

**GOLD STANDARD FOR THE GLOBAL GOALS (GS4GG)
REPORT
-
VERIFICATION**



Project Title: BURN Stoves Project in Kenya
Monitoring Period: 13/03/2024 to 25/04/2024 (inclusive of both dates)
GS project ID: GS 5642¹
Internal ID: BELL_GS_VER_22524
Customer: ECOA Climate Capital
Date: 16/10/2024
Revision: 1.1

¹ <https://registry.goldstandard.org/projects/details/1559>

SUMMARY			
Reference No.	Date (first version)	Version No.	Date (last version)
BELL_GS_VER_22524	31/07/2025	1.1	16/10/2025
GS4GG Verification			
GS4GG Certified Product (sought):		GHG Emission Reductions	
GS4GG SDG Impact Statement (sought):		Impact Certification	
General Information			
Client	ECO Climate Capital		
Project Title	BURN Stoves Project in Kenya		
Project Participants	ECO Climate Capital		
Project Location	Kenya		
Contact Person	Mr. Nathan Gachugi		
Monitoring Period:	13/03/2024 to 25/04/2024 (inclusive of both days)		
GS4GG Version: GS4GG Principles and Requirements Version 2.1 GS4GG Programme of Activity Requirements and Procedures, version 3.0 Community Services Activity Requirements, version 1.2 GS4GG Validation and Verification Standard Version: 2.0 GS4GG Activity Requirements: Community- Services-Activity Requirements Version 1.2 Applied Methodology Version: Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), Version 3.1 ²		GS4GG Sectoral Scope: 2 UNFCCC CDM Sectoral Scope: 3 Technical Area: 3.1 Date of Design Certification: 28/02/2018 Scale of Project: Large-scale Project-Cycle: Regular cycle	
Initial Monitoring Report Version: 1.0 Date: 05/05/2025		Final Monitoring Report Version: 1.3 Date: 10/09/2025	
Certified Project Design Document Version:4.8 ³ Date: 09/06/2023 GS Passport Version (if applicable): 03 Date: 09/02/2018			
Estimated and Achieved values of each SDG for the monitoring period:			
Sustainable Development Goals	SDG Impact	Estimated SDG values for the current monitoring period	Achieved SDG values for the current monitoring period
13 Climate Action	Emission Reductions	155,983 tCO2e VERs	37,667 tCO2e VERs
1 End poverty in all its forms everywhere	Monetary savings related to the	USD 77.99/hh/year	USD 95.11/hh/year

² https://globalgoals.goldstandard.org/standards/407_V3.1_EE_ICs_Technologies-and-Practices-to-Displace-Decentralized-Thermal-Energy-TPDDTECConsumption-.pdf

³ <https://platform.sustain-cert.com/public-project/1076>

SUMMARY			
	purchase of firewood		
3 Ensure healthy lives and promote well-being for all at all ages	Perceived air quality	96%	99.05%
4 (Quality Education) Ensure equal access for all women and men to affordable and quality technical, vocational, and tertiary education, including university	Number of people receiving skill development training	50	77 (39 males and 38 females)
5 (Gender Equality) Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household	Average time saving associated with cooking in the project scenario	25	37 minutes per day
7 (Affordable and Clean Energy) Ensure universal access to affordable, reliable and modern energy services	Number of sold/distributed ICS in use	54516.84	190,190
8 Promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all	Number of jobs created	242	68 (39 males and 29 females)
15 (Life on Land) Promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and	Total non-renewable biomass saved	16,997.31	166,160.12 tons

SUMMARY			
substantially increase afforestation and reforestation globally			
Selected Sustainable Development Goals (SDGs): 13; 1; 3; 4; 5; 7; 8; 15			
Verification Summary			
LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by ECOA Climate Capital to perform the 6th verification of “BURN Stoves Project in Kenya” (Ref. No. GS 5642) applying the methodology Technologies and practices to displace decentralized thermal energy consumption (TPDDTEC), version 3.1/8/. The management of ECOA Climate Capital is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions. A desk review and remote audit verification has been conducted to verify the data submitted in the monitoring report. Applus+ Certification confirms the following have been reviewed: a. The design certified GS4GG PDD v4.8/3/ including the monitoring plan/3/; b. The previous monitoring reports and their respective verification reports/34//41/; c. Monitoring report of current monitoring period/1/; d. The applied monitoring methodology TPDDTEC v3.1/8/ and tool (Tool 30, v4.0)/42/; e. The Gold Standard for Global Goals “Principles and Requirements” Version 2.1 and GS4GG guidelines/5//6/. f. All information and references relevant to the project activity’s resulting in emission reductions/2/. The project developer for the project titled “BURN Stoves Project in Kenya”⁴ is ECOA Climate Capital/4/. The project aims to reduce the GHG emissions, deforestation and reduction in indoor air pollution since the project ICS burns biomass fuels more efficiently, reducing greenhouse gas (GHG) and particulate emissions (PM), leading to better indoor air quality for households in the project. The project activity distributes improved cookstoves manufactured by BURN Manufacturing LLC in the host country Kenya. Reducing fuel consumption during the cooking activities and thus reducing greenhouse gas emission and contributing to climate change mitigation in line with the UN’s Sustainable Development Goals, the project is foreseen to provide several SDG benefits for the local families and communities. As a part of assessment, the verification team had raised findings which were closed before preparation of final report. All CARs and CLs raised during performance certification activity have been resolved prior to submitting a request for issuance. Please refer Appendix 1 of this report. Total Numbers of findings: CAR: 02, CL: 02, FARs: 00. Applus+ Certification confirms that the project is implemented in accordance with the approved GS PDD. The monitoring plan complies with the applied methodology - Technologies and practices to displace decentralized thermal energy consumption (TPDDTEC), version 3.1/08/ and the Gold Standard for Global Goals “Principles and Requirements” Ver.2.1/05/. The monitoring has been carried out in accordance with the approved monitoring plan as per GS PDD. The monitoring system is in place and the emission reductions are calculated without material misstatements. Our opinion relates to the projects GHG emissions, and the resulting GHG emission reductions reported and related to the valid project baseline and monitoring and its associated documents. Based on the information reviewed and evaluated Applus+ Certification confirms that the implementation of the project has resulted in 37,667 GS VERs tCO₂e emission reductions during period 13/03/2024 to 25/04/2024 (inclusive of both days).			

⁴ <https://registry.goldstandard.org/projects/details/1559>

ASSESSMENT TEAM		
Team Members	Type of Resource ⁵	Organization (for OEs)
Lead Auditor and Technical Expert: Ms. Arohi Jain	☒ IR ☐ EI ☐ OE	-
Local Support: Ms. Hannah Kitundu	☐ IR ☒ EI ☐ OE	-
Technical Reviewer and Technical Expert: Mr. Simon Shen	☐ IR ☒ EI ☐ OE	-

⁵ IR (Internal Resource); EI (External Individual); OE (Outsourced Entity)

ABBREVIATIONS	
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
VER	Verified Emission Reduction
CL / CR	Clarification Request
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
DNA	Designated National Authority
DOE	Designated Operational Entity
EF	Emission Factor
KPT	Kitchen Performance Test
WBT	Water Boiling Test
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GS4GG (or GS)	Gold Standard for Global Goals
IPCC	Intergovernmental Panel on Climate Change
KP	Kyoto Protocol
MP	Monitoring Plan
MR	Monitoring Report
NGO	Non-Governmental Organization
HH	Household
SDG	Sustainable Development Goal
TAC	Gold Standard Technical Advisory Committee
PDD	Project Design Document
PD	Project Developer
UNFCCC	United Nations Framework Convention for Climate Change
VVB	Validation and Verification Body
VVS	Validation and Verification Standard

Table of Content

Contents

1. INTRODUCTION.....	8
1.1 Objective	8
1.2 Scope	8
1.3 Description of the project activity	9
2. METHODOLOGY	10
2.1 Appointment of the assessment team.....	10
2.2 Document review.....	11
2.3 On site assessment and follow up interviews.....	11
2.4 Quality of evidences	14
2.5 Reporting of findings	14
2.6 Internal Quality Control	15
3. VERIFICATION FINDINGS	15
3.1 FARs from Validation / Previous Verification.....	15
3.2 Project Implementation in accordance with the registered Project Design Document	16
3.3 Compliance of the Monitoring Plan with the Monitoring Methodology	18
3.4 Completeness of Monitoring	19
3.5 SDG Outcomes Monitoring.....	35
3.6 Assessment of Data and Calculation of Greenhouse Gas Emission Reductions..	37
3.7 Management and Operational System	39
4. REFERENCE.....	41
5. VERIFICATION STATEMENT	44

Appendix:

Appendix 1: Corrective Action Request / Clarification Request / Forward Action Request resolution table.

Appendix 2: Audit Team CVs

1. INTRODUCTION

LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by ECOA Climate Capital to perform the 6th performance certification (verification) for second crediting period of "BURN Stoves Project in Kenya" applying the GS approved methodology - Technologies and practices to displace decentralized thermal energy consumption (TPDDTEC), version 3.1/8/ and GS4GG guidelines/5//6//7//26/. Gold Standard projects must undergo periodic audits and verification of emission reductions as the basis for issuance of Gold Standard VERs.

1.1 Objective

The objective of a performance certification (verification) is to have an independent third-party assessment of the GS4GG MR and compliance with the GS requirements/5//6//7/ as described in the Gold Standard documentation and supporting documents by the client. According to this assessment Applus+ Certification shall:

- Ensure that the project activity has been implemented and operated as per the GS PDD v4.8/03/ and transitional documents for registration and that all physical features (technology, project equipment, monitoring equipment) of the project are in place;
- Ensure that the published MR/1/ and other supporting documents provided are complete, verifiable and in accordance with applicable Gold Standard i.e., GS4GG requirements/5//6//7//26/;
- Ensure that the actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan and the approved methodology/8/;
- Evaluate the data recorded and stored as per the applied methodology TPDDTEC v3.1/8/ requirements

1.2 Scope

The verification scope encompasses an independent and objective review and ex-post determination of the monitored reductions in GHG emissions by the VVB. The verification is based on the submitted monitoring report/1/, the design certified GS PDD/03/ as well as its validation report/4/, the applied baseline and monitoring methodology TPDDTEC v3.1/8/, GS4GG guidelines/5//6//7/ and any other information and references relevant to the project activity's resulting emission reductions. These documents are reviewed against the requirements of GS4GG guidelines and relevant Principles and Requirements, as well as their related rules and guidance.

Based on the requirements in the GS4GG validation and verification Standard, version 2.0/5/ for the project activity as well as the GS4GG guidelines/5//6//7/, Applus+ Certification has applied a risk- based approach for the verification of the project. The principles of accuracy, completeness, relevance, reliability and credibility were combined with a conservative approach to establish a traceable and transparent verification opinion.

The verification considers both quantitative and qualitative information on emission reductions. The verification also considers the monitoring of sustainable development parameters.

The verification is not meant to provide any consultancy towards the project developer. However, stated requests for clarifications, corrective and/or forward actions may provide input for improvement of the monitoring activities.

1.3 Description of the project activity

The GS PA titled "BURN Stoves Project in Kenya" (Ref. Id. GS 5642) aims at distribution of improved cookstoves 'Jikokoa' in the households of Kenya. The prime purpose of the project activity is to improve health and incomes throughout Kenya by reducing time for cooking and money spent in acquiring fuel for household cooking. The project activity started as part of GS966 'Paradigm Healthy Water and Cookstoves Project'. However, there was design change in the project and a new project was created which was registered on 28/02/2018 as verified by the assessment team from the registered PDD/3/. The current monitoring period is the sixth monitoring period of the second crediting period of the project activity. The role of Project Developer was transferred from BURN to ECOA Climate Capital on 31/10/2022 as verified by the assessment team from the cover letter/37/ submitted by the PD.

The project activity "BURN Stoves Project in Kenya" (Ref. ID GS 5642) is implemented in the host country Kenya by ECOA Climate Capital which is the project developer for the project in the host country. The PA GS 5642 is primarily focussed on the households situated in the 47 counties of Kenya. The project aims at distribution/sale of improved cookstove "Jikokoa" manufactured by BURN Manufacturing LLC/14//17/ which deploys charcoal as fuel. By providing clean cooking, the project ensures that households access healthy, energy saving cookstoves, consume less charcoal during the process of cooking and as a result there is reduction of carbon dioxide emissions from the combustion process. The project ICS are distributed/ sold to the project beneficiaries at a subsidized cost. A total of 379,652 project ICS have been distributed in different regions of Kenya. However, 38,453 project ICS have aged beyond 10 years and hence are not considered for the current monitoring period. Therefore, a total of 341,199 project ICS have been considered during the current monitoring period.

Besides reducing fuel consumption during the cooking activities and thus reducing greenhouse gas emission and contributing to climate change mitigation in line with the UN's Sustainable Development Goals, the project is foreseen to provide several SDG benefits for the local households of the host country Kenya. As per design certified GS PDD, the emission reduction value for the current monitoring period is estimated as 155,983 tCO₂e whereas during this monitoring period the actual emission reduction is 37,667 tCO₂e which covers 44 days of cookstoves used (13/03/2024 to 25/04/2024).

Technical Description:

The distributed Improved Cookstove: Jikokoa is manufactured by BURN Manufacturing LLC with a life span of 10 years and thermal efficiency of about 44.9%/15/. These improved cookstoves have higher efficiency as compared to baseline and are portable. This was checked and confirmed based on technical specifications/14/ and as per interviews conducted during remote audit/25/.

A total of 341,199 project ICS have been considered for the current monitoring period which are within 10 years of since the time of their distribution/ sale and the last ICS under this project

activity was distributed/ sold on 30/11/2020, which makes the project technology days for all the project ICS to be 44. The verification team has verified the details of these project ICS through the monitoring project database and interviews conducted during remote audit on 27/05/2025/25/.

2. METHODOLOGY

Applus+ Certification approach to the verification is a two-stage process. In the 1st stage, Applus+ Certification completed a strategic review and risk assessment of the project's activities and processes in order to gain a full understanding of:

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

Applus+ Certification based on the risk-based assessment of the parameters and data collection and handling processes for each of those parameters, describes the verification approach and the sampling plan.

In the 2nd stage, Applus+ Certification verified the implementation of the monitoring plan and the data presented in the monitoring report for the period in question. This involved interviewing PD representatives, ICS end users and other stakeholders during the on-site audit (if applicable) and a desk review of the monitoring report.

2.1 Appointment of the assessment team

According to the applicable sectoral scope / technical area and experience in the sectoral or national business environment, Applus+ Certification has composed an assessment team in compliance with the Contract Review and Assessment Team appointment rules in the internal Quality Management System of Applus+ Certification as well as in compliance with the applicable requirements in the Accreditation Standard.

The composition of the Assessment Team has been approved by Applus+ Certification during the Contract Review process ensuring that the required skills and capabilities are covered.

The qualification levels for Assessment Team members that are assigned by aforementioned appointment rules are as presented below:

- Lead Auditor (LA).
- Auditor (A).
- Technical Expert (TE).
- Technical Reviewer (TR).
- Any of the above mentioned roles in training (iT, e.g. AiT for auditor in training).

The Sectoral Scope / Technical Area required knowledge linked to the applied methodology(ies) is covered by the Assessment Team as shown below.

Name	Role	SS Coverage	TA Coverage	Financial aspect	Host country experience
Ms. Arohi Jain	LA/TE	Yes	Yes	NA	Yes
Ms. Hannah Kitundu	Local Support (Kenya)	NA	NA	NA	Yes
Mr. Simon Shen	TR	Yes	Yes	NA	NA

The complete list of CVs is included as Appendix 2 of this report.

2.2 Document review

The monitoring report was submitted to VVB before the verification activity was started. The aim of MR assessment during the desk review was to:

- Verify the completeness of the data and the information presented in the MR;
- Check the compliance of the MR with respect to the monitoring plan depicted in the GS PDD and verify that the applied methodology was carried out. Particular attention to the frequency of measurements, usage survey, and the quality assurance and quality control procedures of the power plant was checked by the assessment team.
- Evaluate the data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.
- Please check section 4 of this report for detail of the documents checked.

2.3 On site assessment and follow up interviews

As a part of the verification, the remote audit has been performed by the assessment team as per "Site visit and on-site audit requirements and procedures", version 2.0/7/.

Details of interviewees, topics covered and additional information presented below:

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Gitau	Ann	Project ICS users	27/05/2025	Baseline technology, Project	Ms. Arohi Jain, Ms. Hannah
2.	Maina	Linet				

3.	Njeru	Esther	(Habit survey) Project ICS users (Habit survey)	27/05/2025	technology usage, no. of ICS distributed per household, transfer of carbon rights, grievance mechanism, mode of distribution, fuel used, employment opportunities, standard of livings, quality check, smoke reduction, employment, alternative stoves, reduction in fuel consumption, time spent on cooking and fuel collection, SDGs, money spent on purchasing felwood, etc.	Kitundu (local support)
4.	Mutinda	Esther				
5.	Odoyo Amata	Caleb				
6.	Kalekye	Felistus				
7.	Kobia	Penina				
8.	Muthoni	Mary				
9.	Kamau	Racheal				
10.	Waruinu	Jane				
11.	Mutisya	Josphine				
12.	Maina	Joyce	Project ICS users (Project KPT survey)	27/05/2025		Ms. Arohi Jain, Ms. Hannah Kitundu (local support)
13.	Kwamboka Marube	Hyline				
14.	Okoth	Auma				
15.	Kamau	Peter				
16.	Kerubo	Grace				
17.	Kithungi	Kagira				
18.	Andiazi	Tabitha				
19.	Wanjiru	Sarah				
20.	Mwathathi	Susan				
21.	Mboti	Catherine				
22.	Kemweno	Yunita				
23.	Gakii	Sally	Senior Carbon Technical Officer (BURN)	27/05/2025	Monitoring report preparation, emission reduction calculations, surveys conducted, monitoring plan	Ms. Arohi Jain, Ms. Hannah Kitundu (local support)
24.	Garg	Vinit	Senior Carbon Technical Expert (BURN)			

25.	Njamiu	Valentine	Senior Project Manager- Carbon Operations (BURN)		SDGs, trainings for conducting monitoring surveys, data collection, resolving of complains received etc.	
26.	Ochoi	Jilian	Project Manager- Carbon Operations (BURN)	27/05/2025		
27.	Mohan	Jitender	Senior Carbon Technical Officer (BURN)			
28.	Sande	Evans	Project Manager- Carbon Operations (BURN)			
29.	Oyiera	Daisy	Aftersales and Carbon Support Coordinator (BURN)			
30.	Kithome	Felistus	Project Manager- Carbon Operations (BURN)			
31.	Kiprotich	Edwin	Business Intelligence Data Analyst			
32.	Syombua	Esther	Customer Care Representative (BURN)			
33.	Mwende	Esther	Junior Carbon Technical Officer (BURN)			

The objective of the remote audit assessment is to:

- Confirm the implementation and operation of the project;

- Review the data flow for generating, aggregating and reporting the monitoring parameters;
- Confirm the correct implementation of procedures for operations and data collection;
- Cross-check the information provided in the MR documentation with other sources;
- Check the monitoring equipment against the requirements of the GS VPA-DD and the approved methodology, including sampling, survey etc;
- Review the calculations and assumptions used to obtain the GHG data and ER;
- Identify if the quality control and quality assurance procedures are in place to prevent or correct errors or omissions in the reported parameters.
- Confirm the SDG goals/ Sustainable monitoring parameter as per the GS PDD
- To understand grievance (if any) from the villagers during the monitoring period.
- To understand proportion of time spent on unpaid domestic and care work, by gender, age and location through hours per household saved per day in firewood collection

VVB during interviews noted stakeholders have positive view toward ICS in terms of less money spent on purchasing fuel (SDG 1), less smoke during usage as compared to baseline stove (SDG 3), reduced cooking time (SDG 5) and 55.74% usage of distributed/ sold ICS (SDG 7), employment opportunities (SDG 8), skill development training (SDG 4), reduction in consumption of non-renewable biomass due to continued usage of project ICS (SDG 15).

Additionally, as formally declared within the Local Stakeholder Consultation, a grievance redressal mechanism is constituted into the system in order to ensure continuous quality service delivery to end users. VVB during the interviews with the end users have confirmed that they are aware of the existing grievance redressal mechanism/23/.

2.4 Quality of evidences

The VVB verification team has checked and assured that sufficient evidence covering the full verification period in the required frequency is available to verify the values stated in the final MR/1/. Specific cross-checks have been done in cases that further sources were available/4//10//13//32//34//41/. The monitoring report's values were checked by the assessment team against the raw data submitted/2//10//18//19//31/. The data collection system meets the requirements of the monitoring plan as per the methodology/8/.

2.5 Reporting of findings

As an outcome of the verification process, the assessment team can raise different types of findings.

Where a non-conformance arises the assessment team shall raise a Corrective Action Request (CAR). A CAR is issued, where:

- Non-compliance with the monitoring plan or methodology are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;
- Modifications to the implementation, operation and monitoring of the GS project activity has not been sufficiently documented by the project participants;

- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
- Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

The assessment team shall raise a Clarification Request (CL) if information is insufficient or not clear enough to determine whether the applicable CDM/GS requirements have been met.

All CARs and CRs raised during verification shall be resolved prior to submitting a request for issuance.

Forward Action Requests (FARs) may be raised during verification for actions where the monitoring and reporting require attention and/or adjustment for the next verification period.

Please refer Appendix 1 of this report. Total Numbers of Findings: CAR: 02, CL: 02, FARs: 00.

2.6 Internal Quality Control

As a final step of verification, the final documentation including the verification report has to undergo an internal quality control by the Technical Reviewer. Each report has to be finally approved either by the VVB's Technical Manager or the Deputy. This approval process also includes another quality assurance check in terms of Administrative Review. In case one of these two persons is part of the assessment team, the final approval can only be given by the person who is not a part of the assessment team. If the documents have been satisfactorily approved, the Request for Issuance is submitted to the GS Registry along with the relevant documents by PP based on the finalized documents.

3. VERIFICATION FINDINGS

In the following sections, the results of the verification are stated. The verification results related to the project performance as documented and described in the approved GS PDD (dated 09/06/2023, version 4.8)/3/ and Monitoring Report (version 1.3 dated 10/09/2025)/1/. The verification findings for each verification subject are presented below.

3.1 FARs from Validation / Previous Verification

There are no pending FARs from the validation and previous verifications. A brief description of the 01 FAR raised during the 3rd monitoring period (01/06/2022 to 31/03/2022) and resolved during the 4th monitoring period (01/04/2022 to 13/03/2023) of second crediting period is as follows:

FAR 01 raised during the MP3 of 2nd CP: The project activity should undergo a design change before the next verification for the revision of monitoring plan for the parameter $P_{b,y}$ (baseline charcoal consumption). The monitoring plan should be changed from ex- post to ex- ante).

The above FAR was resolved during the subsequent verification of the fourth monitoring period of the second crediting period as verified from the verification report of the fourth monitoring period/34/ and approved design change form dated 28/06/2023/9/ by the verification team.

3.2 Project Implementation in accordance with the registered Project Design Document

The project activity is fully implemented according to the description presented in the registered GS PDD/3/. The assessment team confirms, through a remote audit that all physical features of the proposed project activity including distribution, data collecting system have been implemented in accordance with the design certified PDD/3/. The verification team through the interviews of the project beneficiaries /25/ confirmed that before the implementation of the project, they were using the traditional woody biomass stoves, 3- stone fire stoves and traditional charcoal stoves.

The project activity ICS were in normal operation and working during the monitoring period and the same has been confirmed during the remote audit. No unusual activities observed during the monitoring period.

Project Participant(s)	ECOIA Climate Capital
Title of PA	BURN Stoves Project in Kenya
GS Registration No. of PA	5642
GS Version applied	The project has been submitted to GS4GG as per the guidelines of Gold Standard for Global Goals "Principles & Requirements" Version 2.1. The current verification of the project activity has followed GS4GG version of the Gold Standard.
Baseline and monitoring methodology	Technologies and practices to displace decentralized thermal energy consumption (TPDDTEC), version 3.1
Project type	The project aims in reducing fuel consumption during the cooking activities and thus reducing greenhouse gas emission and contributing to climate change mitigation in line with the UN's Sustainable Development Goals, the project is foreseen to provide several SDG benefits for the households in Kenya.
Project scale	Large
Location of the project activity	Host Country: Kenya Geocoordinates: 0°10'36.73" N, 37°54'29.98" E]
Project's crediting period	26/04/2017 to 25/04/2024 (Both dates inclusive) (2 nd Crediting Period)
Total duration of the project	7 years (Renewable crediting period)

Period verified in this verification	13/03/2024 to 25/04/2024 (Inclusive of both days)
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Based on the interviews with PD representative and local team, the verification team was able to confirm that the project implementation is in accordance with the project description contained in the design certified GS PDD.

Project equipment and the technology i. e., Improved cookstove (ICS) are operational and have same technical specifications as mentioned in the design certified GS PDD. The lifetime of the project ICS Jikokoa was further confirmed based on copy of technical specifications and lifetime test reports submitted/14//17//16/ and found to be 10 years i. e., it covers the current monitoring period. This is 6th verification period of the second crediting period, and no new ICS were distributed during the current monitoring period. The VVB team noted that for the current monitoring period, all stoves are functioning properly and no complaints were received during the current monitoring period. The grievance registered confirmed the same.

The technical details of the project activity as confirmed during the remote interview in section 1.3 above.

There is no event or situation including emergency situations occurred during this monitoring period which has impacted the applicability of methodology.

The VVB team has checked the project database/11/ thoroughly for any duplicity of records, proper end-user names, unique geographical co-ordinates and ICS IDs and noted that no duplication was observed.

Assessment of actual emission reductions with the estimate emission reductions in PDD:

Estimated Emission Reduction as per GS PDD for the monitoring period	155,983 tCO ₂ e
Actual Emission Reduction for the monitoring period (44 days)	37,667 tCO ₂ e
Is any increase of VERs occurred?	No
Reason for increase of VERs	Not Applicable

In summary, there is a significant difference between the estimated values in the design certified GS PDD/3/ and the actual values achieved during this monitoring period which are on lower side and hence accepted.

The verification team considers the project and monitoring description of the project contained in the Monitoring report to be complete and accurate. The Monitoring report complies with the relevant methodology, tools, forms and guidance which are in line with that available in the documents (including PDD) with Gold Standard.

The verification team has checked the domestic and international registries (CDM/ VCS/GCC and other) to confirm the current project is not registered with any of these registries.

The VVB team has checked and confirmed that there is no risk of double counting concerning national climate policies for the project, also with reference to the existing NDC target of the host country (Kenya).

VVB has checked and confirmed that the project activity is not registered with any other compliance or voluntary market-based mechanism.

The PD has confirmed during the interviews that for the current monitoring period, they will not claim VERs for the same vintage in another standard other than GS.

VVB has checked and confirmed that there were no legal disputes which has arisen with the project during the monitoring period as no evidence about the same were found during desk review and remote interviews.

Opinion:

- a) In opinion of the assessment team the implementation and operation of the project activity is in compliance with the description in the design certified GS PDD.
- b) The actual emission reductions for the current monitoring period are 37,667 tCO₂e which are lower than the estimated ERs (155,983 tCO₂e) for the comparable period.
- c) The Monitoring report for the current monitoring period has been prepared using the latest available applicable template and is in accordance with the GS4GG requirements/5//6//8/ and procedures/26//27//28/.

3.3 Compliance of the Monitoring Plan with the Monitoring Methodology

The verification team is able to confirm that the monitoring plan contained in the design certified GS PDD/3/ is in accordance with the approved methodology/8/ applied by the project activity.

The monitoring plan and the monitoring system implemented are in compliance to the applied monitoring methodology and the other requirements of the applied methodology are also met. Furthermore, it can be confirmed that the ex-ante value for CO₂ emission factor (EF) sourced from IPCC default value/32/ in the GS PDD/3/ has been correctly applied in the calculation of emission reductions. The verification team confirms that the monitoring plan of the GS project activity complied with the applied methodology.

During the verification all relevant monitoring parameters (as listed in the PDD) have been verified with regard to the appropriateness of the applied measurement/determination method, the correctness of the values applied for ER calculation, the accuracy, and applied QA/QC measures.

The Assessment team is able to confirm that the monitoring plan contained in the GS4GG PDD, Version 4.8/3/ is in accordance with the approved methodology applied by the project activity "Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 3.1".

Verification Opinion:

The monitoring plan mentioned in the GS PDD is in line with the applied methodology i.e. — Technologies and practices to displace decentralized thermal energy consumption (TPDDTEC), version 3.1./8/ The monitoring mechanism is in line with the methodology and is effective and reliable.

3.4 Completeness of Monitoring

The monitoring has been carried out in accordance with the monitoring plan stated in the design certified PDD/3/. During the course of verification, all relevant monitoring parameters have been verified with regard to the appropriateness of the applied measurement / determination method and applied QA/QC procedures. It is confirmed that the monitoring parameters have been measured / determined without material misstatements. The verification team applied a materiality threshold of 0.5% since the annual average emission reductions achieved by the project activity are more than 500,000 tCO₂e per year with respect to omission or misstatements concerning reported quantities as per para 9.6.3 (b) of Validation and Verification Standard v2.0/5/. The level of assurance of the verification report falls under reasonable assurance engagements.

The verification team reviewed the actual monitoring for the project implementation during on the remote audit and compared it against the requirements of the monitoring plan in the design certified PDD and found it appropriate.

Post- Design Certification changes

- i. Temporary deviations from the approved Monitoring & Reporting Plan, methodology or standardized baseline: Not applicable
- ii. Corrections: Not applicable
- iii. Changes to start date of crediting period: Not applicable
- iv. Permanent changes from the Design Certified monitoring plan, applied methodology or applied standardized baseline:

The verification team assessed the design change approval form dated 28/06/2023/9/ along with the latest available PDD/3/ and found that following permanent changes have approved related to SDGs and baseline scenario:

- Four new SDGs namely, SDG 4, SDG 5, SDG 7 and SDG 15 have been incorporated to increase the sustainable contributions by the project activity to a total of 08 SDGs.
- The baseline fuel consumption parameter $P_{b,y}$ is now changed from ex- post parameter to ex- ante parameter based on the FAR raised during MP3 of second crediting period.
- The value of the non-CO₂ emission factor has been updated to 9.46 tCO₂/TJ from 0 based on IPCC guidelines/32/.
- The value for NCV (net calorific value) in the PDD is adjusted to 0.015 TJ/ton for wood fuel. After further changes, value of this parameter has been changed to 0.0156 TJ/ton for emission reduction calculations with reference to the Clarification request CL_171 dated 08/06/2023/35/ issued by Gold Standards.

Impact of Design Change

- **Additionality:** The VVB team assessed that these changes have no impact on the additionality of the project activity and the project remains additional in accordance with para 1.1.3 of Annex B in the 'Community Services Activity Requirements' version 1.2 dated 23/10/2019/6/.
- **Applicability of methodology and other methodological regulatory documents with which the project activity has been certified:** There is no impact on any applicability of the methodology or other methodological regulatory document.
- **Compliance with the monitoring plan and applied methodology:** The approved changes as per the design change form impact the monitoring plan as mentioned in the updated PDD/3/. However, the VVB team confirms that these changes are in line with the applied methodology TPDDTEC v3.1. The parameter $P_{b,y}$ is now a ex- ante parameter based on FAR raised during MP3 of second crediting period and resolved during MP4/34/. Additionally, 04 more SDGs have also been incorporated namely, SDG 4, SDG 5, SDG 7 and SDG 15. The non-CO2 emission factor and the NCV (Net Calorific Value) have also been updated which are consistent with the IPCC default values provided in the applied methodology.
- **Level of accuracy and completeness in the monitoring of the project activity compared with the requirements contained in the registered monitoring plan:** No changes to the level of accuracy or completeness.
- **Project Scale (note suppressed demand rules for large scale):** No change and the project remains large scale
- **Stakeholder feedback on design change:** Not applicable, since the changes are on the ex-post monitored parameters.
- **Sustainable Development Assessment:** PD has incorporated 04 new SDGs namely, SDG 4, SDG 5, SDG 7 and SDG 15 which makes the total sustainable contribution by the project activity to be 08 SDGs.
- **Safeguarding Assessment:** Not applicable, since no change to safeguarding assessment.
- **Legislation:** Not applicable, since there is no change to compliance with legislation.

v. Changes to project design of approved project: Not applicable

The verification team assessed the monitoring techniques and each monitoring value in the monitoring report; and provided a short summary on the verification of every parameter listed in the monitoring plan and used for calculation of emission reductions.

a. Data and parameters fixed ex ante or at renewable of crediting period

$EF_{b,CO2}$, $EF_{p,CO2}$, $EF_{b,nonCO2}$, $EF_{p,nonCO2}$, NCV_b , NCV_p , $P_{b,y}$ and $f_{NRBi,y}$ were mentioned as ex-ante fixed parameters.

The values for these parameters considered are as per the design certified PDD and were found correct. Assessment team checked the values, source of data, choice of data, purpose of the data mentioned in the MR against the design certified GS PDD and confirms that the similar approach was considered for the current monitoring period also.

The relevant Emission factor values used for emission reduction calculations are as below. Also, as GS4GG “Principles and Requirements” version 1.2/5/ the ex-ante fixed parameters are connected to relevant SDG indicator which is acceptable to the assessment team.

Relevant SDG Indicator	SDG 13: Climate Action
Data/parameter:	$P_{b,y}$
Unit	t/household/year
Description	Quantity of charcoal (in firewood equivalent terms) that is consumed in baseline scenario b during year y
Source of data checked by the assessment team	Baseline survey
Value(s) of monitored parameter	0.5962
Means of Verification	The value of this parameter is considered as per the registered GS PDD. Hence was acceptable.
Conclusion	The value mentioned in the Monitoring Report and Emission Reduction Spreadsheet is consistent with registered GS PDD.

Relevant SDG Indicator	SDG 13: Climate Action
Data/parameter:	EF_{b,CO_2}
Unit	tCO ₂ /TJ
Description	CO ₂ emission factor arising from use of fuels in baseline scenario
Source of data checked by the assessment team	2006 IPCC Guidelines for National Greenhouse Gas Inventories, volume 2, chapter 2 (Table 2.5)/32/
Value(s) of monitored parameter	Fuelwood: 112
Means of Verification	The value is fixed and is derived from the default value given in 2006 IPCC guidelines volume 2 chapter 2 (Table 2.5)/32/. This value is used towards determination of baseline emissions.
Conclusion	The value mentioned in the Monitoring Report and Emission Reduction Spreadsheet are consistent with design certified PDD/3/.

Relevant SDG Indicator	SDG 13: Climate Action
Data/parameter:	EF_{p,CO_2}
Unit	tCO ₂ /TJ
Description	CO ₂ emission factor arising from use of fuels in project scenario

Source of data checked by the assessment team	IPCC default value as per 2006 IPCC Guidelines for National Greenhouse Gas Inventories, volume 2, chapter 2 (Table 2.5)/32/
Value(s) of monitored parameter	Fuelwood: 112
Means of Verification	The value is fixed and is derived from the default value given in 2006 IPCC guidelines volume 2 chapter 2 (Table 2.5)/32/ This value is used towards determination of project emissions.
Conclusion	The value mentioned in the Monitoring Report and Emission Reduction Spreadsheet are consistent with the approach given in design certified PDD. Hence the applied value is correct and justified.

Relevant SDG Indicator	SDG 13: Climate Action
Data/parameter:	$EF_{b,non-CO2}$
Unit	tCO ₂ e/TJ
Description	Non - CO ₂ emission factor arising from use of fuelwood in baseline scenario
Source of data checked by the assessment team	IPCC defaults in conjunction with credible published literature
Value(s) of monitored parameter	Fuelwood: 9.46
Means of Verification	The value is fixed and is derived from the default value given in 2006 IPCC guidelines volume 2 chapter 2 (Table 2.5). This value is used for the determination of baseline emissions.
Conclusion	The value mentioned in the Monitoring Report and Emission Reduction Spreadsheet are consistent with design certified PDD.

Relevant SDG Indicator	SDG 13: Climate Action
Data/parameter:	$EF_{p,non-CO2}$
Unit	tCO ₂ e/TJ
Description	Non- CO ₂ emission factor arising from use of fuelwood in project scenario
Source of data checked by the assessment team	IPCC defaults in conjunction with credible published literature
Value(s) of monitored parameter	9.46
Means of Verification	The value is fixed and is derived from the default value given in 2006 IPCC guidelines volume 2 chapter 2 (Table 2.5). This value is used for the determination of project emissions.
Conclusion	The value mentioned in the Monitoring Report and Emission Reduction Spreadsheet are consistent with design certified PDD.

Relevant SDG Indicator	SDG 13: Climate Action
Data/parameter:	NCV _b
Unit	TJ/ton of fuel wood
Description	Net calorific value of the wood fuel in baseline
Source of data checked by the assessment team	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 1: Introduction, Table 1.2 - Default net calorific values
Value(s) of monitored parameter	0.0156
Means of Verification	The value is fixed and is derived from the default value given in 2006 IPCC guidelines chapter 1 Table 1.2/32/. This value is used towards determination of baseline emissions. In addition to it, a wood to charcoal conversion factor is also used as the project ICS deploys charcoal as fuel.
Conclusion	The value mentioned in the Monitoring Report and Emission Reduction Spreadsheet are consistent with design certified PDD.

Relevant SDG Indicator	SDG 13: Climate Action
Data/parameter:	NCV _p
Unit	TJ/ton of fuel wood
Description	Net calorific value of the fuel wood used in the project scenario
Source of data checked by the assessment team	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 1: Introduction, Table 1.2 - Default net calorific values
Value(s) of monitored parameter	0.0156
Means of Verification	The value is fixed and is derived from the default value given in 2006 IPCC guidelines chapter 1 Table 1.2/32/. This value is used towards determination of project emissions. In addition to it, a wood to charcoal conversion factor with a value 6 is also used since the project ICS deploys charcoal as fuel.
Conclusion	The value mentioned in the Monitoring Report and Emission Reduction Spreadsheet are consistent with design certified PDD.

Relevant SDG Indicator	SDG 13: Climate Action
Data/parameter:	f _{NRBI,y}
Unit	Fraction
Description	Non- renewability status of woody biomass fuel in scenario I during year y
Source of data checked by the assessment team	From Seed Ecology and Cape Climate Collective Study dated 27/03/2024/13/ based on CDM Tool 30 - Calculation of the fraction of non-renewable biomass, version 4.0/42/
Value(s) of monitored parameter	Fuelwood: 0.8383

Cross Checks	The value of fNRB is calculated using the Tool 30: Calculation of the fraction of non-renewable biomass of CDM, version 4.0/42//13/. This value is fixed ex-ante and is line with design certified PDD/3/.
Conclusion	The value of this parameter considered as per design certified GS PDD. Hence was acceptable.

b. Data and parameters monitored

Data and parameters monitored

Relevant SDG Indicator	SDG 13: Climate Action
Data/parameter:	P_{p,y}
Unit	t/household/year
Description	Quantity of charcoal (in firewood terms) that is consumed in project scenario p during year y
Source of data checked by the assessment team	Project KPT surveys/33//10/
Value(s) of monitored parameter	0.356
Means of Verification	The value of this parameter considered as per the project KPT conducted by the PD during the current monitoring period, as stated in the design certified PDD. As per the monitoring frequency this parameter needs to be updated every 2 years and hence the value considered found appropriate as the survey was conducted from 02/04/2024 to 14/06/2024 for the current monitoring period/10/ which was verified by the assessment team during the remote audit interviews/25/. A total of 70 weighing scales (Weighing Scale hook type with Temp 50kg Weighing scale) for KPT on 02/02/2024 and 70 Wood (BSDE EMT01 Digital LCD Portable 0~99.9% wood moisture meters on 01/03/2024 purchased from Jumia Pay, Nairobi, Kenya were used for the survey which were newly purchased as verified by the assessment team from the purchase invoices/22/.
Conclusion	The verification team observed that the project KPT was carried out under the 'Project Multifuel KPT' condition with a minimum sample size of 30 and 90/30 confidence/precision was applied which is in accordance with the applied methodology. The project KPT was conducted following KPT protocol by Clean Cooking Alliance/33/. The value mentioned in the Monitoring Report/1/ and Emission Reduction Spreadsheet/2/ are consistent with the approach given in design certified PDD/3/. Hence, the applied value is correct and justified.

Relevant SDG Indicator	SDG 13: Climate Action
Data/parameter:	U_{p,y}

Unit	Percentage														
Description	Usage rate in project scenario p during year y														
Source of data checked by the assessment team	Annual usage survey														
Value(s) of monitored parameter	Weighted usage average of 55.74%														
Means of Verification	The value of this parameter is calculated from the usage surveys conducted by the PD for the current monitoring period on 306 samples from 12/03/2024 to 13/06/2024 as verified by the assessment team from the habit survey results/31/ and remote audit interviews/25/. The value obtained during this survey as verified from the monitoring survey results shared by the PP are as follows: <table border="1"> <thead> <tr> <th>Usage Rate</th><th>55.74% (weighted average)</th></tr> </thead> <tbody> <tr> <td>Age group 3-4</td><td>86.67%</td></tr> <tr> <td>Age group 4-5</td><td>76.47%</td></tr> <tr> <td>Age group 5-6</td><td>72.73%</td></tr> <tr> <td>Age group 6-7</td><td>61.84%</td></tr> <tr> <td>Age group 7-8</td><td>46.77%</td></tr> <tr> <td>Age group 8-9</td><td>20.00%</td></tr> </tbody> </table> The PD has selected Mandatory and Good Practice Level for the current monitoring period according to para 2.1 of the Requirements and guidelines: Usage rate monitoring document⁶, the weighted average value considered for this parameter is 55.74% hence was acceptable. The PD has monitored the value of this parameter using sampling surveys. The `sampling plan has been applied to the project ICS with age group less than or equal to 10 years in project distribution database/11/ of ECOA Climate Capital. A minimum sample size of 100 samples is required to monitor the parameter. The PD conducted survey on 306 samples which is acceptable to the verification team.	Usage Rate	55.74% (weighted average)	Age group 3-4	86.67%	Age group 4-5	76.47%	Age group 5-6	72.73%	Age group 6-7	61.84%	Age group 7-8	46.77%	Age group 8-9	20.00%
Usage Rate	55.74% (weighted average)														
Age group 3-4	86.67%														
Age group 4-5	76.47%														
Age group 5-6	72.73%														
Age group 6-7	61.84%														
Age group 7-8	46.77%														
Age group 8-9	20.00%														
Conclusion	The verification team during the remote audit interviews with the project beneficiaries and the interviews with PD representatives confirmed that the usage rate of the stoves has been monitored in accordance with para 2.2.3 of the Usage Rate Monitoring Publication v2.0⁷ dated 27/10/2020. The value mentioned in the Monitoring Report and Emission Reduction Spreadsheet are consistent with the approach given in design certified PDD. Hence the applied value is correct and justified.														

Relevant SDG Indicator	SDG 13: Climate Action
Data/parameter:	N_{p,y}
Unit	Number of project stoves credited
Description	Cookstoves in project database for project scenario p through year y

⁶ https://globalgoals.goldstandard.org/standards/407G_V2.0_EE_ICS_TPDDTEC_Usage-guidelines.pdf

Source of data checked by the assessment team	Distribution database/11/
Value(s) of monitored parameter	190,190
Means of Verification	The VVB team assessed the project distribution database/11/ and found that the total number of ICS with age within 10 years till the end of the current monitoring period is 190,190. It was also found that no new ICS have been distributed/sold during the current monitoring period. The PD keeps records of all distributed ICS in an electronic database in which the data is recorded using the 'Echo Mobile' software. The verification team verified the same through the screenshots of the software shared by the PD. The dates of distribution of ICS were further confirmed from the end-users during the remote audit interviews/25/. The end-users also confirmed that they received the ICS for subsidised cost from the PD. The VVB team during remote audit through interviews/25/ and the packaging of the ICS/30/ have also confirmed that all households are aware that the beneficiaries have waived off their carbon rights at the time of ICS receipt from PD.
Conclusion	The number of ICS within the age group have been reported correctly by the PD and were found operational during remote audit. Further, the sticker on the packaging of the ICS and interviews conducted confirmed that transfer of carbon rights was informed to the ICS users at time of purchase of project ICS.

Relevant SDG Indicator	SDG 13: Climate Action
Data/parameter:	LE_{p,y}
Unit	tCO ₂ e per year
Description	Leakage in project scenario p during year y
Source of data checked by the assessment team	Baseline and monitoring surveys
Value(s) of monitored parameter	0.05
Means of Verification	As per design certified PDD, PD must conduct leakage assessment every 02 years. The leakage survey results were submitted to the assessment team which confirmed that there was no leakage which was further confirmed during the remote audit interviews/25/. However, as a conservative approach the PD has applied the default value of the parameter from the applied methodology. The approach for the leakage parameter value has been assessed by the verification team and found to be OK and thus acceptable.
Conclusion	The leakage survey results and interviews conducted confirmed that all the distributed ICSs are in use and there is no leakage. As a conservative approach, the default value from applied methodology has been used. Therefore, the approach for the

	leakage parameter value stands acceptable to the verification team.
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Relevant SDG Indicator	SDG 1
Data/parameter:	Equivalent monetary savings
Unit	Monetary savings related to the purchase of charcoal
Description	Financial impact
Source of data checked by the assessment team	Usage/ monitoring survey records
Value(s) of monitored parameter	USD 95.11
Means of Verification	The value of this parameter is determined through the usage/ monitoring survey of the PD which states that USD 95.11 are saved by each household in purchase of charcoal per day. The verification team confirmed these results from the households during the remote audit interviews and found them to be in line with the monitoring survey results shared by the PD. The parameter is measured qualitatively and not quantitatively.
Conclusion	The values reported for the monetary savings related to purchase of charcoal in the monitoring database, Monitoring Report and Emission Reduction Spreadsheet are consistent with the approach given in design certified PDD/3/ and submitted copy of monitoring survey/31/. Hence the applied value is correct and justified.

Relevant SDG Indicator	SDG 3
Data/parameter:	Perceived air quality
Unit	-
Description	Smoke level, itchy eyes and breathing problems
Source of data checked by the assessment team	Usage/ Monitoring survey
Value(s) of monitored parameter	99.05%
Means of Verification	The value of this parameter is determined through the monitoring survey (usage survey) conducted by the field staff, during which end-users were directly asked about their perceived reduction in smoke since it is a qualitative parameter. The field personnels recorded that all the 306 samples responded positively that the smoke from the project ICS is negligible to minor smoke in some cases due to age of the project ICS as verified by the assessment team from the usage survey results/2/ in the ER sheet. The verification team further cross-checked during remote audit interviews/25/ with the end users who confirmed that they have noted smoke reduction and less incidence of coughing, respiratory illness and itchy eyes. The VVB team further verified

	the monitoring survey results from the end-user during the field visit.
Conclusion	The value mentioned in the Monitoring Report/1/ and Emission Reduction Spreadsheet/2/ are consistent with the approach given in design certified PDD/3/ and submitted copy of monitoring survey. Hence the applied value is correct and justified.

Relevant SDG Indicator	SDG 4
Data/parameter:	Number of people trained/ year
Unit	Number
Description	Number of people who participated in project trainings
Source of data checked by the assessment team	Training records and participant list
Value(s) of monitored parameter	77
Means of Verification	The value of this parameter represents the number of field staff members trained to conduct the usage surveys and project KPT surveys for the current monitoring period. The same was cross checked by the assessment team through the training records and participant list shared by the PD and also confirmed through interviews during the remote audit.
Conclusion	The value mentioned in the Monitoring Report and Emission Reduction Spreadsheet are consistent with the approach given in design certified PDD. Hence the applied value is correct and justified.

Relevant SDG Indicator	SDG 5
Data/parameter:	Average number of minutes saved while cooking in project scenario (user estimate of comparative cooking time in baseline to project scenario)
Unit	Minutes per day
Description	Number of minutes spent on average for cooking in the project scenario
Source of data checked by the assessment team	Project monitoring survey
Value(s) of monitored parameter	37
Means of Verification	The value of this parameter is determined through the monitoring survey conducted by the field staff, during which end-users were asked about the reduction in time for cooking on project ICS in comparison to the baseline scenario. The same was cross checked by the assessment team during the remote audit interviews/25/ with the end users who confirmed that there is

	time saving in cooking using project ICS Jikokoa as compared to the traditional charcoal stoves.
Conclusion	The value mentioned in the Monitoring Report and Emission Reduction Spreadsheet are consistent with the approach given in design certified PDD. Hence the applied value is correct and justified.

Relevant SDG Indicator	SDG 7
Data/parameter:	Number of sold/distributed ICS in use
Unit	Number of units in use
Description	Number of sold/ distributed ICS in use
Source of data checked by the assessment team	Project database & supporting files
Value(s) of monitored parameter	190,190. The usage rate is 55.7%
Means of Verification	The value of this parameter has been cross checked with usage survey/31/ and project distribution database /11/. The value represents the number of project ICS within the 10 years of age since their distribution and are currently in use as confirmed from the end-users during monitoring surveys whether they are using the project ICS or not. The end-users selected through the acceptance sampling applied by the verification team on the usage survey conducted by the PD were also checked for the details mentioned in the project database. The VVB team found the information recorded in the project database and VVB survey to be consistent.
Conclusion	The value mentioned in the Monitoring Report and Emission Reduction Spreadsheet are consistent with the approach given in design certified PDD. Hence the applied value is correct and justified.

Relevant SDG Indicator	SDG 8
Data/parameter:	Average hourly earnings of female and male employees, by occupation, age and persons with disabilities
Unit	Numbers
Description	Number of people directly employed by the project
Source of data checked by the assessment team	Project records
Value(s) of monitored parameter	68
Means of Verification	The value of this parameter has been cross checked with employment records/12/ submitted by the PD for the current monitoring period which included 68 contractual employees out of 39 are males and 29 are females. The assessment team confirmed the total number of employed personnels from the employment contracts/12/.

	Based on the documentary evidence submitted by the PD, the VVB team finds this value to be acceptable.
Conclusion	The value mentioned in the Monitoring Report/1/ and Emission Reduction Spreadsheet/2/ are consistent with the approach given in design certified PDD/3/. Hence the applied value is correct and justified.

Relevant SDG Indicator	SDG 13
Data/parameter:	Number of people/households with access to the energy efficient cook stoves and the usage rates of efficient cook stoves.
Unit	Number of stove users adjusted for usage rate
Description	Number of stove users adjusted for usage rate
Source of data checked by the assessment team	Database and usage survey records
Value(s) of monitored parameter	341,199
Means of Verification	The value of this parameter has been calculated by adjusting the total number of active households who have access to project ICS within the period of monitoring i.e., 341,199 with the weighted average usage rate 55.7% as determined during the usage surveys conducted for this monitoring period. The verification assessed the usage surveys for usage rate calculation and found it to be acceptable. Additionally, the project database has also been assessed by the verification team for any possible duplicacy of records and none was found. During the remote audit, the assessment team confirmed the usage of the project ICS from the sampled households and found the results to be consistent with the PD's monitoring survey results. The monitoring frequency of this parameter is annual as verified by the assessment from the registered PDD. The database details of the end-users selected through the acceptance sampling by the VVB team were also cross-checked during the remote audit interviews and were found to be consistent. Based on the documentary evidence submitted by the PD, the VVB team finds this value to be acceptable.
Conclusion	The value mentioned in the Monitoring Report and Emission Reduction Spreadsheet are consistent with the approach given in design certified PDD. Hence the applied value is correct and justified.

Relevant SDG Indicator	SDG 15
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Data/parameter:	Total amount of non-renewable fuel savings due to displacement or energy efficiency improvements of baseline technology
Unit	Tons
Description	Reduced non-renewable biomass consumption attributed to charcoal savings
Source of data checked by the assessment team	Project database, Monitoring & usage survey
Value(s) of monitored parameter	166,160.12
Means of Verification	The value of this parameter has been calculated as a function of specific fuel savings for an individual technology multiplied by the total number of operational technologies (discounted for usage rate in the monitoring period) and then renewable biomass fraction in the host country Kenya. The baseline fuel consumption value was confirmed from the monitoring report of the previous monitoring period to be 0.5962 ton/hh/year and the project fuel consumption value was verified from the project KPT survey details/10/ to be 0.356 ton/hh/year as shared by the PD. The database details of the end-users selected through the acceptance sampling by the VVB team were also cross-checked during the remote audit interviews and were found to be consistent. Based on the documentary evidence submitted by the PD, the VVB team finds this value to be acceptable.
Conclusion	The value mentioned in the Monitoring Report and Emission Reduction Spreadsheet are consistent with the approach given in design certified PDD. Hence the applied value is correct and justified.

Assessment of monitoring plan:

VVB has checked the monitoring plan mentioned in the submitted MR and noted that it is in line with registered GS PDD. During remote audit, desk review and interviews with PP representatives, the VVB team has confirmed that below mentioned monitoring plan was successfully implemented for the current monitoring period.

A. Total distribution record

PD maintains a project database which maintains the distribution records. The distribution data is captured on 'Echo Mobile' mobile application and is uploaded directly to BURN's electronic database. The mobile application was checked to confirm the same during remote audit and through the screenshot of the application shared by the PD. The VVB team noted that based on this data, the average number of operating days for the project device distributed are calculated. The data which is being recorded during the distribution of the improved cookstove includes the following which was confirmed based on project database and remote audit interviews:

- Unique serial number (USN) of ICS
- Date of shipment to distributor/retailer
- Name of distributor/ retailer

- Quantity of ICS distributed
- Geographic area of distributor/ retailer
- Model type of ICS

B. Monitoring Data Management and Storage

The VVB team has checked the mobile application records and verified project database/11/ to confirm that the results of all Usage surveys and Project KPT surveys/10/ are collected using the mobile applications/31/ from where they are directly uploaded PD's electronic monitoring database.

The remote interviews/25/ confirmed that surveys were administered by trained staff as verified from the training records/20/ by the assessment team. These trained personnel were conversant in the local dialect to ensure that the response collection was consistent and not affected by any regional language barriers. PD had provided field staff with an English and local language version of the questionnaire/31/ to provide the possible standardization of response.

The survey results have provided PD with the following information as evident from the project database and usage surveys and Project KPT surveys records.

- usage of project stoves
- all fuel types used by the household
- kitchen conditions (number of meals cooked, operational status, conditional use of baseline stove inter alia)
- Unique serial number (USN) of ICS;
- Geocoordinates of the household;
- Cooking behavior (number of meals cooked), stove type (number of project stove)
- Usage level in terms of operational status of stove
- Photographs with the primary cook or available household member
- Impact of the use of the improved cookstoves
- Maintenance need of the stove.

C. Periodic Monitoring Task

The remote audit interviews confirmed that following periodic monitoring tasks are conducted by PD's representatives:

- Usage surveys are conducted annually and Project KPT surveys are conducted biennially to determine the usage, emerging trends in demographics, fuel use and sustainability indicators. Based on the submitted survey results, the VVB team confirmed that the usage/ habit survey for current monitoring period was conducted by the trained staff of from 12/03/2024 to 13/06/2024 and the Project KPT surveys were conducted from 02/04/2024 to 14/06/2024.
- Project technology days and the age group of the project ICS is reviewed continuously throughout the project in order to determine the number of crediting stoves and the period for which they should be credited in a given monitoring period. PD has demonstrated the calculation in the ER spreadsheet which was checked and found appropriate.

D. Maintenance Work

The remote interviews, review of project documents confirmed that the ICS have an expected lifetime of 10 years according to manufacturing specifications/14/ and lifetime test report/16/

with a 1-year warranty. In the current monitoring period, no complaints of repair/ replacement were received as verified from the maintenance records shared by the PD. In case of minor damage, the stoves are repaired and if a serious damage to ICS is observed, a replacement is provided to the end user as confirmed from the PD representatives during remote audit interviews. The VVB team confirmed that the field staff is trained to perform on-site maintenance of the cookstoves, addressing minor issues to maintain their functionality. The maintenance team checks the households using project ICS to retrain them for cooking practices and observe if any repair work is needed on a regular basis which is found appropriate.

The end users have contact details of the field staff and in case of any issues, they can register their grievance (maintenance complaints) with the same. The interviewed end users have confirmed the same.

All data recorded will be stored by the project proponent for a minimum of two years after the end of the crediting period or the last issuance of VERs, whichever occurs later.

The verification team confirms:

- a) The monitoring plan implemented is in line with monitoring plan included in approved GS4GG PDD.
- b) The monitoring complies with the requirement of the applied methodology.
- c) The values included in the monitoring report and corresponding emission reduction sheets are verified, cross checked and included under each monitoring parameter, wherever appropriate
- d) The findings relevant to each parameter, wherever appropriate are discussed in detail in Appendix 1 of this report.

In summary, the verification team confirms that all the ex-post parameters are monitored in accordance with the approved monitoring plan and applied methodology.

c. Implementation of sampling plan

The PD has applied the sampling approach in accordance with the Gold Standard methodology, Technologies and practices to displace Decentralized Thermal Energy Consumption, version 3.1/8/. The PD has performed the simple random sampling procedure which is found to be inline with the applied methodology/8/. The simple random sampling has been applied only to the project ICS from the total project database which fall within 10 years of age since their distribution and have been considered for crediting during this monitoring period of the project activity for determining all the samples monitored using monitoring surveys. The PD has applied the condition of minimum 100 samples with atleast 30 samples of each age group and a confidence/ precision of 90/30 for conducting the monitoring surveys i.e., usage/habit survey and project KPT survey respectively for the current monitoring period.

1. Usage/Habit Survey: This survey was conducted to determine the usage rate, end- user cooking practices, and changes in conditions for the end-user due to the implementation of the project activity. The following SDG 13 parameters were determined through this survey: $U_{p,y}$, $N_{p,y}$, $LE_{p,y}$. A total of 306 samples were selected by the PD for conducting this survey which is in accordance with the applied methodology. The condition for a minimum sample size of 100 with atleast 30 samples from each group in accordance with 'GS Requirements and Guidelines: Usage rate Monitoring' document was found to be met.

2. Project KPT Survey: This survey was conducted to determine the fuel usage from the project households. The KPT performed was found to be inline with the applied methodology/8/ and KPT protocol published on Clean Cooking Alliance website/33/. A total of 60 samples were selected by the PD for conducting this survey after the exclusion of outliers, which is in accordance with the applied methodology. The confidence/precision of 90/30 was found to be met.

VVB's Sampling Approach

The assessment team of Applus+ applied acceptance sampling to PD's sample records using its professional judgment to check the acceptability of the data for each record in the PD's sample records. The VVB has determined acceptance sample size based on the "Table 2. Survey and data collection methods and preference for use" of standard "Sampling and surveys for CDM project activities and programmes of activities" version 09.0/27/.

During the remote audit verification, a random sampling approach has been used by the verification team to verify the reported values for the monitored parameters as listed in the MR which are determined through sample survey by PD.

Referring to para 28 of the CDM sampling standard/27/. *"When the project participants or the coordinating/managing entity have applied a sampling approach, the VVB may applying acceptance sampling as described in the steps indicated in paragraphs 29-38 below as part of validation/ verification activities",*

Hence, for the determination of VVB's acceptance sample size, verification team has selected the following using its professional judgment:

- i. Acceptable quality level (AQL) – 0.5%
- ii. Unacceptable Quality Level (UQL) – 20%
- iii. Producer risk - 10%
- iv. Consumer risk - 10%

The verification team has determined acceptance sample size for all the sample survey parameters based on the "Table 2. Sample size and acceptance number based on AQL, UQL, and producer and consumer risks" of standard "Sampling and surveys for CDM project activities and programmes of activities" version 09.0. From the above factors, the verification team determined the minimum sample size (n) as 11 and acceptance number (c) as 0 for each survey. Therefore, a total of 22 samples (11 for usage/ habit survey and 11 for project KPT survey) were selected by the assessment team for the remote audit. The sample size used to verify the reported values for the monitored parameters which are determined through sample survey by PD. The VVB interviewed the project beneficiaries and filled the VVB survey form to check the acceptability of the data for each record in the PP's sample records. The verification team shared the samples with PD during remote audit.

Using the acceptance sampling approach, verification team checked the PD's samples results (reported in the Monitoring forms) along with the following evidences:

- Onsite inspection/interview
- PP household database
- Database of all project participating households using the various technologies as per the ER sheet
- Thermal efficiency of the stoves from stove supplier/determined from qualified laboratory.

The result of the survey is given below:

Type of Survey	Parameters	VVB Sample size	No of PP's record beyond unacceptable level	Accepted
Usage/Habit Survey	$U_{p,y}$, $N_{p,y}$, $LE_{p,y}$, SDG 1, SDG 3, SDG 5, SDG 7, SDG 13	11	0	11
Project KPT Survey	$P_{p,y}$, SDG 15	11	0	11

Following the requirement of the guidelines "Sampling and surveys for CDM project activities and programmes of activities" version 04.0, the acceptability of data in the random sample chosen from the PD's sample records was determined. Based on the number of records where there was agreement, it was determined that 90% of confidence rule used by the PD's sample records meet the requirements. The acceptability of the data was based on the VVB's professional judgment in line with the Sampling Standard.

PD has followed Level B Good Practice Monitoring Requirements of the GS guideline – "Requirements and Guidelines for carrying out usage surveys for projects implementing improved cooking devices"/26/ which includes:

- Field team training and supervision
- End-user training and follow ups and
- Awareness campaign

The VVB team cross checked and reviewed from the training records and survey results provided by the PD at the time of remote audit and found consistent.

All the data records for the monitoring parameters were in line with the PD's sample records and there were no discrepant records found from the PD's records. Since there were no discrepant records (0), the PD's set of records have been accepted based on the VVB's acceptance sampling. This is in line with the paragraph 33 of standard "Sampling and surveys for CDM project activities and programmes of activities" version 09.0/27/ and hence, found appropriate.

3.5 SDG Outcomes Monitoring

For Contributions to Sustainable Development

The verification team checked the sustainable development indicator parameters during the remote audit interviews. In summary, the verification team of Applus+ Certification is of the opinion that the monitoring regarding to sustainability is in line with requirement of the GS4GG guidelines.

As per the sustainability monitoring plan in the approved GS PDD, the verification team evaluated all sustainable development indicators as followed in the table:

ITEM	SDG Impact	Baseline estimate	Project estimate	Net benefit
SDG 13	Climate Action	129,397 tCO ₂ e	89,744 tCO ₂ e	37,667 tCO ₂ e
SDG 1	End poverty in all its forms everywhere	177.16%	82.05%	95.11%
SDG 3	% HH reported reduction in smoke/ PM emissions while cooking on ICS	0%	99.05%	99.05%
SDG 4	Ensure equal access for all women and men to affordable and quality technical, vocational, and tertiary education, including university	0	77	77
SDG 5	Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household	77	40	37
SDG 7	Ensure access to affordable, reliable, sustainable and modern energy for all	0	190,190	190,190
SDG 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	0	68	68
SDG 15	Promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	412,523.62	246,363.50	166,160.12

Comparison of actual value of outcomes with estimates in approved GS PDD:

Item	Values estimated in ex ante calculation of approved PDD for the current monitoring period	Actual values achieved during this monitoring period
SDG 13	155,983 tCO ₂ e (GS VERs)	37,667 tCO ₂ e (GS VERs)
SDG 1	USD 77.99/hh/yr	USD 95.11/hh/yr
SDG 3	96%	99.05%
SDG 4	50	77
SDG 5	25	37
SDG 7	54,516.84	190,190
SDG 8	242	68
SDG 15	16,997.31	166,160.12

The adequacy and compliance of the monitoring plan in the Monitoring report was found as per the requirements laid by the design certified GS4GG PDD. The information flow (from data generation, aggregation, to recording, calculation and reporting) is already included under respective parameter above. The verification team has verified all the data and collected evidence as per the required monitoring frequency and found to be correct and appropriate meeting the requirements of the applied methodology and design certified GS PDD/4/.

In summary, the verification team of Applus+ Certification is of the opinion that the monitoring of the PD regarding to sustainability is in line with requirement of the GS4GG guidelines/5//6//7//8/.

3.6 Assessment of Data and Calculation of Greenhouse Gas Emission Reductions

As a result of verification of the ER calculation process, the assessment team confirmed that all the parameters required for the determination of the emission reductions have been included in the monitoring report and corresponding ER calculation spreadsheet and are consistent with the applied methodology. The parameters are complete in this monitoring period.

After verifying the reported figures with the raw data sources, it's confirmed that the values of the parameters from the raw data sources are consistent with those quoted in the most recent Monitoring Report and corresponding ER calculation spreadsheets. The verification process for the same has been clearly described in above section of the report. See below for the detailed data:

Emission Reductions are calculated as per the applied methodology "Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) version 3.1"/8/.

The methodology directly provides the following equation for emission reductions, without separate baseline, project or leakage emission reduction equations.

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

Where:

$\sum_{b,p}$	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 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)
$P_{p,b,y}$	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 the field tests
$f_{NRB,b,y}$	Fraction of biomass used in year y for baseline scenario b that can be established as non- renewable biomass/13/
$NCV_{b,fuel}$	Net calorific value of the fuel that is substituted or reduced.
$EF_{b,fuel,CO2}$	CO ₂ emission factor of the fuel that is substituted or reduced.
$EF_{b,fuel,nonCO2}$	Non-CO ₂ emission factor of the fuel that is reduced
$LE_{p,y}$	Leakage for project scenario p in year y (tCO ₂ e/yr)

SDG 1: End poverty in all its forms everywhere	Monetary savings related to the purchase of firewood	USD 95.11	Annual monetary savings as calculated in in USD per household
SDG 3: Ensure healthy lives and promote well-being for all at all ages	Perceived air quality	99.05%	Percentage of households reporting improved perception of indoor air quality
SDG 4: (Quality Education) Ensure equal access for all women and men to affordable and quality technical, vocational, and tertiary education, including university	Number of people receiving skill development training	77 Male: 39 Female: 38	Number of people who participated in project training
SDG 5: (Gender Equality) Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household	Average time saving associated with cooking in the project scenario	37	Average time saved cooking for women in the project scenario (measured in minutes reported by end-user)
SDG 7: (Affordable and Clean Energy) Ensure universal access to affordable, reliable and modern energy services	Number of sold/distributed ICS in use	190,190	Number of sold/distributed ICS in use

SDG 8: Promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all	Number of jobs created	All contractual Male: 39 Female: 29 Total: 68	Permanent and contracted staff
SDG 15: (Life on Land) Promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	Total non-renewable biomass saved	166,160.12	Tons of non-renewable biomass saved in the project scenario from continued use of project technologies
SDG 13 Climate Action	Emission Reductions	37,667	tCO ₂ e GS VERs

3.7 Management and Operational System

The responsibilities of data measurement, collection, verifying, archiving etc. have been clearly defined in the design certified GS PDD. The same practice is followed, and it is confirmed by the assessment team during the remote audit. The data related to ER calculation as well as data monitoring, collection process etc. have been internally reviewed by the management of the Monitoring team regularly. The responsibility of each function is consistent with the monitoring plan in the GS PDD.

The information flow of each parameter has been verified by the assessment team via interviewing with responsible personnel.

It's verified during the remote audit, the monitoring procedure as well as the internal quality management and control procedures are stipulated in the GS PDD. The monitoring personnels have been interviewed by the assessment team and it's confirmed that the monitoring is implemented as per the procedure.

Comparison of monitored parameters with the last monitoring period:

Data/Parameter	Value obtained in this monitoring period	Value obtained during the last monitoring period
P _{b,y}	0.5962 t/hh/yr	0.5962 t/hh/yr
P _{p,y}	0.356 tons/hh/yr	0.356 tons/hh/yr
U _{p,y}	55.7%	55.7%
N _{p,y}	190,190 technology days	190,190 technology days
LE _{p,y}	0	0
Perceived Air quality	99.05%	99.05%

Monetary savings related to the purchase of charcoal	USD 95.11	USD 95.11
Number of people trained per year	77 persons (39 male and 38 female)	77 persons (39 male and 38 female)
Average number of minutes saved while cooking in project scenario (user estimate of comparative cooking time in baseline to project scenario)	37 minutes per day	37 minutes per day
Average hourly earnings of female and male employees, by occupation, age and persons with disabilities	68 jobs (all contractual) (Male- 39, Female- 29)	68 jobs (all contractual) (Male- 39, Female- 29)
Number of sold/distributed ICS in use	190,190 units active Usage rate: 55.7%	190,190 units active Usage rate: 55.7%
Total amount of non-renewable fuel savings due to displacement or energy efficiency improvements of baseline technology	166,160.12 tons	27,693.35 tons
Emission Reductions	37,667	315,956

4. REFERENCE

LIST OF DOCUMENTS				
S. No.	Author	Title	References to the document	Provider
1.	ECOIA Climate Capital	Final Monitoring Report	Version 1.3 dated 10/09/2025	PD
2.	ECOIA Climate Capital	Emission Reduction sheet	Version 1.3 dated 10/09/2025	PD
3.	ECOIA Climate Capital	Registered GS PDD	Version 4.8 dated 09/06/2023	Others
4.	Other	GS Validation Report	Version 5.0 dated 12/06/2023	Others
5.	Gold Standard for Global Goals	Principles & Requirements Validation and Verification Standard	Version 2.1 dated 31/01/2025 Version 2.0 dated 12/11/2024	Others
6.	Gold Standard for Global Goals	Community Services Activity Requirements	Version 1.2 dated 23/10/2019	Others
7.	Gold Standard for Global Goals	Site visit and remote audit requirements and procedures	Version 2.0 dated 30/05/2023	Others
8.	Gold Standard for Global Goals	GS approved methodology TPDDTEC	Version 3.1 dated 25/08/2017	Others
9.	Gold Standard for Global Goals	Approved Design change form	28/06/2023	PD
10.	ECOIA Climate Capital	Project KPT calculation sheet	-	PD
11.	ECOIA Climate Capital	Project database	-	PD
12.	ECOIA Climate Capital	Employment records (contracts, list of employees) (SDG 8)	-	PD
13.	Seed Ecology and Cape Climate Collective	fNRB report for the host country Kenya	Dated 27/03/2024	PD
14.	BURN Manufacturing LLC	Manufacturer specifications of project ICS	-	PD
15.	KIRDI	WBT test for project ICS efficiency	Dated 27/04/2016	PD
16.	BURN Manufacturing LLC	Lifetime test reports of the ICS	Dated 07/04/2023	PD

17.	BURN Manufacturing LLC		User manuals of the Jikokoa	-	PD
18.	ECO Capital	Climate	Proof of first ICS distributed under this PA	13/03/2015	PD
19.	ECO Capital	Climate	Proof of last ICS considered under the current monitoring period	13/03/2020	PD
20.	ECO Capital	Climate	Training to field personnels for the current monitoring period	03/08/2023, 28/03/2024 to 29/03/2024, 27/02/2024	PD
21.	ECO Capital	Climate	No Double counting declaration	-	PD
22.	ECO Capital	Climate	Purchase records of the moisture meters and weighing scales used during current MP	-	PD
23.	ECO Capital	Climate	Grievance mechanism	-	PD
24.	ECO Capital	Climate	Monitoring evidence of SDG 1, 3, 5, 7, 8	-	PD
25.	LGAI Technological Center S.A.		Remote audit observations	27/05/2025	VVB
26.	Gold Standard for Global Goals		Requirements and Guidelines for carrying out usage surveys for projects implementing improved cooking devices	Version 2.0	Others
27.	UNFCCC		Standards- sampling and survey for CDM project activities and programmes of activities	Version 9.0	Others
28.	UNFCCC		CDM VVS for programme of activities	Version 3.0 dt. 09/09/2021	Others
29.	ECO Capital	Climate	ODA Declaration	-	PD
30.	ECO Capital	Climate	Carbon rights transfer evidence	-	PD
31.	ECO Capital	Climate	KPT and Habit Survey Forms and photographs	-	PD
32.	IPCC		2006 IPCC default values	-	Others
33.	Clean alliance	Cooking	Kitchen Performance Test	Version 4.0, March 2018	Others

34.	Various	GS Monitoring Report of 4 th MP (01/04/2022-13/03/2023) GS Verification Report	Version 4.0 dt. 09/11/2023 Version 1.2 dt. 10/11/2023	Others
35.	Gold Standard for Global Goals	Clarification CL_171	08/06/2023	PD
36.	ECOA Climate Capital	Maintenance log-book for the current monitoring period	31/10/2022 – 30/10/2023	PD
37.	ECOA Climate Capital	Amended Cover letter	31/10/2022	PD
38.	ECOA Climate Capital	Screenshot of Kobo Collect Mobile app	-	PD
39.	ECOA Climate Capital	Evidence of awareness campaigns conducted	-	PD
40.	ECOA Climate Capital	GS Passport	Version 3.0 09/02/2018	Other
41.	Various	GS Monitoring Report of 5 th MP (14/03/2023-12/03/2024) GS Verification Report	Version 1.4 dt. 20/12/2024 Version 1.2 dt. 24/12/2024	Others
42.	UNFCCC	Tool 30 - Calculation of the fraction of non-renewable biomass	Version 4.0 dt. 08/12/2022	Others

5. **FINAL VERIFICATION STATEMENT**

LGAI Technological Center S.A. has been contracted by ECOA Climate Capital to perform the 6th verification of the second crediting period of the project activity "BURN Stoves Project in Kenya" (GS5642)⁷.

The management of ECOA Climate Capital is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project's monitoring plan in the design certified GS PDD and the applied methodology - Technologies and practices to displace decentralized thermal energy consumption (TPDDTEC), version 3.1/8/.

Our verification approach was based on the requirements as defined under the Kyoto Protocol as well as those defined by the CDM Executive Board and Gold Standard. Our approach is risk based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. The verification team can confirm that:

- the project is operated as planned and described in the GS PDD/3/;
- the monitoring plan is as per the applied methodology/8/;
- the monitoring followed is as per the GS PDD/3/ and the monitoring plan approved by GS4GG;
- the development and maintenance of records and reporting procedures are in accordance with the approved monitoring plan;
- the installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately;
- the monitoring system is in place and generates GHG emission reductions data;
- the GHG emission reductions are calculated without material misstatements. The verification team applied a materiality threshold of 1% since the emission reductions achieved by the project activity fall within the range of 300,000 and 500,000 tCO₂e per year with respect to omission or misstatements concerning reported quantities as per 9.6.3 (b) of Validation and Verification Standard v2.0/5/. The level of assurance of the verification report falls under reasonable assurance engagements.
- This project activity transitioned to Gold Standards for Global Goal (GS4GG) in 2018 which makes the SDG impact tool not applicable for this PA since according to the SDG Impact Tool update⁸ the SDG Tool application is mandatory for all new projects submitted for Preliminary after 14/03/2022 and the projects (including new PoAs and their VPAs) submitted for design certification review and renewal after 14/03/2022.

In our opinion, the GHG emission reductions for "BURN Stoves Project in Kenya" for the monitoring period 13/03/2024 to 25/04/2024 (inclusive of both days) as reported in monitoring report/1/, prepared on the basis of the project's monitoring plan are fairly stated.

Based on the information we have seen and evaluated, we confirm the following statement:

Monitoring period: 13/03/2024 to 25/04/2024 (inclusive of both days)

Verified emissions in the above monitoring period:

⁷ <https://registry.goldstandard.org/projects/details/1559>

⁸ <https://globalgoals.goldstandard.org/ru-2021-the-sdg-impact-tool/>

Leakage emissions	1982.67 tCO ₂ e
Project emissions	89,744 tCO ₂ e
Baseline emissions	129,397 tCO ₂ e
Emission reductions	37,667 tCO ₂ e (GS VERs)

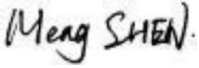
The vintage- wise breakup of achieved ERs during the current monitoring period is as follows:

Start Date	End Date	Amount Achieved (VERs)
13/03/2024	25/04/2024	37,667

Date: 16/10/2025
Lead Auditor/Tech. Expert: Ms. Arohi Jain
Local Support (Kenya): Ms. Hannah Kitundu
Tech. Reviewer: Mr. Simon Shen

Approver (*Applus+ Certification VVB Technical Manager*)

Mr. Agustín Calle de Miguel

ASSESSMENT TEAM	
Lead Auditor: Ms. Arohi Jain	Technical Reviewer: Mr. Simon Shen
Signature: 	Signature: 
Approver: Mr. Agustín Calle de Miguel	
Signature: 	

Appendix 1: Corrective Action Request/Clarification Request/Forward Action Request resolution table

Type:	☐ CAR ☒ CL/CR ☐ FAR	Number:	01
Raised by:	Verification Team	Ref. to checklist in above tables:	
Description of the audit finding	Date: 30-May-2025		
PD is requested to kindly clarify on the details like duration of survey, number of samples considered etc. for the leakage survey considered during the current monitoring period.			
Project Participant's response	Date: 12-June-2025		
Leakage survey was done together with usage survey. As demonstrated in tab leakage ref "14th NOV GS5642 Kenya Ex Post ER calculations MPVCP2" the value for leakage was 0, however the PD applied the methodology default value of 5% for conservativeness. Given the results for leakage are not applied anywhere, PD is of the opinion that including details like duration in the MR is not required. Further, PP has included the formula for calculating leakage in section E.3.			
Documentation provided as evidence by Project Participant			
GS5642_JIKOKOA Monitoring Report MP6_v1.1			
Auditor's assessment comment	Date: 07-July-2025		
The verification team has assessed the updated section E.3 of MR with respect to the justification provided by the PD and found it to be acceptable. The PD has considered the leakage factor of 5% which is in accordance with the applied methodology and facilitates the conservative approach for the determination of emission reductions.			
Hence, CL 01 is closed.			

Type:	☐ CAR ☒ CL/CR ☐ FAR	Number:	02
Raised by:	Verification Team	Ref. to checklist in above tables:	
Description of the audit finding	Date: 30-May-2025		
The unit of the value of the SDG 1 achieved during the current monitoring period mentioned in the table under section E.4 is inconsistent with other sections of MR. Kindly clarify.			
Project Participant's response	Date: 12-June-2025		
The unit for SDG 1 has been included in section E.4 of the MR.			
Documentation provided as evidence by Project Participant			

GS5642_JIKOKOA Monitoring Report MP6_v1.1		
Auditor's assessment comment	Date:	07-July-2025
The verification team has assessed the updated section E.4 of MR and found that the unit of SDG 1 is now corrected and is consistent with other sections of MR.		
Hence, CL 02 is closed.		

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	01
Raised by:	Verification Team	Ref. to checklist in above tables:	
Description of the audit finding		Date:	30-May-2025
The listed parameters under section D.1 of MR are inconsistent with the registered PDD. Kindly review and update.			
Project Participant's response		Date:	12-June-2025
The parameters under section D.1 have been updated for consistency with the PDD.			
Documentation provided as evidence by Project Participant			
GS5642_JIKOKOA Monitoring Report MP6_v1.1			
Auditor's assessment comment		Date:	07-July-2025
The assessment team has assessed the updated section D.1 of MR and found that the missing parameter is now added and the details of the existing parameters are now consistent with the GS PDD.			
Hence, CAR 01 is closed.			

Type:	☒ CAR	☐ CL/CR	☐ FAR	Number:	02
Raised by:	Verification Team			Ref. to checklist in above tables:	
Description of the audit finding				Date:	30-May-2025
The verification team has observed the following under section D.2 of the MR: 1. The additional comment section in the tables of some parameters are inconsistent with the registered GS PDD. 2. The details viz., 'Data/Parameter, Unit, Description' mentioned in table for SDG 15 is inconsistent with the registered PDD and other sections of the MR. Kindly review and update accordingly.					

Project Participant's response	Date:	12-June-2025
1. The additional comment section in the tables of some parameters have been corrected for consistency with the registered GS-PDD. 2. Table for SDG 15 has been corrected.		
Documentation provided as evidence by Project Participant		
GS5642_JIKOKOA Monitoring Report MP6_v1.1		
Auditor's assessment comment	Date:	07-July-2025
The updated section section D.2 of MR has been assessed by the verification team and the following has been observed: 1. The 'Additional comment' section of the parameters' tables now mentions the details of GS PDD also along with the additional comments for this monitoring period. 2. The details in the parameter table viz., 'Data/Parameter, Unit, Description' for SDG 15 are now consistent with registered GS PDD. Hence, CAR 02 is closed.		

Appendix 2: Audit team CVs

Name	SHORT CV. BACKGROUND INFORMATION
Ms. Arohi Jain	Ms. Arohi Jain has completed her M. Sc. in Environmental Sciences and B.Sc. in Biology from Chhatrapati Shahuji Maharaj University, formerly Kanpur University in Kanpur, Uttar Pradesh, India. She also holds Post Graduate Diploma degree in Urban Environmental Management and Law from CEL, WWF- India and National Law University, Delhi, India. She is a Certified Lead Auditor for ISO 14001:2015 EMS from CQI and International Registry for Certified Auditors (IRCA). Arohi has more than 5 years of experience in the sector of air quality, environmental impact assessment studies and climate change. Her professional career has been mainly focused, but not limited to, on the sector of validation and verification of GHG emission compensation and mitigation projects, in different countries and under universally recognized standards namely, VCS, SD VISTa, GS4GG, GCC as Lead Auditor, Validator, Verifier and Technical Expert for SS/TA 3.1. Currently, she works in the CDM Department of Applus + Certification, as Lead Auditor– VVC Team, being involved in Validations and Verifications of PAs and PoAs as Lead Auditor and Technical Expert in the DOE. She has been involved in more than 50 projects for Renewable and non-Renewable (SS/TA 1.2) as well as Energy Demand (SS/TA 3.1) projects. Ms. Arohi Jain is based in Gurugram, India. Ms. Arohi Jain participates as part of the Audit Team as the Lead Auditor, Verifier and Technical Expert.
Ms. Hannah Kitundu	Ms. Hannah Mathile Kitundu has completed her Bachelor's degree in commerce and information technology from Kabarak University. She holds proven records in conducting thorough assessments, ensuring adherence to comprehensive reports, certification, compliance and auditing. Hanna has more than one year experience in different sectors such as environment impact assessments studies, validation and verification. Her professional career has been mainly focused on, but not limited to, on the sector of mitigation projects. Previously, she worked as an environmental compliance analyst at GIBB Africa Ltd. which is a private consultancy firm as a VVB being involved in validation and verification of performed quality audits in compliance with ISO9001 and ISO14001 standards. Currently serving in the customer care desk Safaricom Ltd, Kangeta Meru county whereby she offers customer care services to the customers, new line registration, SIM replacement, mpesa reversals, barrings, Mpesa services, deposits, withdrawals and phone sales. Ms. Hannah is based in Nairobi, Kenya. Ms. Hannah Mathile Kitundu participates as part of the Audit Team as Local Support.
Mr. Simon Shen	Mr. Simon Shen (Master's Degree in Thermal Energy Engineering, Bachelor's Degree in Environmental Engineering) is an Auditor appointed by Applus+ Certification (LGAI Technological Center, S.A) for the GHG project assessment, auditing and technical review. He worked with TUV SUD for 3.5 years and holds experience as GHG Auditor and ISO 9001/14001. Since 2014, Mr. Simon Shen works as an external individual in Applus+ Certification (LGAI Technological Center, S.A). He holds experience in CDM/GS4GG/VCS project assessment and technical reviews for the sectoral scopes 1.1/1.2/3.1/13.1/13.2. At the time, he participated in plenty of Chinese CCER

	audits and enterprises carbon emissions verifications. Mr. Simon Shen has extensive experience also as former Applus+ Shanghai CDM Technical Manager. Mr. Simon Shen is based in Shanghai, China. Mr. Simon Shen participates as part of the Technical Review Team.
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