



IMPROVED COOKSTOVE PROGRAMME BY SDG13 IN INDIA



LGAI Technological Center S.A. (Applus+ Certification)

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Summary:

LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been commissioned by SDG13 Ventures Pte Ltd. to perform verification of the VCS Grouped Project “Improved Cookstove Programme by SDG13 in India” against the criteria VCS standard V.4.4 and other relevant VCS requirements. The objective of the verification work is assess whether the approved project complies with the requirements of Verified Carbon Standards requirements and ensure that the project activity has been implemented and operated as per the approved PD, and that all physical features (technology, project equipment, monitoring procedures and methodology) of the project are in place. The scope of the verification assessment is to verify the reported emission reductions for the 1st or current monitoring period are determined correctly as per the monitoring plan of the approved VCS PD and the applied monitoring methodology “VMR0006 Methodology for Installation of High Efficiency Firewood Cookstoves, Version 1.1”.

The portable improved cookstove (ICS) burns wood more efficiently thereby improving thermal energy transfer to pots, hence saving fuel wood and reducing the greenhouse gases. Not only will this reduce the rapidly progressing deforestation but will also reduce health hazards from indoor air (smoke) pollution and women and children will have to spend less time in collecting firewood. As the target populations are unable to afford these stoves (ICS), project promoters have distributed ICS at a subsidized cost of almost 10% of its market price. The end user has been informed in advance that the use of ICS generates carbon finance which in turn is used to cover the price of ICS and for recovering project implementation costs. The project involves distribution of fuel-efficient, portable improved cook stoves (ICS) to replace the baseline traditional cook stoves in households. The ICS deployed under this project is energy efficient which substantially reduces fuel consumption and emissions for conducting cooking and water heating needs at beneficiary households. The boundary of the grouped project is in India and the current project instance included the distributed 29,860 project activity instances in the district areas of the Madhya Pradesh state in India.

3 Clarification Requests (CLs) and 6 Corrective Action Requests (CARs) have been raised during the course of Verification and were also closed successfully.

The VVB confirms that a reasonable level of assurance has been achieved during the process. It was assessed that this project has achieved 29,603 tCO₂e of emission reductions during the current monitoring period (01-01-2022 to 30-04-2022).

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1 INTRODUCTION

1.1 Objective

SDG13 Ventures Pte Ltd. (hereafter referred to as SVPL) has appointed the VVB, Applus+ Certification to perform verification of the VCS Grouped Project “Improved Cookstove Programme by SDG13 in India”. This report summarizes the findings of verification of the achieved emission reductions from the above stated project activity with respect to the requirements of VCS standard and all the relevant requirements.

The objective of this verification activity is to have an independent third party for the assessment of the project design, Monitoring Report and Final Verification report and to ensure a thorough assessment of the proposed project activity against the applicable CDM and VCS requirements. In particular;

- The project's baseline is assessed against “VMR0006 Methodology for Installation of High Efficiency Firewood Cookstoves, Version 1.1”
- The project's monitoring plan is assessed against “VMR0006 Methodology for Installation of High Efficiency Firewood Cookstoves, Version 1.1”
- The project's additionality justification is assessed against “VMR0006 Methodology for Installation of High Efficiency Firewood Cookstoves, Version 1.1”
- The projects compliance with Host Country legislations and sustainability criteria along with VCS standard version 4.4
- CDM project standard for project activities, version 03.0
- VCS program guide version 4.3

Verification is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of verified carbon units (VCUs).

1.2 Scope and Criteria

The scope is defined as an independent and objective review of the Monitoring report (MR) prepared as per the registered VCS PD and registered approved methodology “*VMR0006 Methodology for Installation of High Efficiency Firewood Cookstoves, Version 1.1*”. The MR is reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords and the relevant decisions by the CDM Executive Board and VCS standard version 4.4 and guideline version 4.3, including the approved baseline and monitoring *VMR0006 Methodology for Installation of High Efficiency Firewood Cookstoves*,

Version 1.1". The verification was conducted based on the requirements in the CDM validation and verification standard for project activities, Version 03.0, and VCS program guide version 4.3, VCS standard version 4.4.

The verification is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the Monitoring report. In line with Guidelines for Application of materiality in verifications, the verification team has conducted a complete verification of all the information presented in the monitoring report and data monitored as presented in the emission reduction calculation spread sheet. It follows the paper trail back to the raw data such as meter reading records and invoices. There are no material errors, overestimation of ER, omission or misstatement. Verification team verified technical details and monitoring arrangements and survey methods that are regularly applied at site to obtain the required data on the monitoring parameters. The verification team has reviewed all the documents like kitchen performance survey results, training documents, efficiency of the jumbo cookstoves, grievance register etc.

1.3 Level of Assurance

Applus+ Certification has conducted the verification by obtaining evidence and other information and explanations that assessment team considers necessary to give reasonable assurance that reported estimated GHG emission reductions are fairly stated. All documentary evidences were checked, Onsite visit was conducted to arrive at a verification conclusion by the assessment team.

In our opinion, the estimated GHG emissions reductions were calculated correctly on the basis of the approved baseline and monitoring methodology "*VMR0006 Methodology for Installation of High Efficiency Firewood Cookstoves, Version 1.1*" and the VCS standard version 4.4.

1.4 Summary Description of the Project

The project “Improved Cookstove Programme by SDG13 in India”, is a grouped project which employs of the VCS methodology; VMR0006 version 1.1. The grouped project involves distribution of energy efficient cookstoves to the rural population of India. Presently the grouped project activity instance is planned to be included with distribution of 29,860 ICS in the districts of Madhya Pradesh in India. The technology distributed under this group project is fuel efficient and portable Jumbo cookstove (ICS) PP has considered each ICS distributed as a project activity instance.

The start date of the project is 01-January-2022 which is the date of commissioning of the batch as verified through the project database. The duration of crediting period is of fixed 10 years i.e., it starts from 01-January-2022 and ends on 31-December-2031. The project proponent for the project activity is SDG13 Ventures Pte Ltd, owns the rights to VERs. The project activity has been implemented as described in the approved VCS PD and the emission reductions are calculated conservatively as per the applied methodology. The estimated annual average and the total CO₂e emission reduction by the project activity over the fixed crediting period of 10 years are expected to be 1,966,523 tCO₂e and 19,665,232 tCO₂e respectively. The verification team confirmed that emission reduction forecast is reasonable if the underlying assumptions do not change.

Below are the entities involved under project activity: -

Organization name	SDG13 Ventures Pte Ltd
Contact person	Ms. Neha Juneja
Title	Director
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Organization name	Jagurih Corporate Consultants Pvt. Ltd.
Role in the Project	Consultant
Contact person	Mr. A. A Nair
Title	Consultant

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2 VERIFICATION PROCESS

2.1 Method and Criteria

Verification Process: The project assessment is based on the requirements provided in the “VCS standard version 4.4, program guide version 4.3” and CDM validation and verification standard for project activities, Version 03.0. Standard auditing techniques are applied to assess the correctness of the information provided by the project participants. Before the assessment begins, members of the team covering the technical scope(s), sectoral scope(s), and relevant host country experience for evaluating the VCS project activity are appointed.

Once the project is received by the assessment team, the members of the assessment team carried out: -

1. A desk review of the Monitoring report against the registered PD and final validation report;
2. Onsite audit and site visit;
3. The resolution of outstanding issues and the issuance of the final verification report and opinion.

The prepared verification report and other supporting documents then undergo an internal quality control at the HQ (Accredited office) before being submitted to the VCS executive board.

In order to ensure transparency, assumptions must be clear and stated explicitly and background material must also be referenced. Applus+ Certification has developed a specific checklist customized for the project. The checklist demonstrates, in a transparent manner, the project criteria (requirements), discussion on each criterion by the assessment team, and the results from validating the identified criteria.

Appointment of the assessment team

According to the sectoral scope / technical area and experience in the sectoral or national business environment, Applus+Certification has composed a project assessment team in accordance with the appointment rules in the internal Quality Management System of Applus+ Certification.

The composition of audit team shall be approved by the, Applus+ Certification ensuring that the required skills are covered by the team.

The three qualification levels for team members that are assigned by formal appointment rules are as presented below:

- Lead Auditor (LA).
- Technical Expert (TE).
- Technical Reviewer (TR).

The sectoral scope / technical area knowledge linked to the applied methodology/ies shall be covered by the assessment team.

Name	Role	SS Coverage	TA Coverage	Financial aspect	Host country experience
Mr. Srikanth Meesa	LA/TE	YES	YES	NA	YES
Mr. Simon Shen	TR	YES	YES	NA	NA

The detail regarding the assessment team is provided below in this report as Appendix 3.

Document review

The Monitoring report version 01 submitted by the PP was reviewed against the approved methodology, registered PD, final validation report and other relevant criteria to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources has been done. A complete list of all documents and evidence material reviewed is included in this report below in Appendix 1.

Onsite Audit

A site visit is conducted by Applus+ Certification's audit team who performed onsite audit with project owner, implementers and beneficiary households to confirm the information mentioned in monitoring report, ER sheet and to resolve issues identified in the document review. The detail is provided in this report.

Resolution of Clarification and Corrective Action Request

The objective of this phase of the Verification was to resolve the requests for corrective actions and clarification and any other outstanding issues which need to be clarified for Applus+ Certification positive conclusion on the Monitoring report. The Corrective Action Requests and Clarification Requests raised by Applus+ Certification were resolved during communications between the Client and Applus+ Certification to guarantee the transparency of the verification process, the concerns raised and responses given are summarized below in the Appendix 2.

The final MR Version 03.3 submitted by PP serves as the basis for the final assessment presented. Additional changes to the project during the verification process are not considered

to be significant with respect to the main VCS objectives. The two VCS main objectives are the reduction of anthropogenic GHG emissions and the contribution of sustainable development to the host country.

Internal quality control

As final step of a verification of the final documentation including the verification report and the checklist have to undergo an internal quality control by the technical review committee, i.e., each report has to be finally approved either by the head of the technical review committee or the deputy. In case one of these two persons is part of the assessment team approval can only be given by the other one to avoid any conflict of Interest.

After confirmation of the PP the positive verification opinion and relevant documents would be submitted to the VCS board through the VCS web-platform.

2.2 Document Review

The details of the document observed during the verification process are listed below in Appendix 1 of this report.

2.3 Interviews

Verification team has conducted the site visit during 26th-28th September and the details of the interviewees is provided below:

S.No.	Last Name	First Name	Affiliation	Date	Subject	Team Member
1	Mathur	Ankit	Director, SDG13 Ventures Pte Ltd	26-28 th Sept 2022	Project Implementation, grievance mechanism, Management practices, data storage, QA/QC	Srikanth Meesa
2	Chand	Phool	MD, Jagurih Corporate Consultants Pvt. Ltd			
3	Singh	Rajeev	Site Manager, Greenway Grameen Infra Pvt Ltd			
4	Suchak	Deepesh	Associate, Carbon Projects,	26-28 th Sept 2022	Data collection, Data storage,	

			Greenway Grameen Infra Pvt Ltd		Project Implementation	
5	Sheikh	Asif	Project Manager, Greenway Grameen Infra Pvt Ltd	26-28 th Sept 2022	Project Implementation	
6	Newani	Silkee	Project Manager, Greenway Grameen Infra Pvt Ltd	26-28 th Sept 2022	Project Implementation	
7	Singh	Aditi	Senior Associate, Greenway Grameen Infra Pvt Ltd	10 th Dec 2022	Carbon Compliance, GHG calculations, MR and ER preparation, Data collection, data storage	Srikanth Meesa

2.4 Site Visits

Duration of on-site inspection: 26th-28th September-2022				
No.	Activity performed on-site	Site location	Date	Team member
1.	Assessment team checked the implementation of the project, Baseline emission, Emission reduction calculation, technical description of the project and Monitoring. Assessment team also checked that whether the monitoring plan as described in the VCS PD is actually implemented onsite. Reviewing whether the obtained data through the surveys is reliable and it's effectiveness.	Villages in Madhya Pradesh. Village names are provided in the below table.	26th-28th September-2022	Srikanth Meesa

S.No.	Name of the beneficiary household	ICS Serial No	Village name	District	City
1	Asha vaidh	J22VD009460	Heti	Balaghat	Tirodi
2	Reeta pane	J22VD008444	Heti	Balaghat	Tirodi
3	Dipkala sharanagat	J22VD009423	Pandewada	Balaghat	Balaghat
4	Rajkumar baheshwar	J22VD003534	Bakoda	Balaghat	Balaghat
5	Urmila bai	J21VK113557	Kharpdiya	Balaghat	Balaghat

6	Anupama patel	J21VJ094075	Anajaniy	Mandla	Bichhiya
7	Sonkali vishwakarma	J22VD007345	Bhawa jar	Mandla	Anjaniya
8	Babulal barmaiya	J22VB169312	Deodara	Mandla	Mandla
9	Shiv Charan Masram	J22VB172396	Gwari	Mandla	Mandla
10	Subbe lal dhurwey	J21VH059292	Gujar sani	Mandla	Narayanganj
11	Kamlesh rani	J21VJ093957	Kakrenta	Jabera	Damoh
12	Seeta Rani	j21VJ086122	Karanpura	Damoh	Jabera
13	Asha jamunpane	J22VC209041	Goreghat	Balaghat	Tirodi
14	Pratiksha shivne	J22VB173515	Goreghat	Balaghat	Tirodi
15	Bharti pane	J22VB170314	Heti	Balaghat	Tirodi
16	Narendra Kumar jaitwar	J22VC209394	Sukli	Balaghat	Tirodi
17	Shanta bai	J22VC209425	Sukli	Balaghat	Tirodi
18	Devendra kumar	J22VA152792	Miregoun	Balaghat	Lalburra
19	Jeevan Lal Chakrwardi	J22VD000178	Silgi	Mandla	Mandla
20	Rupendr	J22VD007577	Bhawa maal	Mandla	Anjaniya
21	Bablu	J22VD001747	Bhajiya	Jabera	Damoh
22	Dasoda Bai	J21VI066904	Devri	Damoh	Jabera

The VVB conducted the acceptance sampling to check the monitoring surveys results. Verification team has determined acceptance sample size for all the sample survey parameters based on the Table-2 and guidance provided under para 39 of standard “Sampling and surveys for CDM project activities and programmes of activities” version 9.

Parameters	Producer Risk	Consumer Risk	AQL	UQL	Sample Size (n)	Acceptance Number
Monitoring Parameters	10%	5%	1%	20%	22	1

During the on-site visit a sampling approach has been used by the verification team to verify the reported values for the monitored parameters in the latest version of the MR. The sampling approach included households which have been included in the monitoring survey. Accordingly, the assessment team verified a total of 22 Samples from the total sample of 180 taken by the PP, as per the details provided above and observed that the sampling survey results of the PP for all the checked beneficiary households were found to be acceptable. It was found all the ICS were operational and there was no discrepancy in the reported data provided in the final version of the MR and ER sheet. Thus, the results of the monitoring parameters provided in the MR and ER sheet were confirmed and found acceptable.

2.5 Resolution of Findings

VCS main objectives are the reduction of anthropogenic GHG emissions and the contribution of sustainable development to the host country.

Areas of validation and verification findings	No. of CL	No. of CAR	No. of FAR
Monitoring report	00	02	00
Description of project activity	00	00	00
Application of selected baseline and monitoring methodology and selected standardized baseline			
Applicability of methodology and standardized baseline	00	00	00
Deviation from methodology	00	00	00
Clarification on applicability of methodology, tool and/or standardized baseline	00	00	00
Project boundary	00	00	00
Establishment and description of baseline scenario	00	00	00
Demonstration of additionality	00	00	00
Emission reductions	00	00	00
sampling plan	00	02	00
Implementation of Monitoring plan	02	01	00
No Net harm assessment	00	00	00
Local stakeholder consultation	00	00	00
Others (monitoring period related)	01	01	00
Total	03	06	00

The list of findings and the resolution is presented in Appendix 2 of this report.

2.5.1 Forward Action Requests

This is the 1st verification of the project activity and no FAR was raised from previous validation assessment presented in the validation report.

2.6 Eligibility for Validation Activities

This section is not applicable for present verification, as Applus+ Certification holds the accreditation for Validation and verification of projects under this Sectoral Scope.

3 VALIDATION FINDINGS

The project “Improved Cookstove Programme by SDG13 in India”, is a grouped project which employs baseline and monitoring methodology; VRM0006 version 1.1. The grouped project involves distribution of fuel-efficient improved cook stoves (ICS) model Jumbo challah in rural districts of Madhya Pradesh, India for this monitoring period. This grouped project comprises of 7 years and approximately 29,860 ICS were distributed during the current monitoring period i.e. 01-01-2022 to 30-04-2022. The project results in reducing the amount of non-renewable biomass used for cooking. Through reduction in non-renewable biomass consumption, the programme will decrease greenhouse gas emissions. The natural draft ICS will burn the wood efficiently, which improves the thermal energy direct to the pot, so conserving non-renewable biomass. Section 1.1. of the VCS MR contains a clear summary description of the project. The completeness and accuracy of the project description was assessed through onsite interviews.

The project proponent is SDG13 Ventures Pte Ltd. and holds the carbon credits generated from the project activity as per section 1.3 of VCS MR. The start date for the grouped project is 01-01-2022 which is the date of installation of first stove under this project activity. The crediting period starts on 01-01-2022, which coincides with the starting date of the project activity, and last for 10 years, fixed. The indication of the project activity instance location and the geographic boundaries is provided in section 1.7 of the VCS MR. These are in accordance with paragraph 3.11 of the VCS Standard and can confirm that the project activity boundary is uniquely defined and were assessed as correctly reported.

The grouped project location and geographic boundaries of the project are those of India. The current monitoring period includes the distribution of 29,860 ICS in the districts of Madhya Pradesh, India. This is in accordance with paragraph 3.6.10 of the VCS standard version 4.4, which requires grouped projects to have one or more clearly defined geographic areas within which new project activity instances may be developed. The VCS MR clearly indicates the project scope, which is scope 3: Energy demand, and more specifically demand -side energy efficiency project. The project is a grouped project; this is indicated in section 3.3. of the VCS MR. The average annual GHG emission reduction for the group project activity is 1,966,523 tCO₂e and total 19,665,232 tCO₂e over the entire crediting period of 10 years from 2022 until 2031. The proposed grouped project is an energy efficiency project activity and is located in a non-Annex I country. Therefore, the ER generated would not be part of an emission trading program, nor it is located

3.1 Participation under Other GHG Programs

The project has been registered under only VERRA mechanism. The grouped project is not participating under any other GHG programs. Each ICS is also physically marked with its unique identification number. Along with the serial number, end user name, end user ID no, address, commissioning date etc. VVB has cross verified the same during the onsite visit, had also been found to be consistent on ground. Further, the similar projects are yet not started, PP has ensured that districts under this group project activity, are not being repeated in the similar projects developed by the PP. VVB team has checked the publicly available sources to confirm that there are no other registered large-scale or an application to register another large-scale project activity under carbon credit mechanisms viz. CDM, VERRA-VCS, Gold standard etc. Further, the project activity is not rejected under any other GHG programs. PP has submitted an undertaking that the project activity is not registered/seeking registration under any other GHG programme. Therefore, VVB concludes that the project activity is only applied in VERRA under VCS programme and ensures that no double counting is associated with the project activity. It is to be noted, the project has applied for SD VSta.

3.2 Methodology Deviations

This section is not applicable for present verification as no methodology deviation sought during this verification.

3.3 Project Description Deviations

This section is not applicable for this project activity, there is no project deviation taken for this project activity.

3.4 Grouped Project

S.No.	Eligibility criterion - Category	Eligibility criterion - Required condition	Supporting evidence for inclusion	VVB Assessment
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 host country India. All distributed ICS in a project instance shall be located within geographical boundary of India.	The current instance ICS distributed in various districts of Madhya Pradesh State of India. The same can be checked distribution records and end user agreements. Hence eligibility criteria are met.	Based on the submitted document review and the site visit, verification team has found that the project geographical boundary is inline with the approved VCS PD. Hence, it is assessed as it meets the eligibility criteria.
2	Conditions that avoid double counting of emission reductions like unique identification of product and end-user locations	A unique numbering system for ICS will be applied in each project stances, assigning a unique number to each ICS and allowing to clearly identify for each ICS to which project stance/cluster it belongs. Provisions will be made to collect geo-coordinates.	Each ICS distributed has unique identity and corresponding end user details (i.e. name, address etc.). Additionally, unique id shall be displayed on the stove itself. The unique numbering or identification regime can be verified. The distribution app captures the end-user location details, including geo-coordinates in the database. Hence, the eligibility criteria are met.	Based on the submitted document review and the verification site visit, it is confirmed that each ICS has unique serial number encrypted on the jumbo cookstove and is visible. Further, PP has the tool to enter the geo co-ordinates of the stove location. Hence, it complies with the required criteria.
3	The specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications	Project stances under this project will consist of the distribution of ICS with a thermal efficiency of at least	The project proponent has distributed single pot Green Jumbo cookstove having certified efficiency of	As illustrated in the adjacent cell, the efficiency of the ICS is more than 25%. Thus, it is evident it

		25% efficiency 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 cook-stoves for biomass fired ICS as defined in the VCS PD. Stove types replaced and implemented is defined in the VCS PD, and hence appliances involving the efficiency improvements in the thermal applications of non-renewable biomass as per VMR0006.	38%. Hence eligibility criteria are met.	complies with the required criteria.
4	The conditions that ensure that the project instances meet the requirements pertaining to the demonstration of additionality	Have characteristics with respect to additionality that are consistent with the initial instances for the specified project activity and geographic area.	The additionality is demonstrated using financial barrier option in line with applied approved methodology VMR0006 Step 1: The project implementation is not mandated by government policy or regulation in host country. Step 2: Not applicable Step 3: As the PP has sold ICS at more than	Verification team has reviewed the provided MR and evidence documents on the subsidy. Based on that, the statement made in the adjacent cell by the PP is valid as they provide more than 60% of the subsidy on the jumbo ICS market price. Hence, it is assessed it meets the additionality

			60% subsidy, hence the return from project is negative and sale of VERs will help in funding gap. Hence project activity is additional. Hence eligibility criteria are met.	criteria satisfactorily.
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 requirements related to sampling for a project instance in accordance with the sampling guidelines including all annexes and amendments till EB 86 Annex 04 and Sampling and surveys for CDM project activities and program of activities version 09.0	Specification of the sampling methods applied and compliance with the sampling requirements are established at the Project Description. The Sampling has been undertaken as part of the Project Description Sampling Plan. Hence eligibility criteria are met.	Verification team has reviewed the provided MR and other survey reports which indicate “Standard for sampling and surveys for CDM project activities and programme of activities” Version 09 were applied by the PP to determine the sample size. Thus, it is assessed that the project complies with the eligibility criteria.
6	VCU ownership	and users receiving ICSSs under the specific project instances contractually cede their rights to claim and own emission reductions under the VCS to the PP of the project.	A default distribution agreement for end users including the provision that emission reductions generated by the stove are owned by the PP is being signed by each individual end users, and same is submitted to the VVB.	The agreement between the beneficiary households and the PP was available during the on-site visit at the sampled beneficiary households. Hence, it is assessed that the ownership requirement is complied.
7	Where a capacity limit applies to a project activity included in the project, no Project	he grouped project does not have any specified capacity limits applicable, since there are no	Not applicable.	Based on the site visit and desk review of the

	instance shall exceed such limit. Further, no single cluster of project activity instances shall exceed the capacity limit, determined as follows: Each device that exceeds one percent of the capacity limit shall be identified. Such instances shall be divided into clusters, whereby each cluster is comprised of any system of instances such that each instance is within one kilometer of at least one other instance in the cluster. Instances that are not within one kilometer of any other instance shall not be assigned to clusters. None of the clusters shall exceed the capacity limit and no further project activity instances shall be added to the project that would cause any of the clusters to exceed the capacity limit.	capacity limits defined within the applied methodology, VMR0006, ver. 1.1. Therefore, this eligibility criteria is not applicable.		registered PD and MR, the statements provided by the PP in the adjacent cells are correct.
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.	Based on the review of the registered PD, MR and other relevant documents and site visit observations, verification team has found that there was no ODA for the grouped project.
9.	The Group project- specific requirements stipulated by the project proponent including any conditions related to undertaking local stakeholder consultations and environmental impact analysis	The local stakeholder consultation conducted at group PD level and validated during registration. Each new project	The local stakeholder consultation done at grouped project level and no further action needed.	Assessment team reviewed the PD and MR and found that the justification /supporting evidence provided by the PP in the

		instance/project will be implemented in similar social economic situations. The key stakeholders of the program both at group project activity and new project instance level are the same. No further actions needed at the new project instance level to satisfy the eligibility criteria.	The project instance under current periodic verification is validated as first actual instance.	adjacent cell is correct. Hence, there is no further action needed during this verification as this is the first project instance and local stakeholder consultation was conducted during the 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 instance and start date of this project instance is same as start date of grouped project.	Assessment team has reviewed the registered PD and MR and found that the current project instance is the first instance of the grouped project. Thus, the start date of the current project instance is same as the grouped project. The justification /supporting evidence is and correct and acceptable. Hence, it is assessed the current project complies with the eligibility criteria requirement.
11	Applicability of VCS methodology	All future instances shall fulfil all-applicability criteria	The project instance under verification is first instance and meets all the	Based on the review of the registered PD and MR, assessment team

		of VCS methodology VMR0006, v1.1.	applicability condition of VMR0006 V1.1, the same is being validated during registration of grouped project activity.	has found the statements provided by the PP in the adjacent cell are valid and correct. Thus, the project complies with the requirement.
12	Are subject to the baseline scenario determined in the project description for the specified project activity and geographic area	The new instance shall adhere the baseline requirements of the VMR0006, v1.1.	The project instance under verification is first 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.	As indicated above, and based on the review of the registered PD and MR, the statements made in the adjacent cell are assessed as correct.
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.	Verification team has reviewed the registered PD and MR and found that the crediting period of the current project instance is the start date of the grouped project. Hence, it is assessed that the justification provided by the PP in the adjacent cell complies with eligibility criteria requirement.
14	Not be or have been enrolled in another VCS project	No project instance to be included which is part of other grouped or standalone VCS project	The project instance under verification is first instance included under grouped project and is not registered under any other	Based on the declaration statement provided by the PP and the web search on the VERRA registry, it

			grouped or standalone VCS project. A declaration regarding same is being provided to VVB.	was found that the project is not enrolled in another VCS project or any other carbon mechanisms.
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4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The project is implemented as mentioned in the PD. The ICS deployed under this project is energy efficient which substantially reduces fuel consumption and emissions for conducting cooking and water heating tasks in homes. The ICS improve the efficiency of combustion and thermal transfer to the pot compared with a traditional pot support or three-stone fire by incorporating energy efficient technology which provides a conducive environment for clean and efficient combustion of wood. It substantially reduces wood fuel consumption compared with a less efficient or three-stone fire or traditional pot support. The boundary of the grouped project is in India and there are 29,860 project activity instances in the state of Madhya Pradesh in India with a total number of 29,860 ICS distributed across the boundary which is mentioned in the PD. The implementation of the monitoring plan pertaining to the monitoring of the monitoring parameters and it's assessment is transparently presented in section 4.4 below. Furthermore, no change observed in the technical specification as mentioned in the PD and the ICS distributed is as per the requirement of the PD. Hence, assessment team confirm the below:

1. There were no material mis-statements between the project implementation and the project description including the monitoring plan and the requirements of the applied methodology provided in the approved VCS PD.
2. The project did not participate or rejected in any other GHG program since validation.
3. The project did not receive or sought any other form of environmental credit or become eligible since validation. PP has submitted declaration on the same.

Based on the document review and on-site visit, verification team confirms that the project activity meets the capacity limit/cluster requirements as per section 3.6.9 of the VCS Standard v.4.4.

4. GHG emission reductions generated by the project were not included in an emissions trading program or any other mechanism that includes GHG allowance trading.
5. The project has resulted in the contributing positively to the sustainable development goals.

The project is implemented as per the requirement of the PD and the applied methodology.

4.2 Safeguards

4.2.1 No Net Harm

The project does not have any negative environmental impacts that may lead to harm the environment. Further, it contributes positively by avoiding the deforestation of forests. There

are no negative socio-economic impacts due to the project. It contributes positively by improving the well being of the households by reducing their exposure to the smoke and also providing more time for other livelihood or productive activities.

4.2.2 Local Stakeholder Consultation

Local stakeholder consultation has been conducted at the time of project registration. For on-going stakeholder's communication, PP have maintained grievance register^{/15/} at the site office. All the stakeholders are happy with the implementation and operation of the project activity and no negative comments envisaged for the project activity. Complaint/suggestion/feedback register is maintained at site as a part of ongoing communication with stakeholders in line with clause 3.18.19 of VCS Standard, ver. 4.4 and appropriate actions taken time to time by PP.

Assessment team checked the grievance register provided by PP and found that local stakeholders can anytime lodge their grievances if any in the register over the operational life time of the project. During current monitoring period no grievance was received. Thus, assessment team is of the opinion that the ongoing stakeholder mechanism is adequate and appropriate. Assessment team during the onsite observed that the PP has conducted the surveys during July -August 2022 and it was observed that the households didn't have any complaints or issues on the project. Further, it was noticed the households responded positively regarding the Jumbo stoves.

4.3 AFOLU-Specific Safeguards

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

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The VVB had conducted on-site visit with concerned representatives of the PP, project implementors and households. Verification team has reviewed documents provided by the PP; assessment team concluded that the project activity is implemented and operated in-line with the VCS PD. A total number of 29,860 ICS distributed across the boundary which is mentioned in the submitted MR. There is no change in the project design or operation and monitoring practices at site which can alter the applicability or additionality of the project activity. In addition to the interviews with PP, assessment team have checked the all the documentation and found that the project activity is implemented as per the VCS PD and Monitoring report submitted by the PP for current monitoring period.

Parameters fixed ex ante

Means of verification	The data and parameters fixed ex ante have been checked from the approved VCS PD-, approved methodology and IPCC. 1. Net calorific value of the non-renewable woody biomass that is substituted or reduced- Value of 0.0156 TJ/tonne as specified by the methodology VMR0006 V 1.1 has been used. 2. CO2 emission factor for the use of wood fuel in baseline scenario - Value of 112 tCO2e/TJ as per IPCC default values.
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	3.The non-CO₂ emission factor for the use of wood fuel in baseline scenario Value of 26.23 tCO₂e/TJ as per IPCC default values 4. η_{old} Efficiency of baseline cookstove- Value of 0.1 as per methodology default value. This is accepted as baseline scenario was a three- stone fire using firewood (not charcoal), or a conventional device with no improved combustion air supply or flue gas ventilation, that is without a grate or a chimney. 5. η_P Efficiency of project stove at the start of project activity. - Value of 38% as per manufacturer specifications 6. Fraction of woody biomass saved by the project activity during year y that can be established as non-renewable biomass- Value of 0.901 has been calculated as per TOOL30: Calculation of the fraction of non-renewable biomass"
Findings	NA. It is to be noted, all the above stated parameters that are used to calculate the emission reductions were assessed during the validation stage. Hence, it need not to be re-assessed.
Conclusion	Verification team confirms that the values fixed ex-ante are in line with the requirements of VCS v4.4.

Parameters Monitored:

Means of verification	The verification of the parameters required by the monitoring plan is provided as follows:	
	Data / Parameter:	<i>Ny,i,j</i>
	Data unit:	Number.
	Value	29,860
	Description:	Number of project devices of type I and batch j operating during year y
	Source of data used:	Monitoring survey
	Means of verification/Comments:	The number of stoves installed have been verified from the ICS installation database which provides the complete list of stoves installed during the current monitoring period i.e. 01-01-2022 to 30-04-2022. It was found PP has conducted sampling which is inline with the approved VCS PD. Further, the sample size was calculated as per the latest version of Standard for sampling and surveys for CDM project activities and programme of activities. As illustrated by the PP in the MR. The sample size is 20 with 95% confidence level and 10% precision. However, verification team has noticed PP has taken a sample of 180 which is more than required sample size. Every individual project stove in the project covered under this MR (observed to be uniquely identifiable by its ID number) was allocated a sample number. PP has submitted sample size calculation spreadsheet and random number generator where it was demonstrated that samples are drawn randomly using stratified random sampling approach. VVB further has cross-checked the sampling approach by the PP as per MR against related PD. Additionally, the related population size has been checked with corresponding supporting documents (e.g. Total ICS database, ER worksheet). Input parameters for the sampling calculations have been checked for consistency with the stated approach and against PD and the methodology requirement.

		Further, verification team has re-calculated the sample size according to the required confidence/precision and found the sample size correctly calculated. Also, the achieved precision for every parameter was recalculated by the verification team and was found to meet the minimum desired confidence and precision levels. It is to be noted the monitoring frequency is once in 2 years as per the approved VCS PD. PP has conducted the monitoring surveys during July-August 2022 for the current monitoring period.
	Cross-check	This has been cross-checked with the sample contract agreements with the beneficiaries during on-site audit.

Data / Parameter:	$B_{y=1,new,i,j,survey}$
Data unit:	Tonnes
Description:	Annual quantity of woody biomass used by improved cook stoves 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
Source of data used:	Monitoring Survey results
Value	1.245 tonne/device/year
Means of verification/Comments:	Determined in the first year of the introduction of the devices (e.g. during the first year of the crediting period, $y=1$) through measurement campaigns at representative households and/or sample survey. Sample surveys to estimate this parameter, that are solely based on questionnaires or interviews (i.e., that do not implement measurement campaigns) may only be used if the following conditions are satisfied. (i) Baseline cookstoves have been completely decommissioned and only improved cookstoves are exclusively used in the project households; (ii) If multiple devices are used in the project, it is possible from the results of the survey questions to clearly differentiate the quantity of firewood being used by each device. In other words, if more than one device, or another device that consumes firewood, are in use in project households, then the sample survey needs to distinguish the

		quantity of firewood used by the project device and the other devices that use firewood. It was found PP has conducted sampling which is inline with the approved VCS PD. Further, the sample size was calculated as per the latest version of Standard for sampling and surveys for CDM project activities and programme of activities. As illustrated by the PP in the MR. The sample size is 19 with 95% confidence level and 10% precision. However, verification team has noticed PP has taken a sample of 180 which is more than required sample size. It is to be noted the monitoring frequency is once in 2 years as per the approved VCS PD. PP has conducted the monitoring during July-August 2022 for the current monitoring period. Verification team has interviewed the beneficiary households on the usage of firewood before the usage ICS and found that the calculated value $B_{y=1,new,i,j,survey}$ is acceptable.	
	Cross-check	--	
	Data / Parameter:	$\eta_{new,i,j}$	
	Data unit:	Fraction	
	Description:	Efficiency of the device of each type i and batch j implemented as part of the project activity	
	Source of data used:	Manufacturer specification or Certification by a national standards body or an appropriate certifying agent recognized by that body	
	Value	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	
	Means of verification/Comments:	"Efficiency of the improved cookstoves stated above has been included in the MR. It is 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" and the same is inline with the approved VCS PD.
	Cross-check	--
	Data / Parameter:	Date of commissioning of batch j
	Data unit:	Date
	Value:	01-01-2022
	Description:	Actual date of commissioning of the project device within a batch
	Source of data used:	ICS installation database
	Means of verification/Comments:	Verification team has reviewed the MR, ER sheet and the approved PD. It was observed that this parameter is monitoring as per the monitoring plan provided in the approved VCS PD. Further, this is fixed and recorded at the time of commissioning/distribution of the last project device in the batch. Fixed and recorded at the time of commissioning/distribution of the last project device in the batch. The batch was started on 01-01-2022 was also confirmed.
	Cross-check	--
	Data / Parameter:	Lifespan
	Data unit:	Years
	Description:	The operating lifetime of the project device. The life span should be reported if the methodology equation 5 is adopted to determine the project stove efficiency
	Source of data used:	Manufacturer specification
	Value	7
	Means of verification/Comments:	It is to be noted this was already assessed during the validation. However, it is re checked by the verification team and found the statement is valid.

		As per the approved VCS PD, this is monitored once at the time of installation of batch of type of stove.
	Cross-check	--
	Data / Parameter:	μ_y
	Data unit:	Fraction
	Description:	Adjustment to account for any continued use of pre-project devices during the year y
	Source of data used:	Monitoring survey
	Value	0.895
	Means of verification/Comments:	As the survey results reveals that the baseline cookstoves were decommissioned and no longer used, hence value 0 is considered and Bold, adjusted is equal to Bold. It was found PP has monitoring this parameter as per the approved VCS PD. Further, the sample size was calculated as per the latest version of Standard for sampling and surveys for CDM project activities and programme of activities. As illustrated by the PP in the MR. The sample size is 20 with 95% confidence level and 10% precision. However, verification team has noticed PP has taken a sample of 180 which is more than required sample size. It is to be noted the monitoring frequency is once in 2 years as per the approved VCS PD. PP has conducted the monitoring during July-August 2022 for the current monitoring period.
	Cross-check	--
Conclusion	The monitoring has been carried out in accordance with the monitoring plan contained in the VCS PD. All parameters were monitored and determined as per the registered monitoring plan. The substantiation of this conformity on information flow for these parameters including the values in the monitoring reports is reported in the above During the verification, all relevant monitoring parameters of the registered monitoring plan have been verified with regard to the appropriateness of the verification method, the correctness of the values applied for ER calculation, the accuracy and applied QA/QC measures. After appropriate corrections, carried out by	

	the project participant, it is confirmed that all monitoring parameters have been measured / determined without material misstatements and are in line with all applicable standards and relevant requirements. All parameters required to be monitored are recorded at the intervals required by the registered monitoring plan and the applied methodology. On the basis of review of source and nature of available evidences and records, the verification team confirms the quality of evidence for emission reduction provided is sufficient as per VCS v4.4.
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Sampling Approach: The sampling plan implemented by the PP is in accordance with the applied monitoring methodology and the approved VCS PD. The PP has appropriately performed Simple random Sampling procedure, reliability levels were set at 90% confidence and 10% precision in line with the applied methodology VMR 0006 version 1.1. As the VCS PD mentions the option for Simple random Sampling procedure, it is acceptable to the validation team. The sampling surveys have been carried out by the well-trained personnel. Monitoring parameters $N_{y,j,j}$ and $B_{y=1,new,i,j,survey}$ are monitored through monitoring sample surveys. Monitoring of the parameters ensures compliance with the applied methodology VMR0006, version 1.1. Verification team has checked the survey records and sample size calculation. Parameter $N_{y,j,j}$ monitors the number of stove in operation and the parameters $B_{y=1,new,i,j,survey}$ are used to calculate Quantity of woody biomass used by improved cookstoves. PP has applied sampling for the current monitoring period. A confidence/precision level of 90/10 has been used by the PP for all the monitoring parameters determined through applying simple random sampling. Survey has been carried out. This is in accordance with the sampling plan provided in the registered VCS PD. The project participant has been followed the simple random sampling approach and the minimum sample size should be determined as per the following guidelines:

Project target population < 300: Minimum sample size 30

- Project target population 300 – 1000: Minimum sample size 10% of group size
- Project target population > 1000: Minimum sample size 100

The simplified approach is used for determining minimum sample size of 100 for parameters available at validation and according parameter monitored in which case it is not requisite for the sample compliance with 90/10 confidence precision is not obligatory.

These parameters are as below

- Number of project devices of type i and batch j operating during year y
- Quantity of woody biomass used by project devices in tonnes per device of type i.

Since sampling has been applied in the project activity during current monitoring period as per VCS PD and the applied methodology VMR0006, version 1.1, thus it is acceptable to the verification team.

VVB Sampling:

The verification team decided to draw samples mainly from the project samples selected by Project Proponent. Acceptance Sampling approach was employed by verification team, which follows the “Standard for sampling and survey for CDM project activities and programme of activities”, version 9.0. Verification team has referred the paragraph 39 “Table 2 Sample Size and Acceptance Number 1” of the “Standard for sampling and survey for CDM project activities and programme of activities”, version 9.0. into consideration in order to select a random sample from the PP based on the AQL of 1%, the UQL of 20%, and the producer risk of 10% and consumer’s risk of 5% were selected.

Therefore, a sample size (n) of 22 should have been verified at least, and accordingly with 22 as the maximum number of discrepancies (acceptance number) between the verified data and the PP data. Verification team verified 22 samples of the project activity. The verification team selected random samples from the list of cookstoves installation database.

Team has assessed a total of 22 samples (randomly selected) selected from different district. The presence of project stoves was checked during the on-site visit on video call. The stoves details (unique serial number, date of installation, type of ICS, name of user and address) were also checked and found to be consistent with that reported in the installation database. No inconsistency was observed for any of the 22 samples with respect to the observations in the field. A total number of 22 samples were validated consisting of the operation of the stoves on random basis.

The monitoring parameters required to be monitored through the sampling plan are:

1. Number of project devices operating during year y ($N_{y,i,j}$)
2. Quantity of woody biomass used by improved cookstoves ($B_{y=1,new,i,j,survey}$)
3. $\mu_{y,i,j}$: Pre project device only is in use then fraction to be used to calculate total number, however if pre project device is used along with project ICS, proportion of usage of each will be determined by cooking habits evaluated by survey questionnaire during the monitoring period.

Simple random sampling was applied by the PP for selection of the monitoring samples with 90/10 confidence/precision for determining the sampling for all the parameters which is deemed acceptable as per the registered VCS PD.

On-site assessment of Monitoring parameters (namely $B_{y=1,new,i,j,survey}$ and $N_{y,i,j}$) was conducted based on following two methods:

- Confirmation with the household/end user whether or not the PP has performed monitoring/measurement campaign (or parameter $B_{y=1,new,i,j,survey}$) and survey on stove operation (for the parameter $N_{y,i,j}$).

➤ Assessment of Competence of personnel involved in conducting standardized tests viz., $By=1, new, i, j, survey$ and surveys: Verification team has reviewed the abilities, qualifications and recognition of involved personnel and institutions of the measuring team involved in the $By=1, new, i, j, survey$. The verification team based on on-site interviews confirms that the team was qualified to carry out the $By=1, new, i, j, survey$ in line with the methodology.

During the on-site interviews with PP's representative, VVB was able to understand the process in line with the methodology VMR 0006 version 1.1 and the PP monitoring procedure in line with the registered VCS PD. It is worth to note here that PP has selected the households for the both parameters above and for the same reason, VVB's sample for acceptance sampling was the same for both the parameters. VVB could verify the original survey forms and data/information flow to sampling sheet and ER spread sheet. No discrepancy was found in the data/information flow. As presented in section 2.3 above the beneficiary households were interviewed for three days during 26th-28th September. Moreover, PP has conducted the monitoring survey during the monitoring period. Hence, the survey process deemed acceptable to the verification team. Furthermore, the installation database and sample agreement copy was also checked/cross verified to confirm the number cookstove for the parameter N, y, i, j . As per the Sampling Standard, the verification team has to verify whether the project participants entity have implemented the sampling and surveys according to the sampling plan in the registered monitoring plan. The verification includes determining:

- (a) Whether the required confidence/precision has been met;
- (b) Whether the selected sample was representative of the population. As per the applied methodology VMR0006 version 01.1 section 9.2, and registered VCS PD. The necessary confidence / precision of 90/10 each of the parameters are met.

This has been cross verified by the verification team from the supporting documents submitted. Emission reductions have been calculated in accordance with the applied methodology VMR0006 version 01.1, and approved VCS PD. The PP has used monitored data and ex-ante data including default values as mandated/permitted by the applied methodology.

In line with sampling guidelines, all can be sampled in a single survey with a random sample of households using the above-described confidence/precision levels. The N, y, i, j and μ, y, i, j requires proportion/percentage parameters, however the wood consumption by ICS may have variation and is a mean value.

In order to calculate the required sample size estimates, values for the proportions, mean values, and standard deviations are required. As per Guidelines for Sampling and surveys for CDM project activities and programmes of activities, version 07.0 Appendix 1 paragraph 5, there are different ways available to obtain the estimates of the parameter of interest:

- (a) Refer to the result of previous studies and use these results; 

(b) In a situation where information from previous studies is not available, a preliminary sample as a pilot could be conducted and use that sample is used to provide the estimates;

(c) Use best guesses based on the researcher's own experiences. [15]

The final sample size for the project activity is calculated based on sample survey, based on survey results the sample size is calculated.

To estimate the sample size for parameters $N_{y,i,j}$ and $\mu_{y,i,j}$ the following equation is used:

$$n \geq \frac{1.96^2 N \times p (1-p)}{(N -1) \times 0.1^2 \times p^2 + 1.96^2 \times p(1-p)}$$

Where:

n = Sample size

N = Population size (29,860)

p = Expected proportion (95%)

1.96 = Represents the 95% confidence required

0.1 = Represents the 10% relative precision

Sample size calculation:

Parameter $N_{y,i,j}$ & $\mu_{y,i,j}$: [15] Based on the above values, the resulting sampling size for a 95/10 confidence/precision is calculated as:

$$n \geq \frac{1.96^2 \times 29,860 \times 0.95 (1-0.95)}{(29,860-1) \times 0.1^2 \times 0.95^2 + 1.96^2 \times 0.95 (1-0.95)}$$

Which comes out to be

$$n \geq 19.19$$

$$n = 20$$

Therefore, in this case a sample size of 20 is to be sampled from primary sampling unit.

However, as the resulting sample size to achieve the desired confidence/precision levels is smaller than 30 ICS, a minimum sample size of 30 to be considered when the parameter of interest is a proportion in line with para 14 of Standard: Sampling and surveys for CDM project activities and programmes of activities, Version-09. However, the PP has considered 180 sample, which is conservative.

Parameter By=1,new,i,j,survey:

To estimate the sample size for parameter

$$n \geq \frac{1.96^2 NV}{(N-1) \times 0.1^2 + 1.96^2 \times V}$$

By=1,new,i,j,survey the following equation is used:

Where,

V n = Sample size

N = Population size (Total number of households)

Mean= Expected mean of biomass usage (tonne/ICS)

SD = Expected standard deviation

1.96 = Represents the 95% confidence required

0.1 = Represents the 10% relative precision

As per survey and KPT conducted the values estimated as below

Standard Deviation = 0.7285

Mean Value=3.358

= (SD/mean)²

Based on the above assumptions, the sample size calculation for a 95/10 confidence/precision would be

$$n \geq \frac{1.96^2 \times 29,860 \times (0.7285/0.3.358)^2}{(29,860-1) \times 0.12 + 1.962 \times (0.7285/0.3.358)}$$
$$n \geq \frac{1.96^2 \times 29,860 \times (0.7285/0.3.358)^2}{(29,860-1) \times 0.12 + 1.962 \times (0.7285/0.3.358)}$$

Using above values, the sample size comes out to be 18.7 or 19. However, the PP has considered 180 sample, which is conservative.

The all three parameters of interest sampled in a single survey as the installed device is homogenous in nature and the user of the ICS also have same climate.

Further to confirm on the required confidence level/precision of sample, the sample size calculated based on confidence interval and precision level required as per registered PD for population size is 20 for $N_{y,i,j}$ & $\mu_{y,i,j}$ and 19 for $B_{y=1,new,i,j,survey}$, however actual sample size taken as 180, which is conservative.

Moreover, to check reliability/compliance mean value and standard deviation is calculated for samples, which indicates the precision level of 3.19% for wood fuel consumption at 95% confidence level is acceptable and appropriate.

The project activity has achieved 3.19% precision level at 95% confidence interval.

Sample size calculation and the values used for calculation of the achieved GHG emission reductions have been thoroughly checked by the verification team and was found appropriate and correct.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

While verifying the reported emission reductions, verification team ensured that there was a clear audit trail that contained the evidence and records that validate the stated figures. All source documents that form the basis for assumptions and other information underlying the GHG data are shown above. When assessing the audit trails, verification team also examined:

1. whether sufficient evidence was available, both in terms of frequency and in covering the full monitoring period
2. the source and nature of the evidence
3. if comparable information was available from sources other than that used in the monitoring report, assessment team cross-checked the monitoring report against the other sources to confirm that the stated figures were correct. The sources and the data referenced are shown in section 2.2 above. Verification team also assessed that the data collection system met the requirements of the monitoring plan as per the applied methodology. Proper data management inclusive of data acquisition and aggregation, data management system is being followed for the project activity.

The monitoring personnel at site are well trained and follow reproducible routines. Thus, they are competent to carry out the relevant tasks with sufficient accuracy.

The emission reductions from the project activity have been calculated by PP based on the methodology formula.

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

Where:

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

The quantify of woody biomass saved due to implementation of improved cookstoves to be estimated using equation below (Equation 5 of methodology)

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

where

η_{old}	=	Efficiency of baseline cookstove
$\eta_{new,y,i,j}$	=	Efficiency of the improved cookstove type i and batch j determined through water boiling test (Manufacturer specification or Certification by a national standards body or an appropriate certifying agent recognized by that body) during year y Alternatively, efficiency may be determined using below Equation
$B_{y=1,new,i,j,survey}$	=	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 implementation of the project through a sample survey.

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

where

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

ER calculations:

Below stated data is applied for ex-ante and ex-post parameters that were also assessed in the above section.

Parameter	Unit	Value	Source
$N_{y,i,j}$	Number	29,860	Distribution record by project proponent from 09 October 2021 to 30 April 2022
$NCV_{wood\ fuel}$	TJ/Tonne	0.0156	IPCC default value for wood fuel
f_{NRB}	fraction	0.901	As per registered PD
$EF_{wf,non\ CO_2}$	tCO ₂ e/TJ	26.23	IPCC default value for wood fuel
EF_{wf,CO_2}	tCO ₂ e/TJ	112	IPCC default value for wood fuel
η_{old}	fraction	10%	Default value as per VMR0006
$\eta_{new,i,j}$	fraction	35.7%	Calculated as per equation 5 of VMR0006
$B_{y=1, new,i,survey}$	Tonne/HH/year	1.245	As per survey report and KPT conducted from 28 June 2022 to 31 August 2022.
$B_{y,savings,i,j}$	Tonne/HH/year	3.20214	Calculated
μ_y	fraction	0.895	As per survey report conducted from 28 June 2022 to 31 August 2022.

The total achieved emission reductions for the Project during the current monitoring period are 29,603 tCO₂e.

The audit team confirms that the calculation of emission reductions is in line with the methodological requirements.

- All relevant assumptions and data are listed in the project description, including their references and sources.
- All data and parameter values used in the project description are considered reasonable in the context of the project.

- All estimates of the baseline emissions can be replicated using the data and parameter values provided in the project description.

4.6 Non-Permanence Risk Analysis

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
NA	NA	NA	NA	NA

5 VERIFICATION OPINION

Applus+ Certification has been engaged by SDG13 Ventures Pvt Ltd to perform the 1st verification of the “Improved Cookstove Programme by SDG13 in India”.

The project participant is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project’s monitoring plan in the registered VCS PD and the applied methodology “VMR0006 Methodology for Installation of High Efficiency Firewood Cookstoves, Version 1.1”

Our verification approach was based on the requirements as defined as per the VCS requirements, VCS Standard version 4.4 etc. The approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these.

Further, the verification has been planned and organized to achieve a Reasonable Level of assurance as per the requirement of VCS. The verification team confirm that:

- the project is operated as planned and described in the project document;
- the monitoring plan is as per the applied methodology;
- the monitoring process in Monitoring Report is as per the PD
- the development and maintenance of records and reporting procedures are in accordance with the monitoring plan;
- the installed equipment being essential for generating emission reduction runs reliably and is monitored appropriately;
- the monitoring system is in place and generates GHG emission reductions data;
- the GHG emission reductions are calculated without material misstatements.
- A Reasonable Level of assurance was achieved as planned, during verification process.
- Verification period: 01-January-2022 to 30-April-2022 (inclusive of both days)

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

Year	Baseline emissions or removals (tCO ₂ e) ¹	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
01-January-2022 to 30-April-2022	29,603	0	0	29,603
<i>Total</i>	29,603	0	0	29,603

Year	Ex-ante emissions reductions /removals	Achieved emissions reductions /removals	Percent difference	Justification for the difference
01-January-2022 to 30-April-2022	39,043	29,603	-24.18	PP has stated that the wood fuel consumption that resulted from the KPTs was slightly lower than the ex-ante assumed value. In addition, there was continued use of baseline stove. All these statements are found valid by the verification team.

¹Rounddown values

<i>Total</i>	39,043	29,603	-24.18	
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APPENDIX 1: DOCUMENTS REVIEWED OR REFERENCED (VERIFICATION)

No.	Title	References to the document	Provider
1.	Contract of the project participant with the VVB	Contract document signed between PP and VVB	PP
2.	The operational lifetime and efficiency of the project activity ICS from the manufacturer (Technical specifications)	Manufacturer technical specifications	PP
3.	Registered PD https://registry.terra.org/app/projectDetail/VCS/2533	Version 03 dated 18-10-2021	PP
4.	MR version 01 (Initial) Revised MR version 02 (final) Before TR Revised MR version 03.1 (final) After TR Revised MR, version 03.2 after VERRA review round-1 Revised MR, version 03.3 after VERRA review round-2	05-September-2022 07-November-2022 03-March-2023 24-May-2023 29-July-2023	PP
5.	Draft Emission reduction sheet version 01 Revised Emission reduction sheet version 02	12-October-2022 23-December-2022	PP
6.	Tools/ guidelines used in the project activity - Glossary of CDM terms version 11 - VCS standard version 4.4 - VCS Program Guide 4.3 VCS verification report template version 4.2	UNFCCC CDM/VCS web site	UNFCCC/VER RA
7.	VMR0006 Methodology for Installation of High Efficiency Firewood Cookstoves CDM methodology – AMS II.G,	Version 1.1 Version 11.1 and 13.0	VERRA UNFCCC
8.	VCS Requirements: - Verified Carbon Standard Program Guide - Verified Carbon Standard - VCS Program Definitions, - VCS Registration and Issuance Process - VCS Project Description template - VCS Validation Report Template	Version 4.3 Version 4.4 Version 4.3 Version 4.3 Version 4.1 Version 4.1	VERRA
9.	Sample copy of carbon waiver records and end user declaration		PP

No.	Title	References to the document	Provider
10.	Declaration regarding no participation in other GHG program for the concerned monitoring period	13-October-2022	PP
11.	Employment records for plant persons	-	PP
12.	KPT and sample survey results along with the complete distributed records for the current monitoring period	-	PP
13.	CDM validation and verification standard for project activities, Version 03.0	-	UNFCCC
14.	Validation Report	Version 02 dated 29-10-2021.	KBS

APPENDIX 2: CORRECTIVE ACTION REQUESTS, CLARIFICATION REQUESTS AND FORWARD ACTION REQUESTS (CAR/CL/FAR)

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

FAR ID	**	Section no.	E.2	Date: DD/MM/YYYY
Description of FAR				
Project participant response				Date: DD/MM/YYYY
Documentation provided by project participant				
DOE assessment				Date: DD/MM/YYYY

Table 2. CL from this verification

CL ID	01	Section no.	1.11, 4.2	Date: 21/10/2022
Description of CL				
- It is not clear whether the stated monitoring period in the table provided in first page of the MR, includes the start and end date of the provided monitoring period 01-01-2022 to 30-04- 2022. - In section 1.1 of the submitted MR, it is stated “the proposed group project” However, the project was proposed and already approved by VERRA. Hence, the description of the project needs to be updated to represent the existing status. Further, it was observed the description is provided in the future tense in sections 1.11, 4.2 and 4.3 of the MR. PP is required to update the same. - Page numbers were not included in the submitted MR. - During the site visit, it was observed that the stoves were also portable. However, the same is not found clearly presented in the MR. - PP needs to clarify the following statement provided in section 5.4 of the MR. <i>“The difference mainly due to wood fuel consumption assumed which in actual slightly lower than assumed value, as well as continued use of baseline stove.”</i>				
Project participant response				Date: 05/11/2022
- The stated monitoring period on the first page in the table includes the start date as well as the end date viz. 01-01-2022 to 30-04- 2022. - The said sections have been updated in the MR and represent the existing status of the project. - Page numbers have been added to the MR - The portability aspect of the cook stove is now highlighted in the section 3.1 of the MR. - The said statement has been rephrased in section 5.4				
Documentation provided by project participant				
OK. The MR has been updated				
VVB assessment				Date: 15/12/2022
The revised MR includes a clear statement that the both dates are included in the monitoring period. The revised MR was found updated. Page numbers were found included in the submitted revised MR. Revised MR includes a statement on the portability of the cook stoves. The statement on the current monitoring period is found updated in section 5.4 of the revised MR. All the points are closed.				

CL ID	02	Section no.	MR	Date: 21/10/2022
Description of CL As per the provided MR and monitoring survey documents, it was observed that the survey was conducted post the monitoring period. i.e. during 28-06-2022 to 31-08-2022. However, the current monitoring period is from 01-01-2022 to 30-04-2022. Hence, PP is required to clarify how the survey results are applicable to the current monitoring period.				
Project participant response				Date: 05/11/2022
The survey results are applicable to the current monitoring period because a) Households were informed about it beginning May 2022, and b) the lag between actual conduct of the survey and end of monitoring was just 2 months (owing to planning and logistical issues). Households were reached out and were communicated about the survey starting the third week of May. The time between the end of the monitoring period (30-04-22) and the eventual reach out was spent on collecting the final distribution data, doing the sampling and planning the logistics. The households were then informed about the purpose and objectives of the survey. By the time of the survey implementation, the rainy season had started which made it difficult for the team to align on the logistics (since the deployments were in multiple districts of MP). Although the households were in the know of the reason why the said exercise was being done. Therefore, the survey results are applicable to the current monitoring period.				
Documentation provided by project participant				
Revised MR				
VVB assessment				Date: 15/12/2022
Verification team has reviewed the documents submitted by the PP to justify the statements provided above. It is evident that the gap is not significant further it was understood during the site visit that most of the household locations are not easy to reach. Considering that verification is of the opinion that the justification provided by the PP is acceptable. Hence, the finding is closed.				

CL ID	03	Section no.	MR	Date: 21/10/2022
Description of CL During the verification site visit, it was observed that one of the beneficiary households (S. No.: J22VA150629) out of the selected sample of 23 was using the portable ICS for commercial purpose at a near commercial premise in addition to the domestic usage. It is to be noted, as per the applied				

methodology applicability conditions, “*Project activities shall be implemented in domestic premises, or in community-based kitchens*.” Thus, it is evident that this cookstove usage deviates from the applicability condition as it is used for commercial purpose along with the domestic usage. However, the same was not found notified in the survey questionnaire. PP needs to clarify the reason for not capturing this deviation and also address how this ICS would be considered as part of the project as it was used for commercial purpose also.

Considering the above scenario and portability of the stoves, PP is also required to clarify the below:

1. How it can be ensured that stoves are not used for commercial purpose at commercial premises.
2. How it can be ensured that the stoves are used by the same household that it was sold.

Project participant response

Date: 05/11/2022

1. In distribution we explicitly ensure that the beneficiaries are women and that they will use it to fulfil their domestic cooking needs. The same is facilitated through an operations team. This team includes Grameen Sahayaks (GS), Cluster Incharges (CI) and Project Manager (PM). The GS is in periodic touch with these households and ensures that the stoves are in good shape as well as that they are not used for any other (or commercial) purpose. These aspects are also highlighted in the carbon agreement. In the particular instance which has been highlighted the member used the cookstoves for household cooking primarily, but owing to the fact that the stove is portable, the member also took it to their shop. The prime use of the stove in this project, though, is still domestic cooking. We are not claiming any ERs for the commercial use. Further, once the warranty period of this stove ends, we will be removing it from our database and not claim its ERs from that point onwards.
2. Our field team ensures that the stoves are used by the beneficiaries they are sold to, through regular monitoring. When the stoves are deployed, the records of the households are taken and connected to the stove ID. A carbon waiver agreement is also signed by the beneficiary which ensures that the stoves (with their unique ID) are linked to that particular household. If there is any discrepancy in the ownership, it is brought to light in the regular visits of our operations team (GS). Post that needed amends are made.

Documentation provided by project participant

Revised MR and ER sheet

VVB assessment

Date: 15/12/2022

Verification team has reviewed the above response and found that PP has adequately responded and the same was found during the verification on-site visit. Further, the project includes the emission reductions from the avoid fuel consumption due to domestic usage only. However, the revised MR and ER sheet excluded the household on a conservative basis.

Based on the review of the response provided above and verification site visit, it was observed that the Grameen Sahayaks are regularly in touch with the beneficiary households. Further, it was observed that the grameen shahayaks would update the owner names in case of any discrepancy. Hence, it is accepted.

Thus, the findings are closed.

Table 3. CAR from this verification

CAR ID	01	Section no.	1.7	Date: 21/10/2022
Description of CAR				
For the sake of transparency, PP is required to present the role of local partner and NGOs in implementing the cookstove project. PP is required to submit the MOU between the manufacturer and local partner to supply and implement the project. For the sake of transparency, PP is required to include the geo-coordinates of the state in which these improved cookstove project is implemented.				
Project participant response				Date: 05/11/2022
- The PP is working with a stockist in the project. The relevant portion of the agreement with the stockist will be shared. - The geo-coordinates of the state (i.e. Madhya Pradesh) have been included in the MR.				
Documentation provided by project participant				
Agreement with the Stockist				
VVB assessment				Date: 15/12/2022
PP has provided the agreement with the stockist. Geo co-ordinates of the project site are included in the submitted revised MR. Hence, the finding is closed.				

CAR ID	02	Section no.	3.1	Date: 21/10/2022
Description of CAR				
During the site visit, it was found that the few of the beneficiary households were having gas stoves and mud stoves as well along with the jumbo stoves distributed by the PP. Moreover, few of them were using them too though the usage was not significant. However, the same is not presented transparently in section 3.1 of the MR. Further, PP is required to describe what software was used and how the data was collected in section 3.1 of the MR.				
Project participant response				Date: 05/11/2022

The description of a) insignificant usage of baseline stove and LPG, as well as, b) the software/app used to collect data for the survey; have been added to section 3.1 of the MR.	
Documentation provided by project participant	
KoBo training document Video of using the app	
VVB assessment	Date: 15/12/2022
Verification team reviewed the documents and confirmed that the baseline stove types and the continuation of it's usage were found included in the revised submitted MR. Hence, the finding is closed.	

CAR ID	03	Section no.	3.3	Date: 21/10/2022
Description of CAR				
In section 3.3 of the MR, the 2nd point of the group eligibility criteria also includes the end-user locations. However, the provided response does not include justification on it. Hence, PP is required to check and update. In section 3.3 of the MR, in supporting evidence for inclusion for 4th point of the eligibility criteria, it is stated that <i>"As the PP has sold ICS at more than 60% of the subsidy, hence the return from the project is negative and sale of VERs will help in funding gap. Hence, the project is additional."</i> However, PP has not submitted the evidence documents related to the revenue stream analysis to justify the statement that the project is additional.				
Project participant response				Date: 05/11/2022
- The justification regarding end user locations has been provided in section 3.3. These are recorded when the stove deployments are done. - The appropriate documents (Invoice and agreement) have been shared to justify the statement regarding subsidisation of the stove.				
Documentation provided by project participant				
- Carbon Waiver Agreement - Stove Invoice - Simple cost analysis sheet				
VVB assessment				Date: 15/12/2022

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CAR ID	04	Section no.	4.3	Date: 21/10/2022
Description of CAR				
PP is required to provide justification or submit the documents for the applied below values for the sample size calculation provided in the MR: 1.Consideration of 95% for expected proportion. 2.Calculation sheet for the considered Standard Deviation (SD) and mean.				
Project participant response				Date: 05/11/2022
1. Considering the age of device, the expected proportion considered as 95% is reasonable. The same was also envisaged during sample survey wherein 100% project stoves found to be operational. Further, as per management practices local partner periodically visit the households to check the status and promote the usage of ICS. 2. To confirm on the required confidence level/precision of sample, the sample size calculated based on confidence interval and precision level required as per registered PD for population size is 20 and 19 for relevant parameter, however actual sample size taken as 180, which is conservative. Further, to check reliability/compliance mean value and standard deviation is calculated for samples. The standard deviation and mean value calculated as per standard practice, the standard deviation for fuel usage recorded during sampling is found to be 0.73 and mean value is 3.27, which results the precision level of 3.18% for wood fuel consumption at 95% confidence level is acceptable and appropriate.				
Documentation provided by project participant				
Calculation sheet (for sample size) with the considered SD and mean.				
VVB assessment				Date: 15/12/2022
PP has responded adequately in the above response and further submitted the SD calculation sheet. Hence, the finding is closed.				

CAR ID	05	Section no.	4.3	Date: 21/10/2022
Description of CAR				
It was noticed that section 4.3 of MR includes the description of the sampling plan only. However, it does not include any description on the below information: • The organizational structure, responsibilities and competencies of the personnel that carried out the monitoring activities • The methods used for generating/measuring, recording, storing, aggregating, collating and reporting the data on monitored parameters. • The procedures used for handling any internal auditing performed and any non-conformities identified.				
Project participant response				Date: 05/11/2022
The detailed description of the team structure, methods for data collection and management; and internal auditing procedures have been included in the section 4.3 of the MR.				
Documentation provided by project participant				
Revised MR				
VVB assessment				Date: 15/12/2022
PP has submitted the revised MR, which includes the required information on the organization structure, monitoring methods used for generating/measuring, recording, storing, aggregating, collating and reporting the data on monitored parameters. Hence, the finding is closed.				

CAR ID	06	Section no.	5.4	Date: 21/10/2022
Description of CAR				
In the first page of the MR, it is stated the monitoring period is from 01-01-2022 to 30- 04-2022. However, in the table provided in section 5.4 of the submitted MR, it is stated as "01-01-2021 to 30-04-2022.This needs to be corrected.				
Project participant response				Date: 05/11/2022

The detail has been corrected in section 5.4 and reflected in the MR.	
Documentation provided by project participant	
Revised MR	
DOE assessment	Date: 15/12/2022
The monitoring period during is corrected in section 5.4 of the revised MR. Hence, the finding is closed.	

Table 4. FAR from this verification

FAR ID	**	Section No.		Date: DD/MM/YYYY
Description of FAR				
Project participant response				Date: DD/MM/YYYY
Documentation provided by project participant				
DOE assessment				Date: DD/MM/YYYY

APPENDIX 3: COMPETENCE OF TEAM MEMBERS AND TECHNICAL REVIEWERS

Verification team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)	Involvement in			
						Desk review	On-site inspection	Interview(s)	Verification findings
1.	Lead Auditor/Technical Expert	EI	Meesa	Srikanth	Applus+ Certification	Yes	Yes	Yes	Yes

Technical reviewer and approver of the verification and certification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g., name of central or other office of VVB or outsourced entity)
1.	Technical reviewer (TR) / Technical Expert (TE)	EI	Shen	Simon	Applus+ Certification
2.	Approver	IR	Calle de Miguel	Agustin	Applus+ Certification

Short CVs of the Team:

1. **Mr. Srikanth Meesa** is a climate change professional with more than 17 years of experience in the fields of climate change, GHG auditing, carbon footprint assessments, water and energy audits, scope-3 emissions, net zero strategies, sustainability & ESG sectors and water and wastewater treatment sectors. He has completed his masters in Environmental Engineering & Management from I.I.T Delhi and Bachelors in Civil Engineering from Osmania University. Furthermore, he has extensive experience i.e., more than 14 years on the auditing of CDM, VERRA, GS, JCM projects of various sectoral scopes across the world. He has worked with reputed certification bodies such as TUV NORD, DNVGL, TUV SUD and LR. He also has consulting experience on sustainability reports & road-maps, stakeholder consultation and LCA studies while working at Thinkstep (Now called Sphera). Currently, he is associated with Global Green Solutionz and empanelled with Applus+ Certification to carry out GHG audits in the aforementioned schemes. Mr. Srikanth Meesa is based at Hyderabad, India. Mr. Srikanth Meesa participate in the project's technical review team.
2. **Mr. Simon Shen:** Mr. Simon Shen (Master's Degree in Thermal Energy Engineering, Bachelor's Degree in Environmental Engineering) is an Auditor appointed by Applus+ LGAI for the GHG

project assessment, auditing and technical review. He has more than 6 years of work experience in CDM/GS4GG/VCS project assessment and review with Applus+, apart from the years of experience working as GHG Auditor and ISO 9001/14001 in TUV SUD for 3.5 years before he joined Applus+. Mr. Simon Shen has extensive experience also as former Applus+ Shanghai CDM Technical Manager. Mr. Simon Shen is based in Shanghai, China.

APPENDIX 4: ABBREVIATIONS

Abbreviations	Full texts
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EF	Emission Factor
EIA	Environmental Impact Assessment
ER	Emission Reductions
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GWP	Global Warming potential
ICS	Improved Cook Stove
KPT	Kitchen Performance Test
NRB	Non-Renewable Biomass
PD	Project Description
PP	Project Participant
SDG	Sustainable Development Goals
VVB	Validation/Verification Body
VCS	Verified Carbon Standard
VERs	Voluntary Emission Reductions