


**Verification report for
GS4GG project activities
(Gold Standard for the Global Goals)**

BASIC INFORMATION

Title of the GS4GG Programme	Energy Efficient Cook Stoves for Siaya Communities, Kenya
Reference number of the Programme	GS879
Version number of the verification and certification report	4.0
Completion date of the verification and certification report	17/02/2026
Monitoring period number and duration of this monitoring period	2nd CP-7 th Monitoring period: 01/01/2024-31/12/2024(inclusive of both dates)
Version number of the monitoring report to which this report applies	V1.3 Dated 19/02/2026
Crediting period of the Programme corresponding to this monitoring period	2 nd CP 27/03/2018 to -31/12/2024.
Date of project design certification	1 st CP 03/07/2012 (CP-2 Renewal date-27/03/2018)
Host Party	Kenya
Applied methodologies and standardized baselines	Gold Standard methodology "Technologies and Practices to Displace Decentralized Thermal Energy Consumption v2.0 (24/04/2015).
Activity requirements applied	<input checked="" type="checkbox"/> Community Services Activities Renewable <input type="checkbox"/> Energy Activities <input type="checkbox"/> Land Use and Forestry Activities/Risks & Capacities <input type="checkbox"/> N/A
Mandatory sectoral scopes	Sectoral 3

Product requirements applied	<input checked="" type="checkbox"/> GHG Emissions Reduction & Sequestration <input type="checkbox"/> Renewable Energy Label <input type="checkbox"/> N/A
Name of the Gold Standard approved auditor (VVB)	Earthood Services Limited
Name, position, and signature of the approver of the verification and certification report	 Dr. Kaviraj Singh CEO & Executive Director

SECTION A. Executive summary

The registered GS project activity (GS 879) entitled “Energy Efficient Cook Stoves for Siaya Communities, Kenya” involves promotion and dissemination of rocket-type energy-efficient biomass stoves in Siaya County, Kenya. The project focuses on rocket-type stoves that are designed to reduce greenhouse gas emissions resulting from the burning of non-renewable woody biomass, specifically used on the "3-stone cookstoves commonly used in the region.

The project's energy-efficient stoves are constructed using locally available materials such as mud, bricks, and sawdust. These stoves are of high quality, cost-effective, and installed in a fixed position with two separate cooking units. By utilizing these stoves, indoor air pollution caused by open fire biomass burning is significantly reduced. The project also employs local artisans to construct and install the stoves, contributing to the local economy while improving the environment.

The promotion of the rocket-type cookstove in this project activity not only reduce GHGs, but also provide co-benefits to users such as reduced expenditures on fuel (wood) purchase, reduced respiratory diseases from air pollutants, and time savings from wood collection. Finally, the project stove contributes to decreased demand for fuel wood thus reducing deforestation in the county of Siaya. The Project activity applies Technologies and Practices to Displace Decentralized Thermal Energy Consumption Version 2.0 of (24/04/2015)/2/.

This is the 7th monitoring period under the second crediting period.

1st Crediting Period: 01/01/2011 to 31/12/2017.

2nd Crediting Period: 01/01/2018 to 31/12/2024.

The project developer of the project activity is Foundation myclimate and Tembea Youth Centre for Sustainable Development Group which also act as the technology supplier for the registered PA. The monitoring period covered under this verification is 01/01/2024 to 31/12/2024 (inclusive of both days). The total GHG emission reductions for the current monitoring period are 306,908 tCO_{2e}. Further, The SDG benefits achieved from the Project Activity are listed in the table below in detail:

Sustainable Development Goals Targeted	SDG Impact	Total amount of certified SDG impact (as per approved methodology) achieved in this monitoring period	Units/Products
SDG 13	Amount of CO ₂ e emissions reduced by the project per year.	306,908	VERs (tCO ₂ e)
SDG 1	Time (hours) and money (KES) saved per household per year due to fuel savings achieved by project stoves	194 8,599	Hours KES per household per Year
SDG 3	Proportion (%) of positive comments from stove users on air quality improvement with project stove	100%	%
SDG 4	Number of persons reached with awareness creation	2,266 0 schools	Number
SDG 5	Number of jobs offered by TYCSD to local female employees	83 43% of the total employment generated during the current MP.	Number of female employees
SDG 7	Number of persons that benefit from efficient and clean cooking technologies	23,050	Number of Beneficiaries

<p>SDG 8</p>	<p>Number of jobs offered by TYCSD to local employees at good conditions.</p>	<p>191</p>	<p>Number of employees</p>
<p>SDG 12</p>	<p>Fuel savings in % achieved by project technologies compared to baseline.</p>	<p>54.0%</p>	<p>Percentage</p>

Scope of verification:

The verification is an independent and objective review for determination of the monitored reductions in GHG emissions by the VVB. The verification includes the implementation and operation of the PA as set out in the registered PDD/1/ in the current monitoring period.

The verification tests the data and assertions set out in the monitoring report prepared for this monitoring period, and is based on the review of the following:

- (i) The applied GS4GG methodology, Technologies, and Practices to Displace Decentralized Thermal Energy Consumption, Version 2.0 /2/
- (ii) The registered PDD/1/ and registered monitoring plan/1/
- (iii) UNFCCC criteria referred to in the Kyoto Protocol criteria and the CDM modalities and procedures as agreed in the Bonn Agreement and the Marrakech Accords/38/
- (iv) GS4GG Principles and Requirements, version 2.1/5/,
- (v) GS4GG Community Services Activity requirements, version 1.2/7/
- (vi) Validation and Verification Body requirements
- (vii) Validation and Verification Standard Version 2.0/39/
- (viii) GHG Emissions Reductions & Sequestration Product Requirements 3.1/6/
- (ix) and references relevant to the project activities reported SDG outcomes. /40/.

The verification has considered both quantitative and qualitative aspects on stated/reported emission reductions. The monitoring report (all versions) and corresponding supporting documentation was assessed in accordance with the rules defined by GS4GG, as appropriate to the PA. The verification is not meant to provide any consulting or recommendations to the PD/others. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the monitoring activities.

Verification Process:

The verification process is conducted as per GS4GG Requirements, which includes the following steps:

- a. Contract with PD (client) and appointment of verification team and technical review team (refer Section B.1 and B.2 of this report)
- b. Desk review (refer Section D.1 of this report) of Monitoring Report and corresponding ER sheet by verification team and onsite audit (including sampling approach (refer Section D.4

- of this report) to be applied)
- c. On-site, remote audit or Hybrid audit as per Site visit Requirements (refer Section D.2 of this report) by verification team consistent of Team Leader and all Technical Experts, as a minimum
 - d. Follow up activities e.g., interviews (refer Section D.3 of this report)
 - e. Reporting and closure of findings (CARs/CLs/FARs) and preparation of draft verification report (refer Section D.5 of this report)
 - f. Independent technical review (refer Section B.2 of this report) of the draft verification report and final/revised documentation (e.g., Monitoring Report, corresponding ER sheet and evidence)
 - g. Reporting and closure of TR comments/findings (refer Section D.5 of this report) (CARs/CLs/FARs) and final approval for the decision made (refer Section G and H of this report).
 - h. Issuance of final verification report to contracted CME (or authorized representatives) and submission of request for issuance, as appropriate.

Verification Conclusion:

Based on the outcome of the verification process of the registered GS PA (GS879) "GS "Energy Efficient Cook Stoves for Siaya Communities, Kenya Project" for the monitoring period 01/01/2024 to 31/12/2024 (inclusive of both days), we confirm that the implementation of referenced registered PA is complying with applicable GS4GG rules and regulations as stated in the Monitoring Report (final) version 1.3, dated 19/02/2026/3/. The GHG emission reductions were calculated correctly based on the applied baseline and monitoring methodology, Technologies, and Practices to Displace Decentralized Thermal Energy Consumption Version 2.0 /2/and the monitoring plan contained in the registered PDD/1/.

Earthood Services Limited can certify the emission reductions from the registered PA " Energy Efficient Cook Stoves for Siaya Communities, Kenya " for the monitoring period 01/01/2024 to 31/12/2024 (including both dates) amount to 306,908 tCO₂e. Therefore, this is being submitted as a request for issuance, as per Gold Standard procedures.

SECTION B. Verification team, technical reviewer and approver
B.1. Verification team members

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/document review	Site inspection (on-site)	Interviews	Verification findings
1.	Team Leader, GS Approved Auditor & Technical Expert (TA3.1)	IR	Dev Gautam	Rahul	Central office	Y	Y	Y	Y
2.	Verifier	IR	Singh	Kishlay	Central office	Y	N	N	Y
3.	Local Expert	IR	Njama	Caroline	Central Office	N	Y	Y	N

B.2. 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	IR	Guleria	Shifali	Central Office
2.	Technical Expert (TA 3.1) to TR	IR	Guleria	Shifali	Central Office

3.	Approver	IR	Singh	Kaviraj	Central office
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SECTION C. Application of materiality in conducting the verification

C.1. Consideration of materiality in planning the verification

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	
1.	Erroneous transfer of information from documents (construction/ installation records, carbon waiver forms, monitoring data etc) to ER sheet/Database.	Medium	There is a thorough internal mechanism established to check and verify the accuracy of data entry by different departments through all stages of implementation, monitoring, and reporting.	On a sampling basis, the data was crosschecked against information in the database, carbon waiver records, Monitoring data, and substantiated during on-site audit observations by Team Leader, local expert or verifier.
2.	Error in applying the correct formulae in the emission calculation sheet	Medium	The applied methodology has elaborate calculation methods which are further detailed in the PDD. There isn't any complex equation involved in the ER calculations. Also, the internal check ensures that such errors are identified in advance.	The emission reduction calculation sheet/4/ has been reviewed in detail by the assessment team. Each step for the calculation has been thoroughly checked and recalculations done to confirm the final ER and SDG values.

C.2. Consideration of materiality in conducting the verification

In accordance with GS VVS for PAs, Version 2.0/39/ the prescribed thresholds for materiality for GS4GG PAs are as under Para 9.6.3 “(c) 2 per cent of the emission reductions or removals for large-scale project activities achieving a total emission reduction/removal of 300,000 tonnes of carbon dioxide equivalent per year or less; The PA is a largescale as per section A.4 of the registered PDD V.3.2.6 dated 10/02/2023/1/.

The applicable materiality threshold is 2.0%.

Particulars / Monitoring Report	MR Version (Initial)	MR Version (Revised/Final)
Emission Reductions Achieved (tCO ₂ e) in this monitoring period	306,908	306,908
Applicable Threshold (%) as per GS4GG VVS for PAs Version 2.0	2.0%	2.0%

Verification Report on Materiality Breach

As per the VVS v2.0, paragraph 9.6.8, “The materiality thresholds apply to the total emission reductions actually achieved. When planning verification, the VVB should apply the applicable materiality threshold to the reported total emission reductions. If, as a result of the verification, the initial reported total emission reductions are revised, the VVB should reapply the materiality threshold to the revised total emission reductions and, if needed, make adjustments to its verification plans and sampling plans.”

During the assessment, all findings were closed. For the sample selected for verification, no systemic or systematic material errors were identified that could impact the total emission reductions across the entire population. No difference was found between the initial and final version, therefore the materiality was not breached.

SECTION D. Means of verification

D.1. Desk/document review

The verification is performed primarily as a desk review of the documents submitted at various stages of assessments. The review is performed by the assessment team using dedicated protocols (checklists). The assessment team cross checks the information provided in the documents (MR) and information from sources other than those used, if available, and conducts independent background investigations. Earthood conducted a desk review as under:

1. A review of the data and information presented to verify their completeness.
2. A review of the monitoring plan (as described in PDD), the monitoring methodology including applicable tool(s) and, where applicable, the applied standardized baseline, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures
3. A review of calculations and assumptions made in determining the GHG data and emission reductions.
4. 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 during the verification is provided under appendix 3 of this report.

D.2. On-site inspection

Duration of on-site inspection: 05/06/2025-06/06/2025				
No	Activity performed Virtually	Site location	Date	Team member
1.	Opening Meeting	Kenya	05/06/2025-06/06/2025	Rahul Dev Gautam and Caroline Njama
2.	Confirmation of Implementation and operation of project activity (project boundary, project technology) as per registered PDD			
3.	Confirmation of Management and monitoring procedures, data collection and archiving systems followed at project site			
4.	Interviewing PD monitoring Personnel and end-users (as per as VVB sampling plan)			
5.	Confirmation of Management and operational system: Database management, allocation of responsibilities, qualification and training, ICS distribution, Monitoring survey, internal audit and management review			

6.	Crosschecking of Verification checklist: i.e. PD's monitoring survey records, compliance of monitoring procedures with registered PDD and applied monitoring methodology.			
7.	Review of monitored data and relevant document in accordance with registered monitoring plan and applied monitoring methodology.			
8.	Review of ER calculations in accordance with applied methodology and relevant tools.			
9.	Closing Meeting			

D.3. Interviews

No.	Interviewee			Date	Subject	Team Member
	Last Name	First Name	Affiliation			
1.	Orina	Job	Myclimate Foundation	05/06/2025-06/06/2025	Project implementation, Management system, ICS distribution mechanism	Rahul Dev Gautam and Caroline Njama

MUS User Interviews							
S.No	Last Name	First Name	Stove Year	Type of survey	Date of Interview	Gender, Location and Stove ID	Team Member
1.	██████	██████	2015	Monitoring survey	05/06/2025-06/06/2025	Female, Sigulu, T/15/24183	Rahul Dev Gautam and Caroline Njama
2 .	██████	██████	2024	Monitoring survey		Female, Mauga, T/24/133574	Rahul Dev Gautam and Caroline Njama
3.	██████ ██████	██████	2017	Monitoring survey		female, Tingwany-A, T/17/49659	Rahul Dev Gautam and Caroline

							Njama
4.	██████	██████	2016	Monitoring survey		Female, Nyambara, T/16/41125	Rahul Dev Gautam and Caroline Njama
5.	██████	██████	2021	Monitoring survey		Female, Kochiel Kodiere, T/21/37165	Rahul Dev Gautam and Caroline Njama
6.	██████	██████	2013	Monitoring survey		Female, Kathieno, T/13/14624	Rahul Dev Gautam and Caroline Njama
7.	██████	██████	2011	Monitoring survey		Female, Ligala, T/11/1 352	Rahul Dev Gautam and Caroline Njama
8.	██████	██████	2023	Monitoring survey		Female, Ginga Wagai, T/23/81035	Rahul Dev Gautam and Caroline Njama
9.	██████	██████	2012	Monitoring survey		Female, Yenga, T/12/8821	Rahul Dev Gautam and Caroline Njama
10.	██████	██████	2012	Monitoring survey		Female, Doho, T/12/5623	Rahul Dev Gautam and Caroline Njama
11.	██████	██████	2018	Monitoring survey		Female, Astere, T/18/54051	Rahul Dev Gautam and Caroline Njama

12.			2019	Monitoring survey		Female, Magoya Umany, T/19/61108	Rahul Dev Gautam and Caroline Njama
13.			2014	Monitoring survey		Female, Nyamoso, T/14/18887	Rahul Dev Gautam and Caroline Njama
14.			2022	Monitoring survey		Female, Asai Rabare, T/22/86058	Rahul Dev Gautam and Caroline Njama
15.			2020	Monitoring survey		Female, Ndagaria Ludha, T/20/71686	Rahul Dev Gautam and Caroline Njama
16.			2022	Monitoring survey		Female, Sauri, T/22/106038	Rahul Dev Gautam and Caroline Njama
17.			2019	Monitoring survey		Female, Mariwa, T/19/62033	Rahul Dev Gautam and Caroline Njama
18.			2016	Monitoring survey		Female, Mayanga, T/16/39836	Rahul Dev Gautam and Caroline Njama

D.3.1. Type of questions asked to end-user by the Verification Team members.

No.	Questions asked by Team member to End Users/Local Stakeholders
1.	Are you using the project stove?

2.	Is the Project Stove proving to be useful to you?
3.	Do you feel improvement in your health and surrounding air quality after using the Project Stove?/overall experience.
4.	Are you spending less money or time (collection) on fuelwood after using the project device?
5.	Are you aware of continuous input/ grievance mechanism?
6.	Have you signed a carbon transfer form?
7.	Name of Beneficiary
8.	Location of Household
9.	Stove ID

All the end users reported that Project Stove is operational and noted improvements in indoor air quality, as well as savings in both money and time with the use of the project's improved cookstoves. Additionally, all end users confirmed their awareness of the grievance mechanism. No negative feedback was received during the audit process.

D.4. Sampling approach

In accordance with the applied GS4GG methodology, Technologies and Practices to Displace Decentralized Thermal Energy Consumption, Version 2.0/2/, the PD has applied a simple random Sampling and considered each age group for all surveys conducted during the monitoring period, as per registered PDD /1/. A sample of 562 Usage Survey households were randomly selected from all age groups. Each household set for each vintage year met the minimum 30 households prescribed by the applied methodology/2/. The PFT which was done in the 6th Monitoring period and is still valid had a random sample of 79 households taken from the database for PFT study. PD has followed annual sampling for the current monitoring period. The sampling approach undertaken by the by PD is explained in Section D.4 of the monitoring report. The values of samples documented for both studies have been confirmed from the Usage survey/32/ and PFT/17/ data documents. Additionally, PD has provided a snapshot of the randomizer applied in the sampling process.

D.4.1. VVB’s sampling approach:

In order to meet the requirements of Standard for Sampling and surveys for CDM project activities and programmes of activities version 9.0/9/, the verification team applied acceptance sampling in the verification (in accordance with para 28). The verification team selected random samples of PD’s sampled records, checked the acceptability (or otherwise) of the data for each such record with PD’s sample records, and then based on the number of records where there is agreement, determined if the PD’s sample records meet the requirements. Hence VVB has considered 18 samples of ICS for the current verification.

The verification team, using its own professional judgement and guidance in the Standard ‘Sampling and surveys for CDM project activities and Programme of activities’/9/, determined the sample size for acceptance sampling by evaluating the following:

- The proportion of discrepancies between the PD’s data and verification team’s (field or onsite inspection results) data that can be considered acceptable. This is referred to as the AQL (Acceptable Quality Level): 1.0% was considered in this verification.
- The proportion of discrepancies between the PD’s data and verification team’s (field or onsite inspection results) data would be considered unacceptable. This is the UQL (Unacceptable Quality Level): 20% was considered in this verification.
- The producer risk of 10% and consumer risk of 10% was considered.

Project ID	AQL	UQL	Producer risk	Consumer risk	Sample Size	Acceptance no.
GS 879	1.0%	20%	10%	10%	18	1

Considering the above input values, a sample size of 18 was required as per Table 2 in the referred Standard for the monitoring period. Accordingly, acceptance number (c) thus determined for the sample size is 1. A sample size of 18 meets the criteria. The samples to be surveyed by VVB were randomly selected from the list of annual usage survey samples using the random number generator.

Communication with end users was conducted in advance to ensure they consented to the visit and to answer the questionnaire. All 18 samples were responsive; therefore, they were all audited by the verification team. There were no major discrepancies in the information gathered during the interviews with that of the PD’s monitoring data.

The PD applied a sampling approach which is sufficiently representative of the stove population with

reference to the numbers and vintages, as demonstrated appropriately in the ER sheet/4/. VVB confirmed that data analysis was conducted using excel functions, and that the required confidence/precision level has been met as per the applicable methodology monitoring. Usage survey values in this case are not subject to confidence/precision calculation. Therefore, the assessment is subjected to PFT values. The sampling method used by PD is in line with applied GS4GG methodology, Technologies, and Practices to Displace Decentralized Thermal Energy Consumption, Version 2.0 /2/.

D.5. Clarification requests, corrective action requests and forward action requests raised

Areas of verification findings	No. of CL	No. of CAR	No. of FAR
Compliance of the monitoring report with the monitoring report form			
Remaining forward action requests from validation and/or previous verifications			FAR#01
Compliance of the project implementation with the registered project design document			
Implementation and operation of the management System	CL#01		
Post-registration changes			
Temporary deviations from the approved Monitoring & Reporting Plan, methodology or standardized baseline			
Corrections			
Changes to the start-date of the crediting period			
Permanent changes from the Design Certified monitoring plan, applied methodology or applied standardized baseline.			
Changes to project design of approved project			
Compliance of the registered monitoring plan with the methodologies including applicable tools and standardized baselines			
Compliance of monitoring activities with the registered monitoring plan	CL#02		
Implementation of sampling plan		CAR#02	
Compliance with the calibration frequency requirements for measuring instruments			
Assessment of data and calculation of emission reductions or net removals		CAR#01	
Assessment of data and calculation of SDG impacts			

Assessment of reported sustainable development co-benefits			
Comparison of actual SDG Impacts with estimates in approved PDD			
Local stakeholder consultation & Grievance Mechanism			
Others- Samples Consistency	CL#03	CAR#03	
Total	03	03	01

SECTION E. Verification findings

E.1. Compliance of the monitoring report with the monitoring report form

Means of verification	The Monitoring Report/8/ has been prepared using the latest and applicable GS4GG Monitoring Report Template V1.1. Template found on Gold Standard website. https://globalgoals.goldstandard.org/t-perfcert-monitoring-report/ The contents of the Monitoring Report are also completed in accordance with the Monitoring Report TEMPLATE GUIDE v. 1.1/8/.
Findings	No findings were raised.
Conclusion	The MR is found to comply with the latest and applicable form. All the sections filled are in line to the form filling guidelines/8/.

E.2. Remaining forward action requests from validation and/or previous verifications

There was a single FAR raised during the previous Performance review, which has been reflected under appendix IV of this report as FAR01.

E.3. Compliance of the project implementation with the registered project design document confirm.

Means of verification	The registered GS project activity (GS 879) "Energy Efficient Cook Stoves for Siaya Communities, Kenya" involves promotion and construction of rocket-type energy-efficient biomass stoves. The promotion and dissemination of the Improved Cookstoves (ICS) under the project activity is aimed at reducing GHG emissions generated from burning non- renewable woody biomass for cooking
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purposes on conventional cookstoves.

The project ICS stove can be described as, energy efficient due to improved combustion and heat transfer efficiency which helps to reduce fuel consumption compared to conventional baseline stoves; as a result, indoor air pollutants caused by incomplete combustion are significantly reduced. This is confirmed by user surveys and VVB interviews with end-users, which indicated noticeable improvements in fuel efficiency and reductions in smoke and related health issues. The stove's features, such as the combustion chamber, air inlet, and thick insulation walls, were observed during the on-site audit virtual kitchen tours/33/, confirming the improved technology compared to baseline open fires. The stoves are also cost-effective and of high quality as they are constructed using locally available materials by well-trained and qualified artisans as described in the construction protocol in the registered PDD/1/.

The number of wood improved cookstoves disseminated/constructed under the PA has been confirmed from the distribution record database/4/ as shown below:

Year	Number of stoves
2011	4,662
2012	5,139
2013	5,187
2014	6,840
2015	14,186
2016	7,819
2017	8,360
2018	7,885
2019	7,758
2020	6,586
2021	9,315
2022	39,887
2023	7,170
2024	5,391
Total	136,185

The average lifespan of the various cookstoves disseminated under the PA is fixed 14 years. This period is confirmed from the design change approved during the 4th MP Performance Review Round 2023/11/. As confirmed from the ER calculation Spreadsheet/4/, all stoves considered for emission reductions for this monitoring period are within the lifespan mentioned in the PDD/1/.

The verification team has performed detailed on-site audit observations, interviews with Project participants representatives and a review of project documents and technology distribution records/4/ provided by the PD. Based on the assessment it can be confirmed that.

- The Project developer has not changed and is the same as that which is mentioned in the revised registered PDD/1/ for this CP 2. This is confirmed from the Project Page on GS website, project documentation and interviews with PP representatives.
- The PA is implemented within the boundary of the project as described in the revised and registered CP 2 PDD/1/. The GPS coordinates provided in the database have been confirmed to be correct, and project is implemented in Siaya , Kenya.
- The PA is being implemented and operated in accordance with the description contained in the revised and registered CP 2 PDD/1/. This is confirmed from review of the registered PDD/1/ against the presented MR for this 7th MP.
- All physical features and information (including data and project variables) of the PA mentioned in the MR/3/ is found to be in line with the revised accepted PDD/1/. This was confirmed by cross-checking information in the PDD against the MR.
- The applicable regulatory documents for the PA have been evaluated, including changes to the PDD/1/ on stoves lifespan which have been approved by Gold Standard/11/.

The verification team found that the project description presented in the Monitoring Report is complete, accurate, and consistent with the information provided in the revised and accepted CP 2 PDD/1/.

Grievance Mechanism:

The PD has incorporated a continuous grievance mechanism system, which works as a feedback mechanism for the project activity from different stakeholders. The various means set up by the PD through which stakeholders can use conveniently include:

1. Directly registering complaints at the Tembea Youth Centre for Sustainable Development office in Siaya County where a grievances expression book is maintained.
2. Telephone number on which the end users can share their complaints.

	<p>3. Additionally, the end users can use the community savings and loan groups as a communication channel with the organization to air any concerns about the project activity.</p> <p>The verification team has confirmed the presence of the grievance expression book for this monitoring period, and snapshots of the logbook have been provided by the PD/12/. All concerns noted in the grievance logbook for this period have been satisfactorily addressed and documented in MR v1.3/3/ section G.1. VVB-end user interviews revealed that end users are well-informed about the channels for reporting and addressing their concerns, as demonstrated in the VVB Field survey questionnaire (end users' feedback)/33/. Therefore, the verification team concludes that the established and implemented grievance mechanisms effectively ensure that all concerns from end users are recorded and addressed.</p>
Findings	No findings were raised.
Conclusion	Following the documents review and a follow up with site audit interviews, the verification team can confirm that all physical features (technology, project equipment (as applicable) of the registered GS PA were in place and that the PD has implemented the project activity as per the registered PDD/1/ during the current (7 th) monitoring period.

E.3.1. Implementation and operation of the management System

Means of verification	<p>PD representatives and monitoring team were interviewed by the assessment team during the on-site audit/33/ to check if the PA has appropriate management and operational system for implementation, and whether the monitoring reporting functions are in place. It was confirmed that the PD has a detailed implementation structure and has put in place an elaborate monitoring and reporting system to ensure that the data collected, reported, and archived is credible and reliable. PD has also detailed the operational system followed during the 7th MP in section C of the monitoring report, which is found to be consistent with the revised and registered PDD Version 3.2.6/1/, and details provided from the interviews.</p> <p>The implementation procedures, and operation for the management</p>
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system were also cross-checked with the end-users during the audit interviews and inspection. It has been confirmed that as part of monitoring procedures the PA ensures that during construction of cookstoves Unique IDs are inscribed on the stove to mitigate double counting. The lead artisans' forms/26/ have been cross-checked and found to contain the stoves unique IDs. Additionally, all audited sample households have been checked against the unique IDs cited during the audit interviews by end users and found to match IDs in the provided US spreadsheets/17,32/.

A follow up monitoring activity is also carried out to ensure the stoves are operational, and unique IDs are intact. During the audit the tags were identified and confirmed to be intactly placed in the ample kitchens/walls/stoves. This was found to be consistent with the PDD/1/. The distribution database/4/ also depicts the uniqueness of every cookstove's identity through the unique IDs and GPS tags.

The number of cookstoves constructed under the GS PA is recorded, quality- checked, and compiled for storage in both physical and electronic forms (hard and soft copies). The PD, as demonstrated by providing a link to the drive storage of data, also uses cloud storage as a back-up system and file cabinets in the PD's filed office/30/. The Project database administrator is responsible for updating and maintaining the electronic database.

During the construction of the cookstoves the following is recorded by the PA project staff:

Date of construction

Name of beneficiary

Beneficiary contact (as available)

Location of Household (GPS coordinates)

Unique Stove ID

Quantity of cookstoves constructed as evidenced in artisan records provided/26/.

Furthermore, the Sales Record/4/ has been checked against the compiled monitoring information to ensure compliance with the project monitoring plan. Training of field staff/23/, artisans' attendance lists/24/, and training manuals/13/ submitted by the PD also confirm that appropriate training was provided to staff on construction, and monitoring surveys and data entry.

	<p>The verification team learned through interviews with PD representatives and the monitoring team /33/ that annual surveys are conducted by well-trained monitoring staff. Under the close supervision of the data manager, inspections are performed at each implementation stage to ensure adherence to QA/QC procedures for monitoring, data collection, storage, and archiving. The PD has demonstrated its data verification process from the construction stage to data quality checking by providing a series of forms completed at each stage. The verification team also confirms this from the verification checklists/41/ purposed to verify that correct and accurate data is collected during the field surveys.</p>
Findings	<p>CL#01 was raised and closed.</p>
Conclusion	<p>Based on the assessment, the verification team confirms that proper management systems are in place to implement the monitoring of the PA, consistent with the registered PDD/1/.</p> <p>The PA has identified and established highly structured project staff roles and responsibilities, as well as procedures for data collection, transfer, aggregation, and data storage and archiving for the monitoring system. These details are provided in Section C of the MR/3/ and duly confirmed to be appropriately documented.</p>

E.3.2. Post-registration changes

Not Applicable

E.3.2.1. Temporary deviations from the approved Monitoring & Reporting Plan, methodology or standardized baseline

Not Applicable

E.3.2.2. Corrections

Not Applicable

E.3.2.3. Changes to the start-date of the crediting period

Not Applicable

E.3.2.4. Permanent changes from the Design Certified monitoring plan, applied methodology or applied standardized baseline

Not Applicable

E.3.2.5. Changes to project design of approved project

The project underwent a design change in 2023 to fix the stove age limit at 14 years. The design change was approved and is confirmed by the revised registered PDD version 3.2.6/1/ and GS879_Performance Review_IV round_FINAL_13022023-4th MP/11/.

E.3.3. Compliance of the registered monitoring plan with applied methodologies and standardized baselines

<p>Means of verification</p>	<p>The monitoring plan followed in the 7th monitoring period, as described in the monitoring report/3/ was found to be consistent with the PDD/1/ and the monitoring requirements of the GS4GG methodology, Technologies, and Practices to Displace Decentralized Thermal Energy Consumption, Version 2.0/2/, considering the relevant technology. The monitoring plan also covers all necessary parameters, monitoring frequencies, QA/QC procedures for monitoring the project activity design and description, enabling accurate determination of emission reductions. This was confirmed by reviewing all the above-mentioned documents. Additionally, the Project surveys results/17,32/, dates when they were conducted confirmed that the monitoring frequencies are followed as per the registered PDD/1/. Furthermore, during the audit end users confirmed that PP officers visited the households for the monitoring activities. The validation team also confirmed from the survey sheets/19/ that all parameters needed for calculation of ERs were accurately captured.</p> <p>It was also noted that no standardized baseline was utilized, and this is consistent with the information provided in the registered/revised PDD/1/.</p>
<p>Findings</p>	<p>No findings were raised.</p>

Conclusion	Verification team confirms that the monitoring plan in the MR/3/ complies to the registered PDD/1/ and applied methodology, Technologies, and Practices to Displace Decentralized Thermal Energy Consumption, Version 2.0/2/.
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E.3.4. Compliance of monitoring activities with the registered monitoring plan

E.3.4.1. Data and parameters fixed ex ante or at renewal of crediting period

Means of verification	The ex-ante parameters are provided in the table below:			
	Relevant SDG Indicator	Parameter	Value of the ex-ante parameter	Assessment
	13: Climate Action	$P_{b,y}$ Quantity of woody biomass consumed in the baseline scenario in year y and per day in year y.	2.7375 t/stove/year and 0.0075 t/stove/day	The value is sourced from Baseline KPT of 2017/18/. The parameter, as mentioned in registered PDD/1/ is fixed ex- ante and will be applied the entire crediting period (CP-2). Hence, listing the parameter under "Data and parameters fixed ex ante or at renewal of crediting period" was accepted by Sustain Cert during Performance Review of the previous verification (4 th MP/11)/. The parameter value is consistently recorded in the MR/3/ and PDD/1/ and is also correctly applied in the calculation of ERs in ER calculation sheet/4/.

	13: Climate Action	EF _{b,CO2} CO2 emission factor arising from use of fuel in baseline scenario	1.7472 tCO ₂ /t wood (=112.0 tCO ₂ /TJ * 0.0156 TJ/ t)	<p>The value of this parameter is sourced from 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Tables 1.2/2.5 Volume 2/14/. And default IPCC EF and NCV values of wood/wood waste are applied in the calculation. This was confirmed by cross checking the values provided with that provided by the IPCC/14/.</p> <p>The value is consistently recorded in the PDD/1/, MR/3/, and correctly applied in the calculation of ERs in the calculation sheet/4/.</p>
	13: Climate Action	EF _{b,non-CO2} Non-CO2 emission factor arising from use of wood-fuel in project scenario	0.1476 tCO ₂ eq/t wood	<p>The value of this parameter is used as per https://globalgoals.goldstandard.org/ru-2020-applicability-of-global-warming-potential-for-gold-standard-for-the-global-goals-projects/15/</p> <p>The values applied have been checked and found to be consistent in both the registered PDD/1/, MR/3/ and ER Calculation sheet/4/.</p> <p>Furthermore, VVB has verified that the value used represents wood fuel, which is the primary source of fuel used in the baseline scenario. This confirmation is derived from baseline reports and audit interviews/33/.</p>

	13: Climate Action	EF _{p,CO2}	1.7472 tCO ₂ /t wood (=112.0 tCO ₂ /TJ * 0.0156 TJ/ t)	<p>The value of this parameter is sourced from 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Tables 1.2/2.5 Volume 2/14/.</p> <p>And default IPCC EF and NCV values of wood/wood waste are applied in the calculation.</p> <p>This is was confirmed by cross checking the values provided with that provided by the IPCC/14/.</p> <p>The value is consistently recorded in the PDD/1/, MR/3/, and correctly applied in the calculation of ERs in ER calculation sheet/4/.</p>
	13: Climate Action	EF _{p,non-CO2} Non-CO2 emission factor arising from use of wood-fuel in project scenario	0.1476 tCO ₂ eq/t wood	<p>The value of this parameter is used as per https://globalgoals.goldstandard.org/ru-2020-applicability-of-global-warming-potential-for-gold-standard-for-the-global-goals-projects/15</p> <p>The parameter is recorded as per the registered PDD/1/. The values were checked and confirmed to be consistent in both the MR/3/ and ER calculation sheet/4/.</p> <p>Furthermore, VVB has verified that the value used represents wood fuel, which is the primary source of fuel used in the project scenario. This confirmation is derived from Usage Survey reports and audit interviews/33/.</p>

		$f_{NRB,i,y}$	92%	<p>The value is sourced from http://cdm.unfccc.int/DNA/fNRB/index.html. and is used as a default value through the Crediting Period 2.</p> <p>VVB has verified that the value is consistent with the registered PDD/1/ and is correctly applied in calculation of ERs in the ER Calculation Sheet/4/.</p>
Findings	No Findings Raised.			
Conclusion	The verification team confirms that the description, values, and application of the parameters is correct. The values mentioned in the MR/3/, and ER/4/ are consistent and in line with the registered PDD/1/ and the applied methodology/2/. The values are also accurately applied in calculation of ERs in the ER sheet/4/.			

E.3.4.2. Data and parameters monitored (Carbon & SDG)

Time (hours) and money (KES) saved per household per year due to fuel savings achieved by project stoves(Time and monetary savings)

Relevant Indicator	SDG	SDG 1: No Poverty	
Means of verification	of	Criteria/Requirements	VVB Assessment
		Measuring /Reading /Recording frequency	Annual
		Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the frequency is in line to the PDD/1/.

	<p>How were the values in the monitoring report verified?</p>	<p>The comparison between the Baseline fuel expenditure estimations (of KES 12,906 on fuel per year and 404 hours used in fuel gathering per year) and the project scenario estimation (KES 4,307 on fuel and 210 hours for fuel collection) shows that the expenses of wood fuel since inception of the ICS has reduced. Therefore, there are savings on annual monetary expenses as well as time used to collect the fuel as follows:</p> <p>Fuel Expenditure Savings: 33.24%</p> <p>Fuel Collection Time Savings: 52.22%</p> <p>The number of hours saved in the project scenario is 194 hours per household while the money saved amounts to KES 8,599 per household per annum.</p> <p>The information is well captured in the monitoring survey questionnaire/19/ and analyzed in the 2024 Monitoring Usage survey results sheet/32/. Further, VVB included questions in the on-site audit field survey form/33/ for the 18 sampled MUS households, to probe the veracity of the MUS results. VVB confirms from the interview responses that there are time savings due to the lesser use of wood and reduced cooking time compared to the baseline. Additionally, all respondents indicated that using the ICS has saved them money, with the majority observing savings of approximately 50%.</p> <p>Therefore, as per VVB's calculation of savings reported by PP, Fuel Expenditure Savings: 33.24%, and Fuel Collection Time Savings: 52.22%, the interviews confirmed</p>
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		PD's values to be correct.
	If applicable, has the reported data been cross checked with other available data?	N/A
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures are in place. The data has been consistently recorded across documents reviewed(see above) and applied correctly in reporting of Impacts
Findings	No Findings Raised	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/2/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/. The value is also reported in all relevant documents accurately and consistently/3,4/.	

Proportion (%) of positive comments from stove users on air quality improvement with project stove, Percentage (Air quality improvement)

Relevant Indicator	SDG	SDG 3: Good Health & Well Being	
Means of verification	Criteria/Requirements	VVB Assessment	
	Measuring /Reading /Recording frequency	Annually	

	<p>Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)</p>	<p>Yes, the frequency in line to the PDD /1/.</p>
	<p>How were the values in the monitoring report verified?</p>	<p>The verified value of the parameter is 100%</p> <p>The parameter was determined through the Monitoring Usage Survey and by analyzing responses from end users about their observations of smoke reduction while using the project technology.</p> <p>A simple random sampling method was applied by the Project Developer for the selection of monitoring samples across all stove age groups. A total of 562 households were sampled for the Monitoring Usage Survey from all stove age groups, ensuring that the minimum requirement of at least 30 samples per age group, as specified by the monitoring methodology/2/, was met.</p> <p>The response rate from the usage survey is derived by dividing the number of positive responses on air improvement from stove user by the total number of end users interviewed.</p> <p>The verification team applied acceptance sampling and interviewed 26 user samples across all age groups from the usage survey conducted in 2024. All the end-users confirmed that since the adoption of the ICS there is notable improvement in the air quality in their kitchens. From VVBs observation, the walls of the kitchen also appeared to have less soot on them, and this can be seen in the audit photos/30/.</p>

	If applicable, has the reported data been cross checked with other available data?	N/A
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures are in place. The data has been consistently recorded across documents reviewed(see above) and applied correctly in reporting of Impacts. The monitoring Methods/procedures were also found to be in-line with the monitoring plan of PDD/1/.
Findings	No Findings Raised	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/2/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/.	

Number of persons reached with awareness creation (Awareness creation in the community)

Relevant SDG Indicator	SDG 4: Quality Education	
Means of	Criteria/Requirements	VVB Assessment

verification	Measuring /Reading /Recording frequency	Annual
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the frequency is in line to the PDD/1/.
	How were the values in the monitoring report verified?	<p>VVB reviewed the awareness creation attendance sheets/22/, and education programs photographic evidence/22/. Further, the VVB field survey interview comprised of a question to gather information on the existence of awareness creation forums in the communities. It is confirmed that the PA conducts community awareness creation meetings, in households, community groups and schools.</p> <p>A total of 2,266 persons have attended the education forums participants as confirmed from the awareness creation datasheet/22/.</p>
	If applicable, has the reported data been crosschecked with other available data?	N/A
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures are in place. The data has been consistently recorded across documents reviewed(see above) and applied correctly in reporting of Impacts. The monitoring Methods/procedures were also found to be in-line with the monitoring plan of PDD/1/.
Findings	No Findings Raised.	

Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/2/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/.
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Number of jobs offered by TYCSD to local female employees (Number of female employees)

Relevant Indicator	SDG	SDG 5: Gender Equality	
Means of verification	of	Criteria/Requirements	VVB Assessment
		Measuring /Reading /Recording frequency	Annual
		Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the frequency is in line to the PDD/1/.
		How were the values in the monitoring report verified?	The employee records/27/ show that both genders were considered in employment. Out of a total of 253 employees, the PA employed 109 females, which is 43%, exceeding the 30% target or minimum threshold described under the parameter in the monitoring report/3/. The VVB also interacted with some of the female and male employees during the audit process as recorded in the audit recordings/33/. Further, the verification team has crosschecked the MUS and PFT survey forms/32/, /17/, and confirmed that both genders have taken part in the monitoring, an indication that females are involved in the implementation of the project.

	If applicable, has the reported data been crosschecked with other available data?	N/A
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures are in place. The data has been consistently recorded across documents reviewed(see above) and applied correctly in reporting of Impacts. The monitoring Methods/procedures were also found to be in-line with the monitoring plan of PDD/1/.
Findings	No findings raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/2/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/.	

Number of persons that benefit from efficient and clean cooking technologies, Number.

Relevant Indicator	SDG7: Affordable and Clean Energy	
Means of verification	Criteria/Requirements	VVB Assessment
	Measuring /Reading /Recording frequency	Annually
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the frequency is in line to the PDD/1/.

	<p>How were the values in the monitoring report verified?</p>	<p>The calculation method of this SDG is the sum of the project ICS installed during the monitoring period, multiplied by the usage rate, and average household size.</p> <p>The total number of installed stoves during the current monitoring period is 5,391 as confirmed from the distribution/sales database/4/. Therefore, considering the usage rate of 88.6% for 2024, and the average persons in a household being 5.0(sourced from 2024 MUS/32/), the number of persons benefiting from the with efficient cookstoves is 23,050.</p> <p>VVB cross-checked the 2024 monitoring Usage Survey/32/, the distribution database, the ER Calculations Spreadsheet /4/, and found the information consistently presented and calculation correctly done. The value is consistently reported in the MR/3/.</p> <p>Since this is an impact parameter—highlighting the aggregate effect of the project activity on the society or community(ies) within the project boundary—the total number of improved cookstoves disseminated was also checked and found to appropriately reflect the project’s impact in this monitoring period and previous monitoring periods.</p>
	<p>If applicable, has the reported data been crosschecked with other available data?</p>	<p>N/A</p>
	<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC</p>	<p>QA/QC procedures are in place. The data has been consistently recorded across documents reviewed(see above) and applied correctly in reporting of Impacts. The monitoring Methods/procedures were also found to be in-line with the monitoring plan of PDD/1/.</p>

	processes in place?	
Findings	No findings raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/2/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/.	

Number of jobs offered by TYSCD to local employees at good conditions (Number of jobs offered)

Relevant Indicator	SDG 8: Decent work and economic growth	
Means of verification	Criteria/Requirements	VVB Assessment
	Measuring/Reading /Recording frequency	Annually
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the frequency is in line to the PDD/1/.
	How were the values in the monitoring report verified?	The MR/3/ was reviewed against the ER Spreadsheet "SDG 8 Impact Calculations/4/ and the List of Project Staff, employed artisans records and community mobilizers records/27/ The number of employees earning from the PA tallies with those reported in the MR/3/. The total number of jobs offered, for both temporary and permanent terms, sums up to 191 during the 7 th monitoring period (MP) and are broken down as follows:

		<ul style="list-style-type: none"> • 13 PA staff • 40 artisans • 138 community mobilizers <p>The numbers are consistent across all provided documents mentioned above.</p> <p>Based on the audit interviews conducted, it was further confirmed that the categories mentioned above—PA staff, artisans, and community mobilizers—were indeed part of the implementers of the PA during the 6th MP. The verification team found that these categories align with the PA's claims regarding its contributions to SDG 8, particularly in offering job opportunities to local communities.</p>
	If applicable, has the reported data been crosschecked with other available data?	N/A
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were in place. The data has been consistently recorded across documents reviewed(see above) and applied correctly in reporting of Impacts. The monitoring Methods/procedures were also found to be in-line with the monitoring plan of PDD/1/.
Findings	No Findings Raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/2/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/.	

Fuel savings in % achieved by project technologies compared to baseline. (Fuel savings achieved)

Relevant Indicator	SDG	SDG 12: Sustainable consumption and production	
Mean of Verification	Criteria/Requirements	VVB Assessment	
	Measuring /Reading /Recording frequency	Ever Two Years	
	accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the frequency is in line to the PDD/1/.	
	How were the values in the monitoring report verified?	<p>To ensure the accuracy of the SDG presentation, the calculations presented in the ER Calculation Spreadsheet/4/ and PFT of 2023 results/17/ from 79 surveyed households were reviewed, and re-calculations were performed. Additionally, studies on fuel consumption in both the baseline and project scenarios were evaluated as follows;</p> <p>An average fuel consumption savings is 54.0% and is derived from comparing the baseline fuel consumption (BFT 2017/16/) of 0.0075 per stove per day against the project scenario consumption (PFT 2023/17/) of 0.0034 per stove per day. This percentage is calculated by dividing the difference between the two study results (0.0075 - 0.0034 = 0.0041) by the baseline consumption (0.0075), and then expressing the result as a percentage, resulting in 54.0%. The verification team also inspected the monitoring equipment/35/ used to measure fuel consumption in the field performance test.</p>	

		<p>The weighing scales were found to meet the required measurement standards/36/. PD also provided training materials used to train enumerators and the training was found to incorporate necessary knowledge to conduct the PFT seamlessly.</p> <p>The verification team interviewed 13 households from the PFT study of 2023/17/, and their responses indicated that the use of the ICS led to fuel savings compared to the baseline/33/. Therefore, the PFT results were considered credible.</p>
	If applicable, has the reported data been crosschecked with other available data?	N/A
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were in place. The data has been consistently recorded across documents reviewed(see above) and applied correctly in reporting of Impacts. The monitoring Methods/procedures were also found to be in-line with the monitoring plan of PDD/1/.
Findings	No findings raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/2/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/.	

Amount of CO2e reduced by the project per year (CO2e emissions reductions)

Relevant Indicator	SDG	SDG 13: Climate action	
Means of verification	of	Criteria/Requirements	VVB Assessment
		Measuring /Reading /Recording frequency	Annually
		Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the frequency is in line to the PDD/1/.
		How were the values in the monitoring report verified?	<p>Information provided in the MR/3/ was reviewed against information presented in the ER Calculation Spreadsheet/4/. The parameter values used to calculate Emission reductions were also evaluated, and re-calculation performed. The formulae used to calculate ERs was also reviewed against the PDD/1/ and applied methodology "Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) version 2.0/2/.</p> <p>VVB confirms that the quantification of amount of CO₂e reduced by the project per year is correctly calculated and the formulae is appropriately applied.</p> <p>The total emission CO₂e reduced by the project per year for the 7th monitoring period is 306,908 tCO₂e.</p>
If applicable, has the reported data been crosschecked with other available data?		N/A	

	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were in place. All documents relevant for calculation and reporting of Emission reduction values, are correctly analyzed, consistently recorded and reported.
Findings	No Findings Raised	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/2/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/. The values achieved are also confirmed to result from prescribed formulae methods in the applied methodology/2/.	

Quantity of woody biomass consumed in the project scenario during year y and per day in year y (Pp,y)

Relevant SDG Indicator	SDG13: Climate Action	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring frequency	Every 2 years
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The frequency is in line with the applied methodology/2/ and registered PDD/1/.
How were the values in the monitoring report verified?	The value of the parameter for the current monitoring period reported in the MR/3/ is 1.2582 tonnes/capita/year and 0.0034 wood/day. This is confirmed from the PFT analysis of the 2023 PFT conducted in a sample of 79 household sampled from stoves of all ages in multiple villages of	

		<p>Siaya County. The verification team has also confirmed that the stoves are indeed selected from stoves of all ages (13) from the distribution database/4/. Additionally, VVB has randomly selected 13 households from PDs sample of 79 surveyed households for audit and confirmed from the end users that the households were party to the PFT study.</p> <p>The PFT was conducted for 5 consecutive days. This is verified from Project PFT survey results/17/ and PFT 2023 Enumerators_ Training Report/17/.</p> <p>The project fuel consumption is average wood consumption, weighted for each household over 5 days in the project scenario.</p> <p>The value achieved has been correctly applied in the calculation of ERs as verified from the ER sheet/4/ and was found to be in-line with the monitoring plan of registered PDD/1/.</p>
	<p>If applicable, has the reported data been crosschecked with other available data?</p>	<p>N/A</p>
	<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>The data management system was found to be detailed, well-structured, appropriate, and reliable. The QA/QC processes have been executed correctly as per the PDD /1/ and the same is correctly reported in the MR/3/.</p>
<p>Findings</p>	<p>No findings were raised.</p>	
<p>Conclusion</p>	<p>The parameter is appropriately monitored, recorded, reported, and applied in the calculation of emission reductions/4/ as required by the applied methodology/2/. The processes undertaken to check data quality are</p>	

	appropriate and capable of ensuring reliable and credible data is used in the calculation of ERs/4/.
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Usage rate in project scenario during year y % (U_{p,y})

Relevant SDG Indicator	SDG13: Climate Action	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring frequency	Annual
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The frequency is in line with the applied methodology/2/ and registered PDD/1/
	How were the values in the monitoring report verified?	<p>The monitoring report values were verified through random sampling, ensuring all stove age groups were represented. A total of 562 stoves, with a minimum sample of 30 samples from each stoves age group was taken for study as required by the applied methodology/2/, and the usage parameter was weighted accordingly. The assessment team reviewed the 2024 Monitoring Usage Survey forms/32/ and confirmed that percentages usage rates for each age group was accurate by reproducing the calculations presented in the analysis spreadsheet/32/ and consequently the ER sheet/4/.</p> <p>During the audit, randomly selected 18 households were interviewed, verifying that they</p>

were visited by the PD’s monitoring team. The survey results were consistent with field data and confirming the definitions of use and no-use in the analysis as per Usage rate guidelines.

The usage rate for the current period was accurately reported at 88.6%, in line with the monitoring plan/1/.

Usage Rates (=1-drop-off rate)

Age Group	Usage Rate (%)
Age 0-1	81.8
Age 1-2	82.4
Age 2-3	87.8
Age 3-4	86.8
Age 4-5	90.0
Age 5-6	93.6
Age 6-7	82.5
Age 7-8	97.1
Age 8-9	100
Age 9-10	94.7
Age 10-11	87.5
Age 11-12	96.9
Age 12-13	95.3
Age 13-14	100
Weighted Average	88.6%
Applied Rate -	88.6%

This table above depicts the usage rates for each stove age group and the calculated weighted average usage rate. Notably, although some age groups reported above 90% usage rate, the claimable rate for the PA as per the MR is 90%. Hence, the usage rate has been capped at 90%. The rate applied during this MP for calculation of ERs is 88.6%.

The values for usage rate of the project device

		<p>distributed under the PA have been correctly reported in the monitoring report/3/ and ER sheet/4/. The monitoring methods were also found in-line with the monitoring plan of revised accepted PDD/1/. Also, the "Requirements and Guidelines Usage Rate Monitoring", version 02/34/ have been considered and implemented accordingly.</p> <p>All requirements for evaluation of compliance of usage rates guidelines such as definition of non-use, verification checks have been confirmed from the MR/3/, the usage survey results/32/, and verification checklists/41/.</p>	
	<p>If applicable, has the reported data been cross-checked with other available data?</p>	<p>N/A</p>	
	<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>The data management system is in place and the QA/QC processes is elaborate and carried out as stipulated in the PDD/1/ and VVB found it to be appropriate and reliable.</p>	
<p>Findings</p>	<p>CAR#02 was raised and successfully closed.</p>		
<p>Conclusion</p>	<p>The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied), applied methodology/2/ and Requirements and Guidelines Usage Rate Monitoring version 2.0/34/. The monitoring results are consistent with the approved in the monitoring plan/1/. The VPA is also in compliance and have implemented all requirements of the claimable usage rate of 90% i.e. the Mandatory and good practice requirement as assessed in the table below.</p>		
	<p>Usage Rate Requirements</p>	<p>CME justification</p>	<p>VVB Assessment</p>
	<p>Define use and non-use (Mandatory)</p>	<p>The project defines non-user as households that use</p>	<p>The use and non-use aspect was confirmed through the monitoring survey questionnaires and results</p>

		<p>the baseline stove at least once a day. To imply that any household that reports to use the baseline stove, once, twice, or thrice a day is considered not using the project stove. In the analysis of monitoring data in column BS of the usage sheet the above criteria have been applied.</p>	<p>analysis spreadsheets/48,46/. The survey includes questions on the use and non-use of baseline stoves (i.e., frequency of use) to capture details about how many households are using these stoves for regular cooking. The percentage of households found to be showing signs of use was one of the factors considered in calculating the overall proportion of usage rate for the ICSs in each vintage year. The VVB’s questionnaire also included a similar question to verify whether the results of the usage survey regarding the frequency of ICS use were consistent with those reported by the CME. During the on-site audit, all of the households surveyed by the VVB were found to be using the project stove. As a result, the CME’s survey questionnaire was accepted, as it effectively captures the stove’s usage characteristics.</p>
	<p>Household usage survey (Mandatory)</p>	<p>i. Kitchen observation- The PP has in the past used this criterion to check stove usage and quality. However, during this monitoring, the enumerators were trained on other techniques of checking stove use. This include presence of ash- if the ash is there, and if hot, appearance of soot-could be on the cooking service, wall,</p>	<p>i. This aspect has been confirmed through the VVB on-site audit question in section E.3.1” Did the monitoring team visit your house?”. All of the VVB interviews respondents confirmed that in-person survey was conducted. The question asked by CME to enumerators in the monitoring surveys about signs of use has been confirmed by the Usage survey questionnaire and analysis sheet/48,46/. Additionally, as can be seen in the site visit photos/36/, the stoves depict signs of use such as soot patterns, wear and tear, presence of ash, presence of firewood logs, and for some, heat marks and smoke smells. The end users also provided feedback of continued use, and the benefits experienced while using the ICS/36/.</p> <p>i. This aspect was confirmed through the survey questionnaires and</p>

		<p>or firewood inlet.</p> <p>ii. Interview with primary cook- The enumerators sought to interview the primary cook stove users.</p> <p>iii. Photos of the cooking area- The PP took photos of all the households visited for monitoring activity. However, the PP notes that considering the size of some kitchens it was difficult to achieve very clear photos however what is presented here captures the requirement. it includes a date stamp. The photos have been submitted saved with name of the household and their respective stove number.</p> <p>iv. GPS coordinates- GPS coordinates for all the households visited for the usage survey were collected</p>	<p>results sheets/48,46/. The CME has placed instructions for the enumerators to ensure the primary cook is interviewed. The verification team also incorporated a section in the VVB questionnaire/36/ to confirm if the interviewee is the primary cook. All interviews' respondents confirmed to be the primary cooks which was found to consistent with the CME's results.</p> <p>i. This aspect was confirmed by the photos of all households surveyed. CME has provided a folder with photos taken during the surveys/46/. The verification team has crosschecked the serial numbers of the sampled stove from the sample list and confirm that the photos provided are consistent with the records.</p> <p>v. This aspect has been confirmed by the survey results sheets/46/. The GPS coordinates have also been crosschecked with the database/15/ and found to be consistent. Prior to the site visit, the verification team mapped the coordinates to establish if the GPS points are located within the project boundary and specific regions. Additionally, the verification team has also taken GPS coordinates during the SV and crosschecked them with those collected during the surveys. These GPS's have been found to be consistent of the locations visited/36/.</p>
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		<p>and included in the monitoring data.</p>	
	<p>Verification checks (Mandatory)</p>	<p>the monitoring team leader contacted 35 households out of 562 reached for the usage survey translating 6.2%, which is within the 5-10% required by the guideline. The PP developed a template that was used to capture responses from the household compared to those in the questionnaire. The exercise was undertaken daily to also check the work of the enumerators.</p>	<p>This aspect is confirmed from Monitoring Usage Survey Report/46/. Sample numbers were within the recommended threshold, demonstrating compliance to the methodology (TPPDDTEC v2.0)/8/ requirements. It is also documented in the MR section C and D.4. CME verified 35 households selected from the usage survey. The verification team concludes that the CME's application of the upper limit of the recommended sample size enhances result accuracy by providing a more representative population assessment, reducing statistical errors, and increasing confidence in the findings.</p> <p>This aspect has been confirmed through the verification checklists submitted to the VVB by the CME, which met the required 5-10% threshold, with 6.2% households verified.</p>
	<p>Field team training and supervision (Good Practice)</p>	<p>The PP developed a training guide capturing the updated rules to train enumerators involved in collection of data for usage survey. The train guide and participants list has been uploaded. The PP used the verification check as required in Mandatory requirements of the updated rules to review the works by enumerators. Throughout the exercise there was</p>	<p>This aspect has been confirmed from the Training records/43/. Attendance sheets for all training sessions/43/ have been provided for verification. The verification team also conducted interviews with the project staff to confirm the training attendance and topics discussed. The list of staff interviewed, and the topics discussed are provided in Section D.3.1 of this report, confirming the field staff training.</p>

		support from the team leader to the field teams.	
	End -user training and follow ups (Good Practice)	<p>The PP uses the Community Saving and Loaning groups as a platform to train, monitor and promote stove use. The groups are made of between 15-20 members from same locality who form the group to save resources, to collectively guarantee each other to acquire cook stoves. 100% of stoves sold to the community use this approach and hence was considered appropriate platform to train, monitor and promote stove use. The PP has trained and recruited community mobilizers who train community on stove use, economic empowerment, and climate change. We have 138 mobilizers (list uploaded). We also use the stove artisan as earliest contact to train household on stove use immediately after stove construction. Due to budgetary constraints these activities are conducted alongside awareness creation events. List of events and dates have been uploaded.</p>	<p>This aspect was confirmed through the usage survey records/46/. These records confirm presence of the field team in the sampled households. The end user training and follow up have been confirmed by the training records where the attendance sheets are also provided. Additionally, since the trainings were conducted in sensitization meetings which also covers awareness creation exercises, CME has provided awareness creation data, photographic evidence, and attendance sheets/43/ for verification.</p> <p>Furthermore, the VVB questionnaire included questions to assess whether this aspect was implemented. All questions regarding training on stove usage, in-person monitoring, signing, and carbon waiver training were positively answered and found to be consistent with the PP's assertions.</p>
	Awareness campaign	from the start of the project in 2010 the PP has spent	This aspect was confirmed through the training and end-user follow-up reports/43/, as well as attendance

	(Good Practice)	considerable resources to promote community awareness on climate change, its connection to witnessed impacts as well as why use of energy efficient cook stoves matters. In the initial years this included a school programme where children were educated to encourage their parents or custodians to use Tembea cook stoves. This requirement has been met alongside number 2 (End user training and follow up)	records from awareness meetings, which included end users and implementation staff conducting the sensitization. End users verified that the claimed training contents, such as stove benefits and associated environmental and health advantages, were discussed. Attendance sheets and photographic evidence have been provided for verification.
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Technologies in the project database for project scenario p through year y, N_{p,y}, Project technologies credited (units)

Relevant SDG Indicator	SDG13: Climate Action	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Continuous
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The frequency is in line with the registered PDD/1/

	<p>How were the values in the monitoring report verified?</p>	<p>The verified $N_{p,y}$ values applied for this monitoring period is 48,723,075 days</p> <p>The value of the parameter is the cumulative number of technology days for all ICS deployed and in use under the PA, including the current monitoring period.</p> <p>The PD maintains a continuous electronic record/Project database for the number of stoves distributed as demonstrated in the Sales database/4/.</p> <p>During the distribution, following is recorded:</p> <ul style="list-style-type: none"> a) Unique identification (Stove Serial Number) b) Address and telephone (as available) c) Date of ICS construction d) Quantity of project technology distributed which matches the Lead artisan's stove installation forms/26/ and sales invoices/31/. <p>The values were verified from the distribution database/4/ and it was also confirmed that emission reductions were only derived from days the ICS has been in use. PD demonstrated in the database/4/ that the 21 days' period between date of sale and start of stove usage for households is excluded in the emission reduction calculations.</p> <p>VVB also checked the implementation correctness, and consistency of it with the end-users during the audit. The verification team also confirms that the constructed ICS are labeled/inscribed with Unique IDs to ensure that double counting is avoided, which was found consistent with the information in the distribution database /4/. The ER sheet/4/ was reviewed, ensuring that the correct values were applied in calculating ERs for this 7th MP.</p>
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	If applicable, has the reported data been cross-checked with other available data?	As a cross-check, the VVB conducted random verification of records in the VPA database against corresponding stove sales receipts /23/. In addition, the VVB carried out on-site surveys of selected household representatives, during which end-users were interviewed to confirm stove usage patterns and to identify any grievances that could have affected sustained use of the project technology. The findings from both checks were found to be consistent with the database records.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The data management system was found to be detailed, well-structured, appropriate, and reliable. The QA/QC processes have been executed correctly as per the PDD /1/ and the same is correctly reported in the MR/3/.
Findings	No findings Raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/2/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/.	

Leakage in project scenario p during year y, LE_{p,y}, tCO_{2e} per year

Relevant SDG Indicator	SDG13: Climate Action	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Every two years
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The frequency is in line with the registered PDD/1/.

	<p>How were the values in the monitoring report verified?</p>	<p>The value applied this monitoring period is 0. During the 2017 re-validation as confirmed from the PDD/1/, the PD conducted a leakage assessment, concluding that the leakages were insignificant. VVB found the assessment consistent with the monitoring methodology provided in the applied methodology/2/.</p> <p>Moreover, the 2024 Monitoring/Usage Survey results demonstrate that no leakage was observed throughout the monitoring period. verification team has cross-validated this information with the 2024 MUS results /32/ and confirmed that the accurate values are applied in the ER calculations/4/.</p>
	<p>If applicable, has the reported data been cross-checked with other available data?</p>	<p>N/A</p>
	<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>The data management system was found to be detailed, well-structured, appropriate, and reliable. The QA/QC processes have been executed correctly as per the PDD /1/ and the same is correctly reported in the MR/3/.</p>
<p>Findings</p>	<p>No Findings raised.</p>	
<p>Conclusion</p>	<p>The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/2/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/.</p>	

Similar new project activity in the project area

<p>Data/Parameter</p>	<p>Similar new project activity in the project area</p>	
<p>Means of</p>	<p>Criteria/Requirements</p>	<p>VVB Assessment</p>

verification	Measuring /Reading /Recording frequency	Annual
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the frequency is in line to the PDD/1/.
	How were the values in the monitoring report verified?	<p>The verification team has examined the statements in the MR/3/ alongside the PDD/1/ and has confirmed that the established procedure/method for monitoring the parameter remains consistent.</p> <p>Additionally, the team has conducted an independent review of external sources to verify the absence of overlapping projects within the project boundary as claimed by the PA. There are no similar projects found in the region, therefore the claims in the MR/3/ are correct.</p>
	If applicable, has the reported data been crosschecked with other available data?	<p>The VVB has reviewed a range of external, similar projects under the Gold Standard and Verra frameworks to contextualise the subject project’s scope and ensure non-overlapping claims. Representative initiatives include:</p> <ul style="list-style-type: none"> • Gold Standard’s Efficient and Clean Cooking for Households in Kenya, which deploys high-efficiency stoves in rural communities (Global Cookstoves Ltd in partnership with BURN Manufacturing). • Murang’a Improved Cookstove Project (GS registered), which supports uptake of subsidised efficient cookstoves among vulnerable households. • Improved Cook Stoves for East Africa Ltd. (ICSEA) PoA, a multi-country cookstove umbrella programme registered under CDM/Gold Standard for similar intervention types.

		<ul style="list-style-type: none"> A broad portfolio of Verra VCS cookstove projects implemented across Sub-Saharan Africa under methodologies such as VM0050. <p>The VVB confirms that these projects operate with distinct boundaries, methodologies, and target communities compared to the subject project. There is no evidence of overlap in project areas, carbon credit claims, or monitored parameters, and none share the same project identifiers, implementation plans, or carbon unit issuance chains as the project under assessment.</p>
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The data management system was found to be detailed, well-structured, appropriate, and reliable. The QA/QC processes have been executed correctly as per the PDD /1/ and the same is correctly reported in the MR/3/.
Findings	No Findings Raised	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/ (as per measurement methods and procedures to be applied) and applied methodology/2/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/1/.	

E.3.5. Implementation of sampling plan

Means of verification	<p>The PD has applied the sampling plan prescribed in the “Technologies and Practices to Displace Decentralized Thermal Energy Consumption”, version 2.0/2/ and also followed the registered sampling plan/1/.</p> <p>Target Population:</p> <p>The target population, sourced from the project database/4/, includes all households utilizing ICS under the Project activity. This database,</p>
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containing data from 14 different age groups, serves as the sampling frame for selecting survey samples. It is confirmed that the PD has used this sampling frame to select samples for the MUS. The verification team has crosschecked from the project database/4/ that all monitored households/16,17/ are from the sampling frame, with each age group represented. This was further verified during audit interviews with the end users.

Parameters covered through monitoring surveys:

The Performance Field Tests and Usage survey have been conducted to monitor the following Parameters-

Up, y (SDG 13)- Stove usage Rate

Pp, y (SDG 13)-Quantity of wood biomass consumed.

SDG 3- Air Quality Improvement

SDG 1- Time & Money spent on fuel purchase.

Other SDGs monitored during monitoring activity report include; SGD 4, SDG 5, SDG,7, SDG,8, SDG 12, SDG 13(Tech days and ERs calculation).

All these SDGs and parameters have been comprehensively described in this report.

Sample size calculation for different tests:

Usage surveys:

The applied monitoring methodology in the “Technologies and Practices to Displace Decentralized Thermal Energy Consumption”, version 2.0/2/ prescribes that the minimum sample size for usage survey should be a 100, with at least 30 samples for project technologies of each age being credited. The usage survey conducted in 2024 involved a sample size of over 30 households per age group, with all the 14 stove age groups considered. A total of 562 households (across all age groups) were successfully surveyed in the usage survey conducted between 01/12/2024-31/12/2024. The monitoring requirement for this survey were found to be met.

Age Group	Successful Samples	Stoves per Year
0-1 yrs	33	4,662
1-2yrs	34	5,139
2-3yr	72	5,187
3-4yrs	38	6,840
4-5yr	40	14,186
5-6yrs	47	7,819
6-7yrs	40	8,360
7-8yrs	34	7,885
8-9yrs	37	7,758
9-10yrs	38	6,586
10-11yrs	40	9,315
11-12yrs	32	39,887
12-13yrs	43	7,170
13-14yrs	32	5,391
	562	136,185

Project Performance Field Test (PFT):

As per the PDD/1/, “the PFT update is an extension of the project PFT and provides a fuel consumption assessment representative of project technologies currently in use every two years. Hence the PFT update shall account for changes in the project scenario over time as project technologies age and new customers are added, also as new models and designs are introduced. It is legitimate to apply an Age Test instead of a PFT, to project technologies which remain materially the same year after year.”

The PD conducted a PFT in 2023/17/, adhering to the biennial monitoring frequency specified in the PDD/1/, to evaluate fuel consumption. The sampled households, totaling 79 were randomly selected from the database using an Excel function. The samples were found to be representative of all 13 stove age groups. This was verified by crosschecking the years of distribution and confirming the same dates/years from the end users during the audit.

	<p>Data collection and analysis:</p> <p>The verification team applied acceptance sampling, reviewed the survey results and analysis, and found them to be accurately documented. Additionally, the filled survey forms/19/ were checked to confirm their consistency with the monitoring survey raw data in the Excel sheet /32/. The verification team also included questions for audit to confirm the information recorded in the surveys. It is confirmed that the data collected by PD team tallies with responses provided by end users to verification team and the analysis discrepancies are immaterial.</p> <p>Reliability of test:</p> <p>The verification team cross-checked the ER calculation spreadsheets /4/ with the Monitoring/Usage Survey Results and Analysis Sheet /32/. The collected data was found to be analyzed according to the guidelines outlined in "Technologies and Practices to Displace Decentralized Thermal Energy Consumption, version 2.0"/2/.</p> <p>The monitoring and usage survey values are not subject to confidence/precision calculation as per the applied methodology. Therefore, with PFT being subject to confidence/precision, the verification team assessed the PFT values and found that they were reliably sampled, and the data was appropriately collected and analyzed. The samples and analysis met the 90/30 criteria.</p>
Findings	No findings were raised.
Conclusion	The verification team confirms that the sampling plan and the parameter values are in accordance with the monitoring plan provided in PDD/1/ and the applied methodology/2/.

E.3.6. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	During the KPT survey, PD facilitated the training of enumerators on the calibration procedures for fuelwood weighing scales. This information is supported by the KPT training report conducted in 2023/17/.
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	Furthermore, it has been verified that the weighing scales utilized conform to the standards prescribed by the Kenya Bureau of Standards/36/, thereby guaranteeing the accuracy and reliability of the measurements recorded during the survey.
Findings	No findings raised.
Conclusion	The Verification Team has confirmed that utilized properly calibrated and certified measurement equipment, subject to regular maintenance and thorough checks to ensure optimal functionality. As a result, the measurements obtained can be unequivocally deemed reliable, meeting stringent standards for accuracy and precision.

E.3.7. Assessment of data and calculation of emission reductions or net removals

E.3.7.1. Calculation of baseline value or estimation of baseline situation of each SDG Impact

Means of verification	<p>a) SDG 1: No poverty</p> <p>The baseline value estimation, derived from the baseline survey of 2017/17/, is reported as 404 hours and 12,906 KES. These values were computed based on various factors, primarily the annual time used in fuel collection and monetary expenditures obtained from household interviews. These figures offer a comprehensive insight into the baseline conditions as they were derived from a representative sample of household interviews, therefore, their reliable and accurate. This is confirmed from the baseline survey conducted during the project revalidation of 2017/16/.</p> <p>b) SDG 3: Good health and well-being</p> <p>The project stove is distributed with the aim of reducing indoor air pollution. Consequently, without improved cooking stoves the kitchen conditions would likely remain unchanged, resulting in no (%) improvement in IAP levels. Through the audit process/interviews/33/, the verification team discovered that households using traditional three-stone</p>
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stoves experienced significant smoke accumulation indoors and smoke related ailments, therefore ,confirming the baseline scenario.

c) SDG 4: Quality education

Without the implementation of the project, there would be no training forums therefore, zero persons and zero schools would be impacted with ICS/ PA education. The project reports ,training data/13,22/ and other photographic evidence clearly demonstrate the activities in the project scenario, which was absent in the baseline scenario.

d) SDG 5: Gender equality

The baseline value is 0 (zero) since without the project activity there will be no women receiving training or income from the project activity. The project reports and evidence demonstrate the impact on women which is absent during the baseline scenario/22,27/.

e) SDG 7: Affordable and clean energy

The baseline value is 0 (zero) persons since the baseline stove is inefficient and there would be no benefit from efficient and clean cooking technologies without the project. The baseline scenario, as observed and confirmed by the verification team/33/ and further re-verified from the BFT 2017/16/, reveals that households predominantly relied on open traditional stoves. These stoves emit more smoke and consume greater amounts of fuel, leading to higher expenditures on fuel for households.

f) SDG 8: Decent work and economic growth

At baseline, the value of persons receiving an income from project activity and persons receiving an income more than what they were earning prior to project is Zero (0). It has been observed that since the inception of the project, numerous individuals have been employed to facilitate its implementation. This is substantiated by the project staff records./27/ This underscores the fact that without the project, such employment opportunities would not have been available.

g) SDG 12: Sustainable consumption and production

Quantity of woody biomass consumed in the baseline scenario in year and per day (0.0075 t wood/day/stove) were obtained using equation: This is substantiated from the baseline KPT study/18/. The equation applied was

$$B_{fuel} = \eta_{project} t / \eta_{baseline} * P_{fuel}$$

Thermal efficiencies (η) from water boiling tests (Project technology) and default value for baseline were sourced from methodology page 23 footnote. A statistical mean was applied, considering that the project KPT/17/ was deemed to satisfy the 90/30 rule.

h) SDG-13: Climate Action

The equations used were found consistent with the PDD/1/ and the applied methodology, Technologies, and Practices to Displace Decentralized Thermal Energy Consumption, version 2.0/2/.

The formula used for baseline estimation is as follows:

$$ER_y = \sum_{b,y} (N_{p,y} * U_{p,y} * P_{p,b,y} * NCV_{b,fuel} * (f_{NRB,b,y} * E_{fuel,CO2} + E_{fuel, nonCO2})) - LE_{p,y}$$

Where:

$\sum_{b,y}$ = sum over all relevant (baseline b/project p) couples

$N_{p,y}$ = cumulative number of project technology days included in the project database for project scenario p against the baseline scenario b in year y.

$U_{p,y}$ = cumulative usage rate for technologies in project scenario p in year y, based on cumulative adoption rate and drop off rate revealed by usage surveys (fraction)

	<p>$P_{p,b,y}$ = Specific fuel savings for an individual technology of project p against an individual technology of baseline b in year y, in tons/day, as derived from the statistical analysis of the data collected from field tests.</p> <p>$NCV_{b,fuel}$ = Net calorific value of the fuel that is substituted or reduced ((IPCC default for wood fuel, 0.015 TJ/ton)</p> <p>$f_{NRB,b,y}$ = fraction of biomass used in year y for baseline scenario b that can be established as non-renewable biomass</p> <p>$EF_{fuel, CO2}$ = CO2 emission factor of the fuel that is substituted or reduced. 112 tCO₂/TJ for wood/wood waste.</p> <p>$EF_{fuel, nonCO2}$ = non-CO2 emission factor of the fuel that is reduced</p> <p>$LE_{p,y}$ = leakage for project scenario p in year y (tCO₂eq/yr)</p> <p>The parameters $NCV_{b,fuel}$ and $NCV_{p,fuel}$ are not applicable to this project since EF is in units of tCO₂/t_{fuel} (see methodology page 21). Therefore, the formula applied is:</p> $ER_y = \sum_{b,y} (N_{p,y} * U_{p,y} * P_{p,b,y} * (f_{NRB,b,y} * EF_{fuel,CO2} + EF_{fuel, nonCO2})) - LE_{p,y}$ <p>The total Baseline emission estimations are 567,944 tCO₂e.</p> <p>A detailed assessment of all the parameters used to calculate/ estimate emission reductions is provided under section E.3.4.2 of this report.</p> <p>The values presented in the monitoring report /3/ and calculations in the corresponding ER sheet /4/ were found appropriate and complying with provisions prescribed in the registered monitoring plan/1/ of the PDD/1/ and applied methodology/2/.</p> <p>The verification team confirms that an audit trail containing evidence and records validating the stated figures was thoroughly examined and found to be legitimate.</p>
Findings	No Findings Raised.

Conclusion	<p>The verification team verified that:</p> <ul style="list-style-type: none"> a) A complete set of data for the monitoring period was available and the verification of each monitoring parameter is elaborated under Section E.3.4.2 of this report. The complete monitoring data is also presented in the corresponding ER calculations sheet /4/ of final Monitoring Report /3/. b) The information provided in the monitoring report was cross checked with other sources, wherever appropriate and available, and such information is also included under Section E.3.4.2 of this report. c) The calculations of baseline emissions as presented in the corresponding ER calculations sheet /4/ of final Monitoring Report /3/ were checked and found to be consistent with the formulae and methods described in the registered monitoring plan of of the PDD/1/ and applied methodology/2/. d) All assumptions used in the emission calculations were found appropriate and therefore justified. e) Appropriate emission factors, IPCC default factors and other reference values have been correctly applied. This has also been elaborated under Section E.3.4.1 of this report. f) No standardized baseline was prescribed in the registered PDD/1/.
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E.3.7.2. Calculation of project value or estimation of project situation of each SDG Impact

Means of verification	<p>SDG 1: No poverty</p> <p>The project estimation for this SDG is 210 hrs and 4307 KES, and is acquired through annual household surveys, and derived from a representative sample of the interviewed users. This information is confirmed from the Monitoring usage survey results /32/. Furthermore, the verification team's audit survey responses from end users revealed significant savings in both time and money from the collection and purchase of wood fuel.</p> <p>SDG 3: Good health and well-being</p>
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Project estimate for this SDG is 100% (users reporting improved air quality) and is acquired from a statistical average of a representative sample from household interviews in annual household surveys. This information is confirmed from the monitoring Usage survey/32/ and re-verified by verification team through interviews with ICS users during the audit/33/. All interviewees reported improvement in air conditions in the kitchens, confirming survey results.

SDG 4: Quality education

The value for this SDG is 2266 (persons reached for awareness creation), which is recorded through training programs such as, Community Savings and Loaning, Stove construction, climate change awareness and education, and various other training activities/22/. The verification team has confirmed from the awareness creation reports, interviews with PD, artisans, and end users/33/ that actual physical education forums were conducted during the monitoring period.

SDG 5: Gender equality

The value for this SDG is 43% women receiving income from the project. The number of women employed by the PA is calculated by dividing number of female employees by total number of employees. This information is confirmed by the list of employees/27/ provided. Additionally, from the audit interviews with PD, it is evident that women are included in various stages of project implementation.

SDG 7: Affordable and clean energy

The number persons that benefit from efficient and clean cooking is 23,050 and is the sum of all stoves installed during the monitoring period recorded in the project database/4/, multiplied by usage rates from latest usage surveys(2024) i.e 88.6%, and by the average household size(5.0) derived from latest monitoring surveys. This is confirmed from the Usage survey results/32/ and the calculations in the ER sheet/4/ for this SDG.

SDG 8: Decent work and economic growth

The value of this SDG is 191 and is recorded by the PD as the number of persons that receive an income more than what they were earning prior to

	<p>project, and number of persons employed by the project with salaries at par with or above host country standards. This is confirmed from the project staff records /27/. It is also confirmed during the audit that the project offers the claimed employment impact/33/.</p> <p>SDG 12: Sustainable consumption and production</p> <p>The value for this SDG is 54.0% (0.0034 t wood/day/stove) and is acquired dividing fuel savings by baseline fuel consumption expressed as %.This confirmed from the 2023 PFT results analysis./17/. From the audit interviews, it was observed that with the use of ICS, users are saving wood compared to when they were using open traditional stoves.</p> <p>SDG-13: Climate Action</p> <p>There were no project GHG emissions in the project scenario, therefore, only the emission reductions achieved (compared with baseline) are provided, and the project estimates for the SDG indicator were 261,036 tCO₂e.</p> <p>The project is reducing 306,908 tCO₂e, as confirmed by the ER calculation sheet /4/. All data used to calculate the ERs has been thoroughly assessed, and the calculations have been reproduced for verification.</p> <p>The values for all the parameters listed above have been assessed under section E.3.4.1 and E.3.4.2. of this report.</p>
Findings	No Findings Raised
Conclusion	<p>The verification team verified that;</p> <p>A complete set of data for the monitoring period was available and the verification of each monitoring parameter is elaborated under Section E.3.4.2 of this report. The complete monitoring data is also presented in the corresponding ER calculations sheet /4/ of final Monitoring Report /3/.</p> <p>The information provided in the monitoring report was cross checked with other sources, wherever appropriate and available, and such information is also included under Section E.3.4.2 of this report.</p>

E.3.7.3. Calculation of leakage

Means of verification	As per the applied methodology, leakage assessment is conducted every two years to update monitoring parameters over time. PD Leakage assessment has been reviewed and it is found that there was no leakage during the monitoring period. This was confirmed from the estimates made during revalidation/1/ and the 2024 MUS/32/.
Findings	No Findings Raised.
Conclusion	VVB confirms that the leakage assessment was appropriately conducted and that the justifications provided in the MR/3/ are reliable.

E.3.7.4. Calculation of net benefits or direct calculation for each SDG Impact

Means of verification	Below are the PA's estimated SDG Impacts for the monitoring period under consideration.				
	SDG No.	SDG Impact	Baseline estimate	Project estimate	Net benefit
	13	Amount of CO ₂ e emissions reduced by the project per year.	567,944	261,036	306,908 tCO ₂ e
	1	Time (hours) and money (KES) saved per household per year due to fuel savings achieved by project stoves	404 hours KES 12,906	210 hours KES 4,307	194 hours KES 8,599
3	Proportion (%) of positive comments from stove users on air quality improvement	0%of stove users starting improved air quality	100% of stove users stating improved air quality	100% of stove users stating improved air quality	

		with project stove			
	4	Number of persons reached with awareness creation	0 Schools/Persons reached with awareness creation	2,266 Persons and 0 schools reached with awareness creation	2,266 Persons and 0 schools reached with awareness creation
	5	Number of jobs offered by TYCSD to local female employees	0 Number of female employees	43% of employees are women.	43% of employees are women. 83 Women employed by GS PA.
	7	Number of persons that benefit from efficient and clean cooking technologies	0 Beneficiaries	23,050 Beneficiaries	23,050 Beneficiaries
	8	Number of jobs offered by TYCSD to local employees at good conditions.	0 Number of employees	191 Number of employees	191 employees
	12	Fuel savings in % achieved by project technologies compared to baseline.	0.0075t wood/ day/ stove	0.0034t wood/ day/ stove	0.0041 t wood/ day/ stove 54.0% fuel saving
Findings	No Findings Raised.				

Conclusion	<p>The calculation method and formulae applied for all the SDG impacts were checked with registered PDD/1/ and applied methodology/2/.</p> <p>The verification team confirms that the stated figures were checked and found to be correct.</p>
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E.4. Comparison of actual SDG Impacts with estimates in approved PDD

Means of verification	Section E.5 of the Monitoring Report has provided a comparison of estimates with actuals for outcomes obtained during current monitoring period.		
	SDG	Values estimated in ex ante calculation of approved PDD for this monitoring period	
	Actual values achieved during this monitoring period		
	SDG 13	145,785 tCO ₂ e	306,908 tCO ₂ e
	SDG 1	No estimate available	194 hours KES 8,599
	SDG 3	Expected participants to respond that indoor air quality has improved over baseline.	100% of stove users stating improved air quality
	SDG 4	No estimate available	2,266 persons and 0 schools reached with awareness creation
	SDG 5	Project is expected to train and generate income for 300 women.	43% /83 women employed
	SDG 7	No estimate available	23,050 beneficiaries
	SDG 8	No estimate available	191 Persons
SDG 12	No estimate available	54.0% fuel savings	

	A review of PDD and ER calculation spreadsheets/4/ demonstrated that 145,785 tonnes were estimated to be reduced between 01/01/2024 to 31/12/2024. But 306,908 tCO ₂ e were reduced during the current monitoring period, which led to the conclusion that actual emission reductions achieved are more than the amount estimated. Therefore, the percentage variation between the estimated and achieved emission reductions is approximately 105.26%.
Findings	No Findings Raised.
Conclusion	The actual emission reductions achieved in the current monitoring period for the PA is higher than the emission reductions stated in the PDD /1/ for this MP. Therefore, it has been accepted by the verification team.

E.4.1. Remarks on increase in achieved SDG Impacts from estimated value in approved PDD

Means of verification	<p>As verified and evident from the Monitoring Report /3/ and corresponding ER calculations sheet /4/, the actual emission reductions achieved for project stove for the PA under this verification in the current monitoring period were found to be more than the estimated quantity in the PDD/1/ for the comparable period.</p> <p>Considering there was increase in ICS installations (progressive) and higher use than projected in the PDD/1/ (66,300 projected versus 136,185 actual installations) the ERs were also bound to increase. The quantitative details of actual values of achieved ERs for the PA and value estimated in the PDD/1/ is presented in the above table.</p>
Findings	No Findings Raised
Conclusion	The increased SDG Impacts from the estimated value was justified by the increased ICS installation confirmed from the project database/4/ and increased ICS usage was found to be an acceptable justification.

E.4.2. Remarks on increase in achieved SDG Impacts from previous monitored value

<p>Means of verification</p>	<p>During the current monitoring period (2024), 5,391 new stoves were installed as confirmed from the distribution database/04/, resulting in a cumulative total of 136,185 stoves in operation. In parallel, the average usage rate increased marginally from 88.1% to 88.6% as confirmed through the ER sheet/04/.</p> <p>The VVB verified that the reported increase of 17,536 tCO_{2e} in emission reductions is attributable to a combination of factors, namely: (i) stoves that were not in full-year operation during the 2023 monitoring period but contributed for a full year in 2024, (ii) additional emission reductions generated from newly commissioned stoves in 2024, and (iii) the slight increase in the monitored usage rate.</p> <p>Furthermore, VVB assessed the historical relationship between cumulative stove installations and emission reductions across previous monitoring periods and confirmed the presence of a consistent and comparable pattern. The ratio of emission reductions to cumulative stoves remains broadly stable across the second crediting period, with the values reported for 2024 falling within the established historical range.</p>
<p>Findings</p>	<p>No Findings Raised</p>
<p>Conclusion</p>	<p>Accordingly, the VVB concludes that the monitored values and resulting emission reductions for the current monitoring period are reasonable, internally consistent, and adequately justified.</p>

E.1. Stakeholder Inputs and Legal Disputes

<p>Means of verification</p>	<p>During the 7th Monitoring period, it was noted that ICS users reported difficulties in usage and maintenance. The four issues reported by only four stove users included cracking of newly constructed stove, difficulties lighting newly installed stove and wrong positioning of stove in the kitchen. The four issues reported were addressed through training and repair, taking the artisans less than a day (i.e. between 1-3 hours). It is observed as reported in the MR/3/ and confirmed in grievance logbook /12/ that the repairs and repositioning of the stove were conducted in a manner that did not impact stove usage. Therefore, there was no effect on the technology use days.</p> <p>PP has provided a snapshot of the grievance record/12/ to the verification team as evidence for verification. The same is documented</p>
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	<p>in section G.1 of the monitoring report/3/.</p> <p>During the audit, the verification team confirmed that the end users are aware of the grievance mechanism established by the project activity and are utilizing it appropriately/33/.</p> <p>As confirmed from external sources such as GS registry and other web searches , there are no legal contestations against the GS PA.</p>
Findings	No findings were raised.
Conclusion	VVB confirms that no concerns or legal disputes have arisen throughout the monitoring period. The grievances raised by the end users have been addressed as required by GS.

SECTION F. Internal quality control

The draft verification report that is prepared by the verification team is reviewed by an independent technical review team (one or more members) to confirm if the internal procedures established and implemented by Earthood were duly complied with and such opinion/conclusion is reached in an objective manner that complies with the applicable GS4GG requirements. The technical review team is collectively required to possess technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of the technical review team are independent of the verification team.

During the technical review process, additional findings may be identified, or the closed-out findings may be opened, which needs to be satisfactorily resolved before the request for issuance is submitted to Gold Standard. The independent technical reviewer may either approve the report as such or reject/return the same in such case providing the comments/findings/issues that needs to be resolved by the verification team. The decision taken by the Technical Reviewer is final and is authorized on behalf of Earthood Services Limited.

SECTION G. Verification opinion

Earthood Services Limited (Earthood), contracted by, has performed the independent verification of the emission reductions for the GS Project Activity (GS879) “Energy Efficient Cook Stoves for Siaya Communities, Kenya implemented the host country “Kenya” for the monitoring period 01/01/2024 to 31/12/2024, as reported in the Monitoring Report, version 1.3, dated 19/02/2026. Tembea Youth Centre for Sustainable Development Group is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity. Earthood commenced the verification against the baseline and monitoring methodology,

Technologies, and Practices to Displace Decentralized Thermal Energy Consumption Version 2.0/2/, the monitoring plan contained in the registered PDD, and Monitoring Report version 1.3, dated 19/02/2026.

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

The verification team confirms that:

- The PA was found completely implemented as per the description given in the registered PDD.
- The actual operation conforms to the description in the registered PDD

SECTION H. Certification statement

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

In our opinion, the GHG emissions reductions reported for the project activity are fairly stated in the Monitoring Report (final) version 1.3, dated 19/02/2026 Earthood, based on outcome of verification activities, certifies in writing that, during the current monitoring period 01/01/2024 to 31/12/2024 the registered GS Project Activity (GS879) “Energy Efficient Cook Stoves for Siaya Communities, Kenya achieved the verified amount of 306,908 tCO₂e reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the PA.

The verified amount of emission reductions is stated below as per implemented PA and as per commitment period:

Verified and certified emission reductions as per commitment period:

Commitment period	Amount (tCO ₂ e)
From 01/01/2024 till 31/12/2024	306,908 tCO ₂ e

Appendix 1. Abbreviations

Abbreviations	Full texts
AQL	Acceptable Quality Level
CAR	Corrective Action Request
CDM PCP	Clean Development Mechanism Project Cycle Procedure
CDM PS	Clean Development Mechanism Project Standard
CDM VVS	Clean Development Mechanism Validation and Verification Standard
CER	Certified Emission Reduction
CL	Clarification Request
PD	Project Developer
CMP	Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
CP	Crediting period
ER	Emission Reductions
ESPL	Earthood Services Private Limited
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GS4GG	Gold Standard for Global Goals
IPCC	Intergovernmental Panel on Climate Change
MR	Monitoring Report
PDD	Project Design Document
PA	Project Activity
TA	Technical Area (with in Sectoral Scope)
TR	Technical Reviewer
VER	Verified Emission Reductions
VVB	Validation and Verification Body
VVS	Validation and Verification Standard
UNFCCC	United Nations Framework Convention on Climate Change
UNFCCC	United Nation Framework convention on Climate change
QA/QC	Quality Assurance and Quality control
PA	Project Activity

GS	Gold Standard
ICS	Improved Cook Stove
SDG	Sustainable Development Goals
TYCSD	Tembea Youth Centre for Sustainable Development
MUS	Monitoring Usage Survey
KPT	Kitchen Performance Test
BFT	Baseline Filed Tests
PFT	Performance Field Tests
KES	Kenya Shillings
ICS	Improved Cookstove
KEBS	Kenya Bureau of Standard

Appendix 2. Competence of team members and technical reviewers

Competence Statement			
Name	Rahul Dev Gautam		
Education	B.Tech in Civil Engineering M.Tech in Environmental Engineering		
Experience	1+ year		
Field	Civil Engineering		
Approved Roles			
Team Leader	YES (VM Only)		
Validator	YES (VM only)		
Verifier	YES (VM only)		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	Yes (TA 3.1)		
Reviewed by	Shifali Guleria (Quality Manager)	Date	05/07/2024
Approved by	Deepika Mahala (Technical Manager)	Date	05/07/2024

Competence Statement	
Name	Kishlay Singh
Education	B.Tech (Civil Engineering) M.Tech (Environment Engineering)

Experience	2+ Years		
Field	Climate Change & Environment		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	NO		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	YES (TA 3.1)		
Reviewed by	Shifali Guleria (Quality Manager)	Date	02/05/2025
Approved by	Deepika Mahala (Technical Manager)	Date	02/05/2025

Competence Statement			
Name	Shifali Guleria		
Education	M.Sc. (Environmental Studies and Resource Management), TERI University		
Experience	3+ year		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	YES (AMS-I.A., AMS-II.G., AMS-II.E., AMS-III.A.V., AMS-I.D, ACM0002)		
Local expert	YES		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (1.2, 3.1)		
Reviewed by	Deepika Mahala	Date	16/02/2022
Approved by	Ashok Gautam	Date	18/02/2022

Competence Statement	
Name	Caroline Wambui Njama
Education	Diploma (Dairy Production and Processing)
Experience	3 Years

Field	Dairy and Agriculture		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	YES (Kenya)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Reviewed by	Shifali Guleria (Quality Manager)	Date	10/02/2025
Approved by	Deepika Mahala (Technical Manager)	Date	10/02/2025

Appendix 3. Documents reviewed or referenced

No	Author	Title	References to the document	Provider
1.	Myclimate Foundation & TYSCD	Registered PDD	Version 3.2.6 Dated 10/02/2023	PD
2.	The Gold Standard Foundation	Technologies and Practices to Displace Decentralized Thermal Energy Consumption	Version 2.0 Dated 24/04/2015	Others
3.	Myclimate Foundation & TYSCD	Monitoring Report	Revised Version 1.3 Dated 19/02/2026	PD
4.	Myclimate Foundation	1. ER Sheet 2. Sales Record	1. Version 01.0 2. Version 01	PD

	&TYSCD			
5.	The Gold Standard Foundation	GS4GG Principles and requirements:	Version 1.2	Others
6.	The Gold Standard Foundation	GS4GG GHG emissions Reduction & Sequestration Product requirements	Version 2.3 Dated: 29.04.2024	Others
7.	The Gold Standard Foundation	GS4GG Community services activity requirements	Version 1.2	Others
8.	The Gold Standard Foundation	GS4GG MR Template & TEMPLATE GUIDE Monitoring Report v. 1.1	Version 1.1, Dated 14/10/2020	Others
9.	UNFCCC	Standard for Sampling and surveys for CDM project activities and programmes of activities	Version 9.0	Others
10.	Gold Standard SustainCert	Previous Verification report corresponding to the 5 th MP	Version 1.0 dated 10/07/2023	Others
11.	SustainCert	GS879_GS4GG Performance Review_Round 2_FINAL_11082023_6 th MP GS879_Performance Review_IV round_FINAL_13022023-4 th MP	-	PD
12.	TYSCD	Grievance Expression book	2024	PD
13.	TYSCD	Training Attendance list for various trainings- <ul style="list-style-type: none"> • Data entry • Monitoring protocols /manual • Usage survey 		PD
14.	IPCC	IPCC Guidelines for National Greenhouse Gas Inventories	Vol 2 Volume 2	Others

		Tables 1.2/2.5		
15.	IPCC/GS4GG	GWP: IPCC AR5, https://www.ipcc.ch/assessmentreport/ar5/ https://globalgoals.goldstandard.org/ru-2020-applicability-of-global-warming-potential-for-gold-standard-for-the-global-goals-projects/		Others
16.	TYCSD	BFT Study	June/July 2017	PD
17.	TYCSD	Project PFT <ul style="list-style-type: none"> • PFT survey results • PFT Training report • Questionnaires • Trained KPT enumerators List • PFT weighing scales Calibration protocol 	2024	PD
18.	TYSCD	Baseline KPT survey		PD
19.	TYSCD	M/Usage survey form /Questionnaire		PD
20.	TYSCD	Leakage assessment Report /MR part	2017 & 2024	PD
21.	TYSCD	Random Sample Generator /Excel Part	-	PD
22.	TYSCD	Awareness creation <ul style="list-style-type: none"> • CSL attendance sheets and Pictures • Stove Usage trainings pictures • Awareness Creation 	2024	PD

		Attendance Spreadsheet		
23.	TYSCD	Field Team Training attendance sheets	2024	PD
24.	TYSCD	Artisans Training Attendance sheet/list & Artisan's review meetings attendance	2024	PD
25.	TYSCD	Complaints Record	2024	PD
26.	TYSCD	Lead artisan & Artisans Data Records		PD
27.	TYSCD	Employees records <ul style="list-style-type: none"> • Project Staff • Artisans • community mobilizers 	2024	PD
28.	TYSCD	CSL Savings and Social Fund Records		PD
29.	TYSCD	Monitoring Manual		PD
30.	TYSCD	Onsite Audit Stove Photos and office		PD
31.	TYSCD	SP-SPA Receipts/Purchase Receipts/Carbon Waiver forms		PD
32.	TYSCD	Monitoring/Usage Survey Results and analysis Sheet	2024	PD
33.	VVB	VVB Onsite Visit Field survey questionnaire (end users)	2025	PD
34.	GS4GG	Requirements and Guidelines Usage Rate Monitoring version	Version 2.0	Others
35.	TYSCD	Weighing Scales Pictures		PD
36.	TYSCD	KEBS Certification/protocol		PD
37.	UNFCCC	http://cdm.unfccc.int/DNA/fNRB/ind		Others

		ex.html		
38	UNFCCC	UNFCCC criteria referred to in the Kyoto Protocol criteria and the CDM modalities and procedures as agreed in the Bonn Agreement and the Marrakech Accords/		Others
39	GS4GG	Validation and Verification Standard	V2.0	Others
40	PD	SDG Tool		
41	PD	Verification Checklists- Usage rates requirements		
42	GS4GG	Site Visit And Remote Audit Requirements And Procedures	V2.0	Others

Appendix 4. Clarification requests, corrective action requests and forward action requests

Table 1. FAR from previous verification

FAR ID	01	Section No.	Previous Performance Review	Date : 05/09/2025
Description of FAR				
PD is asked for the next monitoring period to adhere to the RULE CLARIFICATION - Requirements for maintaining the total sales records under TPDDTEC methodology (goldstandard.org). This shall be verified by VVB.				
Project participant response				Date : 13/10/2025
The PD shall ensure compliance with rule update by next verification.				
Documentation provided by project participant				
VVB assessment				Date: 27/10/2025

As per the screengrab of the previous performance review, it has been highlighted that the issue must be resolved during this verification period only.

Therefore, the FAR remains open.

- Where present, Forward Action Requests are summarized in the **table immediately below**. These must be resolved during the next Verification or Performance Review, as applicable.

Summary of Forward Action Requests (FARs):	
FAR # 1:	PD is asked for the next monitoring period to adhere to the RULE CLARIFICATION - Requirements for maintaining the total sales records under TPDDTEC methodology (goldstandard.org) . This shall be verified by VVB.
FAR # 2:	
FAR # 3:	
FAR # n:	

Project participant response	Date : 28/10/2025
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The PD has complied with the requirements by compiling sales record with name, address, phone number where available, and GPS points. Consider the sales record (GS 879_7MP_sales record_V01.1.xlsx)

Documentation provided by project participant
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VVB assessment	Date: 03/11/2025
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Based on the evidence submitted, including the compiled sales record (GS 879_7MP_sales record_V01.1.xlsx) containing beneficiary names, addresses, phone numbers where available, and GPS coordinates, the PD is deemed to have met the stated requirement. Therefore, FAR01 is considered **closed**.

Table 2. CL from this verification

CL ID	01	Section no.		Date : 24/04/2025
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Description of CL

1. According to the submitted sales record (GS 879_7MP_sales record_V01), the earliest stove distribution date is 05 January 2011, while Section B.2.5 of the project documentation limits stove eligibility to a maximum operational age of 14 years. The current monitoring report appears to include stoves sold prior to the project submission date—some of which may exceed or be nearing this age limit—without clear justification or indication of exclusion. Clarification is required on the methodology or criteria used to ensure compliance with the age threshold, or, if such stoves are included, a justification aligned with Section B.2.5 and the applied methodology should be provided.
2. While the project documentation outlines a maximum operational age of 14 years for stove eligibility, it remains unclear how the thermal efficiency of older stoves—particularly those approaching this threshold—is monitored and maintained over time. The current monitoring report does not provide sufficient detail on maintenance protocols, performance assessments, or refurbishment activities that ensure older stoves continue to meet efficiency standards required for valid ER calculations. Clarification is requested on the procedures in place to verify and sustain stove efficiency throughout their operational lifespan.

Project participant response	Date : DD/MM/YYYY
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1. According to PDD section C1.1. Project start date is date of 1st project installation. It's not therefore clear the interpretation of technologies disseminated before project submission not being eligible. It is the understanding that all project technologies disseminated after the date stated in the PDD therefore can be credited for 14 yrs and then excluded as households get new technologies if still interested.
2. All stoves are included in PFT thus the impact of aging is considered in the average fuel saving. In addition, the project provides continuous support to households to ensure maximum utilization. The technology is made of mud and brick materials that households use for their homes allowing for easy maintenance.

Documentation provided by project participant

VVB assessment	Date : 02/06/2025
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1. The PD interprets that all stoves disseminated after the project start date are eligible for crediting, up to a maximum of 14 years of operational life, consistent with Section B.2.5. The PD further clarifies that as stoves age out, they are excluded from crediting and replaced, where applicable. While the initial observation raised concern about stoves potentially exceeding the 14-year threshold, the PD has adequately clarified that the crediting period is calculated from the date of dissemination and that technologies are excluded once the age cap is reached. This interpretation is consistent with the applied methodology and Section B.2.5 of the PDD. **Closed.**
 2. The PD states that all stoves are included in the PFT, so the effects of aging are reflected in the average fuel savings. The stoves are made of mud and bricks, allowing easy maintenance by households, with ongoing support provided to ensure proper use.
However, while this approach suggests a general method for monitoring performance, PD is requested to provide detailed records like documentation of refurbishment or scheduled maintenance protocols to assess the claim. **Open.**
- Therefore **CL#01 is Open.**

Project participant response	Date : 05/08/2025
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2. These are stoves made of the same materials that households use for their kitchens- in most cases they re-smear and maintain the stoves during their routine kitchen maintenance. In monitoring period Jan to Dec 2024 no household contacted the PD for stove refurbishment.

Documentation provided by project participant

VVB assessment	Date: 09/09/2025
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2. The PD is requested to provide a maintenance log or supporting evidence confirming the claim that no households approached the PD for stove refurbishment, as well as the grievance logbook to substantiate the four issues reported under section G.1 of the MR.
Therefore **CL#01 is Open.**

Project participant response	Date : 13/10/2025
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1. There were requests for maintenance most of them minor as they didn't affect the performance of the stove. One major repair affecting performance prompting discounting of 21 additional days for curing before it was available for use. This information was available to our team in the time of report preparation, there are internal improvements to adequately report on the same. The additional discounting is applied to stove GS 24/132143 see -GS 879_7MP_sales record_V01.1.xlsx] Project_technology_days!\$W\$131838- Maintenance log uploaded.

Documentation provided by project participant

Maintenance log

VVB assessment	Date: 27/10/2025
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2. The PD has provided clarification that there were indeed maintenance requests, most of which were minor and did not impact stove performance. One major repair was identified, for which an additional 21 days were discounted for curing before the stove became available for use. This has been reflected in stove GS 24/132143 (refer: GS 879_7MP_sales record_V01.1.xlsx → Project_technology_days!\$W\$131838). The maintenance log has been uploaded as supporting evidence.
Therefore **CL#01 is Closed.**

CL ID	02	Section no.		Date : 12/06/2025
Description of CL				
<ol style="list-style-type: none"> 1. The PD is requested to clarify the use of Pb,y as a fixed parameter, given that the applied methodology requires this parameter to be monitored rather than fixed. 2. The stove IDs TEMBEA21/81117 and TEMBEA22/95964 appear more than once in the monitoring survey document titled 'GS 879_7MP_MUS.V01', suggesting a potential case of double counting. Clarification is requested regarding this duplication. 3. With respect to SDG 5, the PDD indicates that an estimated 300 women would be trained and supported in generating income. However, project documentation reflects only 83 women involved to date. The PD is requested to clarify this difference. 				
Project participant response				Date : 05/08/2025
<ol style="list-style-type: none"> 1. Revised and moved to parameter monitored. 2. The file has been checked again against the physical questionnaires duplicate entries have been removed. Analysis has been carried out to ensure the data presented meets the minimum requirements for age and sample size. 3. This the number who were employed in 2024. The project is doing annual reporting. 				
Documentation provided by project participant				
VVB assessment				Date : 09/09/2025
<ol style="list-style-type: none"> 1. VVB confirms that the parameter Pb,y though fixed ex ante is now aligned with the methodology been moved to monitored parameter. Closed. 2. The revised file shared under 'GS 879_7MP_MUS.V02' has been reviewed, and it is noted that stove ID TEMBEA15/36108 appears twice in column BA. As the original issue persists, clarification is requested regarding this duplication. Open. 3. PD clarified that 83 reflects the number employed in 2024, and since the project reports annually, the figures are consistent. Closed. <p>Therefore CL#02 is Open.</p>				
Project participant response				Date : 13/10/2025
2.there was error with household stove ID-the same has been corrected.				
Documentation provided by project participant				
VVB assessment				Date: 27/10/2025
<p>The revised document provided has been assessed for duplicate entries and it can be confirmed that no duplicate entries are present.</p> <p>Therefore CL#02 is Closed.</p>				
CL ID	03	Section no.	Site Visit Findings	Date : 12/06/2025
Description of CL				
<ol style="list-style-type: none"> 1. During the interview with Mary Adhiambo, it was observed that the stove ID recorded in the distribution database is TEMBEA23/128573, whereas the stove ID stated during the interview was TEMBEA24/133574, which corresponds to another beneficiary, Mary Onguru. The PD is requested to confirm whether this discrepancy is due to an error in record keeping. 2. The PD is requested to provide clarification on the variation in the stove purchase amounts reported by different households. Specifically, some households reported paying KES 1,000, others KES 750, KES 700, or KES 500 for the project stove. A rationale for this inconsistency in contribution amounts is requested. 				
Project participant response				Date : 13/08/2025

1.This seems to be confusion. The household visited is Mary Onguru stove ID Tembea24/133574. Mary Adhiambo was not visited but is in the MUS list. Find attached copy of receipt for the two households.
 2.The prices have varied over time so since the verification team visited stoves from various years of construction the prices vary. Stoves in 2010 for example paid 200 deposit but this changed to 500 in 2025. There are also cash and installment purchasers. The price consists of materials and labor so it also depends in some cases some households provide bricks therefore paying less in cash.

Documentation provided by project participant

VVB assessment **Date :** DD/MM/YYYY

1. PD has clarified that the household visited was Mary Onguru (stove ID TEMBEA24/133574), not Mary Adhiambo, who remains on the MUS list. Receipts for both households were provided. **Closed.**
2. PD explained that stove prices have varied over time and by payment mode (cash or installment). Differences also arose where households contributed materials such as bricks. Accordingly, the variation in reported purchase amounts is consistent. **Closed.**

Therefore **CL#03 is Closed.**

Table 2. CAR from this validation

CAR ID	01	Section no.	Date : 24/04/2025
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Description of CAR

1. Section B.1 of the monitoring report states that 6,024 stoves were installed in 2023; however, Cell C20 of the 'Summary' sheet in the document 'GS 879_7MP_ER_V01' indicates a total of 7,170 stoves installed for the same year. This discrepancy raises concerns regarding data consistency and accuracy in the reported stove distribution figures, which may impact the calculation of ERs. Clarification is required to reconcile these values and confirm which figure accurately reflects the number of stoves installed in 2023.
2. Section E.1 of the monitoring report states that the contribution to SDG 13 amounts to 535,493 tCO_{2e}; however, Cell C26 of the 'ER calculation 2024' sheet in the document 'GS 879_7MP_ER_V01' reports a total of 551,533 tCO_{2e}. This inconsistency between the reported and calculated ER values raises concerns about data alignment and the accuracy of the reported SDG contribution. Clarification is requested to reconcile these figures and confirm the correct value in line with the applied methodology.

Project participant response **Date :** DD/MM/YYYY

1. The stoves were built in 2023 however by the time of doing sampling and monitoring they had not been validated and included in the sales record. That is the reason to have them included in 2024.
2. Section revised accordingly.

Documentation provided by project participant

VVB assessment **Date :** 02/06/2025

- 1.VVB confirms that the discrepancy has been mended and the value now reflects the correct value.
2. VVB confirs section E.1 has been revised and correctly reflects the value.

Therefore, **CAR#01 is closed.**

CAR ID	02	Section no.	Date : 24/04/2025
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Description of CAR

1. The values of EF_{b,non-CO₂} and EF_{p,non-CO₂} in the registered PDD available on the registry are reported as 0.1356 tCO_{2e}/t wood, whereas the monitoring report uses a value of 0.1476 tCO_{2e}/t wood. The discrepancy appears to stem from version differences, with the registry hosting version 3.2 of the PDD, while the monitoring report references version 8.0. To enable a comprehensive assessment, the PD is requested to submit the latest version of the PDD, along with the list of pending documents previously identified.

Project participant response **Date :** DD/MM/YYYY

1. This is a default value updated in subsequent version of the Methodology with the latest being adopted during 2 nd RCP. Latest PDD uploaded V3_2_6	
Documentation provided by project participant	
VVB assessment	Date : 02/06/2025
1. The VVB confirms post assessment of the updated PDD that these values are correctly applied. Therefore, CAR#02 is closed.	

CAR ID	03	Section no.		Date : 12/06/2025
Description of CL				
<p>1. PD has indicated that the monitoring team leader conducted verification checks by contacting 35 out of 594 households reached during the usage survey, amounting to 5.8%, which falls within the 5–10% range required by the guidelines. It was further stated that a template was developed to compare household responses against the original questionnaire, and that this exercise was conducted daily to verify enumerator performance. PD is requested to provide documentary evidence to substantiate these verification activities.</p> <p>2. PD is requested to submit the SDG Tool applicable to the project in accordance with Gold Standard requirements, in order to enable the assessment and confirmation of reported SDG contribution values.</p>				

Project participant response		Date : 15/08/2025
<p>1. Verification checks template for sample users uploaded.</p> <p>2. SDG tool uploaded.</p>		

Documentation provided by project participant	
VVB assessment	Date : 09/09/2025
<p>1. Vvb has verified the evidence provided and confirms the verification checks have been made. Closed.</p> <p>2. The SDG tool provided titled 'GS 879_V1.3_IQ_SDG-Impact-tool' is unfilled, PD is requested to review and provide the correct SDG Tool. Open.</p> <p>Therefore, CAR#03 is open.</p>	

Project participant response		Date : 13/10/2025
2.SDG tool resubmitted.		

Documentation provided by project participant	
<i>SDG Tool</i>	
VVB assessment	Date: 27/10/2025
The PD has submitted the revised SDG tool which is in line with GS standards. Therefore, CAR#03 is closed.	

Table 3. FAR from this verification

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