((\eta_{new,i,j, (weighted\ average)}) / \eta_{old}) - 1) \dots \dots \dots \text{Equation (4)}$$

Where,

η_{old} = efficiency of baseline cookstove (fraction)

η_{new,i,j} = efficiency determined using equation 5 of applied approved methodology (%)

B_{y=1, new,i,survey} = annual quantity of woody biomass used by improved cookstove in tonnes per device of type i and batch j, determined in the first year of the implementation of the project

through a sample survey (tonnes/year/stove)

The efficiency of the project stoves can be estimated using the equation below.

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

Where:

η_P = efficiency of project stove (fraction) at the start of the project activity

$(DF_n)^{y-1}$ = discount factor to account for efficiency loss of project cookstove per year of operation (fraction).

0.94 = adjustment factor to account for uncertainty related to project cookstove efficiency test

Determination of the fraction of non-renewable biomass:

The fraction of woody biomass that can be established as non-renewable, is:

$$f_{NRB} = NRB / (NRB + RB)$$

Where:

f_{NRB} = Fraction of non-renewable biomass in the country/region or project area (fraction or %)

NRB = Quantity of non-renewable biomass (t/yr) in the country/region or project area

RB = Quantity of renewable biomass in the country/region or project area.

Project Emissions:

As per the methodology the PE_y is considered zero.

Hence, PE_y = 0 is acceptable to the verification team.

Leakage:

As per the methodology, N/A (Leakage is already accounted in baseline emission as 5% in accordance with the methodology).

Summary of ERs calculated by PP is demonstrated in below table and verified as per the ER spread sheet submitted:

4.4 Quality of Evidence to Determine Reductions and Removals

All relevant documents were checked to assess the correctness and quality of data submitted by the project participants, which are used to determine emission reductions.

All records needed for monitoring are archived in line with the requirements of the registered monitoring plan. No significant lack of evidence and missing data were detected during onsite audit discussion and inspection. Hence, the verification team confirms that the monitoring system ensures required quality of the monitoring system to ensure the quality of the monitored data. All internal data are subjected to QA/QC measures.

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 on site and in the document review

Verification team confirms that the quality of evidence to determine the GHG reductions and removals produced was found satisfactory. The detailed information flow with the roles and responsibilities of the individuals and the monitoring system have been provided in the VCS- MR.

It was also verified through onsite audit inspection that the team involved in the monitoring of project activity is well experienced. Hence, the verification team concludes that competent staff is employed by the project proponent to carry out the relevant tasks with sufficient accuracy.

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4.5 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.

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5 VERIFICATION OPINION

5.1 Verification Summary

SDG13 Ventures Pte Ltd has appointed the verification body '4K Earth Science Private Limited' to perform a verification of VCS Project Activity "Improved Cookstove Programme by SDG13 in India" in Madhya Pradesh state of India (hereafter "project activity") for the period from 01-July-2023 to 31-December-2023 (both days included).

The calculation and determination of GHG emission reductions from the project is the responsibility of the management of the PP. The development and maintenance of records and reporting procedures are in accordance with the Monitoring Report version.2.

As a result of the verification, the verification team confirms that:

- All operations of the project are implemented and installed as planned and described in the project description.
- The monitoring system is in place and functional.
- The installed equipment essential for generating emission reductions runs reliably.
- The GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner.

5.2 Verification Conclusion

Based on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these, '4K Earth Science Private Limited' planned and performed our work to obtain the information and explanations that we considered necessary to provide sufficient evidence for us to give reasonable assurance that this reported amount of GHG emission reductions for the period is fairly stated.

Verification period: From 01-July-2023 to 31-December-2023 (Inclusive of both days)

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

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Reduction VCU (tCO ₂ e)	Removal VCU (tCO ₂ e)	Total VCUs (tCO ₂ e)
01-Jan-2022 to 30-Apr-2022 (Verified & issued)	29,603	0	0	29,603	N/A	29,603
01-May-2022 to 31-Dec-2022 (Verified & issued)	309,280	0	0	309,280	N/A	309,280
01-Jan-2023 to 30-Jun-2023 (Verified & issued)	490,281	0	0	490,281	N/A	490,281
01-Jul-2023 to 31-Dec-2023 (Under Current monitoring period)	665,052	0	0	665,052	N/A	665,052
Total	1,494,216	0	0	1,494,216	N/A	1,494,216

5.3 Ex-ante vs Ex-post ERR Comparison

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
01-Jul-2023 to 31-Dec-2023	760,884	665,052	-12.6%	a) Conservatively discounting the overall emission reductions by the μ_y value of 0.9477. b) The ex-ante estimates assumed the $B_{y,savings,i,j}$ value as 3.448 tonnes/household/year based on the assumed value of $B_{y=1, new,i,survey}$ value as 1.350 tonnes/household/year. While the ex-post $B_{y=1, new,i,survey}$ value resulting measurement campaign (in the form of KPTs) was 1.245 tonnes/household/year resulting in the $B_{y,savings,i,j}$ value of 3.180 tonnes/household/year which is less than the ex-ante value.
Total	760,884	665,052	-12.6%	-

APPENDIX 1: COMMERCIALLY SENSITIVE INFORMATION

Section	Information	Justification	Assessment method and conclusion
-	The user details submitted as part of ER sheet	The ER sheet has a database, which is commercially sensitive, therefore ER sheet shall be excluded as part of the public version.	The verification team has access to all data and therefore the ERs were verified based on full set of data availability. MR has no confidential information therefore can be made publicly available. ER sheet shall be submitted on confidential mode

APPENDIX 2: VERIFICATION OF SDGS

Row number	SDG target	SDG indicator	Net impact on SDG indicator	Current project contributions	Contributions over project lifetime	Verification Remarks
1)	1.4	1.4.1 Proportion of population living in households with access to basic services	Implemented activity to increase access of households to clean cooking as a basic service through increased investment	During the current monitoring period, the project activity has successfully increased the proportion of rural households with access to basic services (clean cooking) by 0.12% ¹ . This was done by distributing ICS to additional 73,090 households in the project area.	Increased investment in clean cooking technology by the PP has enabled greater access to basic clean cooking service to 274,405 rural and semi-urban households within the project boundary, over the lifetime of the project. Therefore, the project has increased the proportion of rural population with access to clean cooking services by 0.45%.	VVB would like to state that the monitorable indicators are customized and determined based on the project type. For example, the SDG indicator 1.4.1 is "Proportion of population living in households with access

¹ Based on 2024 data the rural population of Madhya Pradesh is 60,023, 368. URL: https://ejalshakti.gov.in/JJM/JJMReports/BasicInformation/JJMRep_RWS_RuralPopulation.aspx

						to basic services" and the PP has chosen/motored the numbers of households getting the basic cooking need i.e. the improved cooked stoves during the monitoring period. The monitored value meets the requirement of the indicator 1.4.1 as the 73,090 households, (which corresponds 0.12% of the rural population of Madhya Pradesh) to access the basic cooking
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						appliance. During the lifetime the 0.45% of the rural population got benefitted in the state of Madhya Pradesh. The database was verified to confirm the number of binifibrates moreover the acceptance sampling was also undertaken during the onsite assessment that the distributed stoves are in the rural and
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						semi-urban households.
2)	3.4	3.4.1 Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease	Implement ed activity to decrease the mortality rates associated with chronic respiratory disease	The project activity reduced the risk of mortality attributed to chronic respiratory disease of beneficiaries, through decreasing household air pollution owing to the use of the distributed ICS for cooking as provided in the below indicator 3.9.1. as smoke reduction 95.775% than baseline.	The project activity has reduced the risk of mortality attributed to chronic respiratory disease of beneficiaries, through decreasing the household air pollution owing to the use of the distributed ICS for cooking. The details are provided in the below indicator 3.9.1 as smoke reduction 95.775% than baseline.	The survey results verified and the samples were verified through the acceptance sampling. The HHS informed that the project stoves doesn't create any smoke therefore the health related issued are significantly dropped compared to baseline. The details verified in the ER sheet under survey.

3)	3.9	3.9.1 Mortality rate attributed to household and ambient air pollution	Implement ed activity to decrease household air pollution through use of ICS among the beneficiary household s	The project activity reduced mortality rate attributed to 73,090 households and ambient air pollution, through the distribution of ICS which reduced household and ambient air pollution with the following monitored indicators. <table><tr><th>Smoke Reducti on (%)</th><th>Incidenc e of Coughin g decreas ed (%)</th><th>Incidenc e of difficulty in breathin g decreas ed (%)</th><th>Inciden ce of itchy eyes reduce d (%)</th></tr><tr><td>95.775</td><td>100</td><td>100</td><td>100</td></tr></table>	Smoke Reducti on (%)	Incidenc e of Coughin g decreas ed (%)	Incidenc e of difficulty in breathin g decreas ed (%)	Inciden ce of itchy eyes reduce d (%)	95.775	100	100	100	The project activity reduced mortality rate attributed to 274,405 households and ambient air pollution, through the distribution of ICS which reduced household and ambient air pollution with the following monitored indicators. <table><tr><th>Smoke Reducti on (%)</th><th>Incidenc e of Coughin g decreas ed (%)</th><th>Incidenc e of difficulty in breathin g decreas ed (%)</th><th>Inciden ce of itchy eyes reduce d (%)</th></tr><tr><td>95.775</td><td>100</td><td>100</td><td>100</td></tr></table>	Smoke Reducti on (%)	Incidenc e of Coughin g decreas ed (%)	Incidenc e of difficulty in breathin g decreas ed (%)	Inciden ce of itchy eyes reduce d (%)	95.775	100	100	100	The survey results verified and the samples were verified through the acceptance sampling. The HHs informed that the project stoves don't create any smoke therefore the health related issued are significantly dropped compared to baseline as per the data surveyed by the PP. The indicators were verified by using the acceptance the onsite audit,
Smoke Reducti on (%)	Incidenc e of Coughin g decreas ed (%)	Incidenc e of difficulty in breathin g decreas ed (%)	Inciden ce of itchy eyes reduce d (%)																			
95.775	100	100	100																			
Smoke Reducti on (%)	Incidenc e of Coughin g decreas ed (%)	Incidenc e of difficulty in breathin g decreas ed (%)	Inciden ce of itchy eyes reduce d (%)																			
95.775	100	100	100																			

4)	5.4	5.4.1 Proportion of time spent on unpaid domestics and care work, by sex, age and location	Implement ed activity to decrease time spent on cooking by women members of the household s under the project	The proportion of time spent by women in beneficiary households on unpaid domestic tasks (such as a cooking and fuelwood collection) has decreased. With the introduction of improved cookstoves (ICS), women have saved an average of 1.6 hours daily on cooking and 2.6 hours per week on fuelwood collection. This reduction has enabled them to engage in other employment opportunities.	Women members of the households under the project have seen a massive reduction in both the amount of fuelwood required for cooking (which resulted in lesser time spent on collecting fuelwood), and the amount of time taken for cooking. An average of more than 1.6 hours per day on cooking and more than 2.6 hours per week in fuelwood collection was saved, respectively. As a result of this, they also have time to engage in other employment opportunities.	HHs informed to the verification team during the onsite audit that the time spent in cooking has reduced significantly and the same was captured by the PP through the sampling survey. The acceptance sampling was undertaken to confirm the numbers reported by the PP and after the interview the numbers were found consistent.
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5)	7.1	7.1.2 Proportion of population with primary reliance on clean fuels and technology	Implement ed activity to increase the proportion of population with primary reliance on clean technology	During the current monitoring period, there has been increase in the proportion of population using clean technology (ICS) in the project area by 0.12% ² . It was due to the addition of 73,090 beneficiary households who are using ICS and thereby replacing the use of baseline inefficient cookstoves.	The project has benefitted 274,405 households by making clean ICS available, through distribution of 73,090 improved cookstoves. Therefore the project has increased the proportion of rural population with access to clean cooking services by 0.45%.	The database was verified to confirm the number of binifbrates moreover the acceptance sampling was also undertaken during the onsite assessment that the distributed stoves numbers are correct. It is confirmed that the project contributed in proportion of rural population
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² Based on 2024 data the rural population of Madhya Pradesh is 60,023, 368. URL: https://ejalshakti.gov.in/JJM/JJMReports/BasicInformation/JJMRep_RWS_RuralPopulation.aspx

						with primary reliance in Madhya Pradesh (India) on clean fuels and technology by providing them the ICS on the subsidized cost.
6)	8.3	8.3.1 Proportion of informal unemployment in total employment, by sector and sex	Implemented activity to increase the proportion of informal employment	For the smooth implementation of the various phases of the project, a total of 129 people, including both men and women based in and around the project areas have been employed. This has led to an increase in the proportion of informal employment within the local communities.	The project has generated employment within the local communities in and around the project areas. A total of 135 local people have been employed.	The employment records verified and found that 135 employments generated in the project during the monitoring period. The HR manager was also interviewed to confirm the

						employment status.
7)	10.1	10.1.1 Growth rates in household expenditure or income per capita among the bottom 40 percent of the population	Implement ed activity to increase income per capita amongst the beneficiary household s through financial and time savings	Access to use of project ICS among the households (73,090) which corresponds to 0.12% of rural population in Madhya Pradesh (India), till the current monitoring period, has increased the financial savings of these households of average INR 388/month. This has led to finance becoming available for other household expenditure. The financial savings are due to the reduction in fuelwood purchase and time savings through reduction in time spent for fuelwood collection. Time saving monitored thorough survey is 2.6 hrs/week reduction in fuel collections and 1.6hrs/week in the cooking due to enhanced stove efficiency than baseline.	Access to and use of project ICS among the target households (274,405) which corresponds to 0.12% of rural population in Madhya Pradesh (India) has increased the financial savings through reduction in fuelwood purchase and time savings through reduction in time spent for fuelwood collection. Via targeted selection of recipient households, the project activity enables income growth for the lower income brackets. Through the surveyed households, it was found that an average of INR 388 was saved each month per household. Time saving monitored thorough survey is 2.6 hrs/week reduction in fuel collections and 1.6hrs/week in the cooking due to enhanced stove efficiency than baseline.	The distribution database was verified and the number of stoves distributed were verified correct by the verification team. The survey records were verified which reveals the monitory saving in terms of less firewood consumption in the project stoves. Acceptance sampling was undertaken to verify the correctness

						and found that the number reports by the PP are correct. Time saving monitored thorough survey is 2.6 hrs/week reduction in fuel collections and 1.6hrs/week in the cooking due to enhanced stove efficiency than baseline.
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8)	10.2	10.2.1 Proportion of people living below 50 percent of median income, by sex, age and persons with disabilities	Implement ed activity to increase employe ment	During the current monitoring period, the proportion of female personnel employed in the project has increased. The number of local female team members employed is 34.	More than 35 local female partners have been employed in the project implementation, which has increased the opportunity for female participation in the workforce and achieved income growth.	The employment records verified and found that 34 women were employed in the project. The HR manager was also interviewed to confirm the employment status. Female employees were also interviewed to confirm the SDG indicator reported. Based on the desk review, interview and onsite audit verification team confirms that
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						the number is correct.
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9)	13.2	13.2.2 Total greenhouse gas emissions avoided or removed per year	Implemented activity to result in decrease of greenhouse gas emissions	Through distribution of 73,090 Improved Cookstoves, which have replaced the use of inefficient traditional cookstoves, the project has avoided the release of 665,052 tonnes of CO ₂ in the atmosphere during the monitoring period.	The project has prevented the release of 73,090 tonnes of CO ₂ into the atmosphere up to the current monitoring period.	The distribution database was verified and the number of stoves distributed were verified correct by the verification team. The calculation for the MP and the lifetime was also verified correct by reviewing the documents of previous issuance granted to the project.
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APPENDIX 3: ABBREVIATIONS

CAR	Corrective Action Request
CL	Clarification Request
CO ₂	Carbon dioxide
CO _{2e}	Carbon dioxide equivalent
CRF	Carbon Rights Form
EB	Executive Board
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GPS	Global Positioning System
GS	Gold Standard
HH	Household
IPCC	Intergovernmental Panel on Climate Change
KPT	Kitchen Performance Test
MKS	Monitoring Kitchen Survey
MP	Monitoring Plan/Period
MR	Monitoring Report
NGO	Non-governmental Organization
NRB	Non-renewable biomass
OSV	On-site visit
PP	Project proponent
QA/QC	Quality Assurance/Quality Control
SC	Sustain Cert

SD	Sustainable Development
SDG	Sustainable Development Goals
UNFCCC	United Nations Framework Convention on Climate Change
VVB	Validation and Verification Body
VCS	Voluntary Carbon Standard
VER	Voluntary Emission Reduction

APPENDIX 4: FINDINGS

FAR from Previous Verification

FAR ID	01	Section no.	Previous Verification	Date: 21/03/2024
Description of FAR				
Verifying VVB shall check the use of baseline stoves and explain what action was taken by the PP to decommission baseline cookstoves. PP shall address report what action taken during the current monitoring period to address this.				
Project participant response				Date: 26/03/2024
During the monitoring period, the field team enhanced its engagement with the local communities through conduction of product demonstrations in various districts / villages across the project location with an aim to raise awareness about the benefits of the improved cookstove device vis-à-vis the baseline cookstove. The local community was informed of the reduced quantity of fuelwood required in the improved cookstove device, leading to reduced emissions and significantly reduced risk of household air pollution. There were multiple demonstrations conducted during the monitoring period, the evidences of which have been shared with the VVB. During the engagement activities, the people were also informed of over 80% subsidy offered on the price of the improved cookstove to encourage participation in the project. The field team also engaged with the existing users to share their experience in terms of time saved in cooking, time saved in wood collection and the money saved by switching from baseline to improved cookstove to motivate the communities to stop using the baseline cookstove.				
Documentation provided by project participant				
1. Evidence of product demonstration events				
VVB assessment				Date: 26/03/2024
The detailed response provided by the PP was assessed from the evidence available to verification team during the onsite audits. Wherein it was verified that the engagement with the local communities through conduction of product demonstrations in various districts / villages across the project location with an aim to raise awareness about the benefits of the improved cookstove device vis-à-vis the baseline cookstove. This resulted in the drop of use of the baseline stoves from the previous monitoring period. Nonetheless the adjustments were applied in the baseline firewood consumption by applying the value of monitored parameter μ_y in the ER calculations. The finding is closed based in the detailed response, and the improved value of μ_y from the past verifications.				

CL from this verification

CL ID	01	Section no.	1.10	Date: 29/02/2024
Description of CL				
1. PP shall submit the installation database to VVB to verify the numbers of the ICS and the age of each ICS calculated in the ER spreadsheet? 2. A declaration shall be submitted to VVB declaring the various compliances with the section 1.10 of the VCS MR?				
Project participant response				Date: 08/03/2024
1. The installation database has been submitted to the VVB. 2. The declaration as per the requirements of section 1.10 of the VCS MR has been submitted to the VVB.				
Documentation provided by project participant				
1. Installation database. 2. Declaration as mentioned above.				
VVB assessment				Date: 13/03/2024
1. The installation database has been submitted in the confidential form to VVB, the dataset has been verified with the details mentioned therein. The acceptance sampling was also undertaken during the onsite audit. The details were found consistent with the MR & ER sheet. Finding is closed now. 2. The declaration covering the various requirements of section 1.10 of the VCS PD has been furnished, the VVB also verified from the publicly available information of GHG registries that the project is not part of any other GHG programs other than VCS. Finding is closed.				

CL ID	02	Section no.	1.12	Date: 29/02/2024
Description of CL				
1. The VCS MR doesn't include the quantified fugues of SDG#3 achieved during the monitoring period corresponding to the SDG 3.4 and the chosen indicator 3.4.1? PP shall also clarify how the number has been accounted for the current monitoring period. The methodology shall be part of the MR. 2. For the SDG#05 and the corresponding indicator 5.4.1 it has been stated that an average of more than 1.6 hours per day on cooking and about 2.6 hours per week in fuelwood collection was saved, respectively. PP shall also clarify how the number has been accounted for the current monitoring period. The methodology shall be part of the MR. 3. For SDG 10 and the corresponding indicator 10.1.1 it has been stated that the growth rates in household expenditure or income per capita among the bottom 40 percent of the population. PP shall also clarify how the number has been accounted for the current monitoring period. The methodology shall be part of the MR. 4. Similarly for SDG#10.2.1 it has been stated that 34 local female partners have been employed, the data source shall be mentioned therein.				
Project participant response				Date: 08/03/2024
1. Through the monitoring survey, it was found that 100% of the surveyed beneficiaries have experienced reduced smoke levels and decreased incidences of coughing since using the improved cookstove. This directly leads to reduced risk of mortality attributed to chronic respiratory disease, caused due to household air pollution (HAP). 2. The average savings of 1.6 hours per day on cooking and 2.6 hours per week in fuelwood collection has been quantified through the monitoring survey conducted for the current monitoring period. The monitoring survey responses and their calculations have been included in the respective ER Sheet. 3. The use of project ICS among the target households has increased the financial savings due to reduction in fuelwood purchase. Through the surveyed households, it was found that an average of INR 380 was saved each month per household. The financial savings of each surveyed beneficiary and the calculation of the average value has been included in the ER Sheet. 4. The documentation certifying the employment of 34 local female partners has been shared with the VVB.				
Documentation provided by project participant				

1. ER Sheet, 'Survey Responses' tab 2. ER Sheet, 'Survey Responses' tab. 3. Revised Monitoring Report including the financial savings per month per household. 4. Document certifying the female participation in the workforce.	
VVB assessment	Date: 13/03/2024
1. The explanation given by the PP is accepted based on the acceptance sampling undertaken by the verification team and asking the same question to the HHs. The response is consistent with the response provided by the HHs during the onsite audit for the 25 sampled HHs, finding is closed. 2. The revised ER sheet has the quantification as responded by the PP, the response is consistent with the response provided by the HHs during the onsite audit for the 25 sampled HHs. Finding is closed. 3. The use of project ICS among the target households has increased the financial savings due to reduction in fuelwood purchase as responded by the PP and confirmed by the users during the onsite audit. The financial savings of each surveyed beneficiary and the calculation of the average value has been included in the ER Sheet. The finding is closed based on the response and evidence verified during the onsite audit. 4. The HR records have been finished and the human resource manager manager was interviewed by the verification team during the audit process. The finding is closed based on the details provided.	

CL ID	03	Section no.	2.1.2, 2.3.1 & 2.1.4	Date: 29/02/2023
Description of CL				
1. Section 2.2.2 of the MR states various stakeholder consultations were undertaken between July, 2023 to 12th December, 2023. The evidence of the same shall be submitted to VVB? 2. PP shall submit the grievance records, how many grievances received during the MP and the methods by which the grievance received shall be part of the MR? 3. Submit the labour awareness training records as indicated in the section 2.3.1 of the MR?				
Project participant response				Date: 08/03/2024
1. The evidence of the stakeholder consultations that were undertaken between 1st July, 2023 to 12th December, 2023 have been shared with the VVB. 2. The grievances received during the current monitoring period and the grievance redressal procedure have been included in the MR. The grievance redressal process document and the grievance records register have been shared with the VVB. 3. The labour awareness and training records have been submitted to the VVB.				
Documentation provided by project participant				
1. Excel sheet containing the picture evidences of the stakeholder consultations. 2. Grievance redressal process document. 3. Grievance records register. 4. Excel sheet containing the labour awareness training records.				
VVB assessment				Date: 13/03/2024
1. The stakeholder consultation is part of continuous awareness programmes of the grouped project, the same was explained to the audit team during the onsite assessment. The same was confirmed/cross-checked by interviewing the users, who are the main stakeholders of the project. Finding is closed based on the onsite audit evidence; the photographs submitted. 2. PP has the established procedure to handle the grievance mechanism, the grievance are collected based on the procedure provided. There is no grievance received during the current monitoring period. The grievance registers were verified during the onsite audit, acceptance sampling was undertaken to verify the correctness by asking the questions to the users pertaining to the grievance. Finding is closed. 3. Varius labour awareness programmes were undertaken during the MP, the evidence of the same in terms of attendance sheet, photographs etc were submitted to the project verification team. The finding is closed based on the desk review of the documents and the interview of the HR manager.				

CL ID	04	Section no.	3.3	Date: 29/02/2024
Description of CL				
In the section 3.3 of the VCS MR the eligibility has been added however it was noticed by the verification team that no new project has been added in this monitoring period. All ICSs included in the MP are part of the already validated grouped project. The rationale of the same is not clear to the verification team.				
Project participant response				Date: 08/03/2024
The eligibility criteria have been added in section 3.3 of the MR as a finding was raised on the project review report of the second monitoring period on the project. Hence, PP has added the same in the current monitoring period.				
Documentation provided by project participant				
N/A				
VVB assessment				Date: 13/03/2024
The findings closed based on the response provided and the review of the PRR form available on the project webpage.				

CL ID	05	Section no.	4.2	Date: 29/02/2024
Description of CL				
The measurement campaign for the determination of $B_{y=1,new,I,J,survey}$ has to be done in the first year of installation as per the VMR0006, version 1.1. The reporting in this regard is not transparently provided in the section 4.2. PP shall clarify and report the time of the measurement campaign.				
Project participant response				Date: 08/03/2024
The $B_{y=1,new,I,J,survey}$ value used in section 4.2 is determined in the first year of the implementation of the project. The same has been clarified in the MR, including the time of the KPT measurement campaign.				
Documentation provided by project participant				
1. Revised MR.				
VVB assessment				Date: 13/03/2024
The clarification related to the measurement campaign for the determination of $B_{y=1,new,I,J,survey}$ has been added in the updated MR. Finding is closed now.				

CL ID	06	Section no.	4.2	Date: 29/02/2024
Description of CL				
μy is monitored and described in the MR, the use of this parameter is not compliance with the ER calculations chosen by the PP in the VCS PD, which is based on the $B_{y=1, new, I, J, survey}$ and the application of μy doesn't come in the formula used in this method. Refer the equation 4 and equation 2 of the methodology. Clarify thae rationale of monitoring it and use of it, notwithstanding the μy is significant and affection the value of calculated parameter $B_{ysaving}$.				
Project participant response				Date: 08/03/2024
The μy has not been used in the ER calculations in the ER sheet, however it has been monitored in the current monitoring period as mentioned in the PD. The equation has been corrected in section 5.1 of the MR, since PP has opted for measuring B_y, savings through equation 4 ($B_{y=1, survey}$ method), and the value of $B_{y=1, survey}$ was calculated through KPTs (or measurement campaigns) instead of sample surveys, as advised in section 9.1 of the methodology.				
Documentation provided by project participant				
1. Revised MR.				
VVB assessment				Date: 13/03/2024
The justification provided by the PP is accepted and the monitoring is done to adhere the requirements of VCS PD though the approach used in the first project does not use the parameter. Finding is closed based on the consistent approach used in the previous verifications.				

Table 2. CAR from this verification

CAR ID	01	Section no.	4.2	Date: 29/02/2024
Description of CAR				
For all the monitored parameters through sampling the dates of previous survey shall be also part of MR to ensure the frequency of survey met.				
Project participant response				Date: 08/03/2024
The same has been added in section 4.3 of the MR, Table 6.				
Documentation provided by project participant				
1. Revised MR.				

VVB assessment	Date: 13/03/2024
Dates of previous survey has been mentioned and it was concluded by reviewing the same along with the previous verification documents available on the VCS webpage that the survey complies the annual frequency. Finding is closed now.	

CAR ID	02	Section no.	4.3	Date: 29/02/2024
Description of CAR				
It is not transparently described in MR that how the stove age group, climatic zones, food habits inter alia have been considered while doing the survey. The same shall be part of the MR.				
Project participant response				Date: 08/03/2024
The number of samples and their age group that have been surveyed are mentioned in the table below, the same has been updated in section 4.3 of the MR:				
Documentation provided by project participant				
1. Revised MR.				
VVB assessment				Date: 13/03/2024
The revisions undertaken and it was also explained during the onsite audit that the representativeness was ensued while picking the samples. The corrections are undertaken in MR, finding is closed.				

CAR ID	03	Section no.	4.3	Date: 29/02/2024
Description of CAR				
1. PP shall also report the trainings/awareness campaigns provided to the surveyor's before going to the field for the survey. 2. By=1,new,i,j,survey is also reported as monitored parameter in this monitoring period in contrast to the requirement of methodology in the first year of the project implementation. The reporting is not consistent with the verified information by the verification team wherein it was verified that now By=1,new,i,j,survey undertaken during the current verification. 3. Parameter $N_{y,i,j}$, PP's sample comes out as 21 for the chosen proportion parameter. Please refer to the CDM sampling guidelines wherein the minimum sample size shall be 30 in case				

the calculated sample size comes below 30. Though PP has adhered the minimum sample but the minimum sample size 30 shall be referred instead of 21.	
Project participant response	Date: 08/03/2024
1. The training records of the same have been provided to the VVB. 2. By=1,new,i,j,survey was not monitored in the current monitoring period. The value taken have been established during the first year of project implementation, i.e. 1.245 tonnes / household / year. The same has been explicitly mentioned in the MR. 3. The same has been corrected in section 4.3 of the MR.	
Documentation provided by project participant	
1. Excel file containing the training records. 2. Revised MR.	
VVB assessment	Date: 13/03/2024
1. The training records are submitted and it was concluded that the trained surveyors undertaken the survey. Finding is closed based on the evidence and the interviews of the surveyors. 2. Clarification is accepted, finding is closed now. 3. The correction has been undertaken and the minimum sample size shall be 30 in case the calculated sample size comes below 30 has been included. Finding is closed.	

CAR ID	04	Section no.	5.1	Date: 29/02/2024
Description of CAR				
The following equation has been referred: $\text{Bold}_{\text{adjusted}} = \text{Bold} \times (1 - \mu_y)$ This does not applicable to PP's case as the B_{old} method was not opted by the PP.				
Project participant response				Date: 08/03/2024
The same has been removed in the MR as this equation is not applicable. As per the Methodology VMR0006 v1.1., the PP has opted for measuring $B_{y, \text{savings}}$ through equation 4 ($B_{y=1, \text{survey}}$ method).				
Documentation provided by project participant				
Revised MR.				

VVB assessment	Date: 13/03/2024
The finding is closed based on the corrections as mentioned in the response of the PP.	

Table 3. FAR from this verification

No FAR raised during this verification.

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

APPENDIX 4: REFERENCES

Ref	Document
/01/	Monitoring Report titled: 1. Improved Cookstove Programme by SDG13 in India Version 01 dated 08 Feb 2024 2. Improved Cookstove Programme by SDG13 in India Version 02 dated 08 March 2024 3. Improved Cookstove Programme by SDG13 in India Version 03 dated 17 July 2024 4. Improved Cookstove Programme by SDG13 in India Version 04 dated 02 Aug 2024
/02/	ER sheet corresponding to: 1. /01/ 2. /02/ 3. /03/ 4. /04/
/03/	Sales and Distribution Database
/05/	Sample Household Survey Questionnaire
/06/	WBT Records: 1. WBT Test report
/07/	• End User Sales records/ carbon waiver • Monitoring/Survey and installation reports. • Declaration that project is not claiming ERs under any other GHG mechanism • Spreadsheet for the ex-ante ER demonstration.
/08/	Project Description for the Improved Cookstove Programme by SDG13 in India
/09/	• Ex-ante ER sheets • Registered VCS PD • Validation Report • Verification Report of Previous Verifications Under VERRA • Fnrb spreadsheet (as part of registered documents) https://registry.terra.org/app/projectDetail/VCS/2533
/10/	• Stoves Technical Specifications and WBT Test Reports • Life Time Certificate by the stove manufacturer • Grievance mechanism • Employment contracts details including the bifurcation of male and female

/11/	Training Records and Training Material for Monitoring Personnel
/12/	Training Records/awareness campaigns of training imparted to the Households/stove users.
/13/	• Methodology VMR0006: Methodology for Installation of High Efficiency Firewood Cookstoves, Version 1.1 • Standard: Sampling and surveys for CDM project activities and programme of activities, Version 9 • Guideline: Sampling and surveys for CDM project activities and programme of activities, Version 04 • VCS Standard, Version 4.6 • VCS MR Template, Version 4.3