

GOLD STANDARD FOR THE GLOBAL GOALS (GS4GG) REPORT

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RENEWAL OF DESIGN CERTIFICATION (VALIDATION)



Project Title: Burn Stoves Project in Kenya¹
GS project ID: GS 5642
Internal ID: BELL_GS_RCP_1224
Customer: ECOA Climate Capital
Date: 04/06/2025
Revision: 06

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

SUMMARY			
Reference No.	Date <i>(first version)</i>	Revision No.	Date <i>(last version)</i>
BELL_GS_RCP_1224	01/09/2024	06	04/06/2025
Client	ECOIA Climate Capital		
Project Title	Burn Stoves Project in Kenya		
Project Participants	ECOIA Climate Capital		
Project Location	Within the physical boundary of The Republic of Kenya.		
Contact Person	Mr. Peter Scott		
GS4GG Version: GS4GG Principles and Requirements, version 2.0 ^{/6/} GS4GG Activity Requirements: Community Services Activity Requirements, version 1.2 ^{/6/} GS4GG Validation and Verification Standard Version: 2.0 ^{/6/} Applied Methodology Version: GS4GG Methodology, REDUCED EMISSIONS FROM COOKING AND HEATING: Technologies and Practices to Displace Decentralized Thermal Energy Consumption’ (TPDDTEC), version 4.0 ^{/3/} The following tools and guidance have been followed (References): - Guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities, version 4.0^{/12/} - Tool 01: Tool for the demonstration and assessment of additionality (Version 07.0)^{/5/}. - Tool 11: Tool for the assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period (Version 03.0.1) ^{/5/} - CDM-MP96-A03 Information Note: Development of default values for fraction of non-renewable biomass, Version 02.0^{/6/} - GS4GG Principles & Requirements, version 2.0^{/6/} - Community Services Activity Requirements, version 1.2^{/6/}		GS4GG Principles and Requirements Version 2.0 ^{/6/} GS4GG Sectoral Scope: 2 UNFCCC CDM Sectoral Scope: 3 Technical Area: 3.1 Project scale: Large-scale project	
The Latest Registered GS PDD, version 4.8 dated 09/06/2023 ^{/1/} GS4GG Design Certification Renewal, first PDD version: 1.0, dated 15/08/2024 ^{/1/}		GS4GG Final RCP PDD Version: 3.0 ^{/1/} Date: 30/05/2025	
Estimated Annual Emission Reductions: 166,938tCO ₂ e per year			
Selected Sustainable Development Goals (SDGs): 1; 3; 4; 5; 7; 8; 13; 15 Estimated Sustainable Development Contributions			
Sustainable Development Goals Targeted	SDG Impact	Estimated Annual Average	Units or Products
SDG 13: Climate Action	Emission Reductions	166,938	tCO ₂ e/annum (GS VERs)

SDG 1: (No Poverty) End poverty in all its forms everywhere	Monetary savings related to the purchase of charcoal in the project scenario	53.69%	Monetary savings in %
SDG 3: (Good Health and Wellbeing) 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	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 (measured in minutes per day reported by end-user)	Average time saved cooking for women in the project scenario (measured in minutes per day 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	115,539	Number of sold/distributed ICS in use
SDG 8: (Decent Work and Economic Growth) Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Total number of jobs created	68	Number of jobs created
SDG 15: (Life on land)	Total non-renewable biomass saved	12,908.55	Tons of non-renewable biomass saved in

Promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally			the project scenario from continued use of project technologies	
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Design Certification Summary

LGAI Technological Center, S.A. (hereinafter referred to as Applus+ Certification) has been contracted by ECOA Climate Capital to perform validation for the GS4GG Design Certification Renewal of "Burn Stoves Project in Kenya" (GS5642) applying the GS4GG methodology, REDUCED EMISSIONS FROM COOKING AND HEATING: Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 4.0.^{/3/}

The project developer ECOA Climate Capital is responsible for the preparation of GHG emissions data and the reported GHG emission reductions and for the completion of the GS Project Design Document (GS4GG PDD) for the project activity during its 3rd renewable crediting period under the GS4GG (from 31/01/2025 to 25/04/2031)².

The GS project activity seeks to improve health and incomes throughout the Kenya by reducing time and money spent acquiring fuel for household cooking. To achieve this goal, the project will help Kenyans access to healthy, energy saving cookstoves. In order to reach a wide range of Kenyans with the most appropriate technology, the project leverages carbon finance to support the sale and distribution of stoves to households.

The re-defined baseline scenario for the GS project activity represents the continuation of the pre-project situation in the country of Kenya: A majority of households in Kenya uses solid fuel for cooking purposes. Firewood is predominantly used by rural households while urban households use charcoal as the main fuel for cooking. Most Kenyan households spend a significant portion of their time and income acquiring fuel for cooking. The continual collection of firewood and charcoal by Kenyan populations results in the exhaustion of wood supplies around townships and villages across the country.

Under conformance with Section 6.3 of the GS4GG Validation and Verification Standard^{/6/}, a desk review and remote audit & follow-up interviews^{/27/} were performed as part of the GS validation assessment in order to confirm the project design, baseline scenario for the project activity under its 3rd crediting period under the GS4GG, project implementation status and to verify data reported in the completed submitted in the GS4GG PDD^{/1/}. Applus+ Certification confirms the following documents have been reviewed:

- GS4GG PDD valid for the project's currently expired 2nd renewable crediting period under the GS4GG.^{/1/}
- GS4GG PDD valid for the project's 3rd renewable crediting period under the GS4GG (from 31/01/2025 to 25/04/2031)^{/1/}
- The applied GS4GG methodology and all applicable CDM methodological tools.^{/3//5/}

² As per the principles and requirements document para 5.1.46 "Delay in the completion of re-validation beyond the last date of current certification cycle shall result in a reduction of any issuance of Certified Products and/or Impact Statements available during following certification cycle (for example, a delay of 1 year beyond the first cycle shall mean that no Certified Impact Statements shall be issued for the period of delay). Based on this requirement, PP has foregone all the credits accrued between 26/04/2024 to 30/01/2025 due to the delay in renewal of crediting period beyond the last date of 2nd Crediting Period. Hence, start date of 3rd CP will be considered as 31/01/2025.

- d. The Gold Standard for Global Goals "Principles and Requirements" Version 2.0 and all other GS regulatory documents with relevant requirements, procedures and guidance.^{/6/}
- e. Community Services Activity Requirements, version 1.2^{/6/}
- f. GS4GG GHG Emission Reduction & Sequestration Product Requirements, version 3.0^{/6/}
- g. GS4GG Validation and Verification Standard, version 2.0^{/6/}
- h. Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board.
- i. All information and references relevant to the project activity's resulting in estimated emission reductions.

The scope of the validation for Design Certification Renewal is defined as an independent and objective review of the GS4GG PDD against all applicable principles, rules, requirements, procedures and guidelines from GS4GG and from UNFCCC/CDM. The validation report is finalized based on the assessment of the GS4GG PDD and applying standard auditing techniques including but not limited to document review, follow up actions (e.g. remote audit, telephone/MS Teams or e-mail interviews^{/27/}) and also the review of the applicable approved methodology and underlying formulae and calculations.

The report and the annexed validation checklist describe a total of 15 findings which include:

- 07 Corrective Action Requests (CARs);
- 07 Clarification Request (CLs/CRs);
- 01 Forward Action Request (FAR) was raised during current renewal of design certification which shall be addressed during performance certification of third crediting period.

The Project Developer ECOA Climate Capital has successfully addressed all raised findings by modifying/amending/correcting the GS4GG PDD for the 3rd crediting period of the project activity under the GS4GG accordingly and/or by providing adequate additional explanations and documented evidence(s). Applus+ Certification confirms that all raised findings were appropriately closed prior of submitting the request for Design Certification Renewal of the GS project activity to the Gold Standard.

As a summary of the performed validation assessment for Design Certification Renewal, the review of the GS4GG PDD^{/1/}, remote audit and the subsequent follow-up interviews^{/27/} have provided Applus+ Certification with sufficient evidence for the determination of the project's fulfilment with all stated criteria. In our opinion, the project meets all relevant requirements of Gold Standard^{/5/}. Therefore, Applus+ Certification recommends the project for renewal of design certification by the GS Registry as GS VER project.

ASSESSMENT TEAM		
Team Members	Type of Resource ³	Organization
Lead Auditor (LA) / Technical Expert (TE) / GS Approved Auditor: Dr. N. Premjit Singh	☒ IR ☐ EI ☐ OE	LGAI Technological Center, S.A. (Applus+ Certification)
Auditor (A) and Technical Expert in Training (TEiT): Mr. Saurabh Gaikwad	☒ IR ☐ EI ☐ OE	LGAI Technological Center, S.A. (Applus+ Certification)
Local Expert (LE): Ms. Hannah Mathile Kitundu	☐ IR ☒ EI ☐ OE	LGAI Technological Center, S.A. (Applus+ Certification)
Technical Reviewer (TR) & Technical Expert (TE): Mr. Miguel A. Cortés	☐ IR ☒ EI ☐ OE	LGAI Technological Center, S.A. (Applus+ Certification)

NOTE: In line with the section 6.8.1.b. of GS4GG Validation and Verification Standard, V.2.0^{6/}, the VVB hereby discloses that it has performed previous verification of this project with different team members (Lead Auditor & Technical Expert: Ms. Arohi Jain, Technical Reviewer: Mr. Simon Shen) than in this Validation for Design Certification Renewal.

³ IR (Internal Resource); EI (External Individual); OE (Outsourced Entity)

ABBREVIATIONS	
Applus+ LGAI / Applus+	LGAI Technological Center, S.A. (Applus+ Certification)
BAU	Business As Usual
BM	Build Margin
BURN	Burn Manufacturing
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CER	Certified Emission Reduction
CL / CR	Clarification Request
CM	Combined Margin
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
CO₂	Carbon Dioxide
CO₂e	Carbon Dioxide Equivalent
DNA	Designated National Authority
EF	Emission Factor
ER	Emission Reduction
FAR	Forward Action Request
fNRB	Fraction of non-renewable biomass
GHG	Greenhouse Gas(es)
GS4GG (or GS)	Gold Standard for Global Goals
ICS	Improved Cookstove
IPCC	Intergovernmental Panel on Climate Change
KP	Kyoto Protocol
MP	Monitoring Plan
NRB	Non-Renewable Biomass
NGO	Non-Governmental Organization
OFN	Ongoing Financial Need
OM	Operational Margin
PD	Project Developer
PI	Project Implementer
PP	Project Participant
PS	Project Standard

SDG	Sustainable Development Goal
TAC	Gold Standard Technical Advisory Committee
UNFCCC	United Nations Framework Convention for Climate Change
VVB	Validation and Verification Body
VVS	Validation and Verification Standard

Table of Content

Contents

1. INTRODUCTION	10
1.1 Objective	11
1.2 Scope	11
2. METHODOLOGY	12
2.1 Appointment of the assessment team	14
2.2 Document review	15
2.3 Remote assessment and Follow up Interviews	15
2.4 Sampling approach	21
2.5 Resolution of Clarification and Corrective Action requests	25
2.6 Internal Quality Control	26
3. PROJECT DESIGN CERTIFICATION ASSESSMENT	27
3.1 Approval	27
3.2 Participation	27
3.3 Scale of the project	27
3.4 Greenhouse Gases	28
3.5 Project timeframe	30
3.6 Public announcement	31
3.7 Project Boundary	31
3.8 Baseline Identification	31
3.9 Eligibility Principles Assessment	39
3.10 Calculation algorithm and/or formula used to determine emission reductions	67
4. FINAL PROJECT DESIGN CERTIFICATION STATEMENT	103
5. REFERENCE	106
Appendix 1: Corrective Action Request/Clarification Request/Forward Action Request resolution table	109
Appendix 2: Audit Team CVs	127
Appendix 3: Safeguarding principle assessment	129

1. INTRODUCTION

ECO2 Climate Capital has appointed LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) to perform a validation for design certification renewal of "Burn Stoves Project in Kenya"⁴ (GS 5642) (hereafter referred to as the project activity). This validation report summarises the findings of the validation of the project, performed on the basis of requirements of Gold Standard and UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures and the subsequent decisions by the CDM/GS Executive Board.^{4/6/}

Applus+ Certification is accredited as a Validation and Verification Body (VVB) under the GS4GG and is also accredited as a Designated Operational Entity (DOE) by the UNFCCC. Applus+ Certification also meets competence requirements as set out by ISO 14065:2020.

The purpose of the project activity is to implement improved efficient charcoal cookstoves manufactured by BURN Manufacturing in the Republic of Kenya. The ICS units are being distributed in all the 47 counties of Kenya. This project activity (PA) deploys highly efficient improved charcoal cookstoves (ICS), known as 'Jikokoas' reducing woody biomass consumption for urban and peri-urban households in the Republic of Kenya.

The objective of the Burn Stoves Project in Kenya is to improve health and incomes throughout Kenya by reducing time and money spent acquiring fuel for household cooking. The project stoves are expected to replace the inefficient traditional stoves used in the baseline. As a result, the project results in reductions of CO₂ emissions that are real, measurable and gives long-term benefits to the mitigation of climate change. In the longer term, the project will help to decrease the deforestation rate in the project area. Most of the households use inefficient cooking stoves with incomplete combustion, which leads to indoor emissions that pose severe health risks to the women and children, who are continuously exposed to the smoke during cooking. An efficient charcoal stove can cut down the daily fuel consumed thus necessitating fewer trips to collect fuel or less money spent on charcoal per week. Efficient, improved stoves are a more sustainable, economic and healthier way to cook. The project intends to make available the project technology to all counties of Kenya.

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^{10/} in the host country Kenya.

Moreover, as further assessed in Section 3.5, the Applus+ Certification's validation team has also confirmed that GHG emission reductions generated and/or yet to be generated by the GS project activity will not be used for compliance with any emissions trading program or used to meet binding limits on GHG emissions in any compliance or voluntary GHG emission trading program or other binding limit mechanism.^{13/}

The project activity is the installation of improved efficient cookstoves, and this is not a CPA that has been excluded from a registered CDM PoA as a result of erroneous inclusion of CPAs.

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

This project started as part of GS966 “Paradigm Healthy Water and Cookstoves Project”, which has a start date of 01/11/2007. The BURN’s charcoal stove distribution started on 26/08/2013. However, it underwent successfully design change with the Gold Standard and a new project was created for Burn manufacturing and the project was registered on 28th February 2018. In addition, the project underwent successful crediting period renewal and was successfully renewed. On 31/10/2022, BURN transferred its role as Project Developer of the Project to ECOA Climate capital.^{/14/}

During course of 3rd crediting period, the project is expected to reduce average annual 166,938 tCO₂e and 1,168,566 tCO₂e over 7-year crediting period from 31/01/2025⁵ to 25/04/2031.

The carbon revenue ownership for the project is with ECOA Climate Capital who is the project developer (PD) for this project in Kenya.^{/14//15//16//17/}

1.1 Objective

The purpose of a validation for design certification renewal is to have an independent third-party assessment of the GS4GG PDD^{/1/} and compliance with the GS requirements as described in the Gold Standard documentation and supporting documents to confirm that the renewal of the crediting period request is complete, reasonable and meets the stated requirements and identified criteria. Validation is part of the GS VER project cycle and will finally result in a conclusion by Applus+ Certification whether a project activity is valid and should be submitted for renewal of design certification of the project activity rests at the GS and the Parties involved.

1.2 Scope

The scope of current validation for design certification renewal is defined as an independent and objective review of the project PDD^{/1/}, the project’s baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against all applicable GS requirements including the approved methodology i.e. Reduced Emissions from Cooking and Heating: Technologies and Practices to Displace Decentralized Thermal Energy Consumption’ (TPDDTEC), Version 4.0^{/3/} The validation is based on the requirements in the GS4GG validation and verification standard, version 2.0^{/6/} along with CDM validation and verification standard, version 3.0.^{/4/}

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

⁵ As per the principles and requirements document para 5.1.46 “Delay in the completion of re-validation beyond the last date of current certification cycle shall result in a reduction of any issuance of Certified Products and/or Impact Statements available during following certification cycle (for example, a delay of 1 year beyond the first cycle shall mean that no Certified Impact Statements shall be issued for the period of delay). Based on these requirements, PP has foregone all the credits accrued between 26/04/2024 to 30/01/2025. Hence, start date of 3rd CP will be considered as 31/01/2025.

The validation is not meant to provide any consulting to the project participant. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the PDD.

2. METHODOLOGY

The purpose of a validation assessment for Design Certification Renewal by an accredited VVB is to have an independent third-party validation opinion about the design and baseline scenario of the project activity under the GS4GG for a new crediting period and its compliance with all applicable GS4GGS eligibility and/or methodological principles, rules, requirements, procedures and guidelines.^{/3//4//5//6/}

In particular, the project's baseline, monitoring plan, and the project's compliance with relevant applicable GS4GG criteria are all validated in order to confirm that the project design and identified baseline scenario, as documented in the GS4GG PDD valid for the 3rd crediting period of the project activity under the GS4GG^{/1/}, is sound, reasonable and meets the identified criteria.

The purpose of a validation assessment for Design Certification Renewal by an accredited VVB also encompasses an independent third-party validation opinion about the addressing of requirements related to Sustainable Development Goals (SDGs) indicators and Safeguarding principles in the context of the GS project activity vis-à-vis related requirements and guidelines from GS4GG under the new crediting period. Related information/details, as documented in the GS4GG PDD^{/1/}, is therefore assessed.

Applus+ Certification completed a strategic review and risk assessment of the GS project activities and processes in order to gain a full understanding of:

- Project design.
- Safeguarding Principles and Gender Equality.
- Application of the selected GS4GG methodology, Reduced Emissions from Cooking and Heating: Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), Version 4.0^{/3/} and the following applicable CDM methodological tools^{/5/} & guidelines:
 - Tool 01: "Tool for the demonstration and assessment of additionality" (Version 07.0)^{/5/}.
 - Tool 11: "Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period" (version 03.0.1)^{/5/}
 - CDM-MP96-A03 Information Note: Development of default values for fraction of non-renewable biomass, Version 02.0^{/5/}
- Re-definition or confirmation of the validity of the previously identified baseline scenario for the project activity under its 3rd crediting period under the GS4GG.
- Ex-ante estimates of GHG emission reductions to be achieved along the considered crediting period.

- The project's monitoring plan.
- Safeguards, QA/QC procedures, etc.

A validation for Design Certification Renewal is conducted by Applus+ Certification by following its related applicable assessment procedures and rules which are defined under conformance with requirements, guidance and criteria specified in the GS4GG Principles and Requirements (version 2.0) and GS4GG Validation and Verification Standard (version 2.0)^{/6/}, applicable GS methodology^{/3/}, tools and CDM validation and verification standard, version 03^{/4/}, among other relevant GS4GG requirements^{/6/}. All assessment tasks which are part of a validation for Design Certification Renewal are performed by applying standard auditing techniques^{/6/}.

Before the assessment begins, members of the team covering the technical scope(s), sectoral scope(s), and relevant host country experience for evaluating the project activity are appointed. Once the project is made available for Applus+ Certification, the members of the assessment team carried out:

1. Desk review of the GS4GG PDD^{/1/} for the GS project activity and other project design documentation and supporting documents, when applicable.
2. Remote Audit and Follow-up interviews with project stakeholders and representative of the project developer^{/27/};
3. The resolution of outstanding issues and the issuance of the final validation report and opinion.

The validation is not meant to provide any consulting towards the project participant. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the project document.

The prepared validation report and other supporting documents then undergo an internal quality control before being submitted to the GS Registry.

The GS overview documents which is referred as audit finding is as below:

Validation Checklist Table 3: Resolution of Audit Findings			
Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	
Raised by:			
Description of the audit finding		Date:	
The description of the audit finding should be clearly included here.			
Project Participant's response		Date:	
The responses given by the project participant during the communications with the validation team should be included here.			
Documentation provided as evidence by Project Participant			

The evidence provided by the project participant should be included here.		
Auditor's assessment comment	Date:	
This section should include how the audit finding is assessed by the assessment team.		

The Complete List of CARs/CLs/FARs is included as Appendix 1 of this 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, LGAI Technological Center S.A. (Applus+ Certification) has composed an assessment team in accordance with compliance with the contract review and Assessment Team appointment rules in the internal Quality Management System of LGAI Technological Center S.A. (Applus+ Certification) as well as in compliance with the applicable requirements in the Accreditation Standard.

The composition of audit team (Applus+ Certification's verification team) has been approved by the LGAI Technological Center S.A. (Applus+ Certification) Central site during its Contract Review process, ensuring that the required skills and capabilities are covered by the team.

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).
- Other Supporting roles such as Financial Expert (FE) or Country Expert (CE) /Local Expert (LE)
- Any of the above-mentioned roles in training (iT, e.g. AiT for auditor in training, TEiT for Technical Expert in Training, etc.).

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

Name	Role	SS Coverage	TA Coverage	Financial aspect	Host country experience
Dr. N. Premjit Singh	LA / TE	YES	YES	YES	YES
Mr. Saurabh Gaikwad	A / TEiT	NO	NO	NO	NO
Ms. Hannah Mathile Kitundu	LE	NO	NO	NO	YES
Mr. Miguel A. Cortés	TR / TE	YES	YES	YES	NA

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

2.2 Document review

The GS4GG PDD^{/1/} for the GS project activity as well as supporting documents were assessed in the context of a Document Review in order to verify the overall correctness, credibility and interpretation of presented information. A further crosscheck of information provided was performed by using information from other sources as available.

The performed document desk review assessed the following aspects of the GS project activity:

- Project details as per the template for the GS4GG PDD^{/1/}
- Applicability and appropriateness of the applied GS4GG methodology and applied CDM methodological tools^{/3//5/}
- Compliance with relevant laws and regulations
- Correctness of the application of the selected GS4GG methodology and applied CDM methodological tools^{/3//5/}
- Cross checks between information provided in the GS4GG PDD^{/1/} and information from other sources (not limited to those provided by the project developer).
- Reference to available information relating to other project-based initiatives and/or technologies identical or similar to the one adopted by the GS project activity.
- Review and evaluation, based on the applied GS4GG baseline and monitoring methodology and applicable methodological tools of the appropriateness/correctness of formulae, calculation approaches and monitoring approaches as referred in the GS4GG PDD^{/1/}.

A complete list of all documents and evidence material reviewed is included in Section 5 of this report.

2.3 Remote assessment and Follow up Interviews

This is design certification renewal validation. As per clause 3.2.1 of GS site visit and remote audit Requirements and procedures, version 2.0^{/6/} "A physical site visit by VVB is not mandatory at the validation (Design Certification or Design Certification Renewal) of a project." Hence, a remote audit and follow-up interviews have been conducted by the assessment team.

VVB Team has conducted remote assessment on 28/08/2024. During the remote assessment, a complete desk review of the GS PDD^{/1/} and supportive evidences have been checked by the validation team through interviews with the households.

The audit team has performed a Risk Analysis for Remote Inspections and elaborated a feasible audit plan that covers all aspects of the audit and establishes measures to eliminate or reduce the identified risks.

The validation process has been conducted remotely and a risk analysis for remote inspections has been performed prior to the determination of the suitability to conduct the assessment using ICT (Information and Communication Technology) means⁶.

The ICT means have been used to an extent sufficient to cover all the validation process and have demonstrated enough effectiveness to conduct the validation in accordance with the relevant applicable regulatory requirements.

This process has included: the review of data and information presented to verify their completeness; the review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements and the QA/QC procedures; an evaluation of data management; and an evaluation of the QA/QC system in place in the context of its influence on the generation and reporting of emission reductions.

No virtual sites have been included in the validation process according to the definition in the IAF MD4:2023 document. Instead, the documentation has been provided upon request from the VVB by other means (such as mail, transfer applications, etc.)

Proper ICT means have been used for the conduction of this audit process. Those ICT means supporting the process in this sense, have been used to an extent sufficient to cover the background necessities of the validation process and have demonstrated enough effectiveness to conduct it in accordance with the relevant applicable regulatory requirements.

The objective of the validation audit is to:

- Check and confirm the implementation and operation of the project
- Check and confirm the Project description, project design and applied technology (including history of project implementation).
- Review and assess the identified baseline
- Re-definition/continuation of the previously identified baseline scenario for the project activity within its 3rd crediting period under the GS4GG and any impact of change on the Eligibility Principles, Criteria and Requirements.
- Changes in the project as related to the General Eligibility Criteria.
- 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 PDD documentation with other sources
- 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 registered GS PDD^{1/} to understand grievance (if any) from the stakeholders
- Incorporation of any relevant updates to the Gold Standard Requirements.
- Project ownership and ownership of GS VERs to be issued by the project activity under the GS4GG.

⁶ According to the IAF MD4:2023, ICT is the use of technology for gathering, storing, retrieving, processing, analysing and transmitting information. It includes software and hardware such as smartphones, handheld devices, laptop computers, desktop computers, drones, video cameras, wearable technology, artificial intelligence, and others.

- Confirmation of non-existence of ODA related to the implementation and operation of the project activity under the GS4GG^{/9/}.
- Monitoring plan (including the safeguarding principles indicators selected by the project developer).
- Completion of the GS4GG PDD valid for the 3rd crediting period under the GS4GG^{/1/}.

A complete desk review of the GS PDD^{/1/} and supportive evidences have been checked by the validation team.

- Validation team has performed interviews with Project Developer (ECO Climate Capital) and local stakeholders in order to check baseline scenario, project implementation, current situation, evaluation of data management, QA/QC system, project technology, trainings provided, monitoring, etc. Interview questions were filled as per validation team interview checklist^{/27/}. Cross checks between information provided by interviewed personnel (i.e. by checking sources) to ensure that no relevant information has been omitted.
- Validation team has performed interviews^{/27/} with randomly selected baseline survey households to check and confirm the baseline and the monitoring of GS sustainable parameters like employment and training, environmental and other relevant issues.
- Cross-check evaluation, for information received from interviews, under the scope of all information and references provided in the PDD and supporting documents.

VVB has followed the standard auditing techniques and practices in accordance with the "GS VVS, Version 2.0"^{/6/} and "Site Visit and Remote Audit Requirements, Version 2.0"^{/6/}. The separate auditing techniques template was not required as Validation team has referred to Site Visit and Remote Audit Requirements, Version 2.0.^{/6/}

A complete desk review of the PDD^{/1/} as well as all applicable country legal requirements and supportive evidence have been checked by the validation team.

It is to be noted that, VVB team acquired verbal consent from interviewed people during the remote audit^{/27/} regarding displaying their names/details in public version of FVR. The participated individuals provided their acceptance.

Participated Personnel	Roles & Functions	Organization	Date	Subject
Mr. Vinit Kumar Garg	Senior Carbon Technical Expert	BURN Manufacturing ⁷	28/08/2024 (Through MS Teams)	General aspects of the project, Quality management system, Monitoring data

⁷ It is to be noted that, BURN Manufacturing owns 100% of the shareholding of ECO Climate Capital. So, employees of BURN Manufacturing and ECO Climate Capital are actually same and to that extent the nomenclature in this validation report has been used interchangeably. A confidential copy of the shareholding for ECC^{/6/} confirming this position has been verified by VVB team and confirmed to be correct. VVB team has reviewed this documentation and verified that the monitoring responsibilities remain consistent across both entities.

Ms. Sally Gakii	Senior Carbon Technical Officer	BURN Manufacturing	management, Data analysis, Implementation of the project, assessment for re-definition/continuation of previously identified Baseline scenario, GHG emission reduction calculation, involved personnel and responsibilities, Training and practice of the operational personnel, Monitoring data management, Maintenance, Compliance to regulatory requirements, Environmental and social issues, Projects contribution to sustainable development
Mr. Stanley Kahira Kiriungi	Project Manager- Carbon Operations, Africa	BURN Manufacturing	
Mr. Edward Omondi	Senior Aftersales & Carbon Support Manager	BURN Manufacturing	
Ms. Felistus Kithome	Call Centres Quality Assurance & Training Associate	BURN Manufacturing	
Mr. Geoffrey Kamau	Junior Carbon Tech Officer	BURN Manufacturing	
Mr. Barrack Gumba	MRV team Leader	BURN Manufacturing	
Mr. Mofan Moranga	Enumerator	BURN Manufacturing	
Ms. Phelister Kamala	Enumerator	BURN Manufacturing	
Ms. Viola Adhiambo	Enumerator	BURN Manufacturing	
Ms. Winnie Mathenge	Enumerator	BURN Manufacturing	
Mr. Elius Kithuka	Enumerator	BURN Manufacturing	
Mr. Philemon Owuor	Enumerator	BURN Manufacturing	
Ms. Lilian Mweru	Enumerator	BURN Manufacturing	

Mr. Felix Ojweke	Enumerator	BURN Manufacturing		
Ms. Josephine Wambui	Enumerator	BURN Manufacturing		
Ms. Margaret Kihara	Enumerator	BURN Manufacturing		
Ms. Josephine Wambui	Enumerator	BURN Manufacturing		

It is to be noted that, as confirmed by the PP, BURN has transferred its role as the Project Developer to ECOA Climate Capital in 2022. Consequently, the employees previously associated with BURN now represent ECOA Climate Capital (i.e. BURN employees are same as ECOA employees). Given this transition, the interviews conducted with personnel from BURN effectively covered the necessary insights and perspectives of the Project Developer, ECOA Climate Capital.

To provide formal confirmation of this transition, an amended cover letter has been shared and re-uploaded to GS Assurance Platform. This was found to be appropriate and hence acceptable to the VVB team.

Also, BURN Manufacturing owns 100% of the shareholding of ECOA Climate Capital. So, employees of BURN Manufacturing and ECOA Climate Capital are actually same and to that extent the nomenclature in this validation report has been used interchangeably. A confidential copy of the shareholding for ECC^{6/} confirming this position has been verified by VVB team and confirmed to be correct. VVB team has reviewed this documentation and verified that the monitoring responsibilities remain consistent across both entities.

Persons interviewed as a part of baseline survey for Kenya^{27/}:

Interviewed Personnel			Date	Reason	Subject
First Name	Last Name	Sub-County and County			
Ms. Peris	Kalama	Kisauni, Mombasa	28/08/2024	Households for Baseline and KPT Surveys	Address, location and contact details, no. of people served, frequency of cooking, baseline technology usage pattern, baseline technology used, fuel used with its quantity, general price paid for procuring fuel,
Ms. Millicent	Atieno	Nakuru Town East, Nakuru	28/08/2024		
Ms. Annah	Atieno	Homabay Town, Homabay	28/08/2024		
Ms. Winfred	Kamola	Kitui Central, Kitui county	28/08/2024		
Mr. David	Otieno	Awendo, Migori	28/08/2024		
Ms. Nancy	Atieno	Kemera, Nyamira	28/08/2024		
Ms. Mercy	Gakii	Igamba Ng'ombe,	28/08/2024		

		Tharaka Nithi		seasonal variation in the fuel usage, source of fuel, time of baseline and KPT surveys conducted
Ms. Hellen	Gichuru	Mwea East, Kirinyaga	28/08/2024	
Ms. Pauline	Oduor	Kisumu West, Kisumu	28/08/2024	
Ms. Ivon	Atieno	Kisumu East, Kisumu	28/08/2024	
Ms. Eunice	Kalekye	Kibwezi West, Makueni	28/08/2024	
Mr. AMOS	JUMA	BONDO, Siaya	28/08/2024	
Mr. Francis	Matolo	Kibwezi East, Makueni	28/08/2024	

The remote interviews^{/27/} were conducted with the end users and following questions were asked to them.

Questions asked to end users of Baseline Stove:

These included the households who attended the urban baseline surveys and the Kitchen Performance Test for monitoring the type and quantity of fuel that is consumed in baseline scenario. The following questions were asked to them:

- Personal Details (Full Name, Location)
- Number of people in the household
- Frequency of food cooking
- Type of equipment using for cooking purpose
- Types of fuels used for cooking
- Estimated quantities of used fuel
- Sources of fuels (purchased, price of fuel, time spent to collect etc.)
- Did any investigator/Surveyor came to your home to measure the fuel consumption?
- When was the Urban Baseline Survey conducted for the household?
- When was the KPT done? For how much duration it was carried out?
- Any awareness from surveyor was done about the purpose of baseline and KPT survey?

Feedback Received through the Interviews: All the interviewees provided the general information of households. All of them are main users of the old traditional cookstoves and/or LPG at home. On an average, there were around 4 to 6 people in their household. They either used charcoal stoves or LPG stoves that means the fuels they used was either charcoal and/or LPG. All of them confirmed that the investigator/surveyor came to their home to measure the average fuel consumption per day used for the cookstove and performed Kitchen Performance Test (KPT). The test period with each household is 4 successive days. Surveyor visited each household for 4 times and kept each visit being at roughly the same time each day. The frequency of food cooking was observed to be 3 times a day in most of the households. All of them purchase the fuel from market.

VVB team confirmed that interviewed people are baseline stove users and not the project activity end users. The baseline surveys were performed within the project boundary i.e. Kenya. The surveys were performed in the urban and peri-urban households within the project boundary. VVB Team checked about the baseline surveys through the baseline survey database available in the ER spreadsheet and also the additional supportives were available on their KOBO Toolbox platform (links available in baseline database). Also, VVB Team cross verified the data during the remote interviews.

2.4 Sampling approach

Implementation of sampling plan for baseline survey:

In the PDD^{/1/}, PP has demonstrated the sampling plan in accordance with the requirements of TPDDTEC methodology, version 04.0^{/3/}.

As per para 4.3.3 of the applied methodology, "*The baseline survey should be carried out for each baseline scenario using representative and random sampling, following these guidelines for minimum sample size:*". As per the table in the concerned paragraph, if group size is >1000, minimum sample size is 100.

As per the methodology guidelines, since the group size is > 1000, minimum sample size required for the project baseline survey is 100 households. Therefore, the sample size was considered as 100, whereas PP has conducted surveys with 120 households from different counties in the Republic of Kenya, as evident from the submitted baseline survey database^{/1/}. This was found to be correct and appropriate to the assessment team in line with the guidance available in the methodology.

All field tests must include a sample of potential end users that are typical end users in the project activity. The surveys and field tests will be conducted concurrently with the same subjects.

A baseline survey along with a KPT was conducted for crediting period 3 to determine the baseline woody biomass consumption between 10/06/2024 and 15/07/2024 in 120 urban & peri-urban households across Kenya.

The BURN staff trained a local team of 41 surveyors, well aware about the local culture, language and with previous survey experience. The training was adequately tailored to the baseline surveys/KPTs and included an interactive discussion of questions with surveyors, going through the questions of the scale questionnaire (data collection form) and KPT protocol, role plays as well as interview techniques. Surveyors were instructed not to survey households which are less than 500 m distance from each other to ensure a certain geographic representativeness.

The KPT protocol published at Clean Cooking Alliance website⁸ and the guidelines of methodology were followed. Following the KPT procedure mentioned in the applied methodology Annex 4, ECC has conducted the KPT in BEFORE phase and adopted the INDEPENDENT sampling approach.

⁸ <https://cleancooking.org/research-evidence-learning/standards-testing/protocols/>

The households were visited on 4 consecutive days, avoiding weekends or any holiday. Brand-new weighing scales with a precision of 10 g were used, hence no calibration was necessary.

Prior to conducting KPT measurements, the households were asked a few questions with regard to household size, cooking patterns and fuels and cooking devices used. None of the 120 households stated a difference in fuel consumption and cooking patterns between dry and rainy season, hence seasonal variation was not relevant. The surveyors verified the response given by the householder related to the cooking devices by an on-site kitchen observation. All surveys and KPTs were carried out in person visiting the households.

The baseline surveys/KPTs resulted in an average charcoal consumption of 2.03 kg/day/household. As mentioned before, since the use of fuelwood was rather insignificant, it was conservatively excluded.

The sample size was sufficient to achieve a precision level of 8% and 23% at 90% confidence. Hence, the 90/30 confidence/precision level was met for the baseline KPT analysis.

The detailed household responses and the baseline survey/KPT analysis are provided in the baseline survey and KPT excel spreadsheet in the Ex-ante ER sheet.

Assessment team confirmed the above-mentioned details of baseline surveys to be appropriate and in line with the methodology guidance and requirements. The same were confirmed through the interviews with PP representatives during the remote audit too.

Sampling plan for project survey:

When project surveys will be carried out, a sample will be drawn from the project database for the “active” stoves population. The project will employ use of random sampling to draw samples. During the course of monitoring project parameters, the project proponent will conduct project survey of target population characteristics and carry out project Performance Field Test (PFT) of fuel consumption. The project survey and PFT will be conducted with end users through representative of the project scenario target population who are currently using the project technology.

Ongoing monitoring

Usage survey: An annual usage survey determines the drop off rates as project technologies age and users switch back to the baseline technology. The usage parameter will be weighted to be representative of the quantity of project technologies of each age being credited in a given project scenario. The minimum total sample size is 100 randomly selected households, with at least 30 samples for project technologies of each age being credited. The majority of interviews will be conducted in person by BURN staff or by hired externals which would be trained before and include expert observation by the interviewer within the kitchen in question, while the remainder may be conducted via telephone by the same interviewers on condition that in-kitchen observational interviews are first concluded and analyzed such that typical circumstances are well understood by the telephone interviewers.

At least with every 2nd monitoring survey a leakage assessment will be conducted. The leakage assessment evaluates if the project has in any way lead to an increase in emissions outside of the project boundary and if the increase will be directly attributed to the project activity.

The PP will update the project fuel consumption by carrying out biennial *project KPTs* to account for changes in the project scenario over time as project technologies age.

KPTs would follow the 90/30 rule in case of an independent sampling or the 90/10 rule in case of single sample tests. In case that the 90/30 rule (in case of independent sampling) or 90/10 rule (in case of single sample test) is not met, additional random samples will be taken or the upper bound of the 90% confidence interval will be applied. The procedures as outlined in Annex 2 of the applied methodology will be followed.

All of the aforementioned surveys/tests (except KPTs) are intended to be carried out with smartphones (by using e.g., KOBO software tool) and as soon as the user is online all the captured data are transferred to a centralized database. The team of BURN and the external carbon consultant carries out from there the further data analysis. If smartphone technology for any reason cannot be used, data will be recorded in paper form.

The sampling frame for the aforementioned ICS surveys comprises all households making part of the carbon database.

The sampling frame for the KPTs consist of all households using the project ICS. The surveys/tests will be carried out by BURN staff or by hired externals which would be trained before. The quality of the data will be checked by the carbon consultant.

The survey for SDGs 1, 3 and 5 follows the same sampling design as the usage survey to determine the usage rate. The households to be surveyed for SDGs 1 and 3 will be the same as the ones surveyed for $U_{p,y}$.

The usage survey has also been adapted to seek out qualitative responses from end-users on their estimated time savings in the cooking process as a comparison between estimate total time for cooking in the baseline scenario and the equivalent time required in the project scenario. The values from this assessment will provide the basis for SDG 5 computations.

SDGs 4 and 8 are determined from the analysis of training and employment records and or databases.

SDG 15 is an aggregated calculation based on the realized project fuel savings, usage rate, project technologies in use and the established non-renewable biomass fraction. This value therefore shall be calculated from usage survey data and the applicable established f_{NRB} fraction.

Assessment team confirmed the above-mentioned details of project surveys to be appropriate and in line with the methodology guidance and requirements. The same were confirmed through the interviews with PP representatives during the remote audit too.

VVB sampling:

Following "Guideline of Sampling and surveys for CDM project activities and programmes of activities" version 04.0^{/12/} and "Standard of Sampling and surveys for CDM project activities and programmes of activities" version 09.0^{/12/}, the assessment team conducted the validation of sampling results with the following steps:

Take a random sample of the project's sample records;

In order to determine the size of the sample end users for remote inspection, the acceptable quality level (AQL), i. e. the proportion discrepancies between the PP sample records and the VVB sample records that are acceptable is determined as 0.5% and the proportion of discrepancies between the PP sample records and VVB sample records that are unacceptable (UQL) is determined as 20% according to "Sampling and Surveys for CDM Project Activities and Programme of Activities" version 09.0.^{/12/}

The maximum errors associated with the determination indicated above should remain at levels indicated below as per "Sampling and Surveys for CDM Project Activities and Programme of Activities"^{/12/}:

- (1) A 10% chance that the VVB will wrongly reject the PDs records (producer's risk);
- (2) A 10% chance that the VVB will wrongly accept the PDs records (consumer's risk).

Therefore, with the AQL of 0.5%, the UQL of 20%, the producer's risk of 10% and the consumer's risk of 10%, the size of the acceptance sampling is determined as 11 and the acceptance number is determined as 0 according to Table 2 of "Sampling and Surveys for CDM Project Activities and Programme of Activities"^{/12/}. VVB has used "random" function in the excel worksheet to identify the sample nos. to be interviewed.

Check the acceptability of the data for each record in the sample records based on the expertise;

11 households were randomly selected from PD's "Urban Baseline Surveys" tab in the ER excel sheet^{/1/}. These selected households were interviewed during remote inspection^{/27/}. The information received during remote interviews was found to be consistent with PD's baseline data in excel sheet^{/1/}. No discrepancy is found between PD's sample records and the VVB's sample records. And all the households interviewed by the assessment team confirmed that they participated in the PD's sampling survey.

Based on the number of records where is agreement, determine if the sample records meet the requirements.

As there are no discrepant records, i. e. the discrepant record is less than the acceptance number of 0, the sample records are accepted as per sampling guidelines and tool.

Using acceptance sampling approach, verification team checked the PD's samples results along with the following evidences:

1. Remote inspection/interview^{/27/}
2. Household database^{/1/}

Following the requirement of the paragraph 28 of the Standard "Sampling and surveys for CDM project activities and programmes of activities" version 09.0^{/12/}, 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 whether the PD's sample records meet the requirements. The acceptability of the data was based on the VVB's professional judgement in line with the para 28 of the Sampling Standard.

Since no discrepant records were found, therefore, the PD's set of records have been accepted based on the acceptance sampling. This is in line with the paragraph 32 of *Standard "Sampling and surveys for CDM project activities and programmes of activities" version 09.0^{/12/}* and found acceptable.

Finding:

No finding raised.

2.5 Resolution of Clarification and Corrective Action requests

The objective of this phase of the validation was to resolve the requests for corrective actions and clarification and any other outstanding issues which needs to be clarified for Applus+ Certification's positive conclusion on the PDD. The Corrective Action Requests and Clarification Requests raised by Applus+ Certification were resolved during communications between the Client and Applus+ Certification to guarantee the transparency of the validation process, the concerns raised, and responses given are summarized in Appendix 1 below.

As per Applus+ Certification's working procedures applicable for the GS4GG Validation assessment for Design Certification Renewal, whenever a non-conformance arises or insufficient information is identified in project documentation, the Applus+ Certification's validation team shall raise a Corrective Action Request (CAR) and/or a Clarification Request (CL) respectively.

A CAR is issued, where:

- a) Non-compliance with the monitoring plan or methodology is found in project documentation and/or selected methodological or monitoring choices/options are not appropriately selected, applied or documented in project documentation by the project developer, or if the evidence provided to prove conformity is insufficient or incorrect.
- b) Details about the implementation, operation and monitoring of the GS project activity are not sufficiently documented and/or justified by the project developer.
- c) Mistakes and/or errors have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions to be achieved by the GS project activity.

The Applus+ Certification's validation team shall raise a Clarification Request (CL) if project related information is insufficient or not clear enough to determine whether the applicable CDM or GS4GG requirements are sufficiently met.

All CARs and CLs raised during validation shall be resolved prior to submitting a request for Design Certification Renewal of a GS project activity.

The objective of this phase of the validation is to resolve the requests for corrective actions (CARs) and clarification (CLs) and any other outstanding issues which need to be clarified for Applus+ Certification's positive conclusion on the project design. As an outcome of the performed validation assessment for Design Certification Renewal, 07 CARs and 07 CLs were raised and successfully closed. 01 FAR was raised during the current assessment which shall be addressed during performance certification of third crediting period.

The description of the raised CARs, responses/measures from representatives of the project developer and assessment by the Applus+ Certification's validation team for the provided responses/measures are included in Appendix 1.

2.6 Internal Quality Control

As the final step of a validation for design certification renewal, the final documentation including the validation report and the protocol have to undergo an internal quality control by the independent technical review committee.

Details of the Technical Reviewer(s) are provided within this Report in Section 2.1 and Appendix 2 for further references of knowledge and capability to conduct the quality checking.

After the Technical Review process, the final documentation may undergo a final quality checking process called Administrative Review, done by the Applus+ Certification's Project Manager and/or Technical Support.

Once approved by the Technical Review Team, each report has to be finally approved by the authorized personnel of the VVB (either the Technical Manager or other authority in case the Technical Manager is part of the Validation and/or Verification-Certification (VVC) Team for the project).

In case any of the persons performing this final internal quality-control and approval process has acted as a part of the Assessment Team or Technical Review team, the approval can only be given by VVB's personnel who are not part of those teams.

After confirmation of the PP, the validation opinion and relevant documents are submitted to the GS Registry.

3. PROJECT DESIGN CERTIFICATION ASSESSMENT

VVB Team confirms that:

- The updated PDD^{/1/} has been completed using the valid version of the applicable PDD form template (Version 1.5, which is the latest available version), following the instructions in the template Guide.
- The information transferred to the later valid version of the PDD form is materially the same as that in the design certified PDD for the previous 2nd 7-year crediting period of the project activity under the GS4GG^{/1/}.

3.1 Approval

This section is not applicable as this is a GS VER project.

3.2 Participation

ECO2 Climate Capital is the project developer and the project implementer from the host party - Kenya^{/14/}. The host country involved is a party to the Kyoto Protocol and meets requirements to participate in the Gold Standard.

3.3 Scale of the project

The PP has identified the type of project activity as large scale in section A.4 of the PDD, as per the applied GS4GG methodology^{/3/} and it was registered under GS as a large-scale project. The same was checked from previously registered PDDs^{/3/}.

As per section 9.1.2.b of the GHG EMISSIONS REDUCTION & SEQUESTRATION PRODUCT REQUIREMENTS^{/6/}, version 3.0⁹, the project is a large-scale project since the thermal efficiency of the project is 3,689.1 GWh(th) which is more than the small-scale threshold of 180 GWh(th) per year saving.

The assessment team also checked the requirement of applicable methodology i. e. REDUCED EMISSIONS FROM COOKING AND HEATING: Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 4.0^{/3/} and confirmed that the project qualifies requirements of the same (i.e. scale, applicability, baseline, additionality and monitoring).

The PP has identified the project activity as large scale, and it intends to design as per the latest version of the following:

- (i) GS4GG Principles & Requirements Version 2.0^{/6/}
- (ii) GS4GG Community Services Activity Requirements Version 1.2^{/6/}
- (iii) GS4GG GHG Emissions Reduction & Sequestration Product Requirements v.3.0^{/6/}

⁹ https://globalgoals.goldstandard.org/standards/501_V3.0_PR_GHG-Emissions-Reductions-Sequestration.pdf

The assessment team has verified the final PDD^{1/} and confirms that the Project is of large-scale type. The project has already been registered as large-scale project and continues as large-scale project.

In view of the discussion with PP representatives/stakeholders during remote inspection, the assessment team confirms that the PP has correctly identified the project scale. Therefore, acceptable by the VVB.

Type of project: As per general eligibility criteria of Community Services Agreement Requirements, version 1.2^{6/} project qualifies requirements of section 3.1.1 (b) as the project is End-use energy efficiency cookstoves project that reduces energy requirements as compared to baseline scenario without affecting the level and quality of services or products with sustainable development benefits.

3.4 Greenhouse Gases

The project activity is an “End-use energy efficiency” project which reduces 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. Hence, the greenhouse gas identified in the GS4GG PDD^{1/} is Carbon Di-Oxide which is duly validated by the VVB.

The GHG emission sources considered for the project boundary and their explanations are as follows:

Scenario	Source	GHGs	Included?	Justification/Explanation
Baseline Scenario	Heat delivery	CO ₂	Yes	Main source of emission in the baseline
		CH ₄	Yes	Important source of emissions
		N ₂ O	Yes	Significant for charcoal, hence included
	Production of fuel	CO ₂	Yes	Important source of emissions
		CH ₄	Yes	Important source of emissions

		N ₂ O	Yes	Significant for charcoal, hence included
	Transport of fuel	CO ₂	No	Not included for simplification and conservativeness
		CH ₄	No	Not included for simplification and conservativeness
		N ₂ O	No	Not included for simplification and conservativeness
Project Scenario	Heat delivery	CO ₂	Yes	Main source of emission in the baseline
		CH ₄	Yes	Important source of emissions
		N ₂ O	Yes	Significant for charcoal, hence included
	Production of fuel	CO ₂	Yes	Important source of emissions
		CH ₄	Yes	Important source of emissions
		N ₂ O	Yes	Significant for charcoal, hence included
	Transport of fuel	CO ₂	No	Not included since no increase of fuel transport compared to the baseline

		CH ₄	No	Not included since no increase of fuel transport compared to the baseline
		N ₂ O	No	Not included since no increase of fuel transport compared to the baseline

VVB has checked and confirmed that PP has included all the emission sources as required based on section 3.2 of the applied GS methodology^{/3/} in the GS PDD.^{/1/}

As confirmed during the desk review and remote audit, the project boundary covers the geographical boundary of the country of Kenya. The project boundary is the physical, geographical sites where Burn stoves are used within Kenya. This boundary also hosts the baseline and project fuel collection and production. The target area is the whole country of Kenya where the considered baseline scenario is deemed to be uniform across political borders. The fuel production and collection area is the area within which this woody or new biomass is produced, collected and supplied and lies within the geographical boundary of Kenya.

In accordance with the methodology, CO₂, CH₄ and N₂O emissions from Delivery of thermal energy and Production of fuel are an important source of emissions under both baseline and project scenario hence they have been included in the GHG Emission sources table above. Whereas, transport of fuel is not considered an important source of emissions (for simplification and conservativeness) in baseline and because there is no increase of fuel transport as compared to the baseline, in project scenario. This was confirmed by VVB team during the remote audit interviews with PP representatives and baseline stove users.

3.5 Project timeframe

Other certification scheme: The project activity has not applied, confirmed by project developer, for any other certification like Green or White certification. Therefore, the validation team concluded that the PA meets the applicability criteria of Gold Standard^{/6/}. During validation, PD confirmed that this Project is solely developed as a standalone GS VER Project and submitted a declaration that there will not be double accounting of emission reduction for the project activity for the third crediting period^{/13/}.

This project started as part of GS966 "Paradigm Healthy Water and Cookstoves Project". However, it underwent successfully design change with the Gold Standard and a new project was created for Burn manufacturing and the project was registered on 28th February 2018. In addition, the project underwent successful crediting period renewal and was successfully renewed. On

31/10/2022, BURN transferred its role as Project Developer of the Project to ECOA Climate Capital^{/14/}. This was confirmed by VVB team by checking the project documentation available on the project GS website¹⁰ and the PDD^{/1/}.

The project has applied for GS VER design certification renewal. Assessment team checked other registries such as VCS Registry/Project pipeline^{/23/}, GCC registry^{/24/}, UNFCCC CDM website^{/22/}, etc.^{/25/26/} and found that this PA has not applied for either of these schemes. Further, PA has also not applied for any other carbon registry, as confirmed by VVB. PP has provided a duly signed undertaking^{/13/} stating that they will avoid double counting and does not intend to seek registration under other GHG schemes for current PA too^{/13/}. Same has been cross checked by VVB and was found to be correct.

3.6 Public announcement

Assessment team is of the opinion, taking note of the previous validation report and PDD^{/1/} that the incentive in the form of carbon credits was seriously considered in the decision to proceed with the project activity. The project is registered under GS mechanism¹¹.

3.7 Project Boundary

VVB Team noted that as per section 3.1.1 of the applied methodology^{/3/}, the project boundary is the physical, geographical sites of the project technologies/practices including the fuel collection and production area^{/7/}. The physical/geographical boundary for the project is the physical/geographic boundary of Kenya, where the BURN stoves are being distributed.

VVB team confirmed that PP has clearly described the project boundary inclusive of the above in the GS PDD^{/1/} section B.3 and found acceptable.

VVB team further confirmed that the project boundary defined is the physical, geographical sites of the project technologies/practices including the fuel collection and production area^{/7/}. In case of baseline fuel being woody biomass (including charcoal), which is the case as confirmed during remote interviews^{/27/}, the project boundary also includes the area within which this woody biomass is collected. The target area is the whole country of Kenya where the considered baseline scenario is deemed to be uniform across political borders. The fuel production and collection area are the area within which this woody or new biomass is produced, collected and supplied and lies within the geographical boundary of Kenya.

3.8 Baseline Identification

As per section 3.4.1 of the applied methodology^{/7/}; *The project developer shall define the baseline scenario as the existing baseline technology/practice use and fuel consumption patterns for the type of service provided by the project technology in the population targeted for adopting the new project technology, i.e., "target population".*

VVB notes that, PD has conducted a baseline survey with a sample group of households (>100 nos.) in line with the sampling requirements of the applied methodology and sampling standard.

¹⁰ <https://assurance-platform.goldstandard.org/project-documents/GS5642>

¹¹ <https://registry.goldstandard.org/projects/details/1559>

Through the baseline survey, PD has established that the baseline scenario is still continued i.e. in the absence of the implementation of this PROJECT, households in Kenya will continue to use traditional stoves for cooking with either firewood or charcoal.

VVB during remote assessment^{/27/} has interviewed the identified baseline samples from PD's sampling and noted that the identified baseline at the time of design certification is still continued as the households still continue to use the traditional stoves for cooking with either firewood or charcoal.

As per section 3.4.2 of the applied methodology^{/7/}, for thermal application; *The selection and description of the baseline scenario must be informed by the Baseline Scenario Survey.*

PD during the baseline survey has established that the entire surveyed population relies on Firewood and charcoal for their daily cooking needs. Firewood is predominantly used by rural households while urban households use charcoal as the main fuel for cooking. Charcoal is the principal fuel in Kenya providing energy for 82% of urban and 34% of rural households¹².

It has also been observed that alternatives to the baseline and the suggested project technology are LPG stoves (31%), kerosene stoves (3.9%) and ethanol (0.3%)¹³. These fuels are usually stacked with other fuels such as 3-stone fires, and charcoal¹⁴. Affordability and supply are key obstacles to achieving universal access to clean cooking technologies¹⁵.

In the absence of the implementation of this PROJECT, households in Kenya will continue to use traditional stoves for cooking with either firewood or charcoal.

As per the baseline survey results^{/1/}, the households have declared that the average of amount fuels used for cooking is 0.74 ton/hh/year charcoal and 0.04 ton/hh/year LPG in Kenya.

As a part of VVB survey, assessment team has interviewed the households and has confirmed that all the identified samples are primarily dependent on charcoal as their main source of fuel. 05 out of the 11 samples confirmed that they use LPG in addition to charcoal but the use of same is not a wide practice as VVB noted that the cost of LPG is much higher than charcoal and average cylinder use in the selected samples was very less. As confirmed with PP during the remote interviews and through the results of baseline surveys, it was noted that LPG is the secondary fuel for most of the households.

Thus, it can be concluded that, although the LPGs are stacked in addition to the baseline stoves, it is mainly the secondary fuel in most of the households and the proportion is less as compared to charcoal. Additionally, the LPG use is already being taken into consideration for ER Calculations, so as to avoid overestimation of the ER values.

Thus, charcoal remains the main source of fuel which was further established as a part of audit interviews.

¹² <https://www.scrip.org/journal/paperinformation?paperid=121382>

¹³ https://www.energy.go.ke/sites/default/files/KAWI/Publication/Kenya%20National%20Cooking%20Transition%20Strategy_Signed.pdf

¹⁴ <https://cleancooking.org/wp-content/uploads/2021/07/605-1.pdf> table 2

¹⁵ https://www.energy.go.ke/sites/default/files/KAWI/Publication/Kenya%20National%20Cooking%20Transition%20Strategy_Signed.pdf

Assessment team referred CDM Methodological Tool 11 - Assessment of the validity of the original / current baseline and update of the baseline at the renewal of the crediting period, version 03.0.1^{5/}, CDM validation and verification standard for project activities, version 03^{5/} and GS Validation and Verification Standard, Version 2.0^{5/} to check the originality of the baseline. Following are the observations of the assessment team regarding selected baseline for the project activity in this present 3rd renewable crediting period:

Step 1 (EB 66, Annex 47): Assess the validity of the current baseline for the next crediting period

Step 1.1 (EB 66, Annex 47): Assess compliance of the current baseline with relevant mandatory national and/or sectoral policies

The baseline for the project activity is defined as explained above:

Through the baseline survey it is established that the existing baseline scenario is still continued i.e. in the absence of the implementation of the project technologies, households in Kenya will continue to use traditional stoves for cooking with either firewood or charcoal or LPG.

It was noted that, the Government of Kenya has set ambitious targets to increase access to clean cooking solutions for both rural and urban areas. However, there are no mandatory laws or policies to switch from traditional stoves to ICS. The national goal is to achieve universal access to clean cooking technologies by 2028¹⁶.

VVB noted that the baseline remains unchanged for the present (3rd) crediting period since:

- a) The baseline survey by PD^{1/} and VVB interviews^{27/} have established that the baseline identified is the same as that of the methodology.
- b) There is no policy been revised and/or is currently in force as well, therefore the baseline scenario is still in compliance with all the relevant mandatory national and/or sectoral policies.

Step 1.2 (EB 66, Annex 47): Assess the impact of circumstances

In the situation where the baseline scenario identified at the validation of the project activity was the continuation of the current practice without any investment, an assessment of the changes in the market characteristics is required for the renewal of the crediting period.

The baseline scenario identified during the validation of the project activity for the third crediting period reflects the continuation of existing practices without any new investments.

A majority of households in Kenya uses solid fuel for cooking purposes. Firewood is predominantly used by rural households while urban households use charcoal as the main fuel for cooking. Charcoal is the principal fuel in Kenya providing energy for 82% of urban and 34% of rural

¹⁶https://www.energy.go.ke/sites/default/files/KAWI/Publication/Kenya%20National%20Cooking%20Transition%20Strategy_Signed.pdf

households¹⁷. In the absence of the implementation of this PROJECT, households in Kenya will continue to use traditional stoves for cooking with either firewood or charcoal.

As outlined above, conventional technologies continue to dominate in Kenya, indicating that the market characteristics have not significantly changed over the crediting period.

VVB Team observed that there is no change in the baseline identified at the time of project design certification. Charcoal remains the main source of fuel which was further established as a part of audit interviews. VVB Team confirms that the conventional technologies continue to dominate in Kenya, thus implying that the market characteristics have not significantly changed over the crediting period.

Step 1.3 (EB 66, Annex 47): Assess whether the continuation of the use of current baseline equipment(s) or an investment is the most likely scenario for the crediting period for which renewal is requested.

Assess whether the remaining technical lifetime of the equipment that would have continued to be used in the absence of the project activity, exceeds the crediting period for which the renewal is requested. Take into consideration market penetration of different technologies. Evaluate the penetration rate of different technologies that are available in the market and evaluate how they could affect the baseline.

As per the "Tool to determine the remaining lifetime of equipment", Version 01.0^{5/}, the remaining lifetime of the equipment is the time for which the existing equipment can continue to operate before it has to be replaced/discarded. As per this Tool, Project participant can use one of the following options to determine the remaining lifetime of the equipment:

- (a) Use manufacturer's information on the technical lifetime of equipment and compare to the date of first commissioning;
- (b) Obtain an expert evaluation;
- (c) Use default value

It was observed that, KCJ (Kenya Ceramic Jiko) is still the most prominent charcoal stove in Kenya with an estimated 4.2 million households (33.8%) reporting owning at least one. 0.9 million households (7.3%) report owning a metallic charcoal stove and about 386,000 households (3.1%) own a type of branded charcoal stove. 10.3% of households in Kenya, approximately 1.3 million, use a type of charcoal cookstove as their primary cookstove¹⁸.

The baseline stove is easily made by the local artisans hence easily accessible. Further, the technical lifetime of the baseline equipment largely exceeds the crediting period since they can be easily repaired or replaced by local artisans, ensuring a long lifespan even after repeated use. Thus, the remaining lifetime of equipment is exceeding crediting period as per option 1 of Tool to determine the remaining lifetime of the Equipment^{5/}.

¹⁷ <https://www.scirp.org/journal/paperinformation?paperid=121382>

¹⁸ [rise.esmap.org/data/files/library/kenya/Electricity Access/Kenya MoE-Kenya Cooking Sector Study 2019.pdf](http://rise.esmap.org/data/files/library/kenya/Electricity%20Access/Kenya_MoE-Kenya_Cooking_Sector_Study_2019.pdf)

Alternatives to the baseline and the suggested project technology are LPG stoves (31%), kerosene stoves (3.9%) and ethanol 0.3%¹⁹. These fuels are usually stacked with other fuels such as 3-stone fires, and charcoal²⁰. Affordability and supply are the key obstacles to achieving universal access to clean cooking technologies²¹. Based on this, households currently using inefficient cooking technologies are unlikely to transition completely to improved cookstoves. Therefore, the continuation of the current baseline stove as the main cooking technology is the most plausible scenario.

Since commissioning, the project activity is running satisfactorily. Technical life of the Jikokoa cookstoves is 7-10 years as indicated in the manufacturer's specifications^{10/}. The lifetime of the Jikokoa stoves may go beyond indicated life. Hence, depending on the usage rate of the stoves, stoves will be either removed from the database after the end of its lifetime and not credited anymore. Any stove that gets to the end of its life will not be claiming emission reductions since there is no plan for either replacing with comparable or better technology or retrofitting essential parts, as confirmed by PP during the remote audit.

Also, it was confirmed with PP representatives that, all stoves that have aged out are excluded from, technology days hence they do not claim any credits. Given the lifetime of the stoves is 7-10 years, there were no stoves that were excluded from the database in CP1 since they were within the lifetime. However, in CP 2 MP3 which covered (01/06/2020 to 31/03/2022) and MP4 which covered (01/04/2022 to 13/03/2023) stoves registered before 2014 were excluded from technology days and did not claim credits. In MP5 (14/03/2023 to 12/03/2024), stoves registered before 2015 were excluded from the database and did not claim any credits. This was a conservative way of claiming credits where stoves in the old ages were gradually being removed. All stoves above age 9 have been permanently removed from the database and will not be claiming any credits. This will be a continuous process during each MP, where older stoves will be removed from crediting.

These details were confirmed by the VVB team through review of literatures mentioned in footnotes, manufacturer's specifications^{10/} and through interviews with the PP representatives and baseline survey end users^{10/}.

As per manufacturer specification, the lifetime of Burn stove is 7-10 years. Stove distribution started on 26/08/2013 to 25/01/2021 where, by the end of CP 1 a total of 233,164 stoves were sold and those that had reached their end of life removed to only be left with 222,666 stoves that were credited. Stove distribution continued in CP 2 where a total of 379,652 stoves were distributed. However, as at the end of CP2, stoves beyond the age group of 9 were removed from crediting where only 344,977 stoves were credited. Further, during the 3rd crediting period, all old stoves beyond age 9 have been removed from crediting and now will consider only 236,029.

¹⁹https://www.energy.go.ke/sites/default/files/KAWI/Publication/Kenya%20National%20Cooking%20Transition%20Strategy_Signed.pdf

²⁰<https://cleancooking.org/wp-content/uploads/2021/07/605-1.pdf> table 2

²¹https://www.energy.go.ke/sites/default/files/KAWI/Publication/Kenya%20National%20Cooking%20Transition%20Strategy_Signed.pdf

The complete distribution details are provided by PP in section B.4 of the PDD^{/27/}. VVB has cross-checked the distribution details from the provided cookstoves database/dissemination records^{/27/} and confirmed to be correct. Moreover, "Summary" spreadsheet^{/27/} of cookstove distribution was also cross checked by VVB team which provides the necessary information of no. of cookstoves distributed as well as excluded during each crediting period and age group wise bifurcation. They were found to be correct and acceptable.

As per option (a), evaluating the remaining lifetime for the type of equipment has been approached and requested to determine the remaining lifetime of the equipment. The assessment of remaining lifetime of the equipments had been done and confirmed that the remaining technical lifetime of the equipment of the project activity exceeds the crediting period for which renewal is requested. As the remaining technical lifetime of the equipment is not less than the end of the crediting period or which renewal is requested, the current baseline holds good for this crediting period too. Therefore, the continuation of the current baseline stove as the main cooking technology is the most plausible scenario.

Step 1.4 (EB 66, Annex 47): Assessment of the validity of the data and parameters

Assess whether data and parameters that were only determined at the start of the crediting period and not monitored during the crediting period are still valid or whether they should be updated.

This step stipulates that "Where emission factors, values or emission benchmarks are used and determined only once for the crediting period, they should be updated, except if the emission factors, values or emission benchmarks are based on the historical situation at the site of the project activity prior to the implementation of the project and cannot be updated because the historical situation does not exist anymore as a result of the CDM project activity."

VVB has observed that following parameters are fixed ex-ante by the PD:

Data / Parameter	Description
Baseline scenario survey results	Report of the results of the baseline scenario survey
Project technology description	The detailed description of the project technology
Expected technical life of project technology	The expected technical life of an individual project technology shall be defined in the PDD.
Avoidance of double counting or double claiming among project participants project or programme	Evidence of avoidance of double counting or double claiming with other parties directly involved with the project or programme.
Avoidance of double counting or double claiming with other mitigation actions	Review and analysis of mitigation actions in other voluntary market or UNFCCC/compliance mechanisms
Regulatory framework for provision of thermal energy services	Evidence that the project does not undermine or conflict with any national, sub-national or local regulations or guidance for thermal energy supply/devices or fuel supply or use

EF_{b,f,CO_2}	CO ₂ emission factor arising from use of fuels in baseline scenario
$EF_{b,f,nonCO_2}$	Non-CO ₂ emission factor arising from use of fuels in baseline scenario
EF_{p,f,CO_2}	CO ₂ emission factor arising from use of fuels in project scenario
$EF_{p,f,nonCO_2}$	Non-CO ₂ emission factor arising from use of fuels in project scenario
$NCV_{b,fuel}$	Net calorific value of wood fuel used in the baseline
$NCV_{p,fuel}$	Net calorific value of wood fuel used in the project
$f_{NRB,i,y}$	Non-renewability status of woody biomass fuel in scenario i during year y
$SFC_{b,y}$	Specific fuel consumption for an individual baseline technology in baseline scenario b during year y

The data and parameters determined at the start of the second crediting period have been updated by PP for the third crediting period as per the latest version of the methodology^{/3/}. Although as per the tool "Assessment of the validity of the original/current baseline and to update the baseline at the renewal of a crediting period" (Version 03.0.1, EB 66, Annex 47), reassessment of the baseline is not required, however, PD has reassessed the baseline values as reported below.

VVB has checked all the values and have confirmed that these values will be used for the complete 3rd renewable crediting period and for entire verification conducted under 3rd renewable crediting period.

Application of Steps 1.1, 1.2, 1.3 and 1.4 confirmed that the current baseline is valid for the Third crediting period, but data and parameters need to be updated.

Therefore, step 2 is applied.

Step 2: Update the current baseline and the data and parameters:

Step 2.1: Update the current baseline:

Update the current baseline emissions for the third crediting period, without reassessing the baseline scenario, based on the latest approved version of the methodology applicable to the project activity.

This step is applicable since the Steps 1.1, 1.2, 1.3 and/or 1.4 showed that the current baseline needs to be updated. As evident from the explanation provided above the baseline scenario remains unchanged.

It was noted that, a baseline survey along with a KPT was reassessed for crediting period 3, to determine the baseline woody biomass consumption was conducted by PP between 10/06/2024

and 15/07/2024 in 120 urban & peri-urban households across Kenya. The KPT protocol published at Clean Cooking Alliance website²² and the guidelines of methodology were followed.

As a result of these surveys, the baseline surveys/KPTs resulted in an average charcoal consumption of 2.03 kg/day/household. The detailed household responses and the baseline survey/KPT analysis are provided in the baseline survey and KPT excel spreadsheet.

Assessment team cross checked these KPT and baseline survey sheets and confirmed the information to be correct through remote interviews with the baseline survey interviewees.

PD has updated the baseline emissions based on the latest applied version of the methodology^{3/} applicable to the project activity for the subsequent crediting period, without reassessing the baseline scenario.

Step 2.2: Update the data and parameters

The updated Data and/or parameter are followed for estimating the baseline emissions which is checked and confirmed above.

VVB has observed that following parameters are fixed ex-ante by the PD:

Data/Parameter	Description
Baseline scenario survey results	Report of the results of the baseline scenario survey
Project technology description	The detailed description of the project technology
Expected technical life of project technology	The expected technical life of an individual project technology shall be defined in the PDD.
Avoidance of double counting or double claiming among project participants project or programme	Evidence of avoidance of double counting or double claiming with other parties directly involved with the project or programme.
Avoidance of double counting or double claiming with other mitigation actions	Review and analysis of mitigation actions in other voluntary market or UNFCCC/compliance mechanisms
Regulatory framework for provision of thermal energy services	Evidence that the project does not undermine or conflict with any national, sub-national or local regulations or guidance for thermal energy supply/devices or fuel supply or use
EF_{b,f,CO_2}	CO ₂ emission factor arising from use of fuels in baseline scenario
$EF_{b,f,nonCO_2}$	Non-CO ₂ emission factor arising from use of fuels in baseline scenario
EF_{p,f,CO_2}	CO ₂ emission factor arising from use of fuels in project scenario

²² <https://cleancooking.org/research-evidence-learning/standards-testing/protocols/>

$EF_{p,f, nonCO2}$	Non-CO ₂ emission factor arising from use of fuels in project scenario
$NCV_{b,fuel}$	Net calorific value of wood fuel used in the baseline
$NCV_{p,fuel}$	Net calorific value of wood fuel used in the project
$f_{NRB,i,y}$	Non-renewability status of woody biomass fuel in scenario i during year y
$SFC_{b,y}$	Specific fuel consumption for an individual baseline technology in baseline scenario b during year y

The data and parameters determined at the start of the second crediting period have been updated by PP for the third crediting period as per the latest version of the methodology. Detailed information about these parameters is provided in section 3.10 of this report.

VVB has checked all the values and have confirmed that these values will be used for the complete 3rd renewable crediting period and for entire verification conducted under 3rd renewable crediting period.

Thus, compliance with step-2 is appropriately demonstrated.

3.9 Eligibility Principles Assessment

Eligibility of the project under Gold Standard:

VVB team has assessed General Eligibility Criteria and confirms that PA meets the requirements of the Section 3.1.1 of the GS "Principles and Requirements, Version 2.0"^{/6/} which need to be applied to all projects seeking Gold Standard Certification and the same is presented below:

- (a) Types of project: VVB team through the review of PDDs for the previous crediting period^{/1/} & subsequent monitoring reports and through remote audit^{/27/} confirms that the project activity consists of distribution of energy efficient cookstoves that seeks to reduce the amount of fuel used in the households by displacing the traditional cook stoves that require a lot of fuel. The project stoves are efficient charcoal stove that cuts down the daily fuel consumed thus necessitating fewer trips to collect fuel or less money spent on charcoal per week. Efficient, improved stoves are a more sustainable, economic and healthier way to cook. The proposed project thus falls under 3.1.1 (b) End- Use Energy efficiency of the Gold Standard for the Global Goals Community Services Activity Requirements, version 1.2^{/6/}: Project activities that reduce energy requirements as compared to baseline scenario without affecting the level and quality of services or products, where the end user of the products and services are clearly identified and when the physical intervention is required at the user end. These types of projects are allowed under GS approved methodology - "REDUCED EMISSIONS FROM COOKING AND HEATING: Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC)- version 4.0."^{/3/}
- (b) Location of Project: GS4GG allows projects from any part of the world and VVB has confirmed that the current project is located within the physical/geographical boundary of Republic of Kenya. ICS are distributed to urban and peri urban households all over the territory of the Republic of Kenya.

- (c) Project Area, Project Boundary and Scale: VVB team during the remote audit and based on registered PDD^{1/} has confirmed that project area is the physical/geographical boundary of Kenya.

The project boundary is already assessed above in section 3.7 of the report.

VVB team has checked the beneficiary agreements^{15//16/} and declaration from project participants^{13/} which confirm that the beneficiaries of the projects are not linked to other voluntary or compliance standards program and with unique IDs allotted to them, each cookstove is traceable. Stoves have unique serial numbers which are used for identification of each project technology. Stoves in this project have not been included in any other mitigation action. The declaration letter^{13/} also confirms that PA Implementer has checked different carbon standard registries, including the UNFCCC, GS and VCS websites^{22//23//24//25//26/}. Previously, this project was part of GS 966 but later registered separately. The project implementer can confirm that currently, the project has not been registered as a separate GS project activity, nor included as part of another registered GS project (or other carbon standard).

As per section 9.1.2.b of the GHG EMISSIONS REDUCTION & SEQUESTRATION PRODUCT REQUIREMENTS^{6/}, version 3.0²³, the project is a large-scale project since the thermal efficiency of the project is 3,689.1 GWh (th) which is more than the small-scale threshold of 180 GWh (th) per year saving.

VVB team has checked the registered PDD^{1/}, project webpage²⁴ and confirmed that the project had been already registered as large-scale project and continues to be a large-scale project.

- (d) Host Country Requirements: VVB has confirmed that the project activity consists of providing improved energy efficient cook stoves to the target households of the project zone. There are no legal, environmental, ecological, or social regulations that make it compulsory to carry out the project activity, nor are there any laws or regulations preventing the PD from initiating the project within the project area. Furthermore, it was confirmed that No EIA is required by the host country for ICS project activities. As per the national legislation on environmental impact assessment, the distribution of ICS devices is not listed in the schedule of activities that require an EIA study.
- (e) Contact Details: VVB has checked and confirmed the contact details of project participant as below:

Project Participant: ECOA Climate Capital,

Address: 72201, C/O AXIS Fiduciary Ltd, 2nd Floor, The Axis, 26 Cybercity, Ebene, Mauritius

Contact Person: Mr. Peter Scott

Tel: +254 718 125 639

Mail: peter@burnmanufacturng.com

²³ https://globalgoals.goldstandard.org/standards/501_V3.0_PR_GHG-Emissions-Reductions-Sequestration.pdf

²⁴ <https://registry.goldstandard.org/projects/details/1559>

- (f) Legal Ownership: VVB has noted that the implemented cookstove units will be owned by the respective beneficiary participating in the proposed project activity. The ownership rights for GS VERs generated by the project activity are with the project developer – ECOA Climate Capital which is confirmed based on beneficiary agreement signed between end users and ECOA Climate Capital^{/15//16//15/}. Also, the project uses written messages on the stove packaging (strip on the box) and warranty booklet explaining that the rights on carbon credits are transferred from the end-users to BURN Manufacturing^{/15//15/}.

VVB team confirms that, at the time of the registration and distribution of the project, BURN Manufacturing Co., (“BURN”) was listed as the original project developer. Ownership of carbon credits from the end user was communicated as such both at the LSC and in all end-user waivers and notices of transfer of carbon credits as being specifically transferred from the end-user to BURN. Since then (in 2022), BURN has transferred ownership of the Project and all claims to the VERs generated under it to ECOA Climate Capital as is evidenced in the amended cover letter uploaded to SustainCert^{/14/}.

Therefore, Legal ownership of the carbon credits under this project therefore are owned by ECOA Climate Capital.

- (g) Other Rights: For this project no such other rights are involved as confirmed by the VVB.
- (h) Official Development Assistance (ODA) Declaration: VVB noted that the PD has submitted declaration regarding ODA to GS4GG dated 24/10/2018^{/9/} which is checked and found appropriate.

ELIGIBILITY PRINCIPLES AND REQUIREMENTS

Principle 1. Contribution to Climate Security & Sustainable Development

The project activity is the energy efficient improved cookstoves project implemented in Kenya, which is the eligible project type under GS. The baseline scenario and the emission reduction calculations have been performed as per the registered GS PDD^{/1/}. PD has used the most recent applicable methodology and recent version of tools for identifying the baseline scenario and for calculation of emission reductions which is acceptable.

The applicability criteria of methodology for REDUCED EMISSIONS FROM COOKING AND HEATING: Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 4.0^{/3/} is detailed out as below which was assessed and confirmed by VVB:

Methodology applicability requirement	Justification by PP regarding this Project	VVB Assessment
Section 2.1.1: This methodology is applicable to project activities that introduce technologies and/or practices that reduce or displace greenhouse gas (GHG)	This project introduces efficient improved charcoal cookstoves (ICS) reducing woody biomass consumption for urban and peri-	VVB during the remote audit interviews ^{/27/} have observed and confirmed that this project activity introduces energy efficient improved charcoal cookstoves (ICS) reducing woody

emissions from the thermal energy consumption of households and/or residential, institutional, industrial, or commercial facilities. Throughout the methodology the term 'technology' should be read as the single or multiple technologies and/or practices applied in the project activity.	urban households, hence reducing GHG emissions from the thermal energy consumption.	biomass consumption for urban and peri-urban households, hence reducing GHG emissions from the thermal energy consumption. Hence this criterion is applicable and met.
Section 2.1.2: Where there is no installation of improved devices and project claims emission reductions from improved practices only, project shall provide a detailed discussion of the chosen monitoring approach to demonstrate that quantified emission reductions result exclusively from the practices introduced by the project activity.	The project entails distribution of improved biomass cookstoves with higher efficiency compared to the baseline stove technologies and emissions reductions shall be claimed from improved efficiency.	The project entails distribution of improved biomass cookstoves with higher efficiency compared to the baseline stove technologies and emissions reductions shall be claimed from improved efficiency. VVB during the remote audit interviews ^{/27/} have observed and confirmed that this project activity introduces energy efficient improved charcoal cookstoves (ICS). As per the Manufacturer's specifications ^{/10/} , the thermal efficiency of the project cookstoves was noted to be 48.1% for Jikokoa G3.5 and 44.6% for Jikokoa Xtra G4. Further VVB has confirmed that the project activity is reducing woody biomass consumption for urban and peri-urban households, hence reducing GHG emissions from the thermal energy consumption. Thus, it was confirmed that the quantified emission reductions result exclusively from the practices introduced by the project activity. Hence, this criterion is applicable and met.
Section 2.1.3: Project may involve progressive distribution of technology	ECC has distributed the improved cookstoves till year 2021 and may	During the interviews ^{/10/} with PP representatives, it was confirmed that ECC has distributed the

where implementation of the technology may occur in a gradual manner and adoption can increase over the project's crediting period.	involve progressive distribution of technology.	improved cookstoves till year 2021 and they will be operational during the current crediting period. The progressive distribution of technology is also expected during the crediting period. Hence, this criterion is applicable and met.
Section 2.2.1 (a): Project shall choose a technology design that has predictable performance in that it is proven to be efficient and durable under field conditions; for cookstoves, the rated thermal efficiency shall be at least 20%.	The rated thermal efficiency of the Jikokoa stoves is 48.1% for Jikokoa G3.5 and 44.6% for Jikokoa Xtra G4, which is above the minimum efficiency of 20% required under the meth.	VVB team has cross checked the manufacturer's technical specification document ^{/10/} and confirmed that the thermal efficiency of Jikokoa Stoves is above the minimum efficiency of 20% required under the meth (Jikokoa G3.5: 48.1% and Jikokoa Xtra (G4): 44.6%). Hence, this criterion is applicable and met.
Section 2.2.1 (b): The technology shall have continuous useful energy output of less than 150kW per unit, where "continuous useful energy output" is defined above.	The ICS promoted by this PROJECT have a capacity of less than the maximum 150kW per unit. The power output is 2.05 kW for Jikokoa G3.5 and 2.21 kW for Jikokoa Xtra (G4). Manufacturers specification ^{/10/} to be provided to VVB.	VVB team has cross checked the manufacturer's technical specification document ^{/10/} and confirmed that the continuous useful power output of Jikokoa Stoves is less than the maximum limit of 150kW per unit required under the meth (Jikokoa G3.5: 2.05 kW per unit and Jikokoa Xtra (G4): 2.21kW per unit). Hence, this criterion is applicable and met.
Section 2.2.1 (c): The project activity is implemented by a project developer and can include additional project participants listed in Appendix 2 of the PDD template. Individual households and institutions may be represented collectively. by community organizations, etc., but do not individually act as project participants	This project is implemented by ECC and same is the project developer of the Project Activity. The individual households do not act as project participants.	VVB team cross checked the details provided in Appendix 2 of PDD ^{/1/} & the amended GS Cover Letter dated 31/10/2022 ^{/14/} and confirmed that ECOA Climate Capital (ECC) is now the sole project developer/participant for this project activity. The project is being implemented by ECC and same is the project developer of the Project Activity. The individual households do not act as project participants. This was confirmed during the remote assessment ^{/27/} .

		Hence, this criterion is applicable and met.
Section 2.2.1 (d): The project developer must design incentive mechanism(s), which should be effective as fast as possible, for the elimination of inefficient baseline stoves that are replaced by the project cooking devices and describe the incentive mechanism(s) in the PDD/VPA-DD at the time of validation	The stoves have been distributed at a subsidized price under this project. The aim of the incentive mechanism is to encourage the elimination of the inefficient baseline stoves. The CME is aware that some of the households may continue using the baseline stoves hence the following measures have been put in place to encourage discontinued use of the baseline stove: Project technology training encourages the discontinuation/dismantling of old technologies. Customers will be encouraged to remove the old technology and the definitive discontinuity of its use. However, surveys will determine if households still use those which are not removed. The initial measures to be taken are: The CME's monitoring surveys will provide information to what extent households continue using the baseline technologies after the introduction of the ICS: The parameter, $P_{p,y}$ is based on subsumed	During remote audit^{27/} it was confirmed that the project cookstoves are being distributed at a subsidized rate in order to promote the increased use of improved efficient cookstoves. The aim of incentive mechanism is to encourage the elimination of inefficient baseline stoves. Moreover, the PP will implement measures to encourage the discontinuation of baseline cookstoves use by the end users such as project technology trainings, encouragement for definitive discontinuity of baseline stoves. PP will monitor the continued used of baseline stoves after implementation of project stoves through the monitoring and usage surveys. It was noted that, surveys conducted over the years have been indicating that some end-users use the baseline stove in parallel with burn stove. This will still remain a continued exercise in CP 3, given that sample selection is randomised. Stove stacking has been accounted for over the years and will still be accounted for in CP3. During remote interviews, PP representatives have confirmed that they have periodic education / awareness campaigns and conduct maintenance at the discounted cost. Hence, this criterion is applicable and met.

	Project Fuel Tests and thus use of traditional stove/fuel is accounted for in project emissions calculations.	
Section 2.2.1 (e): To avoid double counting or double claiming, the project developer must: i. clearly communicate its ownership rights and intention of claiming the emission reductions resulting from the project activity to the following parties by contract or clear written assertions in the transaction paperwork: all other project participants; project technology manufacturers; and retailers of the project technology or the renewable fuel in use; and. ii. inform and notify the end users that they cannot claim emission reductions from the project, and iii. exclude from the project activity, cooking devices included in any other voluntary market or CDM project activity/PoA, and strive not to displace the cooking devices of another CDM or voluntary project/PoA. See data and parameters not monitored, Avoidance of double counting or double claiming with other mitigation actions, for	i. The project participant will clearly communicate to all beneficiaries that ECC is claiming ownership rights and selling the ER credits resulting from the distribution of project technologies. The project leverages on carbon finance in order to reach a wide range of Kenyans with the most appropriate technology and to support the sale and distribution of stoves to households. Carbon finance is also used to develop local market channels and to support other partners as they create sustainable distribution networks of locally appropriate efficient stoves ii. Transfer of carbon rights was explained at local stakeholder consultations. The project use warranty activated system through mobile phone where end user transfers the rights to the	i. PP representatives during the remote audit informed that they have clearly communicated to all the project beneficiaries about ECC claiming ownership rights and selling the ER credits resulting from the distribution of project technologies during the stakeholder consultations as well as periodical surveys with the beneficiary households. Moreover, they also communicated about the intention of claiming emission reductions resulting from the project activity. VVB Team also cross checked the carbon waiver evidences/^{15//16/} (carbon waiver strips and stickers on distributed stove boxes, which clearly mention that the carbon credits generated through the use of project technology are owned by the PP). ii. During the remote assessment, PP representatives informed the VVB team that Transfer of carbon rights was explained to the end users at the time of local stakeholder consultations/^{20/} and at the point of sale. They were informed that they cannot claim emission reductions

details on this demonstration	project through warranty activation. Carbon credits generated by the project belong to ECC. This information is communicated to the end-users at the point of sale. iii. Project activities included in any other voluntary market or CDM project activity/PoA, shall be excluded from the project activity to avoid double counting.	from the project. VVB team also cross checked the carbon waiver evidence which confirm the same. /15//16/ iii. During the remote assessment, PP representatives assured the VVB team that Project activities included in any other voluntary market or CDM project activity/PoA, will be excluded from the project activity to avoid double counting. Moreover, PP has provided the signed declaration^{/13/} regarding the avoidance of double counting to the VVB team which ascertains the measures undertaken by PP to avoid double counting. Hence, this condition is applicable and met.
Section 2.2.1 (f): Project activities making use of solid fossil fuel in the project scenario or other improved fossil fuel cookstoves meeting certain conditions described in the footnote to Table 1 (e.g. switch from three-stone fire biomass stoves to LPG stoves) may only claim emission reductions for energy efficiency improvement aspect and shall assume the same baseline and project fuel for emission reduction calculations	This PROJECT does not involve use of fossil fuel; hence this criterion is not applicable. End users continue to use non-renewable biomass in the project scenario.	The project technology plans to distribute the improved cookstoves with charcoal as fuel. This PROJECT does not involve use of fossil fuel in project situation. End users continue to use non-renewable biomass in the project scenario. Hence, this criterion is not applicable.
Section 2.2.1 (g): Project activities making use of a new solid biomass feedstock in the project situation (e.g. switch	This PROJECT does not involve use of a new biomass feedstock; hence this criterion is	The project technology plans to distribute the improved cookstoves with charcoal as fuel. This PROJECT does not

to green charcoal or renewable biomass briquettes) must comply with relevant specific requirements for biomass related project activities, as defined in the latest version of the Community Services Activity Requirements. The specific requirements apply to both plantations established for the project activity and/or existing plantations that will supply biomass feedstock.	not applicable. End users continue to use non-renewable biomass in the project scenario.	involve use of a new biomass feedstock in project situation. End users continue to use non-renewable biomass in the project scenario. Hence, this criterion is not applicable.
Section 2.2.1 (h): Adequate evidence is supplied to demonstrate that indoor air pollution (IAP) levels are not worsened compared to the baseline, and greenhouse gases emitted by the project fuel/stove combination are estimated with adequate precision. Furthermore, for projects where cooking will move from outdoor to indoor or where the project technology reduces ventilation (for example, changing from a stove with chimney to improved stove with no chimney), indoor air pollution (IAP) levels shall not worsen in the project compared to the baseline, including PM 2.5 and carbon monoxide (CO) emissions. This may be demonstrated before project Design Certification or during project operation using the certification resulting from of a manufacturer's test, report of field testing of the technology's PM 2.5 and carbon monoxide (CO)	Qualitative surveys are conducted as part of the monitoring surveys to investigate air quality with the project stove. The indoor air pollution is compared to the baseline scenario, asking end-users whether IAP increased, decreased or remained the same since the introduction of the ICS compared to the baseline stove.	During the remote audit, PP representatives informed the audit team that Qualitative surveys are conducted as part of the monitoring surveys to investigate air quality with the project stove. The indoor air pollution is compared to the baseline scenario, asking end-users whether IAP increased, decreased or remained the same since the introduction of the ICS compared to the baseline stove. Based on the surveys, the results will be determined whether the Indoor Air Pollution levels have improved or not. (During the most recent surveys conducted in MP5, 99.05% of the end-users reported an improvement in air quality since they started using burn stove). Hence, this criterion is applicable and met.

emissions, report of lab testing of the technology, or results of modelling of the technology's operation under field conditions. If none of these are available, reference from published literature or report by independent agencies may be used as evidence, provided it is not more than 5 years old.		
Section 2.3.1: The project shall not undermine or conflict with any national, sub-national or local regulations or guidance for thermal energy supply or fuel supply or use. The project shall document the national, regional and local regulatory framework for provision of thermal energy services of the type the project provides in the project boundary	There are no regulations in Kenya that require households to adopt efficient fuelwood stoves.	VVB has noted that the current project will not be in conflict with national, sub-national or local regulations or guidance for improved cookstoves, thermal energy supply or fuel supply or use. Because the project is improved efficient cookstoves which will reduce dependence and use of fossil fuel/firewood. Furthermore, there are no regulations in Kenya that require households to adopt efficient fuelwood stoves. Hence, this criterion is applicable and met.
Section 2.3.2: If the expected technical life of project technology is shorter than the crediting period, the project developer shall describe measures to ensure that end users are provided replacement technology of comparable quality at the end of the technical life, by either replacing with comparable or better technology, or retrofitting essential parts with performance guarantee. If neither of the prior conditions can be demonstrated, no	The average lifetime of the Jikokoa stoves is 7 – 10 years. Any stove that has aged beyond 10 years lifetime will be permanently removed from any emission reduction crediting. The PD will conduct annual usage surveys throughout the PROJECT crediting period. All stoves which are surveyed and found to have been discontinued by the end	VVB has already checked and confirmed above in the report that the remaining technical lifetime of project technology is longer than the crediting period. The average lifetime of the Jikokoa stoves is 7 – 10 years. Any stove that has aged beyond 10 years lifetime will be permanently removed from any emission reduction crediting. The PD will conduct annual usage surveys throughout the PROJECT crediting period. All stoves which are surveyed and

emission reductions can be claimed for the technology after its technical life has ended.	users, either for end user preferences or due to any damage to the stove in that period will be removed from the computation of emissions reductions.	found to have been discontinued by the end users, either for end user preferences or due to any damage to the stove in that period will be removed from the computation of emissions reductions. Stoves identified as no longer being used during the usage surveys will be dropped off as from CP 3 MP 1. In CP 2, drop off was only done for stoves that were beyond age 9 as explained in section B.4 of the PDD. As confirmed with PPs during remote audit and checked from section B.4 of PDD, the stove distribution started on 26/08/2013 to 25/01/2021 where a total of 379,652 stoves were distributed. However, as at the end of CP2, stoves beyond the age group of 9 were removed from crediting where only 344,977 stoves were credited. Further, during the 3rd crediting period, all old stoves beyond age 9 have been removed from crediting and now PP will consider only 236,029 stoves. Therefore, through interviews with PP representatives^{/27/} and review of manufacturer specifications^{/10/}, VVB Team confirms that the lifetime of the Jikokoa Stoves may go beyond the indicated lifetime. Hence, depending on the usage rate of the stoves, stoves will be either removed from the database after the end of its lifetime and not credited anymore. Any stove that gets to the end of its life will not be claiming emission
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		reductions since there is no plan for either replacing with comparable or better technology or retrofitting essential parts, as confirmed by PP during remote audit. Hence, this criterion is applicable and met.
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Thus, Applus+ Certification confirms that the application of the GS approved methodology is transparent and conservative and confirms that, the chosen methodology i.e. REDUCED EMISSIONS FROM COOKING AND HEATING: Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 4.0^{/3/}, is applicable to the project activity.

Applicability of Community Services Activity Requirements, version 1.2

Sr. No.	ELIGIBILITY CRITERION	DESCRIPTION/ REQUIRED CONDITION	JUSTIFICATION BY PP REGARDING THIS PROJECT	VVB ASSESSMENT
1.	Eligible Project Types	All CSA Projects shall lead to climate change mitigation and/or adaptation by providing or improving access to services/resources at the household or community or institution level. Eligible services include electricity and energy, water and sanitation, waste management, housing, etc.	The goal of the PA is to distribute Improved Cook Stoves (ICS) in the households/SMEs of the host country of Kenya.	VVB team through the review of PDDs for the previous crediting periods ^{/1/} & subsequent monitoring reports and through remote audit confirms that the project activity consists of distribution of energy efficient improved cookstoves in the households/SMEs of the host country of Kenya that seeks to reduce the amount of fuel used in the households by displacing the traditional cook stoves that require a lot of fuel. Thus, project activity comes under eligible project types of GS Community Service Activity Requirements, v.1.2. ^{/6/} Hence, this criterion is applicable and met.

2.	Type of project	(b) End-use energy efficiency: Project activities that reduce energy requirements as compared to baseline scenario without affecting the level and quality of services or products, where the end-user of the products and services are clearly identified and when the physical intervention is required at the user end. For example, efficient cooking, heating, lighting, etc.	The PA involves distribution of energy efficient ICS.	VVB team through the review of PDDs for the previous crediting periods ^{1/} & subsequent monitoring reports and through remote audit confirms that the project activity consists of distribution of energy efficient cookstoves that seeks to reduce the amount of fuel used in the households by displacing the traditional cook stoves that require a lot of fuel. The project stoves are efficient charcoal stove that cuts down the daily fuel consumed thus necessitating fewer trips to collect fuel or less money spent on charcoal per week. The proposed project thus falls under 3.1.1 (b) End- Use Energy efficiency of the Gold Standard for the Global Goals Community Services Activity Requirements, version 1.2 ^{6/} : Project activities that reduce energy requirements as compared to baseline scenario without affecting the level and quality of services or products, where the end user of the products and services are clearly identified and when the physical intervention is required at the user end. These types of projects are allowed under GS approved methodology - "REDUCED EMISSIONS FROM COOKING AND HEATING: Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC)- version 4.0 ^{3/} .
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				Hence, this criterion is applicable and met.
3.	Project Area, Boundary and scale	Project Area and Boundary shall be defined in line with the applicable Impact Quantification Methodologies and Product Requirements.	The project area is point location of the beneficiaries in the host country of the PA. The project boundary will be limited to the geographical boundary of the host country of the Republic of Kenya. For Improved Cookstoves, since TPDDTEC methodology is followed and there is no suppressed demand element, the guidelines of large-scale project shall be followed.	VVB team during the remote audit and based on registered PDD^{1/} has confirmed that project area is the point location of the beneficiaries in the host country of the PA. The project boundary is the physical/geographical boundary of Kenya and is already assessed above in section 3.7 of the report. As per section 9.1.2.b of the GHG EMISSIONS REDUCTION & SEQUESTRATION PRODUCT REQUIREMENTS^{6/}, version 3.0²⁵, the project is a large-scale project since the thermal efficiency of the project is 3,689.1 GWh (th) which is more than the small-scale threshold of 180 GWh (th) per year saving. VVB team has checked the registered PDD^{1/}, project webpage²⁶ and confirmed that the project had been already registered as large-scale project and continues to be a large-scale project. There is no suppressed demand element in this project. Hence, this criterion is applicable and met.
4	Legal Ownership	(a) Projects involving the distribution of a large number of devices for services	The end users confirm that rights to the ownership of carbon credits reside with the PA	VVB has noted that the implemented cookstove units will be owned by the respective beneficiary participating in the proposed

²⁵ https://globalgoals.goldstandard.org/standards/501_V3.0_PR_GHG-Emissions-Reductions-Sequestration.pdf

²⁶ <https://registry.goldstandard.org/projects/details/1559>

		such as heating, cooking, lighting, electricity generation, water treatment technology such as water filter, etc. shall provide a clear description of the ownership of the Products that are generated under Gold Standard Certification all along the investment chain. In line with the FPIC requirement, proofs that end-users are aware of and willing to give up their rights on Products shall be provided. (b) The transfer of Product ownership shall be discussed during local stakeholder consultations for projects.	Implementer according to the end user agreement signed via monitoring app etc. (refer Eligibility under GS4GG section above).	project activity. The ownership rights for GS VERs generated by the project activity are with the project developer – ECOA Climate Capital which is confirmed based on beneficiary agreement signed between end users and ECOA Climate Capital^{/15//16/}. Also, the project uses written messages on the stove packaging (strip on the box) and warranty booklet^{/15//16//16/} explaining that the rights on carbon credits are transferred from the end-users to BURN Manufacturing. VVB Team also cross checked the carbon waiver evidences^{/15//16//16/} (carbon waiver strips and stickers on distributed stove boxes, which clearly mention that the carbon credits generated through the use of project technology are owned by the PP). VVB team confirms that, at the time of the registration and distribution of the project, BURN Manufacturing Co., ("BURN") was the listed as the original project developer. Ownership of carbon credits from the end user was communicated as such both at the LSC and in all end-user waivers and notices of transfer of carbon credits as being specifically transferred from the end-user to BURN. Since then, BURN has transferred ownership of the Project and all claims to the VERs generated under it to ECOA
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				Climate Capital as is evidenced in the amended cover letter uploaded to SustainCert.^{/14/} Therefore, Legal ownership of the carbon credits under this project therefore are owned by ECOA Climate Capital. Hence, this criterion is applicable and met.
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Technologies and/or measures used in the project:

The purpose of the project activity is to implement improved efficient charcoal cookstoves manufactured by BURN Manufacturing in the Republic of Kenya. The ICS units are being distributed in all the 47 counties of Kenya. This project activity (PA) deploys highly efficient improved charcoal cookstoves (ICS), known as 'Jikokoas' reducing woody biomass consumption for urban and peri-urban households in the Republic of Kenya.

The objective of the Burn Stoves Project in Kenya is to improve health and incomes throughout Kenya by reducing time and money spent acquiring fuel for household cooking. The project stoves are expected to replace the inefficient traditional stoves used in the baseline. As a result, the project results in reductions of CO₂ emissions that are real, measurable and gives long-term benefits to the mitigation of climate change. In the longer term, the project will help to decrease the deforestation rate in the project area. Most of the households use inefficient cooking stoves with incomplete combustion, which leads to indoor emissions that pose severe health risks to the women and children, who are continuously exposed to the smoke during cooking. An efficient charcoal stove can cut down the daily fuel consumed thus necessitating fewer trips to collect fuel or less money spent on charcoal per week. Efficient, improved stoves are a more sustainable, economic and healthier way to cook. The project intends to make available the project technology to all counties of Kenya.

The PA is implemented by ECOA Climate Capital and seeks to improve health and incomes throughout Kenya by reducing time and money spent acquiring fuel for household cooking. This is evident from the registered PDD^{/1/}, and interviews conducted with PD representative^{/27/}.

The Jikokoa stove is a charcoal stove featuring a refractory metal combustion chamber backed by abrasion resistant, lightweight ceramic insulation. This combination increases durability, efficiency and safety of the stove.

VVB Team has cross checked the technical specification documents^{/10/} of the following cookstove models which are distributed to the end users and confirms to be correct:

a) Jikokoa G3.5:

Stove Manufacturer	BURN	
Stove Model	Jikokoa G3.5	
Stove Type	Charcoal Stove	
Materials		
Stove Body	CRCA Carbon Steel painted high gloss black epoxy powder coat	
Pot Rest	Stainless-Steel	
Burning Chamber	Stainless-Steel	
Ash Tray	Aluzinc	
Feet	Stainless-Steel	
Measurements		
Height	cm	24.4 cm
Diameter (stove top)	cm	26.0 cm
Weight	kg	4 kg
Fuel Chamber Volume	cm ³	954 cm ³
Packaging Dimensions	cm	29.0 L x 28.5 W x 25.1 H
WBT Results		
Parameter	Unit	Value
High power thermal efficiency (average of cold start and hot start)	%	48.1%
Power Output:	kW	2.05
Lifetime		
Warranty	2 years	
Estimated Lifetime ²⁷	7 to 10 years	

²⁷ The lifetime of the Jikokoa Classic (G3.5) may go beyond indicated life. Hence, depending on the usage rate of the stoves, stoves will be either removed from the database after the end of its lifetime and not credited anymore. Any stove that gets to the end of its life will not be claiming emission reductions since there is no plan for either replacing with comparable or better technology or retrofitting essential parts. Manufacturer's declaration about the ICS lifetime has been submitted to the VVB. These details were confirmed by the assessment team during remote audit and confirmed to be correct.

b) Jikokoa Xtra (G4):

Stove Manufacturer	BURN	
Stove Model	Jikokoa Xtra (G4)	
Stove Type	Charcoal Stove	
Materials		
Stove Body	CRCA Carbon Steel painted high gloss black epoxy powder coat	
Pot Rest	Stainless Steel & Cast Iron	
Burning Chamber	Stainless Steel	
Ash Tray	Aluzinc	
Feet	Aluzinc	
Measurements		
Height	cm	27.0 cm
Diameter (stove top)	cm	30.2 cm
Weight	kg	5.5 kg
Fuel Chamber Volume	cm ³	1030 cm ³
Packaging Dimensions	cm	30.2 L x 30.5 W x 27.5 H
WBT Results		
Parameter	Unit	Value
High power thermal efficiency (average of cold start and hot start)	%	44.6%
Firepower	kW	2.21
Boil Time	minutes	27.96
Lifetime		
Warranty	2 years	
Estimated Lifetime ²⁸	7 to 10 years	

These Jikokoa Stoves are manufactured by BURN Manufacturing LLC. VVB team confirmed the above technical details are found to be correct by cross checking the manufacturer's technical specifications documents^{10/}. VVB noted that as mentioned in technical specifications^{10/}, the lifetime of these cookstoves is of 7-10 years, however these may go beyond the indicated lifetime based on usage. Moreover, assessment team was noted that, currently the stoves that are still operational are the ones in age 8-9 in CP 2 MP 5 i.e., 344,977 stoves. All the old stoves have been excluded gradually from claiming any carbon credits as they age. Further, in CP 3, only

²⁸ The lifetime of the Jikokoa Xtra may go beyond the indicated lifetime. Hence, depending on the usage rate of the stoves, stoves will be either removed from the database after the end of its lifetime and not credited anymore. Any stove that gets to the end of its life will not be claiming emission reductions since there is no plan for either replacing with comparable or better technology or retrofitting essential parts. Manufacturer's declaration about the ICS lifetime has been submitted to the VVB. These details were confirmed by the assessment team during remote audit and confirmed to be correct.

236,029 have been included, since all stoves that will have aged out will not be included in MP1 CP3. The updates in MP1, the updated Database will be provided by the PP to the verifying VVB to confirm that only eligible stoves will be included for crediting.

Start date of the project activity:

As confirmed through the review of cookstove distribution databases^{/10/} and also by cross checking the evidence of cookstove distribution start date (screenshot of system details provided by PP) ^{/10/}, VVB team confirms that the BURN's charcoal cookstove was first distributed on 26/08/2013 and lasted till 25/01/2021.

VVB team confirmed that, as stated in the PDD section A and also in section 1 of this validation report, this project originated from the project, GS966 "Paradigm Healthy Water and Cookstoves Project", which has a start date of 01/11/2007 (Date when the first stove was sold under Paradigm project).

Although a design change later established this project (GS5642) as a standalone project, the original distribution start date was maintained (i.e. 01/11/2007), as this was fixed at start of the project as per GS4GG requirements. This was further confirmed through review of PDDs from earlier crediting periods too.

Therefore, project start date appears as 01/11/2007 in section C.1.1 of PDD; whereas start date of BURN charcoal stoves is actually 26/08/2013. A footnote is included by PP regarding this in section C.1.1 for more clarity.

The details of project start dates (both of Paradigm project and BURN project stoves) were cross checked by VVB team through the review of the respective project database and dissemination records^{/10/}, evidence of distribution start date^{/10/}, PDDs of previous CPs and confirmed to be correct.

Therefore, although the start date under section C.1.1 of PDD appears as 01/11/2007, the start date of BURN charcoal stoves was actually 26/08/2013.

Sustainable Development Goals

VVB has assessed planned continual contribution of the project activity to the achievement of the following SDGs:

SDG 1 – End poverty in all its forms everywhere:

Target 1.4: By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance

Indicator 1.4.1: Proportion of population living in households with access to basic services

VVB noted that Introduction of the efficient cook stoves will lead to time and money savings due to reduced fuel consumption. This saved income can be used by households to engage in other income generating activities that can lead to improved livelihoods of the households.

Moreover, with project activity penetration, it will provide the households with clean energy for cooking. PP has estimated the monetary savings related to the purchase of charcoal in the project scenario to be around 53.69% as compared to baseline scenario during the crediting period. This value has been determined based on survey data results from the already issued MP5 for ex-ante estimations^{/31/}. The VVB team has thoroughly cross-checked this value by reviewing the respective approved Ex-Post ER sheet (SDG Calculation Tab)^{/31/} and has confirmed its accuracy. PD will derive the actual values from the project database and will be based on the monitoring/KT surveys during monitoring period.

SDG 3 – Ensure healthy lives and promote well-being for all at all ages:

Target 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

Indicator 3.9.1: Number of households that observed reduction in PM 2.5 & carbon monoxide (CO) concentration reductions

VVB noted that Indoor air pollution caused by combustion of charcoal fuel will be reduced since the households will be using energy efficient Jikokoa Stoves which require less charcoal and produce less soot. The use of ICS technology is anticipated to generate significant benefits to household in-door air quality. As a function of reduced quantities of charcoal consumed and reduced time spent while cooking, it is anticipated the subsequent levels of in-door air pollution will reduce with noticeable improvements to smoke levels, itchy eyes and breathing problems which the end-user can account for during monitoring campaigns.

The specific SDG 3 impact to be assessed in the project scenario is perceived air quality. Monitoring surveys will be designed to assess a sample of households' qualitative assessment on parameters including itchy eyes, respiratory infections/breathing problems, and smoke levels in the project scenario in comparison to the baseline scenario.

The estimated value applied in the ex-ante is 99.05%.

This value has been determined based on survey data results from the already issued MP5 for ex-ante estimations^{/31/}. The VVB team has thoroughly cross-checked this value by reviewing the respective approved Ex-Post ER sheet (SDG Calculation Tab)^{/31/} and has confirmed its accuracy. PD will derive the actual values from the monitoring surveys questionnaires during monitoring period. During the remote audit, PP representatives informed the audit team that Qualitative surveys are conducted as part of the monitoring surveys to investigate air quality with the project stove. The indoor air pollution is compared to the baseline scenario, asking end-users whether IAP increased, decreased or remained the same since the introduction of the ICS compared to the baseline stove.

Based on the surveys, the results will be determined whether the Indoor Air Pollution levels have improved or not.

SDG 4 – Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all:

Target 4.4: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

Indicator 4.4.1: Number of employees provided skill development training.

VVB noted that the project will provide training opportunities for men and women in Kenya. The successful implementation of the project will require multiple training efforts to ensure adequate implementation capacity. These training sessions, availed primarily to young women and men (ages 18 – 36) in Kenya will encompass a variety of training modules including data collection, survey development, stakeholder consultation management and specific training on the use of ICS. These transferrable skill sets will add value to the recipients of these training modules.

The specific SDG 4 impact to be assessed in the project scenario is the number of people receiving skill development training. Records of training sessions, confirming training materials, signed attendance lists and locations will be provided as evidence of the total number of people trained for the project activity.

The value applied in the ex-ante is 77 number of people receiving skill development training. This value has been determined based on data results from the already issued MP5 for ex-ante estimations^{31/}. The VVB team has thoroughly cross-checked this value by reviewing the respective approved Ex-Post ER sheet (SDG Calculation Tab)^{31/} and has confirmed its accuracy. PD will derive and VVB can cross check the actual values during verification based on review of records of training sessions, confirming training materials, signed attendance lists, etc.

SDG 5 – Achieve gender equality and empower all women and girls:

Target 5.4: 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 and the family as nationally appropriate.

Indicator 5.4.1: Proportion of time spent on unpaid domestic and care work, by sex, age and location

VVB noted that the use of thermally efficient cookstoves reduces the number of hours spent, especially by women, in the preparation of meals. A key benefit of the use of ICS technology is the time savings, particularly for women, during meal preparation. The utilization of ICS technology can save up to 37 minutes of cooking time – savings which can be used to alleviate the domestic constraints that women suffer in unaccounted or devalued domestic labour.

The specific SDG 5 impact to be assessed in the average time saving associated with cooking in the project scenario. During monitoring campaigns, end-users will provide time estimates of cooking duration in the project scenario against estimates in the baseline scenario. The average difference, statistically weighted for stove age, shall be used to monitor the time savings in the project scenario.

The value applied in the ex-ante is 37 minutes time saving per household per day.

This value has been determined based on survey data results from the already issued MP5 for ex-ante estimations^{/31/}. The VVB team has thoroughly cross-checked this value by reviewing the respective approved Ex-Post ER sheet (SDG Calculation Tab)^{/31/} and has confirmed its accuracy. PD will derive the actual values during verification from the monitoring surveys questionnaires prepared for monitoring campaigns during the monitoring period. During the remote audit, PP representatives informed the audit team that Qualitative surveys are conducted as part of the monitoring surveys to investigate the proportion of time spent for cooking. The time spent in project scenario is compared to the baseline scenario, asking end-users whether the proportion of time spent is increased, decreased or remained the same since the introduction of the ICS compared to the baseline stove.

Based on the surveys, the results will be determined whether the proportion of cooking time is improved or not.

SDG 7 – Ensure access to affordable, reliable, sustainable and modern energy for all:

Target 7.1: By 2030, ensure universal access to affordable, reliable and modern energy services.

Indicator 7.1.1: Number of beneficiaries: Households / Number of sold/distributed ICS in use

VVB noted that Improved cookstoves have marked improvements on the quality of life of end-users with specific reference to in-door air pollution, reduced time and finances spent on charcoal. In comparison to baseline practices, the adoption and use improved cookstoves denotes a fundamental shift in access to modern cooking practices.

The project design is anchored on the distribution and use of improved cookstove (ICS) technologies to replace the inefficient baseline cookstoves. These technologies carry significant benefits to households and end-users alike have been defined ex- ante and will be monitored in the project scenario. The baseline scenario is the continued use of baseline technologies with low thermal efficiencies and associated risks to the health and living conditions of households in Kenya.

The specific SDG 7 impact to be assessed in the project scenario is the number of sold/distributed ICS in use. This will be calculated as a function of the total number of ICS sold, discounted against the Usage rate established during monitoring campaigns.

The average value applied in the ex-ante is 115,539 Number of sold/distributed ICS in use.

PD will derive the actual values during verification from the project database and monitoring & usage surveys conducted during monitoring period. This will be calculated as a function of the total number of ICS sold, discounted against the Usage rate established during monitoring campaigns

SDG 8 – Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all:

Target 8.5: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal

value.

Indicator 8.5.1: Total number of jobs created

VVB noted that this project will create jobs for the people who will be involved in manufacturing, sales and distribution, maintenance as well as conducting the monitoring survey exercise. Job opportunities will be open to both interested men and women without any form of bias or discrimination.

The specific SDG 8 impact to be assessed is the total number of jobs created. The number of created jobs will be determined during the monitoring period to include both Casual and Contract employees. An employee list will be provided as a supporting document to evidence impact.

The value applied in the ex-ante is jobs provided to 68 people.

This value has been determined based on data results from the already issued MP5 for ex-ante estimations^{/31/}. The VVB team has thoroughly cross-checked this value by reviewing the respective approved Ex-Post ER sheet (SDG Calculation Tab)^{/31/} and has confirmed its accuracy. PD will derive and VVB will cross check the actual values during verification from the employee lists, employment contracts, etc. during the monitoring period.

SDG 13 – Take urgent action to combat climate change and its impacts:

Target 13.2: Integrate climate change measures into national policies, strategies and planning

Indicator 13.2.1: Total greenhouse gas emissions per year

VVB noted that efficient cook stoves lead to reduced usage of fuel which in return lead to reduced emissions and indoor air pollution. Reduced emissions significantly contribute towards averting climate change and lead to environmental sustainability.

The outcomes of the SDG 13 will be measured as reduced CO₂e emissions applying the Gold Standard TPDDTEC methodology^{/3/}. The specific SDG 13 impact to be assessed is the Emission Reductions.

The emission reductions by the project are estimated at 166,938 tCO₂e per year as confirmed based on emission reduction calculations presented in below section 3.10.

PD will derive the actual values during verification from the data collected based on monitoring and usage surveys, Project KPTs, etc. during the monitoring period.

SDG 15 - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Target 15.1: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.

Indicator: Total non-renewable biomass saved

VVB noted that the collective charcoal savings realized from the project activity will significantly contribute to a reduction in the total non-renewable biomass consumed in country for domestic cooking requirements. The use of the ICS technology will create fuel savings, calculated as the aggregate difference in total charcoal consumed for cooking activities in the project scenario as compared to the baseline scenario. The production and consumption of charcoal in Kenya is by and large a major contributor to deforestation rates as evidenced by the non-renewable Biomass fraction in the country (29%). The project will have significant effect on reduced non-renewable biomass consumption rates in the country.

VVB during the baseline survey interviews noted that the project beneficiaries are highly dependent on charcoal for daily cooking. The use of the improved cookstoves for cooking will reduce the use of baseline fuel. The decrease in the use and demand of charcoal will eventually lead to sustainable forests management in the project area. PP has estimated quantity of non-renewable biomass saved in the project scenario from continued use of project technologies for the current crediting period as 12,908.55 tons.

PD will derive the actual values during verification based on the data collected through the monitoring & usage surveys, project KPTs, etc. conducted during monitoring period.

PP has submitted SDG impact tool^{/2/} which was checked and found okay. PP has correctly mentioned all the above SDGs and its details which were checked and found correct.

Therefore, it is the opinion of VVB team that SDG assessment conducted is adequate and in line with the GS requirements.

Principle 2: Safeguarding Principles

The Safeguarding principles assessment is provided in Appendix 3.

The safeguarding principles relevant to the project activity are justified by PD based on supporting web links and references wherever applicable. These safeguarding principles assessment is validated through references given by PD, during the desk review and remote audit^{/27/}.

Steps taken to validate the sources of information used to cross check the assessment and information related to Safeguarding Principles Assessment:

a) Validation of Information Sources and Cross-Checking Procedures

The audit team undertook a systematic approach to validate the sources of information used to cross-check the assessment contained in the PDD^{/1/}. The validation process involved the following key steps:

- **Document Review:** The audit team examined project-related documentation, including the Safeguarding Principles Assessment section of the PDD^{/1/}, stakeholder engagement process, relevant national regulations, and applicable international standards.

/34//35//36//37//38//39//40//41//42//43//44/

- **Stakeholder Interviews:** Interviews were conducted with key stakeholders, including representatives of project developer, local community representatives/local people, to verify the accuracy and consistency of the information provided in the PDD^{/1/}.
- **Independent Cross-Reference:** Information was cross-checked against publicly available sources, including regulatory frameworks, environmental impact assessments, and social safeguard policies applicable to the region. ^{/34//35//36//37//38//39//40//41//42//43//44/}
- **Remote Inspection:** Observations from remote audit were compared with the data presented in the PDD^{/1/} to ensure alignment.

All cross-references and supporting evidence have been clearly indicated in the validation report to establish transparency in the assessment process.

b) Opinion on Adequacy of the Safeguarding Principles Assessment

Following the validation activities, the VVB concludes that the Safeguarding Principles Assessment conducted by the Project Developer is adequate and aligns with GS requirements. The assessment appropriately identifies potential environmental, social, and governance risks associated with the project and provides justifications based on relevant national and international safeguards^{/34//35//36//37//38//39//40//41//42//43//44/}. The validation process has confirmed that the information presented in the PDD is consistent, substantiated, and accurately reflects the project's adherence to Safeguarding Principles.

c) Conclusion

The VVB has incorporated above detailed descriptions of the validation steps undertaken, including document reviews, stakeholder engagement process, and cross-referencing methodologies, into the validation report. The adequacy of the Safeguarding Principles Assessment has been confirmed and deemed compliant with GS requirements^{/6/}.

Gender Sensitivity assessment:

Following a thorough review of the project documentation, stakeholder feedback, and relevant country-specific legal frameworks, the following assessment confirms gender sensitivity considerations within the project activity:

Compliance with Non-Discrimination Policies

Based on the review of the GS PDD, the project does not endorse any form of gender-based discrimination. The project operates in Kenya, which has ratified ILO Convention 111 (Discrimination (Employment and Occupation) Convention²⁹). Supporting documentation confirms that individuals in Kenya have access to international human rights mechanisms, including the UN Human Rights Committee and ECOSOC, to address any gender rights violations³⁰. This assessment finds no indications of risks or barriers to women's participation in the project. Moreover, the project is in line with Kenya's constitution³¹. Kenya has ratified the principle of equality into its respective constitution (Chapter 4), which does not tolerate any discrimination

²⁹ https://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:103315

³⁰ <http://www.claiminghumanrights.org/kenya.html?L=0>

³¹ https://www.constituteproject.org/constitution/Kenya_2010.pdf

concerning women.

Women's Access to Efficient Cookstoves

As observed by VVB team through stakeholder feedback interactions during remote audit and project documentation confirms that improved cookstoves can be purchased and used by any woman within the project boundary, without restrictions. The review finds no concerns regarding the risk of limiting women's access to or control over efficient cookstoves. The project's implementation aligns with gender equity principles, ensuring equal participation opportunities for women in acquiring and using clean cooking technology. It's not foreseen either any reduction or risk related to any other resource, entitlement or benefit.

Health Benefits and Time Allocation

Stakeholder feedback and project documentation substantiate the claim that women/children, who are primarily responsible and spending time for cooking and fuel procurement, experience direct benefits from the project. A reduction in indoor air pollution has been reported, leading to improved respiratory health conditions. Additionally, women and children save significant time on fuel procurement and cooking, allowing more opportunities for income-generating activities and education. This assessment confirms that these benefits align with the project's stated objectives.

Stakeholder Consultation and Gender Inclusion

As confirmed from details in PDD, it was verified that both men and women participated in the local stakeholder consultation meetings. A review of the invitation process confirms that a strong focus was placed on engaging women's associations and groups, ensuring their representation in discussions regarding project impacts. The VVB team confirms that appropriate steps were taken to encourage female stakeholders to provide input during the consultation process.

Women's Role in Project Implementation

The review of project implementation plans confirms that women are positioned at the center of the marketing, education, and distribution strategies. The interactions during remote audit supported the claim that selected women in the community will conduct demonstrations, educate consumers about cookstove benefits, and contribute to the project's outreach efforts. This approach fosters empowerment, facilitates knowledge transfer, and generates employment opportunities for women. The VVB team confirms that these measures are in place and align with gender sensitivity objectives.

Conclusion

Based on the review of project documentation, stakeholder engagement details and feedback, and supporting evidence, this assessment confirms that the project adheres to gender sensitivity principles. The non-discrimination policy, equitable access to clean cooking solutions, health benefits, inclusion in stakeholder engagement, and structured involvement of women in project implementation align with GS requirements and gender equity best practices.

Principle 3: Stakeholder Inclusivity

The project is applying for the renewal of the crediting period i.e. Third crediting period from 31/01/2025³² to 25/04/2031. Thus, reassessment of stakeholder's inclusivity not required. Based on the past implementation status of the proposed project and periodic verification process, the project participant does not find a stakeholder's consultation to be necessary during the revalidation and renewal of the crediting period for this project. In GS PDD^{1/}, project developer has provided details of stakeholder consultation conducted at the time of registration and VVB ensured that ongoing stakeholder consultation through continuous grievance mechanism is being maintained by PD^{19/}. The stakeholders were aware about the input book opened at the head office of BURN^{19/}. Complaints or any other concerns can be stated and will be filed directly at the head office. The phone number of the head offices of BURN and BURN's email address will be made known to all project beneficiaries.

VVB Team confirmed these details about ongoing grievance mechanism through remote audit and desk review^{19//27/}. VVB has checked and confirmed that the grievance mechanism is maintained by PD which is accessible to any stakeholders. Hence, found to be sufficient and acceptable.

Principle 4: Demonstration of real outcomes

The project is undergoing design certification renewal. Over the 2nd crediting period, PD has conducted performance certifications, and the most recent one is being under review. This confirms the project activity has demonstrated real outcomes over the 2nd crediting period and same would be continued for the current crediting period as established based on GS4GG PDD^{1/} submitted for design certification renewal.

Based on the applied methodology, PP has estimated SDG impact inclusive of SDG 13 (emission reductions) which are detailed below in section 3.10.

Principle 5: Financial Additionality & Ongoing Financial Need

The project activity is already registered with the GS and is deemed additional as demonstrated in the registered PDD on [GSF Registry \(goldstandard.org\)](https://goldstandard.org). VVB found the same to be correct and appropriate.

The project is operational from date of commissioning and is claiming VER revenue too for the same. As confirmed during interviews with PP and supporting documents, the project leverages on carbon finance in order to reach a wide range of Kenyans with the most appropriate technology and to support the sale and distribution of stoves to households. Carbon finance is also used to develop local market channels and to support other partners as they create sustainable distribution networks of locally appropriate efficient stoves.

³² As per the principles and requirements document para 5.1.46 "Delay in the completion of re-validation beyond the last date of current certification cycle shall result in a reduction of any issuance of Certified Products and/or Impact Statements available during following certification cycle (for example, a delay of 1 year beyond the first cycle shall mean that no Certified Impact Statements shall be issued for the period of delay). Based on this requirement, PP has foregone all the credits accrued between 26/04/2024 to 30/01/2025 due to the delay in renewal of crediting period beyond the last date of 2nd Crediting Period. Hence, start date of 3rd CP will be considered as 31/01/2025.

It should be noted that the distribution of the stoves was completed in the period from 2013 through 2021. No stove distributions have been performed since. The impetus for carbon revenues, was to subsidize the cost of the project stoves at the time of distribution, and since then the carbon revenues have been applied towards recouping the upfront project investment and to ensure continued carbon monitoring, end user engagement and other operational functions requisite for the performance of the project activity. BURN utilizes carbon finance to finance all its user awareness, marketing, and monitoring activities. This was confirmed by assessment team through remote interviews with PP representatives.

PD has used VER revenue towards training and other expenses along with VVB expenses and GS4GG related expenses.

The project has received carbon support for the past 7 years (second crediting period) and it has continued to expand considerably in its distribution scale. All the conditions under which the project operates have not changed overtime and they still remain the same.

In line Gold Standard procedures for the renewal of a crediting period^{/6/}, Preparation of the revised project documentation states "project participants shall update all sections of the project documentation which are related to the baseline, the evaluation of emission reductions and the monitoring plan, using an approved baseline and monitoring methodology." The project falls under the positive list of Community Services Activity Requirements (Version 1.2) (Annex B, item 1.1.3)^{/6/}.

As per the point 1.1.3 under Annex B – Positive list of GS Community Services Activity Requirements (Version 1.2)^{/6/}, Project activities solely composed of isolated units where the users of the technology/measure are households or communities or institutions and where each unit results in ≤ 600 MWh of energy savings per year or ≤ 600 tonnes of emission reductions per year, qualifies for positive list.

For the project under consideration, i.e. GS5642, the value of energy savings per stove per year is calculated as 3.15 MWh/stove/year. As the calculated energy savings value per unit per year is less than the threshold of 600 MWh/stove/year as per point 1.1.3 under Annex B – Positive list of GS Community Services Activity Requirements (Version 1.2)^{/6/}, this project activity complies with the positive list conditions. VVB team has cross checked the calculations in the Ex-ante ER spreadsheet (under tab "Th. Energy savings unit level")^{/2/} and confirmed to be correct.

Therefore, the project falls under the positive list of Community Services Activity Requirements (Version 1.2) (Annex B, item 1.1.3)^{/6/} and is confirmed to be additional.

The project has therefore demonstrated that the current baseline as registered PDD^{/1/} is still valid, and additionality of the project therefore is not to be demonstrated.

VVB has assessed the provided information and found it accurate, correct and suitable for OFN demonstration.

VVB is of the opinion that the finance derived from Gold Standard certification is material for the project to the ongoing sustainability of the registered project, as demonstrated in OFN statement^{/32/} provided by the PP. Since the carbon finance is found to be good resource for project continuation, ongoing financial need is found justified. In line with principles and requirements

documents of GS4GG^{6/}, the project needs demonstration of Ongoing Financial Need, where relevant, however the information may remain confidential.

Based on this requirement, an OFN statement^{/32/} has been provided separately by the PP alongside other project documents.

VVB Team has cross checked the OFN statement document^{/32/} for the accuracy of information and references therein. It was confirmed that the necessity of ongoing financial need demonstrated by PP in the OFN statement^{/32/} is correct. The information and references provided are reliable and accurate. VVB has assessed the provided information and found it to be correct and suitable for OFN demonstration.

3.10 Calculation algorithm and/or formula used to determine emission reductions

The GS4GG PDD^{1/} of the project activity was checked by the assessment team and found that Gold Standard Methodology, "REDUCED EMISSIONS FROM COOKING AND HEATING: Technologies and Practices to Displace Decentralized Thermal Energy Consumption" (version 4.0)^{3/} is used which is the latest version of the methodology. The Project follows the methodological steps for estimating emission reductions.

The project distributes improved charcoal stoves which replaces traditional charcoal stoves. The baseline fuel and the project fuel are the same and the baseline emission factor and project emission factor are considered the same.

As per the methodology^{/3/}, the emission reductions are verified and credited by comparing the emissions for a given project scenario to the emissions for the applicable baseline scenario. In the project case, the baseline fuel type and the project fuel type are the same and the baseline fuel emission factor and project fuel emission factor are also considered to be the same. The overall GHG reductions achieved by the project activity in year y are calculated as shown below.

Emission reduction calculations:

PD has calculated the emission reductions as per section 3.10 of the applied methodology^{/3/} which is found correct. The baseline and project fuel will be the same i.e. charcoal.

As per section 3.10.1 of the methodology^{/3/}, the emission reductions are calculated ex ante by PP using Method 1 - Baseline and project fuel(s) are identical and emission reductions are exclusively from improved efficiency, which is confirmed to be correct and acceptable.

The usage rate of the stoves will be determined through usage surveys and the usage rate is being calculated as weighted average rate over all age groups. As per the manufacturer's specifications^{10/}, the lifetime of the Jikokoa stove is between 7 to 10 years. Depending on the usage rate of the stoves to be determined at the time of usage surveys, stoves will be either removed from the database during the lifetime or after the end of its lifetime and not credited anymore. Any stove that gets to the end of its life will not be claiming emission reductions since there is no plan for either replacing with comparable or better technology or retrofitting essential parts. The project uses calculated NRB for Kenya.

The ex-post calculations of emission reductions are calculated based on the fuel saving by the project stoves compared with the baseline stove. Each stove type has a different value of fuel saving based on the KT findings. When the baseline fuel and the project fuel are the same, the overall GHG reductions achieved by the project activity in year y shall be calculated using method 1 as follows:

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

..... **Eq. 1**

Where:

Parameter	Description	Value considered for estimated calculations in PDD
ER_y	Emission reduction for total project activity in year y (tCO ₂ e/yr)	0.7947
$\sum_{b,p}$	Sum over all relevant baseline b/project p pairs	1
$N_{b,p,y}$	Cumulative number of project technology-days included in the project database for project scenario p against baseline scenario b in year y	365
$U_{p,y}$	Cumulative Usage rate for technologies in project scenario p in year y (fraction), based on cumulative adoption rate and drop off rate revealed by usage surveys (fraction)	55%
$SFS_{p,b,y}$	Specific fuel savings for an individual technology of project p against an individual technology of baseline b in year y, in tons/year, as derived from the statistical analysis of the data collected from the field tests	0.001056
$NCV_{b,fuel}$	Net calorific value of the fuel(s) that is substituted or reduced in baseline b (TJ/mass or volume units)	Charcoal - 0.0295 Wood - 0.0156
$f_{NRB,b,y}$	Fraction of biomass used in year y for baseline scenario b that can be established as non-renewable biomass, The f_{NRB} value for Kenya has been taken from CDM information note for "Development of default values for fraction of non-renewable biomass, Version 2.0" ³³ . The f_{NRB} value for Kenya is 0.29.	0.29
$EF_{b,f,CO2}$	CO ₂ emission factor from use of fuel f (tCO ₂ /TJ)	Charcoal - 197.15 Wood - 112
$EF_{b,f,nonCO2}$	Non-CO ₂ emission factor arising from use of fuel f, when the baseline fuel f is biomass or charcoal (tCO ₂ e/TJ). This parameter is omitted when f is a fossil fuel.	Charcoal - 92.29 Wood - 9.46
$LE_{p,y}$	Leakage for project scenario p in year y (tCO ₂ e/yr)	0.95

³³ [MP96 Information Note development of default fNRB values.](#)

Determination of f_{NRB} :

The PD has followed the latest GS rule update on f_{NRB} application for GS4GG certification published by GS on 24/04/2025³⁴.

As per para 2.3.1 of the rule update document:

"For the issuance of GSVERs, design certification or inclusion of an activity, or renewal of crediting period of a design certified activity, the project developer shall use one of these f_{NRB} values:

1. *Modelling Fuelwood Saving Scenario (MoFuSS) derived values, or*
2. *Updated version of Tool 33 Default values for common parameters (version 2.0 or earlier versions are not valid anymore) after CDM Executive Board approval or revised version of Tool 30 under PACM-A6.4, or*
3. *New method developed for f_{NRB} calculation under PACM-A6.4, approved by Gold Standard."*

Accordingly, the PD has chosen the 1st option which is MoFuSS derived values published by UNFCCC in "CDM information note for "Development of default values for fraction of non-renewable biomass, Version 2.0³⁵". As per the Appendix-2 of Information note, the National f_{NRB} value for the Kenya is 29%.

VVB has conducted a thorough analysis by further comparing the estimated f_{NRB} with similar projects in Kenya context that have been successfully registered during the last three years from the date of submission of the given project. The values are as follows:

Sr. No.	Country	Project ID	Date of Registration/ Final upload	f_{NRB}	Source
1.	Kenya	GS11603 - GS10789 VPA8	21/09/2023	0.8933	https://assurance-platform.goldstandard.org/project-documents/GS11603
2.	Kenya	GS11614	02/04/2023	0.914	https://assurance-platform.goldstandard.org/project-documents/GS11614
3.	Kenya	GS12307	25/06/2024	0.8933	https://assurance-platform.goldstandard.org/project-documents/GS12307
4.	Kenya	VCS3884	20/09/2024	0.89	https://registry.terra.org/app/projectDetail/VCS/3884

³⁴ <https://globalgoals.goldstandard.org/ru2025-fnr-application-for-gs4gg-certification/>

³⁵ [MP96 Information Note development of default \$f_{NRB}\$ values](#)

Therefore, it can be confirmed that the fNRB value calculated for this project activity (29%) is more conservative than the other recently registered projects in Kenya region. Hence, found to be appropriate.

From the above, it is evident that the applied value is conservative. The calculated value is considered reasonable compared to other registered projects in the host country. Hence, the calculated fNRB is considered plausible and correct.

The value obtained from CDM information note for “Development of default values for fraction of non-renewable biomass version 2.0”³⁶ is transparently presented in the PDD³⁷.

Furthermore, references of other registered projects have been given which provides more realistic and actual information of fNRB of projects already registered in Kenya.

Based on this, the Value f_{NRB} is fixed for the 3rd Crediting Period in the RCP PDD as 29%.

The emission reductions due to thermal application are calculated as **0.8365 tCO₂e/year/household** (without deducting leakage) as per calculations in the ER sheet^{1/} using the above equations. After applying leakage factor the ER value comes to be **0.7947 tCO₂e/year/household**. The same was checked by VVB and was found correct.

PD is expecting that during the crediting period, total 129,816 cookstoves would be operational and hence, total emission reductions from the project activity would be **166,938 tCO₂e/year**.

Leakage emissions:

For this project, PP has chosen to apply methodology Option 1 - Apply a default adjustment factor of 0.95 to the emission reductions to approximate leakage emissions for thermal application.

Emissions reductions:

Emission reductions are to be estimated based on the equation 1 of methodology applied:

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

..... **Eq. 1**

³⁶ [MP96_Information Note_development of default fNRB values](#)

Where:

Parameter	Description	Value considered for estimated calculations in PDD
ER_y	Emission reduction for total project activity in year y (tCO ₂ e/yr)	0.7947
$\sum_{b,p}$	Sum over all relevant baseline b/project p pairs	1
$N_{b,p,y}$	Cumulative number of project technology-days included in the project database for project scenario p against baseline scenario b in year y	365
$U_{p,y}$	Cumulative Usage rate for technologies in project scenario p in year y (fraction), based on cumulative adoption rate and drop off rate revealed by usage surveys (fraction)	55%
$SFS_{p,b,y}$	Specific fuel savings for an individual technology of project p against an individual technology of baseline b in year y, in tons/year, as derived from the statistical analysis of the data collected from the field tests	0.001056
$NCV_{b,fuel}$	Net calorific value of the fuel(s) that is substituted or reduced in baseline b (TJ/mass or volume units)	Charcoal - 0.0295 Wood - 0.0156
$f_{NRB,b,y}$	Fraction of biomass used in year y for baseline scenario b that can be established as non-renewable biomass, The f_{NRB} value for Kenya has been taken from CDM information note for "Development of default values for fraction of non-renewable biomass, Version 2.0 ³⁷ . The f_{NRB} value for Kenya is 0.29.	0.29
EF_{b,f,CO_2}	CO ₂ emission factor from use of fuel f (tCO ₂ /TJ)	Charcoal - 197.15 Wood - 112
$EF_{b,f,nonCO_2}$	Non-CO ₂ emission factor arising from use of fuel f , when the baseline fuel f is biomass or charcoal (tCO ₂ e/TJ). This parameter is omitted when f is a fossil fuel.	Charcoal - 92.29 Wood - 9.46
$LE_{p,y}$	Leakage for project scenario p in year y (tCO ₂ e/yr)	0.95

Total emission reductions estimated for the 3rd crediting period would be 1,168,566 tCO₂e and average annual emission reductions for the 3rd crediting period would be 166,938 tCO₂e/year.

VVB has checked and confirmed the parameters considered ex-ante and ex-post in the GS PDD^{1/} against the applied methodology. The assessment of the same is provided below:

³⁷ [MP96 Information Note development of default fNRB values](#)

Ex-ante parameters:

Data/parameter	Baseline scenario survey results
Unit	N/A
Description	Report of the results of the baseline scenario survey
Source of data	The report presents the results of the Baseline Scenario Survey. VVB noted that data sources are in line with the applied methodology ^{/3/} and hence acceptable.
Value(s) applied	The baseline scenario findings reported in section B.4 of the PDD ^{/1/} , and data is provided in ex-ante ER sheet. ^{/2/}
Choice of data or Measurement methods and procedures	Baseline surveys for 120 households
Purpose of data	Calculation of baseline scenario
Additional comment	A baseline survey was conducted by PP for 120 households who were randomly selected. These households were not using the project technology. The survey was done between 10/06/2024 to 15/07/2024. The survey covered 44 counties across Kenya hence found to be representative of the baseline scenario.
VVB Assessment	VVB Team has cross checked the baseline survey data provided in the Ex-ante ER sheet ^{/2/} . Majority of the surveyed people are using baseline, less efficient cookstoves and also provided details about practices followed in the baseline. VVB team also confirmed the data to be correct through interviews with sampled households during the remote audit ^{/27/} .

Data/parameter	Project technology description
Unit	N/A
Description	The detailed description of the project technology shall include as a minimum: - Manufacturer name, - product name (if applicable), - technology type, - capacity characteristics, - continuous useful energy output demonstration, - rated thermal efficiency, for the following cases: - improved biomass cookstoves, fuel-based ovens, water heaters, improved fossil fuel cookstoves (solid fuel or existing liquid & gaseous fuel projects), and renewable fuel fired stoves.

	- Any performance certifications from National Standards body or certification body recognized by national standards body also shall be provided.																														
Source of data	Any of the following sources shall be used: - Manufacturer specifications - Certifications by national standards body or an appropriate certification party recognized by national standards body - Commercial guarantee - Technical reports from the installer - For stoves built on-site at the end user location, reports of Standard WBT by stove manufacturer or installer - Professional opinion or expert opinion is not accepted as a source for this parameter. VVB Team has crossed checked the manufacturer’s technical specification documents^{/10/} and found the technology description to be correct.																														
Value(s) applied	Stove specifications: - Manufacturer name - BURN - Product name (if applicable)- Jikokoa G3.5 and Jikokoa Xtra (G4) - Technology type- Charcoal stove - Capacity characteristics: - Jikokoa G3.5 <table><tr><th colspan="3">Measurements</th></tr><tr><td>Height</td><td>cm</td><td>24.4 cm</td></tr><tr><td>Diameter (stove top)</td><td>cm</td><td>26.0 cm</td></tr><tr><td>Weight</td><td>kg</td><td>4 kg</td></tr><tr><td>Fuel Chamber Volume</td><td>cm³</td><td>954 cm³</td></tr></table> - Continuous useful energy output demonstration- Power Output: 2.05 kW - Rated thermal efficiency, for the following cases - Thermal Efficiency: 48.9% Jikokoa Xtra (G4) <table><tr><th colspan="3">Measurements</th></tr><tr><td>Height</td><td>cm</td><td>27.0 cm</td></tr><tr><td>Diameter (stove top)</td><td>cm</td><td>30.2 cm</td></tr><tr><td>Weight</td><td>kg</td><td>5.5 kg</td></tr><tr><td>Fuel Chamber Volume</td><td>cm³</td><td>1030 cm³</td></tr></table>	Measurements			Height	cm	24.4 cm	Diameter (stove top)	cm	26.0 cm	Weight	kg	4 kg	Fuel Chamber Volume	cm ³	954 cm ³	Measurements			Height	cm	27.0 cm	Diameter (stove top)	cm	30.2 cm	Weight	kg	5.5 kg	Fuel Chamber Volume	cm ³	1030 cm ³
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Diameter (stove top)	cm	26.0 cm																													
Weight	kg	4 kg																													
Fuel Chamber Volume	cm ³	954 cm ³																													
Measurements																															
Height	cm	27.0 cm																													
Diameter (stove top)	cm	30.2 cm																													
Weight	kg	5.5 kg																													
Fuel Chamber Volume	cm ³	1030 cm ³																													

	- Continuous useful energy output demonstration- Power Output: 2.21 kW - Rated thermal efficiency, for the following cases - Thermal Efficiency: 44.6%
Choice of data or Measurement methods and procedures	BURN Manufacturing is the manufacturer of the project technology. Manufacturer specifications have been provided under section A3 of the PDD. ^{10/}
Purpose of data	Description of the project technology
Additional comment	None
VVB Assessment	VVB Team has crossed checked the manufacturer's technical specification documents ^{10/} and found the technology description to be correct. VVB Team also checked the pictures of cookstoves and confirmed the details to be correct.

Data/parameter	Expected technical life of project technology
Unit	Operating hours (e.g. "5,500 hours") or time period (e.g. "five years")
Description	The expected technical life of an individual project technology shall be defined in the PDD.
Source of data	Fixed and recorded at the time of registration or distribution Any of the following sources shall be used: - Manufacturer specifications - Certification by national standards body or an appropriate certification party recognised by national standards body - Commercial guarantee or Guarantee from the installer - For stoves built on-site at the end user location, field reports, which comply with the general requirements for sampling (Section 4.4), of average technical life of the same stove type operated under similar conditions (socio economic and cultural). Simulation modelling may be applied together with such field reports to estimate the average technical life. - Professional opinion or expert opinion is not accepted as a source for this parameter.
Value(s) applied	7-10 years
Choice of data or Measurement methods and procedures	This is as per the manufacturer specifications ^{10/}
Purpose of data	To determine the technical life of the project technology
Additional comment	None

VVB Assessment	VVB Team has crossed checked the manufacturer's technical specification documents ^{/10/} to confirm the details about technical lifetime of the project cookstoves and noted that as per specifications ^{/10/} the technical lifetime is prescribed as 7-10 years for both the cookstove models (Jikokoa G3.5 and Jikokoa Xtra (G4)). These details were also confirmed during interviews with PP representatives.
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Data/parameter	Avoidance of double counting or double claiming among project participants project or programme.
Unit	NA
Description	Evidence of avoidance of double counting or double claiming with other parties directly involved with the project or programme.
Source of data	Written assertions with the project developer of the ownership rights and intention of selling the emission reductions resulting from the project activity directed at or signed with all the applicable parties of the following: - all other project participants; - project technology producers; and - retailers of the project technology or the renewable fuel. VVB noted that data sources are in line with the applied methodology^{/3/} and hence acceptable.
Value(s) applied	Unique serial number
Choice of data or Measurement methods and procedures	Unique serial number in the project data base. A project database is maintained with each cookstove unit allocated a unique identification number to avoid double counting. Project beneficiaries will be not involved in other emissions reduction programs,
Purpose of data	To demonstrate avoidance of double counting or double claiming with project participants
Additional comment	None
VVB Assessment	EOCA Climate Capital's/BURN's declaration of no double counting^{/13/} was checked by the VVB Team which confirms that there won't be any double counting or double claiming among project participants project or programme. Moreover, the distributed cookstoves have unique serial number which can be easily traced in the database. VVB team also checked the carbon rights waiver evidences (Strips and Stickers on the cookstove boxes)^{/15/} which clear mention that the carbon credits generated through the use of those improved cookstoves will be transferred to the project implementer (EOCA Climate Capital). Also, the

	intention to sell emission reductions resulting from project activity, has been explained to the beneficiaries during the local stakeholder consultations and periodic trainings.
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Data/parameter	Avoidance of double counting or double claiming with other mitigation actions
Unit	NA
Description	Review and analysis of mitigation actions in other voluntary market or UNFCCC/compliance mechanisms
Source of data	Using publicly available information from Gold Standard and other voluntary standards, at a minimum Verra and any recognized national or regional standards in the project location, and UNFCCC CDM project & PoA database: - identify and list any mitigation actions of similar technology, i.e. that provide the same kind of output and use the same kind of equipment or conversion process, operating in overlapping spatial boundaries. If one or more are identified: - describe the practices that will be implemented to ensure that the programme or project activity quantifies emission reductions only from technology it has implemented, - describe the practices to avoid that the programme or project activity implementation displaces technology of other mitigation actions, and - design a method to discount emission reductions in case the programme or project activity is found to displace or operate alongside another mitigation action. VVB noted that PD has established using publicly available information from Gold Standard and other voluntary standards, at a minimum VERRA , GCC, ICR^{/23//24//25//26/} and any recognized national or regional standards in the project location, and UNFCCC CDM Project & PoA database^{/22/} and will identify and list any mitigation actions of similar technology, i.e., provide the same kind of output and use the same kind of equipment or conversion process, operating in overlapping spatial boundaries.
Value(s) applied	Burn stoves have unique serial numbers which are used for identification of each project technology. Stoves in this project have not been included in any other mitigation action. PA Implementer has checked different carbon standard registries, including the UNFCCC, GS and VCS websites^{/22//23//24//25//26/}. and can confirm that currently the project is not registered as a separate GS project activity, nor included as part of another registered GS project (or other carbon standard). Previously, this project was part of GS 966 but later registered separately. The project implementer can confirm

	that currently the project is not registered as a separate GS project activity, nor included as part of another registered GS project (or other carbon standard).
Choice of data or Measurement methods and procedures	Review of publicly available information on other mitigation actions in other voluntary market or UNFCCC/compliance mechanisms.
Purpose of data	To demonstrate avoidance of double counting or double claiming with other mitigation actions
Additional comment	NA
VVB Assessment	VVB noted that PD has established using publicly available information from Gold Standard and other voluntary standards, at a minimum VERRA , GCC, ICR^{/23//24//25//26/} and any recognized national or regional standards in the project location, and UNFCCC CDM Project & PoA database^{/22/} and will identify and list any mitigation actions of similar technology, i.e., provide the same kind of output and use the same kind of equipment or conversion process, operating in overlapping spatial boundaries. ECOIA Climate Capital's/BURN's declaration of no double counting^{/13/} was checked by the VVB Team which confirms that there won't be any double counting or double claiming among project participants project or programme. Moreover, the distributed cookstoves have unique serial number which can be easily traced in the database and helps in avoiding double counting. Stoves in this project have not been included in any other mitigation action. Further, it was noted that this project was part of GS 966 earlier, but later registered as a separate project with ID GS5642.

Data/parameter	Regulatory framework for provision of thermal energy services
Unit	NA
Description	Evidence that the project does not undermine or conflict with any national, sub-national or local regulations or guidance for thermal energy supply/devices or fuel supply or use
Source of data	List and provide a summary of any national, sub-national and local regulations or guidance for provision of thermal energy services/devices of the type, the project provides in the project boundary, including any tariff requirements. Describe how the project complies with the regulatory framework.

	VVB Team noted that there is no national, sub-national and local regulations or guidance for provision of thermal energy services/devices of the type, the project provides in the project boundary.
Value(s) applied	None
Choice of data or Measurement methods and procedures	There are no regulations in Kenya that require households to adopt efficient fuelwood stoves.
Purpose of data	To demonstrate that the project does not undermine or conflict with any national, sub-national or local regulations or guidance for thermal energy supply/devices or fuel supply or use.
Additional comment	None
VVB Assessment	VVB Team noted that there is no national, sub-national and local regulations or guidance for provision of thermal energy services/devices of the type, the project provides in the project boundary. PD will undertake this exercise at the start of each crediting period to demonstrate that the project does not undermine or conflict with any national, sub-national or local regulations or guidance for thermal energy supply/devices or fuel supply or use, which is acceptable

Data/parameter	EF_{b,f,CO_2}
Unit	tCO ₂ /TJ
Description	CO ₂ emission factor arising from use of fuels in baseline scenario
Source of data	Wood: Methodology default, 112 tCO₂/TJ Charcoal: Methodology default, 112 tCO₂/TJ (combustion only) Methodology default, 165.22 tCO₂/TJ (includes charcoal production emissions) Methodology cap, 197.15 tCO₂/TJ (includes charcoal production emissions) Other fuels: -IPCC defaults When emissions from fuel production, transport, and similar are included to determine a project-specific emission factor, then the following shall apply as well: - The project boundary must include these processes - Avoidance of double counting considerations (see two parameter tables) must cover all steps in the project boundary - The determination of the specific emissions from these sources is fully documented and evidenced in the PDD

	These provisions may be applied to include the actual GHG emissions happening upstream in charcoal production in the charcoal emission factor; however, emission factors higher than the methodology cap are not permitted.
Value(s) applied	Charcoal: 197.15 Wood: 112
Choice of data or Measurement methods and procedures	IPCC default values provide an accurate and conservative estimate of emissions reduction from various fuel sources.
Purpose of data	To determine the CO ₂ emission factor of the charcoal fuel
Additional comment	Charcoal should apply the emission factor for charcoal fuel.
VVB Assessment	VVB noted that PP has chosen the methodology default value for wood and methodology cap value for charcoal as per applied methodology TPDDTEC v04.0 ^{3/} , for CO ₂ emission factor arising from use of fuels in baseline scenario, considering the baseline fuel as wood and charcoal. This value is fixed ex-ante for the whole crediting period, which is acceptable.

Data/parameter	$EF_{b,f,nonCO2}$
Unit	tCO ₂ /TJ
Description	Non-CO ₂ emission factor arising from use of fuels in baseline scenario
Source of data	Wood: Methodology default: - 9.46 tCO₂e/TJ (AR5 GWP) or - 8.692 tCO₂e/TJ (AR4 GWP) Charcoal: Methodology defaults: - 5.865 tCO₂e/TJ (AR5 GWP) (combustion only) - 44.83 tCO₂e/TJ (AR5 GWP) (includes charcoal production emissions), - Methodology cap: 92.29 tCO₂e/TJ (AR5 GWP) (includes charcoal production emissions) - or - 5.298 tCO₂e/TJ (AR4 GWP) (combustion only) - 40.26 tCO₂e/TJ (AR4 GWP) (includes charcoal production emissions) - Methodology cap: 82.90 tCO₂e/TJ (AR4 GWP) (includes charcoal production emissions) Other fuels: Any of the following, in order of preference: - IPCC defaults - project-specific field tests prior to first verification by a qualified entity

	that is certified or accredited by National Standards body - project-relevant measurement reports by qualified entities - national defaults - credible published literature for the project area If either project-specific or project-relevant results are used, these must be cross-checked with IPCC defaults and differences shall be justified using evidence. When emissions from fuel production, transport, and similar are included to determine a project-specific emission factor, then the following shall apply as well: - The project boundary must include these processes - Avoidance of double counting considerations (see two parameter tables) must cover all steps in the project boundary - The determination of the specific emissions from these sources is fully documented and evidenced in the PDD These provisions may be applied to include the actual GHG emissions happening upstream in charcoal production in the charcoal emission factor; however, emission factors higher than the methodology cap are not permitted.
Value(s) applied	Charcoal: 92.29 Wood: 9.46
Choice of data or Measurement methods and procedures	IPCC Default Value
Purpose of data	To determine the non-CO ₂ emission factor arising from use of fuels in baseline scenario
Additional comment	Includes charcoal production emissions.
VVB Assessment	VVB noted that PP has chosen the methodology default value for wood and methodology cap value for charcoal as per applied methodology TPDDTEC v04.0 ^{3/} , for non-CO ₂ emission factor arising from use of fuels in baseline scenario, considering the baseline fuel as charcoal and wood. This value is fixed ex-ante for the whole crediting period, which is acceptable.

Data/parameter	EF_{p,f,CO_2}
Unit	tCO ₂ /TJ
Description	CO ₂ emission factor arising from use of fuels in project scenario
Source of data	Wood: Methodology default, 112 tCO₂/TJ Charcoal: Methodology default, 112 tCO₂/TJ (combustion only)

	Methodology default, 165.22 tCO₂/TJ (includes charcoal production emissions) Methodology cap, 197.15 tCO₂/TJ (includes charcoal production emissions) Other fuels: - IPCC defaults When emissions from fuel production, transport, and similar are included to determine a project-specific emission factor, then the following shall apply as well: - The project boundary must include these processes - Avoidance of double counting considerations (see two parameter tables) must cover all steps in the project boundary - The determination of the specific emissions from these sources is fully documented and evidenced in the PDD These provisions may be applied to include the actual GHG emissions happening upstream in charcoal production in the charcoal emission factor; however, emission factors higher than the methodology cap are not permitted. If emissions of this nature are included in the baseline emission factor, then they shall also be included in the project emission factor.
Value(s) applied	Charcoal: 197.15 Wood: 112
Choice of data or Measurement methods and procedures	IPCC default values provide an accurate and conservative estimate of emissions reduction from various fuel sources.
Purpose of data	To determine the CO ₂ emission factor arising from use of fuels in project scenario
Additional comment	Can include a combination of emission factors from fuel production, transport, and use. This has same value as EF_{b,f,CO_2} in projects which reduce use of the same fuel
VVB Assessment	VVB noted that PP has chosen the methodology default value for wood and methodology cap value for charcoal as per applied methodology TPDDTEC v04.0 ^{3/} , for CO ₂ emission factor arising from use of fuels in project scenario, considering the project fuel as charcoal. This value is fixed ex-ante for the whole crediting period, which is acceptable.

Data/parameter	$EF_{p,f,nonCO_2}$
Unit	tCO ₂ /TJ
Description	Non-CO ₂ emission factor arising from use of fuels in project scenario
Source of data	Wood: Methodology default: - 9.46 tCO₂e/TJ (AR5 GWP) or - 8.692 tCO₂e/TJ (AR4 GWP)

	Charcoal: Methodology defaults: - 5.865 tCO₂e/TJ (AR5 GWP) (combustion only) - 44.83 tCO₂e/TJ (AR5 GWP) (includes charcoal production emissions), - Methodology cap: 92.29 tCO₂e/TJ (AR5 GWP) (includes charcoal production emissions) - or - 5.298 tCO₂e/TJ (AR4 GWP) (combustion only) - 40.26 tCO₂e/TJ (AR4 GWP) (includes charcoal production emissions) - Methodology cap: 82.90 tCO₂e/TJ (AR4 GWP) (includes charcoal production emissions) Other fuels: Any of the following, in order of preference: - IPCC defaults - project-specific field tests prior to first verification by a qualified entity that is certified or accredited by National Standards body - project-relevant measurement reports by qualified entities - national defaults - credible published literature for the project area If either project-specific or project-relevant results are used, these must be cross-checked with IPCC defaults and differences shall be justified using evidence. When emissions from fuel production, transport, and similar are included to determine a project-specific emission factor, then the following shall apply as well: - The project boundary must include these processes - Avoidance of double counting considerations (see two parameter tables) must cover all steps in the project boundary - The determination of the specific emissions from these sources is fully documented and evidenced in the PDD These provisions may be applied to include the actual GHG emissions happening upstream in charcoal production in the charcoal emission factor; however, emission factors higher than the methodology cap are not permitted.
Value(s) applied	Charcoal: 92.29 Wood: 9.46
Choice of data or Measurement methods and procedures	IPCC Default Value
Purpose of data	To determine the non-CO ₂ emission factor arising from use of fuels in project scenario

Additional comment	Includes charcoal production emissions.
VVB Assessment	VVB noted that PP has chosen the methodology default value for wood and methodology cap value for charcoal as per applied methodology TPDDTEC v04.0 ^{3/} , for non-CO ₂ emission factor arising from use of fuels in project scenario, considering the project fuel as charcoal. This value is fixed ex-ante for the whole crediting period, which is acceptable.

Data/parameter	$NCV_{b,fuel}$
Unit	TJ/ton
Description	Net calorific value of the fuels used in the baseline
Source of data	Wood: Methodology default, 0.0156 TJ/ton Charcoal: Methodology default, 0.0295 TJ/ton Other fuels: - IPCC defaults - project-specific testing by a qualified entity that is certified or accredited - project-relevant measurement reports by a qualified entity If either project-specific or project-relevant results are used, these must be cross-checked with IPCC defaults and differences shall be justified using evidence.
Value(s) applied	Charcoal: 0.0295 Wood: 0.0156
Choice of data or Measurement methods and procedures	IPCC default values provide an accurate and conservative estimate of emissions reduction from various fuel sources.
Purpose of data	To determine the calorific value of fuel used in the baseline
Additional comment	If EF is in units of tCO ₂ /t fuel, remove NCV term from emission calculations.
VVB Assessment	VVB noted that PP has chosen the methodology default value as per applied methodology TPDDTEC v04.0 ^{3/} , for Net calorific value of the fuels used in the baseline, i.e. charcoal and wood. This value is fixed ex-ante for the whole crediting period, which is acceptable.

Data/parameter	$NCV_{p,fuel}$
Unit	TJ/ton
Description	Net calorific value of the fuels used in the project

Source of data	Wood: Methodology default, 0.0156 TJ/ton Charcoal: Methodology default, 0.0295 TJ/ton Other fuels: - IPCC defaults - project-specific testing by a qualified entity that is certified or accredited - project-relevant measurement reports by a qualified entity If either project-specific or project-relevant results are used, these must be cross-checked with IPCC defaults and differences shall be justified using evidence.
Value(s) applied	Charcoal: 0.0295 Wood: 0.0156
Choice of data or Measurement methods and procedures	IPCC default values provide an accurate and conservative estimate of emissions reduction from various fuel sources.
Purpose of data	To determine the calorific value of fuel used in the project
Additional comment	This has same value as $NCV_{b,fuel}$ in projects which reduce use of the same fuel.
VVB Assessment	VVB noted that PP has chosen the methodology default value as per applied methodology TPDDTEC v04.0 ^{3/} , for Net calorific value of the fuels used in the project, i.e. charcoal. This value is fixed ex-ante for the whole crediting period, which is acceptable.

Data / Parameter	$f_{NRB,i,y}$
Unit	% or Fraction
Description	Fractional non-renewability status of woody biomass fuel during year y , in case the baseline fuel is biomass or charcoal
Source of data	CDM Default value based on CDM information note for "Development of default values for fraction of non-renewable biomass version 2.0 ³⁸ " using MoFUSS model. ^{/8/}
Value(s) applied	29%
Measurement methods and procedures	Determined by following the latest rule update on "fNRB application for GS4GG certification" ^{/8/} published by GS on 24/04/2025 ³⁹ , option 1 of para.2.3.1. National Default value as per Appendix-2 of CDM information note for "Development of default values for fraction of non-renewable biomass version 2.0 ⁴⁰ " using MoFUSS model. ^{/8/}

³⁸ [MP96 Information Note development of default fNRB values](#)

³⁹ <https://globalgoals.goldstandard.org/ru2025-fnr-application-for-gs4gg-certification/>

⁴⁰ [MP96 Information Note development of default fNRB values](#)

Purpose of data	To calculate the quantity of non-renewable biomass being consumed in the baseline scenario and the project scenario
Additional comment	As applicable, NRB assessment may be used for multiple scenarios
VVB Assessment	VVB Team noted that the PD has followed the latest rule update on fNRB application for GS4GG certification published by GS on 24/04/2025⁴¹. As per para 2.3.1 of the rule update document: <i>"For the issuance of GSVERs, design certification or inclusion of an activity, or renewal of crediting period of a design certified activity, the project developer shall use one of these fNRB values:</i> <i>1. Modelling Fuelwood Saving Scenario (MoFuSS) derived values, or</i> <i>2. Updated version of Tool 33 Default values for common parameters (version 2.0 or earlier versions are not valid anymore) after CDM Executive Board approval or revised version of Tool 30 under PACM-A6.4, or</i> <i>3. New method developed for fNRB calculation under PACM-A6.4, approved by Gold Standard."</i> Accordingly, the PD has chosen the 1st option which is MoFuSS derived values published by UNFCCC in "CDM information note for "Development of default values for fraction of non-renewable biomass, Version 2.0⁴²". As per the Appendix-2 of Information note, the National fNRB value for the Kenya is 29%. Based on this, the Value f_{NRB} is fixed for the 3rd Crediting Period in the RCP PDD as 29%.

Data/parameter	$SFC_{b,y}$
Unit	t/household-year
Description	Specific fuel consumption for an individual baseline technology in baseline scenario b during year y
Source of data	Based on default factor of 0.5 tonnes/capita*year of fuelwood Provide evidence that this is coherent with the information on target population characteristics, baseline technology use & fuel consumption using evidence from at least one of the following sources: - baseline survey, - Credible published literature for project region, - Studies by academia, NGOs or multilateral institutions, or - Official government publications or statistics Source applied must not be more than 3 years old; further, cross-check with older sources may be used provided they give conservative results

⁴¹ <https://globalgoals.goldstandard.org/ru2025-fnr-application-for-gs4gg-certification/>

⁴² [MP96 Information Note development of default fNRB values](#)

	(for example, an older source shows that in the past, there was a higher per-capita fuel consumption).
Value(s) applied	0.74
Choice of data or Measurement methods and procedures	KT measurements using weighing scale and moisture meter <u>Digital Moisture Detector</u> - Wood moisture Wood range- 4-75% Accuracy- $\pm 0.5\%$ <u>Weighing scale</u> Hook type with temperature 50 kgs
Purpose of data	Calculation of baseline emissions
Additional comment	A single baseline fuel consumption parameter is weighted to be representative of baseline technologies being compared for project crediting. The average charcoal consumption per household in the baseline was 2.03 kg/hh/day.
VVB Assessment	VVB noted that PP has calculated this value based on the baseline surveys conducted and it was further checked on the basis of calculations available in the ER Sheet and it was found that value considered is appropriate. The value is fixed ex-ante for the whole crediting period, which is acceptable.

Ex-post parameters:

SDG 13

Data / Parameter	Avoidance of double counting or double claiming among project technology end users
Unit	N/A
Description	Evidence of avoidance of double counting or double claiming with project technology end users
Source of data	Evidence of informing / notification of end users, such as: - leaflets distributed with the warranty card of the product alerting end-users to the waiving of their carbon rights in exchange for discount pricing of the improved technology below its true cost, - carbon title waiver forms signed by end users, etc.
Value(s) applied	Warranty card
Measurement methods and procedures	N/A
Monitoring frequency	Monitored whenever project technology is sold or otherwise disseminated

QA/QC procedures	Cross check using general internet search and search of public records of Gold Standard and other voluntary market and UNFCCC mechanisms
Purpose of data	Avoidance of double counting or double claiming
Additional comments	-
VVB Assessment	ECO Climate Capital's/BURN's declaration of no double counting^{/13/} was checked by the VVB Team which confirms that there won't be any double counting or double claiming among project participants project or programme. Moreover, the distributed cookstoves have unique serial number which can be easily traced in the database. and helps in avoiding double counting. Stoves in this project have not been included in any other mitigation action. Further, it was noted that this project was part of GS 966 earlier, but later registered as a separate project with ID GS5642. VVB team also checked the carbon rights waiver evidences (Strips and Stickers on the cookstove boxes)^{/15/} which clear mention that the carbon credits generated through the use of those improved cookstoves will be transferred to the project implementer (ECO Climate Capital). Also, the intention to sell emission reductions resulting from project activity, has been explained to the beneficiaries during the local stakeholder consultations and periodic trainings. VVB also noted that PD has established using publicly available information from Gold Standard and other voluntary standards, at a minimum VERRA , GCC, ICR^{/23//24//25/} and any recognized national or regional standards in the project location, and UNFCCC CDM Project & PoA database^{/22/} and will identify and list any mitigation actions of similar technology, i.e., provide the same kind of output and use the same kind of equipment or conversion process, operating in overlapping spatial boundaries.

Data / Parameter	$SFS_{b,p,y}$
Unit	t/charcoal*day
Description	Specific fuel savings for an individual project technology of baseline b/project p pair in year y
Source of data	Calculated from the difference of $P_{b,y}$ (derived from baseline KPTs) and $P_{p,y}$ (values taken from the most recent issuance for MP5 ^{/31/}).
Value(s) applied	0.001056 (for ex-ante estimation)
Measurement methods and procedures	This parameter is the difference of the baseline fuel consumption ($P_{b,y}$) and project fuel consumption ($P_{p,y}$)
Monitoring frequency	Every 2 years
QA/QC procedures	Cross-check with proportional efficiency of baseline and project technology. For example, if the baseline stove efficiency is 10% and

	the project rated efficiency is 25%, the savings should reflect a factor of 2.5 approximately in the first year of the crediting year and not more. If it is more, then the value will be capped based on the proportional efficiency.
Purpose of data	Used to calculate the specific fuel savings
Additional comments	-
VVB Assessment	VVB noted that when using Method 1, this parameter is used to calculate the specific fuel savings for an individual project technology. The baseline and project field test data must be analyzed in combination to estimate the average fuel savings per technology unit. The parameter will be determined biennially during the crediting period as the difference of the baseline fuel consumption ($SFC_{b,y}$) (derived from baseline KPTs) and project fuel consumption ($P_{p,y}$) (will be monitored during project KPTs for verifications). The value 0.001056⁴³ mentioned above, is an estimated value which has been calculated from the difference of $SFC_{b,y} / P_{b,y}$ (derived from baseline KPTs) and $P_{p,y}$ (values taken from the most recent issuance for MP5³¹). This is an estimated value where the actual project fuel consumption will be calculated during project KPTs. Further, baseline fuel consumption has been calculated using the actual baseline KPT results, and the evidence has already been cross-checked by VVB team.

Data / Parameter	Presence of stove stacking
Unit	N/A
Description	Descriptive statistics of the presence and usage practices of baseline- and other non-project-technology by project technology end users
Source of data	Usage Survey- use of other stoves, to capture cooking habits and stove usage of households in the region, including quantification of use of baseline devices, by formulating questions and/or collecting evidence to determine the frequency of usage of both the project devices and baseline devices, or monitoring surveys to capture the number of meals cooked. The surveys will be integrated with the usage survey.
Value(s) applied	Presence of another stove/s than project stove
Measurement methods and procedures	Usage survey
Monitoring frequency	Annual

⁴³ $SFS_{b,p,y} = P_{b,y} - P_{p,y} \text{ t/year} = (0.74 - 0.356) / 365 = 0.001056 \text{ t/day}$

QA/QC procedures	The calculation of $SFS_{p,b,y}$ will be cross-checked with the observed presence of stove stacking. Any stove stacking will be considered for ER calculation to ensure that the emission reductions are calculated solely based on the replacement of baseline fuel use. Cross-check results of this survey with independent studies that are specific to the project region (or to the project country, if regional studies are not available), including but not limited to National publications, peer reviewed literature, third party assessments (for example – WISDOM, FAO, UN and similar organizations) and/or official data or statistics about cooking technologies, not older than 5 years old.
Purpose of data	To avoid the overestimation of emission reduction
Additional comments	When an old technology remains in use in parallel with the improved technology, or another technology is put in use in parallel, the corresponding emissions will be accounted for so that emission reductions are not overestimated.
VVB Assessment	VVB noted that PP will collect the data of stove stacking if any, through annual usage surveys. When an old technology remains in use in parallel with the improved technology, or another technology is put in use in parallel, the corresponding emissions will be accounted for so that emission reductions are not overestimated. The results of these surveys will be cross-checked with independent studies that are specific to the project region (or to the project country, if regional studies are not available), including but not limited to National publications, peer reviewed literature, third party assessments (for example – WISDOM, FAO, UN and similar organizations) and/or official data or statistics about cooking technologies, not older than 5 years old. From the baseline surveys conducted during current RCP activity, it was noted that LPG stoves are also utilized by the baseline households. The emissions from LPG use will also be accounted in the ER calculations, so that the emission reductions are not overestimated. This was found to be appropriate and acceptable.

Data / Parameter	$SFC_{b,y}$
Unit	mass or volume units/household-day, mass or volume units/person-meal, etc.
Description	Quantity of charcoal (in firewood terms) that is consumed in baseline scenario b during year y
Source of data	Baseline performance field tests
Value(s) applied	0.74
Measurement methods and procedures	Baseline KT measurements Digital Moisture Detector- Wood moisture Wood range- 4-75% Accuracy- + 0.5%

	Weighing scale Hook type with temperature 50 kgs
Monitoring frequency	At the start of crediting period (fixed for one crediting period) In case the project involves the progressive installation, the baseline values shall be representative of new end users cooking practices included in the projects after registration. If there are changes to the characteristics of the end users (cooking practices and/or living standards), the project developer shall conduct baseline KPTs for new end-users and include as a new scenario or adjust the values that have been provided at the time of project registration.
QA/QC procedures	Compliance with the general requirements for sampling (Section 4.4 of methodology)^{/3/}, general requirements for QA/QC (Section 4.5 of methodology)^{/3/} and Annex 2 Kitchen performance test. If the values resulting from the baseline KPTs are higher than the following threshold value (on equivalent terms), then the results shall be further substantiated by independent third-party studies that are specific to the project region, including but not limited to government publications, peer-reviewed literature, third party assessments (for example – WISDOM, FAO, UN and similar organizations) and/or official data or statistics about cooking technologies and fuel use. In any case, the value applied shall not be higher than the cap value (on equivalent terms). Threshold value: 0.75 tonnes/person*year of fuelwood Cap value: 0.95 tonnes/person*year of fuelwood
Purpose of data	Calculation of baseline emission reductions
Additional comments	Used to calculate SFS under method 1. Applicable adjustment factors may be applied.
VVB Assessment	VVB noted that when using Method 1^{/3/}, this parameter is used to determine the quantity of charcoal (in firewood terms) that is consumed in baseline scenario b during year y. This parameter can be further used to calculate SFS under method 1. This parameter will be determined at the start of crediting period (fixed for one crediting period). The above-mentioned value is determined to be 0.74 based on the baseline and KPT surveys conducted in June and July 2024.

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	Total sales record, Project FT, project FT updates, and any applicable adjustment factors
Value(s) applied	0.356 ⁴⁴
Measurement methods and procedures	KT measurements Digital Moisture Detector- Wood moisture Wood range- 4-75% Accuracy- + 0.5% Weighing scale Hook type with temperature 50 kgs
Monitoring frequency	Updated every two years
QA/QC procedures	Compliance with the general requirements for sampling (Section 4.4), general requirements for QA/QC (Section 4.5) and Annex 2 Kitchen performance test ref TPDDTEC version 4.0.
Purpose of data	Calculation of project emission reductions
Additional comments	A single project fuel consumption parameter is weighted to be representative of the quantity of project technologies of each age being credited in a given project scenario.
VVB Assessment	VVB noted that when using Method 1, this parameter is used to determine the quantity of charcoal (in firewood terms) that is consumed in project scenario p during year y. This parameter can be further used to calculate SFS under method 1. This parameter will be updated every two years. The above-mentioned value is considered to be 0.356 for ex-ante estimation purpose, based on the project KPTs conducted during MP5 ^{31/} .

Data / Parameter	$U_{p,y}$
Unit	Percentage
Description	Weighted average usage rate in project scenario p during year y
Source of data	Annual Usage Survey
Value(s) applied	55% ⁴⁵
Measurement methods and procedures	GS requirements on Usage will be followed
Monitoring frequency	Annual
QA/QC procedures	Compliance with the general requirements for sampling (Section 4.4) and general requirements for QA/QC (Section 4.5) ref TPDDTEC version 4.0.

⁴⁴ For ex-ante estimation, survey data results from MP5^{31/} have been used.

⁴⁵ For ex-ante estimation, survey data results from MP5^{31/} have been used

Purpose of data	Calculation of emission reductions
Additional comments	A single usage parameter is weighted to be representative of the quantity of project technologies of each age being credited in a given project scenario. The Good Practice level as per the 'GS Requirements and Guidelines: Usage rate Monitoring' version 2.0⁴⁶ is being followed. The project may follow the best practice later on during the crediting period provided that a continuous use monitoring can be implemented. A user is defined as a household which uses the project stove for at least 7 meals per week and who indicated the last usage within a week. Usage will be confirmed during monitoring/usage surveys. As per the manufacturer's specifications the lifetime of the Jikokoa stove is between 7 to 10 years. Depending on the usage rate of the stoves to be determined at the time of usage surveys, stoves will be either removed from the database during the lifetime or after the end of its lifetime and not credited anymore. Any stove that gets to the end of its life will not be claiming emission reductions since there is no plan for either replacing with comparable or better technology or retrofitting essential parts.
VVB Assessment	VVB noted that annual usage surveys will be conducted by the PP in accordance with the "GS Requirements and Guidelines: Usage rate Monitoring" version 2.0^{28/}. As per these guidelines, the good practice level is being followed. During the remote audit, PP informed VVB team that depending on the usage rate of the stoves to be determined at the time of usage surveys, stoves will be either removed from the database during the lifetime or after the end of its lifetime and not credited. Any stove that gets to the end of its life will not be claiming emission reductions since there is no plan for either replacing with comparable or better technology or retrofitting essential parts, as confirmed by PP during the remote audit. For the ex-ante estimation of ERs during this RCP, PP has conservatively considered a usage rate factor of 55% (For ex-ante estimation, survey data results from MP5 have been used^{31/}), which is found to be acceptable.

Data / Parameter	$N_{b,p,y}$
Unit	days
Description	Number of project technology-days included in the project database for baseline b/project p pair in year y
Source of data	For the ex-ante estimation, 365 technology days per stove have been assumed to calculate the annual emission reductions per stove. This value is then multiplied by the total number of stoves deployed each year over the crediting period in ER calculations.
Value(s) applied	365
Measurement methods and procedures	Assumption For the ex-ante estimation, 365 technology days per stove have been

⁴⁶ https://globalgoals.goldstandard.org/standards/407G_V2.0_EE_ICS_TPPDTEC_Usage-guidelines.pdf

	assumed to calculate the annual emission reductions per stove. This value is then multiplied by the total number of stoves deployed each year over the crediting period in ER calculations.
Monitoring frequency	Monitoring period
QA/QC procedures	Cross check the results of the usage survey with the contents of the project database to confirm whether the project technology units surveyed are present at end user locations as expected, or not. If there is discrepancy, this must be explained or corrected.
Purpose of data	To calculate the number project scenario P through year y.
Additional comments	The total sales record is divided based on project scenario to create the project database. The numbers of active stoves will be determined based on the day they started operation. However, for the calculation of ER, actual days each stove will operate in any given monitoring period will be determined and used for ER computation.
VVB Assessment	VVB noted that PD will calculate this parameter as per the monitoring period, based on monitoring surveys. In the Ex-ante ER sheet, the calculation of operational cookstoves is provided, taking into consideration charcoal usage rate and drop-off of stoves. For the CP3, only 236,029 cookstoves have been included and applying usage rate, 129,816 are considered to be in use (annual average 115,539), since all stoves that will have aged out will not be included in MP1 CP3. This will be updated in MP1, the updated DB will be provided to the verifying VVB to confirm that only eligible stoves will be included for crediting. For the ex-ante calculation, 1 year (365 days) has been assumed. For the ex-ante estimation, 365 technology days per stove have been assumed to calculate the annual emission reductions per stove. This value is then multiplied by the total number of stoves deployed each year over the crediting period in ER calculations. The respective calculations were verified through ER sheet. This approach was found to be correct and acceptable to the VVB team. The monitoring survey will be conducted on sample basis by the PD. The sampling for survey to be conducted will be in line with CDM sampling standard and CDM sampling guideline^{12/} which is found to be appropriate. The numbers of active stoves will be determined based on the day they started operation. However, for the calculation of ER, actual days each stove will operate in any given monitoring period will be determined and used for ER computation.

Data / Parameter	$LE_{p,y}$
Unit	tCO ₂ e per year
Description	Leakage in project scenario p during year y
Source of data	Baseline and monitoring surveys

Value(s) applied	0.95
Measurement methods and procedures	KT measurements
Monitoring frequency	Default discount value of 0.95 applied to emission reductions
QA/QC procedures	Compliance with the general requirements for sampling
Purpose of data	To determine leakage in project scenario p during year y
Additional comments	Monitoring parameters required for calculating leakage emissions are included in the monitoring plan (see section B.7.2)
VVB Assessment	VVB noted that the default adjustment factor (0.95) as per para. 3.11.2 of methodology ^{3/} is used in the calculations of ER. This was found to be appropriate.

SDG 1

Data / Parameter	Equivalent monetary savings
Unit	Monetary savings based on fuel savings and prevailing fuel cost
Description	Financial impact
Source of data	Surveys
Value(s) applied	53.69% ⁴⁷
Measurement methods and procedures	Direct calculation based on results from the KT
Monitoring frequency	Annual
QA/QC procedures	The survey questions should be evaluated so that they bring out clear picture of the gains of the stove
Purpose of data	Reporting on sustainable development of the project
Additional comments	The monetary equivalent will be based on the prevailing fuel costs at the time of preparing the report
VVB Assessment	VVB noted that introduction of the efficient cook stoves will lead to time and money savings due to reduced fuel consumption. This saved income can be used by households to engage in other income generating activities that can lead to improved livelihoods of the households. Moreover, with project activity penetration, it will provide the households with clean energy for cooking. PP has estimated the monetary savings related to the purchase of charcoal in the project scenario to be around 53.69% as compared to baseline scenario during the crediting period. This value has been determined based on survey data results from the already issued MP5 for ex-ante estimations^{31/}. The VVB team has thoroughly cross-checked this value

⁴⁷ For ex-ante estimation, survey data results from MP5^{31/} have been used.

by reviewing the respective approved Ex-Post ER sheet (SDG Calculation Tab)^{31/} and has confirmed its accuracy. PD will derive the value from the project database and will be based on the monitoring/KT surveys.

SDG 3

Data / Parameter	Perceived Air quality
Unit	-
Description	Smoke levels and particulates
Source of data	Survey
Value(s) applied	99.05% ⁴⁸
Measurement methods and procedures	Carrying out a survey through in person site visit of sampled households and telephone surveys.
Monitoring frequency	Annual
QA/QC procedures	The type of measurement employed should take into consideration those factors which are out of control of households when reporting on this parameter.
Purpose of data	Reporting on sustainable development of the project
Additional comments	This parameter can be reported based on responded comments and is not measured directly
VVB Assessment	VVB noted that Indoor air pollution caused by combustion of charcoal fuel will be reduced since the households will be using energy efficient Jikokoa Stoves which require less charcoal and produce less soot. The use of ICS technology is anticipated to generate significant benefits to household in-door air quality. As a function of reduced quantities of charcoal consumed and reduced time spent while cooking, it is anticipated the subsequent levels of in-door air pollution will reduce with noticeable improvements to smoke levels, itchy eyes and breathing problems which the end-user can account for during monitoring campaigns. The specific SDG 3 impact to be assessed in the project scenario is perceived air quality. Monitoring surveys will be designed to assess a sample of households' qualitative assessment on parameters including itchy eyes, respiratory infections/breathing problems, and smoke levels in the project scenario in comparison to the baseline scenario. This parameter can be reported based on responded comments and is not measured directly. The value applied in the ex-ante is 99.05%. This value has been determined based on survey data results from the already issued MP5 for ex-ante estimations^{31/}. The VVB team has thoroughly cross-checked this value by reviewing the respective

⁴⁸ For ex-ante estimation, survey data results from MP5^{31/} have been used.

	approved Ex-Post ER sheet (SDG Calculation Tab)^{31/} and has confirmed its accuracy. PD will derive the actual values from the monitoring surveys questionnaires during monitoring period. During the remote audit, PP representatives informed the audit team that Qualitative surveys are conducted as part of the monitoring surveys to investigate air quality with the project stove. The indoor air pollution is compared to the baseline scenario, asking end-users whether IAP increased, decreased or remained the same since the introduction of the ICS compared to the baseline stove. Based on the surveys, the results will be determined whether the Indoor Air Pollution levels have improved or not.
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SDG 4

Data / Parameter	Number of people trained/ year
Unit	Number
Description	Number of people who participated in project trainings
Source of data	Training records and participation lists
Value(s) applied	77 ⁴⁹
Measurement methods and procedures	Training records and participation lists
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Reporting on sustainable development of the project
Additional comments	-
VVB Assessment	VVB noted that the project will provide training opportunities for men and women in Kenya. The successful implementation of the project will require multiple training efforts to ensure adequate implementation capacity. These training sessions, availed primarily to young women and men (ages 18 – 36) in Kenya will encompass a variety of training modules including data collection, survey development, stakeholder consultation management and specific training on the use of ICS. These transferrable skill sets will add value to the recipients of these training modules. The specific SDG 4 impact to be assessed in the project scenario is the number of people receiving skill development training. Records of training sessions, confirming training materials, signed attendance lists and locations will be provided as evidence of the total number of people trained for the project activity. The value applied in the ex-ante is 77 number of people receiving skill development training.

⁴⁹ For ex-ante estimation, data results from MP5^{31/} have been used.

	This value has been determined based on data results from the already issued MP5 for ex-ante estimations^{31/}. The VVB team has thoroughly cross-checked this value by reviewing the respective approved Ex-Post ER sheet (SDG Calculation Tab)^{31/} and has confirmed its accuracy. PD will derive and VVB can cross check the actual values during verification based on review of records of training sessions, confirming training materials, signed attendance lists, etc.
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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
Description	Number of minutes spent on average for cooking in the project scenario
Source of data	Project monitoring survey
Value(s) applied	37 ⁵⁰
Measurement methods and procedures	Statistical average of the end-user reported difference between the number of minutes spent cooking in the project scenario compared to baseline conditions for similar meals
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Reporting on sustainable development of the project
Additional comments	-
VVB Assessment	VVB noted that the use of thermally efficient cookstoves reduces the number of hours spent, especially by women, in the preparation of meals. A key benefit of the use of ICS technology is the time savings, particularly for women, during meal preparation. The utilization of ICS technology can save up to 37 minutes of cooking time – savings which can be used to alleviate the domestic constraints that women suffer in unaccounted or devalued domestic labor. The specific SDG 5 impact to be assessed in the average time saving associated with cooking in the project scenario. During monitoring campaigns, end-users will provide time estimates of cooking duration in the project scenario against estimates in the baseline scenario. The average difference, statistically weighted for stove age, shall be used to monitor the time savings in the project scenario. The value applied in the ex-ante is 37 minutes time saving per household per day. This value has been determined based on survey data results from the already issued MP5 for ex-ante estimations^{31/}. The VVB team has thoroughly cross-checked this value by reviewing the respective

⁵⁰ For ex-ante estimation, survey data results from MP5^{31/} have been used.

	approved Ex-Post ER sheet (SDG Calculation Tab)^{31/} and has confirmed its accuracy. PD will derive the actual values during verification from the monitoring surveys questionnaires prepared for monitoring campaigns during the monitoring period.
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SDG 7

Data / Parameter	Number of sold/distributed ICS in use
Unit	Number
Description	Number of sold/distributed ICS in use
Source of data	Project database & supporting files
Value(s) applied	115,539
Measurement methods and procedures	Project records including contracts, payment slips, sales databases
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Reporting on sustainable development of the project
Additional comments	This value is calculated by Multiplying the Total Number of stoves assumed to be distributed in the Project over the Crediting Period by the Usage rate per year
VVB Assessment	VVB noted that Improved cookstoves have marked improvements on the quality of life of end-users with specific reference to in-door air pollution, reduced time and finances spent on charcoal. In comparison to baseline practices, the adoption and use improved cookstoves denotes a fundamental shift in access to modern cooking practices. The project design is anchored on the distribution and use of improved cookstove (ICS) technologies to replace the inefficient baseline cookstoves. These technologies carry significant benefits to households and end-users alike as have been defined ex- ante and as will be monitored in the project scenario. The baseline scenario is the continued use of baseline technologies with low thermal efficiencies and associated risks to the health and living conditions of households in Kenya. The specific SDG 7 impact to be assessed in the project scenario is the number of sold/distributed ICS in use. This will be calculated as a function of the total number of ICS sold, discounted against the Usage rate established during monitoring campaigns. The average value applied in the ex-ante is 115,539 Number of sold/distributed ICS in use. PD will derive the actual values during verification from the project database and monitoring & usage surveys conducted during monitoring period.

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	Project records
Value(s) applied	68 ⁵¹
Measurement methods and procedures	Direct measurement based on employment numbers of those employed directly by the project
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Reporting on sustainable development of the project
Additional comments	-
VVB Assessment	VVB noted that this project will create jobs for the people who will be involved in manufacturing, sales and distribution, maintenance as well as conducting the monitoring survey exercise. Job opportunities will be open to both interested men and women without any form of bias or discrimination. The specific SDG 8 impact to be assessed is the total number of jobs created. The number of created jobs will be determined during the monitoring period to include both Casual and Contract employees. An employee list will be provided as a supporting document to evidence impact. The value applied in the ex-ante is jobs provided to 68 people. This value has been determined based on data results from the already issued MP5 for ex-ante estimations^{31/}. The VVB team has thoroughly cross-checked this value by reviewing the respective approved Ex-Post ER sheet (SDG Calculation Tab)^{31/} and has confirmed its accuracy. PD will derive and VVB will cross check the actual values during verification from the employee lists, employment contracts, etc. during the monitoring period.

SDG 15

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

⁵¹ For ex-ante estimation, data results from MP5^{31/} have been used.

Source of data	Project database, Monitoring & Usage Surveys
Value(s) applied	12,908.55
Measurement methods and procedures	Computed 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 the non-renewable Biomass fraction in Kenya.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Reporting on sustainable development of the project
Additional comments	-
VVB Assessment	VVB noted that the collective charcoal savings realized from the project activity will significantly contribute to a reduction in the total non-renewable biomass consumed in country for domestic cooking requirements. The use of the ICS technology will create fuel savings, calculated as the aggregate difference in total charcoal consumed for cooking activities in the project scenario as compared to the baseline scenario. The production and consumption of charcoal in Kenya is by and large a major contributor to deforestation rates as evidenced by the non-renewable Biomass fraction in the country (29%). The project will have significant effect on reduced non-renewable biomass consumption rates in the country. VVB during the baseline survey noted that the project beneficiaries are highly dependent on charcoal for daily cooking. The use of the improved cookstoves for cooking will reduce the use of baseline fuel. The decrease in the use and demand of charcoal will eventually lead to sustainable forests management in the project area. PP has estimated quantity of non-renewable biomass saved in the project scenario from continued use of project technologies for the current crediting period as 12,908.55 tons. PD will derive the actual values during verification based on the data collected through the monitoring & usage surveys, project KPTs, etc. conducted during monitoring period.

VVB has checked the submitted emission reduction worksheet^{/2/}, data and parameters used and their values to confirm that values provided in the following table are appropriate.

Year	Baseline emissions	Project emissions	Leakage	Emission reductions
	(tCO ₂ e)	(tCO ₂ e)	(tCO ₂ e)	(tCO ₂ e)
YEAR 1	441,385	243,946	9,872	187,567
YEAR 2	441,385	243,946	9,872	187,567
YEAR 3	441,385	243,946	9,872	187,567
YEAR 4	441,385	243,946	9,872	187,567
YEAR 5	441,385	243,946	9,872	187,567
YEAR 6	441,385	243,946	9,872	187,567
YEAR 7	101,579	56,141	2,272	43,166
Total	2,749,890	1,519,820	61,503	1,168,566
Total number of crediting years	7			
Annual average over the crediting period	392,841	217,117	8,786	166,938

It is the opinion of the Applus+ Certification's validation team that the monitoring plan, as described in the GS4GG PDD^{/1/} valid for the 3rd crediting period of the project activity under the GS4GG, is feasible for the project developer and will give opportunity for real measurements of achieved emission reductions and SDGs indicators.

All data pertaining to monitoring parameters will be archived for at least two years after the end of the crediting period. General details of data to be collected and frequency of data recording are also clearly defined in the monitoring plan of the GS4GG PDD^{/1/}.

As also appropriately outlined in the GS4GG PDD^{/1/} valid for the 3rd crediting period of the project activity under the GS4GG, an appropriate project's operational and management structure is considered for the GS project activity. Such operational and management structure will rely on staff with responsibilities to be clearly defined; where all collaborators and employees involved with the operation of the project and/or monitoring will receive appropriate training.

It is the opinion of the Applus+ Certification's validation team that the descriptions of the monitoring plan (and descriptions in related sections of the GS4GG PDD valid for the 3rd crediting period of the project activity under the GS4GG describing the approaches for determining baseline and project emissions) do not negatively affect the accuracy and correctness of the determination of emission reductions.

Moreover, VVB Team also cross checked the SDG Impact Tool^{/2/} submitted by the PP. All the details in the tool were confirmed to be correct and appropriate.

In summary, the Applus+ Certification's validation team confirmed that the description and design of the monitoring plan, as described in the GS4GG PDD valid for the 3rd crediting period of the project activity under the GS4GG, fully complies with all the monitoring requirements of the GS4GG methodology "REDUCED EMISSIONS FROM COOKING AND HEATING: Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 4.0"^{/3/} and applicable methodological tools^{/5/}. Such description is also under conformance with currently applicable guidelines for completing the GS4GG PDD form^{/6/}.

4. FINAL PROJECT DESIGN CERTIFICATION STATEMENT

Applus+ Certification has performed the validation for design certification renewal of “Burn Stoves Project in Kenya” (GS5642). The validation for design certification renewal was performed on the basis of Gold Standard GS4GG guidelines and procedures. ^{/6/}

The validation for design certification renewal has been performed following the requirements of the Gold Standard GS4GG guidelines, ^{/6/} CDM tools^{/5/} and guidelines and on the basis of the contractual agreement.

The GS validation assessment for renewal of crediting period of the project activity under the GS4GG (Design Certification Renewal) was performed in order to independently assess whether the project activity meets all criteria and requirements to have its crediting period renewed under the GS4GG in order to issue GS Voluntary Emission Reductions (GS VERs). The assessment was performed in accordance with applicable requirements of GS4GG’s “Principles and Requirements” (version 2.0)^{/6/}, with requirements of the GS4GG Validation and Verification Standard (version 2.0) ^{/6/}, UNFCCC’s CDM Validation and Verification standard for project activities (version 03.0)^{/4/} being also considered.

VVB confirms that:

- The updated PDD^{/1/} has been completed using the valid version of the applicable PDD template, following the instructions in the template Guide.
- The information transferred to the later valid version of the PDD form is materially the same as that in the design certified PDD^{/1/}, where applicable;
- The methodology^{/3/} and the other methodological regulatory documents were applied in accordance with the applicable GS4GG requirements;
- The baseline, the estimated emission reductions, SDG Impacts and the monitoring plan in the updated PDD comply with the applicable GS4GG requirements, and the valid version of the methodology and the other methodological regulatory documents that are applied in the updated PDD;
- The demonstration of Ongoing Financial Need (OFN) is as per the relevant requirements set out in paragraphs 4.1.51 to 4.1.53 of GS4GG Principles and Requirements, version 2.0; ^{/6/}
- The next crediting period of the project activity commences on the day immediately after the expiration of the current crediting period⁵².

A risk-based approach has been followed to perform the validation assessment. The review of the project description and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews^{/27/} with

⁵² As per the principles and requirements document para 5.1.46 “Delay in the completion of re-validation beyond the last date of current certification cycle shall result in a reduction of any issuance of Certified Products and/or Impact Statements available during following certification cycle (for example, a delay of 1 year beyond the first cycle shall mean that no Certified Impact Statements shall be issued for the period of delay). Based on this requirement, PP has foregone all the credits accrued between 26/04/2024 to 30/01/2025 due to the delay in renewal of crediting period beyond the last date of 2nd Crediting Period. Hence, start date of 3rd CP will be considered as 31/01/2025.

representatives of the project developer ECOA Climate Capital have provided the appointed validation team of Applus+ Certification with sufficient evidence for positive validation opinion as per applicable requirements of GS4GG.

The review of the GS4GG PDD and the subsequent follow-up interviews^{/27/} have provided Applus+ Certification with sufficient evidence to determine the fulfilment of stated criteria.

In our opinion, the project meets all relevant requirements of Gold Standard for the Global Goals and procedures.

The project will hence be recommended by Applus+ Certification for design certification renewal with the Gold Standard Registry.

Emission reductions attributable to the project are additional to any that would occur in the absence of the project activity, as the project will reduce the amount of baseline fuel usage resulting in saving of non-renewable biomass. Given that the project is implemented as designed, the project is likely to achieve the estimated amount of average annual emission reductions of **166,938 tCO_{2e}** per year.

In detail the conclusions can be summarized as follows:

- The project does not result in negative social, environmental and/or economic impacts.
- The project contribution to Environment, Social Development and Economic and technological development.
- The project is deemed additional as per GS4GG requirements.
- The project does not result in diversion of ODA.
- Conservative assumptions were applied in the project description.
- The monitoring plan of SDG parameters is transparent and adequate.
- The project meets the stakeholder consultation requirements.

The conclusions of this report show that the project, as it was described in the project documentation^{/1//2/}, is in line with all criteria applicable for the design certification renewal validation.

It is thus the opinion of Applus+ Certification that the GS project activity sufficiently meets all the relevant requirements for its Design Certification Renewal under the GS4GG. Hence, Applus+ Certification recommends the project for design certification renewal with the Gold Standard Registry.

Date: 04/06/2025

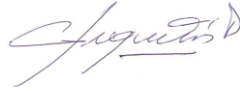
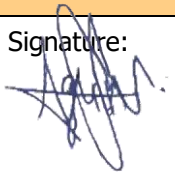
Lead Auditor and Technical expert: Dr. N. Premjit Singh

Auditor and Technical Expert in Training: Mr. Saurabh Gaikwad

Technical Reviewer & Technical Expert: Mr. Miguel A. Cortes

Approver (*Applus+ Certification VVB Technical Manager*):

Mr. Agustín Calle de Miguel

ASSESSMENT TEAM	
Lead Auditor: Dr. Premjit Singh	Technical Reviewer: Mr. Miguel A. Cortes
Signature: 	Signature: 
Approver: Mr. Agustín Calle de Miguel	
Signature: 	

5. REFERENCE

Sr. No.	Document/Evidence/Reference/Web link, Version, Date
/1/	<u>Registered Docs:</u> GS Passport, Version 03 dated 09/02/2018 Registered Gold Standard for the Global Goals Transition Annex Design Review No.01 PDD, Version 04 dated 30/12/2021 Design Review No.02 PDD, Version 4.8 dated 09/06/2023 <u>For 3rd CP:</u> Initial GS4GG PDD, Version 1.0 dated 15/08/2024 Final GS4GG PDD, Version 3.0 dated 30/05/2025
/2/	Initial Emission Reduction Sheet for the project activity, Version 1.0 dated 15/08/2024 Final Emission Reduction Sheet for the project activity, Version 1.7 dated 30/05/2025 SDG Impact tool, Version 06 dated 30/05/2025
/3/	GS Methodology: REDUCED EMISSIONS FROM COOKING AND HEATING: Technologies and Practices to Displace Decentralized Thermal Energy Consumption' (TPDDTEC), Version 04.0 https://globalgoals.goldstandard.org/407-ee-ics-technologies-and-practices-to-displace-decentralized-thermal-energy-tpddtec-consumption/
/4/	CDM Validation & Verification Standard for Project Activities, Version 03
/5/	Tool 01: Tool for the demonstration and assessment of additionality, Version 07.0 https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf Tool 10: Tool to determine the remaining lifetime of equipment, Version 01.0 https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-10-v1.pdf Tool 11: Tool for the assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period, Version 03.0.1 https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-11-v3.0.1.pdf CDM-MP96-A03 Information Note: Development of default values for fraction of non-renewable biomass, Version 02.0 https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20250307101947081/MP96_EA03_Information_Note_development_of_default_fNRB_values.pdf
/6/	<u>GS4GG Requirements:</u> Principles and Requirements, Version 2.0 Stakeholder Consultation and Engagement Requirements, Version 2.1 Safeguarding Principles and Requirements, Version 2.1 GS Validation and Verification standard, Version 2.0

	Site Visit and Remote Audit Requirements and Procedures, Version 2.0 <u>Activity Requirements:</u> Community Services Activity Requirements, Version 1.2 <u>PRODUCT REQUIREMENTS:</u> GHG Emissions Reduction & Sequestration Product Requirements, Version 3.0
/7/	Google map location of the project activity
/8/	GS4GG Rule Update - fNRB application for GS4GG certification, Version 02 https://globalgoals.goldstandard.org/ru2025-fnr-b-application-for-gs4gg-certification/
/9/	Declaration of Non-Use of Official Development Assistance by Project Owner, dated 24/10/2018
/10/	Manufacturer's Specifications BURN Jikokoa Stoves
/11/	Pictures of Baseline Cookstoves
/12/	Guideline of Sampling and surveys for CDM project activities and programmes of activities, version 04.0 Standard of Sampling and surveys for CDM project activities and programmes of activities" version 09.0
/13/	PP's letter of declaration of no double counting, dated 23/10/2024
/14/	GS5642 Amended Cover Letter, dated 31/10/2022
/15/	Jikokoa Carbon Title Waiver Sticker Jikokoa Carbon Title Waiver Strip on Box
/16/	Carbon Title Waiver- Distributor Contract
/17/	BURN WARRANTY BOOKLET & USER MANUAL
/18/	Baseline and KPT Trainings participants list
/19/	Grievance Mechanism Logbook maintained at BURN Office
/20/	GS966 Local Stakeholder Consultation Report, Version 02 dated 23/05/2011
/21/	GS5642 Employment List
/22/	Official registry website of Clean Development Mechanism (CDM): https://cdm.unfccc.int/Projects/projsearch.html
/23/	Official registry website of Verified Carbon Standard (VCS): https://verra.org/programs/verified-carbon-standard/vcs-program-details/
/24/	Official registry website of Global Carbon Council (GCC): https://www.globalcarboncouncil.com/
/25/	Official registry website of International Carbon Registry (ICR): https://www.carbonregistry.com/
/26/	Official registry website of International REC (I-REC) registry: https://www.irecstandard.org/
/27/	Remote audit records (Attendance sheet, Remote audit recording, Screenshots, Photos, Videos, Audit Plan, etc.)
/28/	GS Requirements and Guidelines: Usage rate Monitoring, version 2.0 https://globalgoals.goldstandard.org/standards/407G_V2.0_EE_ICS_TPDDTEC_Usage-guidelines.pdf

/29/	GS Transition Requirements, Version 2.0 https://globalgoals.goldstandard.org/106-par-transition-requirements/
/30/	Drigo R, Bailis R, Ghilardi A, Masera O. Analysis of Woodfuel Supply, Demand and Sustainability in Kenya.; 2015. https://cleancooking.org/reports-and-tools/tier-ii-wisdom-kenya-analysis-of-woodfuel-supply-demand-and-sustainability-in-kenya/
/31/	Project Database and Cookstoves dissemination records: 0. CM BURN Database -Old Period ER_181101 (2) MP5 CP1 1. CM BURN Database -New Period ER_181101 (2) MP1 2. GS 5642 - Burn Database_ER_Sheet_201006 MP2 3. 25AUG2022_GS 5642_Database Technology Days and Stoves in Use MP3 4. NON-CONFIDENTIAL 20th DEC GS5642 Kenya Ex Post ER calculations MPVCP2 (1) MP5 5. Summary Spreadsheet
/32/	Ongoing Financial Need (OFN) Statement for GS 5642
/33/	Evidence of BURN Charcoal Stoves start date of distribution (screenshot of system details provided by PP)
/34/	International Labour Organization - Ratifications for Kenya Ratifications of ILO conventions: Ratifications for Kenya
/35/	Guide to International Procedures Available in Cases of Human Rights Violations in Africa http://www.claiminghumanrights.org/kenya.html?L=0
/36/	Kenya's Constitution of 2010 https://www.constituteproject.org/constitution/Kenya_2010.pdf
/37/	UN Human Rights Conventions- Ratification Status for Kenya tbineternet.ohchr.org/_layouts/15/TreatyBodyExternal/Treaty.aspx?CountryID=90&Lang=EN
/38/	Universal Declaration of Human Rights Universal Declaration of Human Rights United Nations
/39/	ILO C100 - Equal Remuneration Convention, 1951 (No. 100) https://normlex.ilo.org/dyn/nrmlx_en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312245:NO
/40/	ILO C098 - Right to Organise and Collective Bargaining Convention, 1949 (No. 98) https://normlex.ilo.org/dyn/nrmlx_en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312243:NO
/41/	ILO C105 - Abolition of Forced Labour Convention, 1957 (No. 105) https://normlex.ilo.org/dyn/nrmlx_en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312250:NO
/42/	ILO C029 - Forced Labour Convention, 1930 (No. 29) https://normlex.ilo.org/dyn/nrmlx_en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312174:NO
/43/	ILO C182 - Worst Forms of Child Labour Convention, 1999 (No. 182) Convention C182 - Worst Forms of Child Labour Convention, 1999 (No. 182)
/44/	ILO C155 - Occupational Safety and Health Convention, 1981 (No. 155) https://normlex.ilo.org/dyn/nrmlx_en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C155
/45/	EOCA Register of Shareholders (CONFIDENTIAL)

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

Table 1. Remaining Forward Action Requests (FAR) from validation and/or previous Validation

FAR ID	XX	Section No.	XX	Date:
Description of FAR				
NA				
Project Participant's response				Date: DD/MM/YYYY
NA				
Documentation provided by Project Participant				
NA				
VVB assessment				Date: DD/MM/YYYY
NA				

Table 2. Clarifications (CL) from this Validation

CL ID	01	Section no.	N.A.	Date: 29/08/2024
Description of CL				
PP is kindly requested submit the following documents for the validation purpose:				
1) Technical specifications from the manufacturer for BURN's Jikokoa Stove- 2) The Kenya Industrial Research and Development Institute (KIRDI) Testing Report for BURN's Jikokoa Stoves. 3) Supportive Evidence of Carbon Rights Transfer from End Users to ECOA Climate Capital (ECC). 4) The end user agreement confirming rights to the ownership of carbon credits reside with the CME signed via monitoring app which is mentioned in section B.2 of PDD 5) Local Stakeholders Consultation report. 6) Clear photographs of Baseline Cookstoves and Jikokoa Cookstoves 7) ODA Declaration submitted to Gold Standard 8) Letter of declaration dated from PP confirming that the GHG Emission reductions or removals generated by the project activity will not be used for compliance with an emission trading program or to meet binding limits on GHG Emissions and the project has not created or sought any other form of environmental credit for the same period and whether it is registered or seeking to register under other GHG programs and whether it has been rejected by any other GHG programs. 9) Grievance logbook placed at respective site office. 10) Supportive evidence of Employment generation and training records. 11) SDG Impact Tool Spreadsheet 12) Seed Ecology 3rd party report which is used for f_{NRB} value 13) The supportive documents to cross check the data in "Urban Baseline Surveys" and "Urban_Baseline_KPT_Survey" tabs of ER sheet.				
Project Participant's response				Date: 25/09/2024
1) provided				

2) Provided	
3) Provided	
4) Provided	
5) Provided	
6) Provided	
7) Provided	
8) Provided	
9) provided	
10) provided	
11) provided	
12) provided	
13) Baseline reporting template provided	
Documentation provided by Project Participant	
-	
VVB assessment	Date: 28/09/2024
1) The requested technical specifications document of Jikokoa stoves was not found in the evidence package. PP is requested to submit the same. Hence, Comment#01 is Open.	
2) The requested KIRDI testing report was not found in the evidence package. PP is requested to submit the same. Hence, Comment#02 is Open.	
3) PP has submitted the evidence of caron title waiver sticker which clearly mentions about carbon rights transfer from End User to PP (EOCA Climate Capital). This was found to be appropriate and acceptable. Hence, Comment#03 is Closed.	
4) PP has submitted the evidence of caron title waiver sticker which clearly mentions about carbon rights transfer from End User to PP (EOCA Climate Capital). This was found to be appropriate and acceptable. Hence, Comment#04 is Closed.	
5) The requested local stakeholder consultation report is now submitted by the PP. Hence, Comment#05 is Closed.	
6) The requested photographs of Cookstoves are now submitted by the PP. Hence, Comment#06 is closed.	
7) The ODA Declaration submitted to Gold Standard is now provided by the PP. Hence, Comment#07 is closed.	
8) The requested Letter of declaration is not yet provided by the PP. Hence, Comment#08 is Open.	
9) The copies of grievance logbook are now submitted by the PP, which were found to appropriate. Hence, Comment#09 is Closed.	
10) The employment list and training records are now submitted by the PP as a supportive evidence of Employment generation and trainings. It was checked by the assessment team and found to be appropriate. Hence, Comment#10 is Closed.	
11) The SDG Impact Tool Spreadsheet is now provided by the PP and it was found to be appropriate. Hence, Comment#11 is Closed.	
12) The requested Seed Ecology 3rd party report is now provided the PP. Hence, Comment#12 is Closed.	
13) PP ha now provided the Baseline and KPT survey templates. Moreover, it was clarified that Surveys are collected through KOBO and information downloaded and summarized in the	

excel sheet submitted. This was checked by the assessment team and found to be appropriate. Hence, **Comment#13 is closed.**

Thus, **CL01 is Open.**

Project Participant's response	Date: 02/10/2024
1. Technical specifications document of Jikokoa stoves has been Provided 2. KIRDI testing report has been Provided. 8. Distributor contract confirming waiver of carbon credits generated by the project <i>ref : 5. Carbon Title Waiver - Distributor Contract.</i>	

Documentation provided by Project Participant

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VVB assessment	Date: 09/10/2024
1) The requested technical specifications document of Jikokoa stoves is now provided by the PP. Hence, Comment#01 is Closed. 2) The requested KIRDI testing report was not found in the evidence package. PP is requested to submit the same. Hence, Comment#02 is Open. 8) The evidence provided for transfer of carbon rights is acceptable. However, Assessment team is expecting a declaration letter from BURN/ECOIA regarding no double counting confirming the contents as above comment. Hence, Comment#08 is Open.	

Thus, **CL01 is Open.**

Project Participant's response	Date: 23/10/2024
2. As agreed, this is no longer needed as PP provided the updated technical specifications for the stoves. 3. Letter of declaration has been shared regarding no double counting.	

Documentation provided by Project Participant

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VVB assessment	Date: 24/10/2024
2) The requested KIRDI report is no longer required, as PP has provided the updated manufacturer's specifications document which provides the information about thermal efficiencies of stoves. This was found to be appropriate and acceptable to the assessment team. Hence, Comment#02 is Closed. 8) The requested Letter of declaration of no double counting is now provided by the PP to the assessment team, which was found to be appropriate and acceptable. Hence, Comment#08 is Closed.	

Thus, **CL01 is Closed.**

CL ID	02	Section no.	A.1.1 of PDD	Date:	29/08/2024
Description of CL					
As per template guide, under Section A.1.1 of the PDD, <i>"Demonstrate how the project meets the General Eligibility criteria of the applicable Activity Requirements."</i> However, the PP has not demonstrated how the project meets all the respective general eligibility criteria conditions in line with section 3 of COMMUNITY SERVICES ACTIVITY REQUIREMENTS, version 1.2 and section 3 of GS Principles and requirements, version 2.0 document. Kindly clarify.					
Project Participant's response					Date: 25/09/2024
The PP has demonstrated how the project meets all the respective general eligibility criteria conditions in line with section 3 of COMMUNITY SERVICES ACTIVITY REQUIREMENTS, version 1.2 and section 3 of GS Principles and requirements, version 2.0 document.					
Documentation provided by Project Participant					
-					
VVB assessment					Date: 28/09/2024
The PP has now demonstrated how the project meets the general applicability criteria conditions in line with section 3 of COMMUNITY SERVICES ACTIVITY REQUIREMENTS, version 1.2 and section 3 of GS Principles and requirements, version 2.0 document in section A.1.1 of revised PDD. Assessment team reviewed these relevant demonstrations and confirmed that project meets all the applicability criteria as per eligibility criteria of activity requirements. This was found to be appropriate and acceptable to the assessment team. Thus, CL02 is Closed.					

CL ID	03	Section no.	B.4 of PDD	Date:	29/08/2024
Description of CL					
In section B.4 of the PDD, as the current assessment is the Renewal of Crediting period activity, the stepwise assessment for continued validity of the baseline and to update the baseline at the renewal of a crediting period as per the stepwise procedure of CDM Tool 11, version 03.0.1 is not provided. PP is requested to clarify and provide relevant assessment in the respective section of PDD.					
Project Participant's response					Date: 25/09/2024
PD has provided the relevant assessment in section B.4 of the PDD					
Documentation provided by Project Participant					
-					
VVB assessment					Date: 28/09/2024

PP has now provided the stepwise assessment for continued validity of the baseline and to update the baseline at the renewal of a crediting period as per the stepwise procedure of CDM Tool 11, version 03.0.1 in section B.4 of the PDD.

Assessment team checked the relevant assessment provided in section B.4 of PDD and confirmed that the appropriate details and justifications now provided in line with the stepwise procedure of Tool 11. This was found to be correct and acceptable to the assessment team.

Thus, **CL03 is Closed.**

CL ID	04	Section no.	B.5.2 of PDD	Date:	29/08/2024
Description of CL					
In section B.5.2 of the PDD, the required assessment for Ongoing Financial Need is not provided in line with applicable GS requirements and PDD template guide. Else, if it is not applicable, appropriate reasoning shall be provided by the PP.					
Project Participant's response				Date:	25/09/2024
PD has provided appropriate reasoning since OFN is not applicable for this project.					
Documentation provided by Project Participant					
-					
VVB assessment				Date:	28/09/2024
PP clarified that since the project activity is automatically additional as per Section B.5 of the PDD and does not need to demonstrate the additionality, the demonstration of ongoing financial need is not required.					
Moreover, as per para. 4.1.51 of GS Principles and Requirements, version 1.2, <i>"All Gold Standard Projects (including those that transition from earlier versions) required to demonstrate Financial Additionality, as noted above, shall demonstrate Ongoing Financial Need for such mechanisms."</i>					
Hence, as per the requirement, as the current project does not need to demonstrate additionality being automatically additional, the demonstration of Ongoing Financial Need is not required. PP has now included the relevant reasoning in section B.5.2 of PDD.					
The justifications provided by the PP were found to be appropriate and acceptable.					
Thus, CL04 is closed.					

CL ID	05	Section no.	B.6.2, B.6.3 of PDD	Date:	29/08/2024	
Description of CL						
1) In section B.6.2 of the PDD, as per the methodology ex-ante parameters section, the parameter "Indoor air pollution (IAP) levels of the project technology" is not considered under "Data and Parameters fixed ex-ante". PP is requested to clarify. 2) In section B.6.3 of the PDD, under the description of parameters provided under equation (1), the value of parameter "$N_{b,p,y}$" is mentioned as 365. However, in the Ex-Ante ER sheet the value for same is considered as 1. PP is requested to clarify about this inconsistency and please maintain coherence between the documents for parameter values. 3) In section B.6.3 of the PDD, under equation (1), the value of parameter "$U_{p,y}$" is mentioned as 90%. On what basis, PP is considering the maximum value of usage rate i.e. 90%? Please clarify, based on the guidelines "REQUIREMENTS AND GUIDELINES: USAGE RATE MONITORING". 4) In section B.6.3 of the PDD, under equation (1), the value of parameter "$NCV_{b,fuel}$" is mentioned as 0.0156 TJ/ton . However, in the ER sheet, the NCV value of charcoal (0.0295 TJ/ton) is considered. PP is requested to clarify about this inconsistency between values given the scenario that the fuel used in this project is charcoal. Please maintain coherence between documents for parameter values. 5) In section B.6.3 of the PDD, separate equations are provided for the calculation of Baseline Emissions ($BE_{b,y}$) and Project Emissions ($PE_{p,y}$). However, in the latest version (v.4.0) of the applied GS methodology: "REDUCED EMISSIONS FROM COOKING AND HEATING: Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC)", there are no such equations available. Hence, PP is requested to clarify the relevance/appropriateness and reference of those equations in the ER calculation process.						
Project Participant's response				Date:		25/09/2024
1. Indoor air pollution (IAP) levels of the project technology have not been included in the PDD. Based on the description of this parameter, this parameter is not applicable for this project since the project does not move from outdoor to indoor or where the project technology reduces ventilation (for example, changing from a stove with chimney to improved stove with no chimney). 2. "$N_{b,p,y}$" is mentioned as 1 to align with the ERs sheet 3. The estimated value has been reduced to 55% for conservativeness. Actual survey to be done that will confirm the actual value. 4. NCV value has been corrected. 5. Equation has been corrected as per the methodology.						
Documentation provided by Project Participant						
-						
VVB assessment				Date:		28/09/2024
1) The response provided by PP was found to be acceptable, as the parameter is not applicable for this project, since the project does not move from outdoor to indoor or where the project technology reduces ventilation (for example, changing from a stove with chimney to improved stove with no chimney). Assessment team confirmed the same during remote audit. Hence, this parameter is not included in the PDD which was found to be appropriate and acceptable. Hence, Comment#01 is closed.						

- 2) PP has now updated the value of parameter " $N_{b,p,y}$ " to "1" under equation (1) in section B.6.3 of the PDD, in order to align with the value in ER sheet. The parameter value in ER sheet and PDD are now consistent. Hence, **Comment#02 is closed.**
- 3) PP has now used the lesser estimated value for usage rate as 55% for conservativeness. PP also clarified that the actual value of usage rate will be confirmed during the verifications based on the actual usage surveys conducted. However, PP has not provided the basis behind considering the usage rate value as 55%. Further, the parameter table of this parameter in section B.7.1 of the PDD still mentions the value as 90%. PP to clarify about this. Hence, **Comment#03 is Open.**
- 4) PP has now updated the value of parameter " $NCV_{b,fuel}$ " to "0.0295" under equation (1) in section B.6.3 of the PDD, in order to align with the value in ER sheet, as the fuel used in project is charcoal. The parameter value in ER sheet and PDD are now consistent. Hence, **Comment#04 is closed.**
- 5) PP has now corrected the equations in section B.6.3 of the PDD, which are now in line with method 1 of the applied methodology, TPDDTEC version 4.0. This was found to be appropriate and acceptable. Hence, **Comment#05 is closed.**

Thus, **CL05 is Open.**

Project Participant's response

Date: 02/10/2024

PP has used a conservative estimate of usage rate based on the most recent surveys under CP II done for the project to estimate usage under CP 3.

Documentation provided by Project Participant

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VVB assessment

Date: 09/10/2024

- 3) PP has clarified that the conservative usage rate value i.e. 55% was determined based on the most recent surveys which were conducted for monitoring period under CP II. The results of those surveys are used to estimate the value for CP3. Moreover, PP has now revised the value in parameter table of section B.7.1 of PDD. This was found to be appropriate and acceptable to the assessment team. Hence, **Comment#03 is closed.**

Thus, **CL05 is closed.**

CL ID	06	Section no.	B.6.4 of PDD	Date: 29/08/2024
Description of CL				
1) In section B.6.4 of the PDD, in the SDG tables for SDG 1, 3, 4, 5, 7, 8 and 15, the number of crediting years are mentioned as 5 years and for SDG13, it is considered as 7 years. Moreover, as per section C of the PDD, the crediting period for this project activity is of 7 years. Hence, PP is requested to clarify about above inconsistencies. 2) In section B.6.4 of the PDD, under heading "Methodological approaches related to SDG 1", the cost of 1 kg of Charcoal is mentioned as KES 45. This price was same in the registered PDD of previous crediting period. PP is requested to clarify, whether the cost of 1 kg of Charcoal is still the same during RCP. If not, please mention the latest ongoing price and update the respective reference in footnote number 15 in PDD.				
Project Participant's response				Date: 25/09/2024
1. Crediting period has been corrected to 7 years, based on GS4GG transitioning requirements. PP has provided a justification on section C.2.2 of the PDD. 2. In section B.6.4 of the PDD has been amended				
Documentation provided by Project Participant				
-				
VVB assessment				Date: 28/09/2024
1) The PP has now incorporated the necessary corrections for the no. of crediting years throughout the PDD. Crediting period has been corrected to 7 years, based on GS4GG transitioning requirements. PP has provided a justification in section C.2.2 of the PDD. This was found to appropriate and acceptable to the assessment team. Hence, Comment#01 is closed. 2) PP has made the necessary amendments in section B.6.4 of the PDD regarding the cost of charcoal. Those were found to be appropriate and acceptable to the assessment team. Hence, Comment#02 is closed. Thus, CL06 is closed.				

CL ID	07	Section no.	B.7.1 of PDD	Date:	25/09/2024
Description of CL					
1) In section B.7.1 of the PDD, as per the methodology ex-post parameters section, the parameters $P_{b,y}$ and $N_{b,p,y}$ are not considered under "Data and Parameters to be monitored". PP is requested to clarify. 2) In section B.7.1 of the PDD, under parameter table for SDG 5, the average estimated value of time is mentioned as 55 minutes. However, in "Urban Baseline Surveys" tab of ER sheet, the average estimated value of this parameter is calculated to be 75.56 minutes. PP is requested to clarify about this inconsistency and provide confirmation on which value is correct and maintain coherence between the documents accordingly.					

Project Participant's response	Date: 25/09/2024
- Parameters $P_{b,y}$ and $N_{b,p,y}$ are now corrected. 75.56 is the time spent in the baseline scenario, however, 55 minutes is the estimate of the time that will be saved with the project stove.	
Documentation provided by Project Participant	
-	
VVB assessment	Date: 28/09/2024
- The ex-post parameters "$P_{b,y}$" and "$N_{b,p,y}$" are now included by PP in section B.7.1 of PDD as per the requirement of applied methodology, which was found to be appropriate. Hence, Comment#01 is closed. - The explanation provided PP about the value of SDG5 was found to be correct. It is estimated that with the use of project stoves, 55 minutes will be saved while cooking per day. This justification was found to be appropriate and acceptable to the assessment team. Hence, Comment#02 is closed. Thus, CL07 is closed.	

Table 3. Corrective Action Requests (CAR) from this Validation

CAR ID	01	Section no.	Cover page, section A.1.1 & A.3 of the PDD	Date: 29/08/2024
Description of CAR				
Kindly look into the following findings in the PDD: - On the Cover page, in "KEY PROJECT INFORMATION" table of the PDD, the complete title of the methodology as per it's latest version is not mentioned. Kindly review. - In table 1 – "Estimated Sustainable Development Contributions" of PDD, for SDG5, it is not clear whether the value of time savings mentioned is in Hours or Minutes. Please include the applicable unit. - In table 1 – "Estimated Sustainable Development Contributions" of PDD, the value of SDG13 indicated is inconsistent with the Ex-ante ER sheet. Please review. - In section A.1 of the PDD, under heading "Project Objective", the project title mentioned is incorrect. Kindly review. - In section A.1.1 of the PDD, in line with PDD template guide: - Confirm that the project is not registered with any other voluntary or compliance schemes. - Demonstrate that the activity is NOT located in a host country, region, locality or state that has an emission reduction cap enforced OR has the possibility to trade emissions that include the scope of the proposed project. - Demonstrate that no potential for double counting of impacts if the Project Area overlaps with that of another Gold Standard or other voluntary or compliance standard programme of a similar nature.				

- d) Demonstrate that the project is in compliance with applicable Host Country's legal, environmental, ecological and social regulations.

Hence, please include the relevant information in section A.1.1 of PDD as per above points.

- 6) In section A.1.1 of the PDD, the reference of section number 1.2.2 (b) of Community Service requirements is incorrect. Kindly review.
- 7) In section A.3 of the PDD, in line with template guide:
 Describe the technologies and measures to be employed and/or implemented by the project, including:
- The age and average lifespan of the equipment based on the manufacturer's specifications and industry standards.
 - Include all information essential to understand the purpose of the project and how it reduces GHG emissions and/or contributes to SDGs.

Project Participant's response

Date: 25/09/2024

- Complete title of the methodology as per it's latest version has been included
- Indicated now as minutes per day
- SDG 13 is Corrected
- Section A.1 of the PDD, under heading "Project Objective", the project title mentioned has been Corrected
- Relevant information in section A.1.1 of PDD has been included
- In section A.1.1 of the PDD, the reference of section number has been Corrected
- Technologies and measures to be employed and/or implemented by the project has been included

Documentation provided by Project Participant

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VVB assessment

Date: 28/09/2024

- On the cover page of the PDD, in "KEY PROJECT INFORMATION" table, the correct complete title of the methodology is now mentioned by PP as per the latest version of methodology. Hence, **Comment#01 is closed.**
- In table 1 – "Estimated Sustainable Development Contributions" of PDD, for SDG5, PP has now mentioned the corrected unit as "minutes per day" which was found to be appropriate and acceptable. Hence, **Comment#02 is closed.**
- PP has now mentioned the correct value of SDG13 in table 1 of the PDD as per the Ex-ante ER sheet. It was found to be correct and acceptable. Hence, **Comment#03 is closed.**
- In section A.1 of the PDD, under heading "Project Objective", PP has now mentioned the correct project title in line with registered project documents and the registry webpage. Hence, **Comment#04 is closed.**
- The relevant information is still not included in section A.1.1 of the PDD in accordance with PDD template guide. Hence, **Comment#05 is Open.**
- PP has now mentioned the correct reference of paragraph of Community Service requirements in section A.1.1 of the PDD. Hence, **Comment#06 is closed.**

7) The relevant information about age and average lifespan of equipment and purpose of project are now included in section A.3 of the PDD in line with the template guide. It was found to be appropriate and acceptable. Hence, **Comment#07 is closed.**

Thus, **CAR01 is Open.**

Project Participant's response

Date: 03/10/2024

5. The relevant information has been included in section A.1.1 of the PDD in accordance with PDD template guide.

Documentation provided by Project Participant

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VVB assessment

Date: 09/10/2024

5) PP has now included all the relevant information in section A.1.1 of PDD in accordance with the PDD template guide requirements, which was confirmed to be correct by the assessment team. Hence, **Comment#05 is closed.**

Thus, **CAR01 is closed.**

CAR ID	02	Section no.	B.1 and B.2 of PDD	Date: 29/08/2024
Description of CAR				
Kindly look into the following findings in the PDD:				
1) In section B.1, the reference to "CDM Tool 30: Calculation of the fraction of non-renewable biomass" is missing. Please review.				
2) In section B.1, the complete title of the methodology as per its latest version is not mentioned. Kindly review.				
3) In section B.1. the reference weblink in footnote no. 5 directs to the old version of CDM Tool 01. Please review and provide the weblink for latest version of the tool.				
4) In section B.2, applicability of GS methodology (TPDDTEC) version 4.0, under applicability condition "Section 2.2.1 (e) of methodology", the demonstration against applicability sub-conditions (ii) and (iii) is not provided. Please review.				
Project Participant's response				Date: 25/09/2024
1. In section B.1, the reference to "CDM Tool 30: Calculation of the fraction of non-renewable biomass" has been included.				
2. In section B.1, the complete title of the methodology as per its latest version has been mentioned				
3. Foot note has been corrected.				
4. In section B.2, applicability of GS methodology (TPDDTEC) version 4.0, under applicability condition "Section 2.2.1 (e) of methodology", the demonstration against applicability sub-conditions (ii) and (iii) has been provided				
Documentation provided by Project Participant				
-				
VVB assessment				Date: 28/09/2024

- 1) PP has now included the reference of "CDM Tool 30: Calculation of the fraction of non-renewable biomass" in section B.1 of the PDD. Hence, **Comment#01 is closed.**
- 2) PP has now included the correct complete title of the methodology as per its latest version in section B.1 of the PDD. Hence, **Comment#02 is closed.**
- 3) The necessary corrections are now done by the PP for footnote 5 in section B.1 of the PDD. Hence, **Comment#03 is closed.**
- 4) In section B.2, applicability of GS methodology (TPDDTEC) version 4.0, under applicability condition "Section 2.2.1 (e) of methodology", the demonstration against applicability sub-conditions (ii) and (iii) is now provided by the PP. Assessment team found the demonstration to be appropriate and acceptable. Hence, **Comment#04 is closed.**

Thus, **CAR02 is closed.**

CAR ID	03	Section no.	B.6.2 of PDD	Date:	29/08/2024
Description of CAR					
kindly look into the following findings:					
1) In section B.6.2, under table for parameter "Project technology description", the details about manufacturer name and product name (stove model) are not mentioned in the "Value(s) applied" row. Please review. 2) In section B.6.2, under table for parameter "Avoidance of double counting or double claiming with other mitigation actions", in the "Value(s) applied" row, the background information of the project i.e. the project previously being part of other GS Project and later registration as a separate project activity is not provided. Please review. 3) In section B.6.2, under table for parameter "$f_{NRB,i,y}$", the source of f_{NRB} value is mentioned as "C4EcoSolutions 3rd party report", However, in section B.4 of PDD and ex-ante ER sheet, the source of f_{NRB} value is mentioned to be "Seed Ecology report 2024". Kindly clarify about this inconsistency and confirm which is the correct reference report. 4) In section B.6.2, under table for parameter "Specific fuel consumption for an individual baseline technology in baseline scenario b during year y", the parameter notation is used as "$SFC_{b,y}$". However, in the Ex-ante ER sheet provided in the documents package the parameter notation used for the same parameter is mentioned to be "$P_{b,y}$". Kindly clarify about this inconsistency and please maintain coherence between documents for parameter notations.					
Project Participant's response					Date:
1. In section B.6.2, under table for parameter "Project technology description", the details about manufacturer name and product name (stove model) are mentioned in the "Value(s) applied" row. 2. In section B.6.2, under table for parameter "Avoidance of double counting or double claiming with other mitigation actions", the background information of the project i.e. the project previously being part of other GS Project and later registration as a separate project activity has been included.					25/09/2024

3. The correct report has been referenced "Seed Ecology report 2024".	
4. ER sheet has been corrected for consistency.	
Documentation provided by Project Participant	
-	
VVB assessment	Date: 28/09/2024
1) In section B.6.2 of the PDD, under table for parameter "Project technology description", the details about manufacturer name and product name (stove model) are now mentioned in the "Value(s) applied" row. Assessment team confirmed the details to be correct based on the manufacturer's specifications. Hence, Comment#01 is closed. 2) In section B.6.2 of the PDD, under table for parameter "Avoidance of double counting or double claiming with other mitigation actions", in the "Value(s) applied" row, the background information of the project i.e. the project previously being part of other GS Project and later registration as a separate project activity is now provided by the PP. Those details were found to be correct and acceptable to the assessment team. Hence, Comment#02 is closed. 3) In section B.6.2 of the PDD, under table for parameter "$f_{NRB,i,y}$", the correct source of f_{NRB} value i.e. "Seed Ecology report 2024" is now mentioned by the PP. It was found to be correct and acceptable to the assessment team. Hence, Comment#03 is closed. 4) PP has now corrected the notation of parameter "Specific fuel consumption for an individual baseline technology in baseline scenario b during year y" in the ER sheet in order to maintain coherence between the documents. This was found to be correct and acceptable. Hence, Comment#04 is closed.	
Thus, CAR03 is closed.	

CAR ID	04	Section no.	B.6.3, B.6.4, B.7.1 of PDD	Date:	29/08/2024
Description of CAR					
Kindly look into the following findings in the PDD:					
1) In section B.6.3 of the PDD, PP is requested to clearly mention which method from section 3.10 of methodology is being used for determination of emission reductions. 2) In section B.6.4 of the PDD, in the SDG tables for SDG 4 and 5, the rows "TOTAL" and "Total number of crediting years" are missing as per template table format. Please make the necessary corrections. 3) In section B.6.4 of the PDD, under the heading of SDG7 the average number of ICS are mentioned as 122,173. However, it is found to be inconsistent with the average value mentioned in SDG table under same heading and with the ex-ante ER sheet. Please review. 4) In section B.7.1 of PDD, under the parameter table of "$U_{p,y}$", the monitoring frequency is not mentioned. Also, the version of "GS Requirements and Guidelines: Usage rate Monitoring" is not indicated. Please review. 5) In section B.7.1 of the PDD, under the heading of SDG7 the number of ICS in use are mentioned as 344,927. However, it is found to be inconsistent with the number of ICS in use mentioned in the "ER ICS TPDDTEC V.4. Charcoal" tab of ER sheet. Please review.					

Project Participant's response	Date: 25/09/2024
- Method included. - In section B.6.4 of the PDD, in the SDG tables for SDG 4 and 5, the rows "TOTAL" and "Total number of crediting years" have been included. - SDG7 the average number of ICS are mentioned has been corrected - In section B.7.1 of PDD, under the parameter table of "Up,y", the monitoring frequency has been mentioned. Also, the version of "GS Requirements and Guidelines: Usage rate Monitoring" has been indicated. - In section B.7.1 of the PDD, under the heading of SDG7 the number of ICS in use has been corrected.	
Documentation provided by Project Participant	
-	
VVB assessment	Date: 28/09/2024
- In section B.6.3 of the PDD, PP has now mentioned that "Method 1" from section 3.10 of methodology is being used for the determination of emission reductions. This was found to be correct and acceptable to the assessment team. Hence, Comment#01 is closed. - In section B.6.4 of the PDD, in the SDG tables for SDG 4 and 5, the rows "TOTAL" and "Total number of crediting years" are now included by the PP as per template table format which was found to be correct and acceptable to the assessment team. Hence, Comment#02 is closed. - The value of average number of ICS under SDG7 in section B.6.4 of PDD is still inconsistent with the ex-ante ER sheet. Hence, Comment#03 is Open. - PP has now made the necessary corrections in section B.7.1 of PDD. Under the parameter table of "Up,y", the monitoring frequency is now mentioned as "Annual" and the version of "GS Requirements and Guidelines: Usage rate Monitoring" is indicated as "Version 2.0." These corrections were found to be correct and in line with requirements. Hence, Comment#04 is closed. - The value of number of ICS in use under the heading of SDG7 in section B.7.1 of PDD is still inconsistent with the ex-ante ER sheet. Hence, Comment#05 is Open. Thus, CAR04 is Open.	
Project Participant's response	Date: 02/10/2024
- SDG7 the average number of ICS are mentioned has been corrected for consistency with ER sheet. - In section B.7.1 of the PDD, under the heading of SDG7 the number of ICS in use has been corrected for consistency with ER sheet.	
Documentation provided by Project Participant	
-	
VVB assessment	Date: 09/10/2024
- The value of average number of ICS under SDG7 in section B.6.4 of PDD is now corrected by the PP and found to be consistent with the ex-ante ER sheet. Hence, Comment#03 is closed. - The value of number of ICS in use under the heading of SDG7 in section B.7.1 of PDD is now corrected by the PP and found to be consistent with the ex-ante ER sheet. Hence, Comment#05 is Closed.	

Thus, **CAR04 is Closed.**

CAR ID	05	Section no.	C of PDD	Date: 29/08/2024
Description of CAR				
1) In section C.1.1. the required information about start date of crediting period in line with PDD template guide is missing. Please review. Also, please provide the respective supportive evidence of start date to the assessment team. 2) In section C.2.1, it is mentioned that second crediting period starts from 26th April 2024. However, the registered PDD from Design Review No.2 available on project's GS/SustainCert webpage mentions that previous CP was the second CP. Hence, PP is requested to correct for the ongoing proposed RCP. 3) In section C.2.2, the no. of times crediting period is renewable is missing. Please review.				
Project Participant's response				Date: 25/09/2024
1. This is a regular project hence the start date was the date when the 1st stove was sold. However, since this project was registered as a regular project under the paradigm POA who were the project developers and Burn only took over the project towards the end of CP 1. The support documents were submitted during registration by Paradigm and currently not with Burn. 2. PP has corrected to CP 3. 3. 1st and 2nd CP were both 7 years each. This CP is only 5 years as per transitioning requirements para 3.1.4 https://globalgoals.goldstandard.org/standards/106_V2.0_TC_PAR_Transition-Requirements.pdf				
Documentation provided by Project Participant				
-				
VVB assessment				Date: 25/09/2024
1) In section C.1.1. of the PDD, the information about start date of crediting period and its evidence is now included by the PP, which was found to be correct and acceptable to the assessment team. However, the details about type of project i.e. whether regular or retroactive is not provided by the PP in line with PDD template guide. Hence, Comment#01 is Open. 2) PP has now made the necessary correction to the number of crediting i.e. 3rd crediting period for which RCP is currently requested. This was found to be correct and acceptable to the assessment team. Hence, Comment#02 is closed. 3) We will re-assess again based on the clarification raised in section C.2.2 of the PDD. Please clarify there and in above response accordingly. Hence, Comment#03 is Open. Thus, CAR05 is Open.				
Project Participant's response				Date: 03/10/2024

1. The details about type of project i.e. whether regular or retroactive has been provided by the PP in line with PDD template guide. 3. The PP will be claiming 7 years for CP 3 in line with the transitioning requirements as stated in section C.2.2 of the PDD.	
Documentation provided by Project Participant	
-	
VVB assessment	Date: 09/10/2024
1) PP has now included the details about type of project in section C.1.1 of PDD. It was confirmed that it is a Regular project as the Stakeholder Consultation (1 st round) was conducted before the Project Start Date. This was found to be appropriate and acceptable to the assessment team. Hence, Comment#01 is Closed. 3) The PP has now incorporated the necessary corrections for the length of CP throughout the PDD. Crediting period has been corrected to 7 years, based on GS4GG transitioning requirements. PP has provided a justification in section C.2.2 of the PDD. This was found to be appropriate and acceptable to the assessment team. Hence, Comment#03 is closed.	
Thus, CAR05 is Closed.	

CAR ID	06	Section no.	Section D.1, Appendix 1, of PDD	Date: 29/08/2024
Description of CAR				
1) In Appendix-1, safeguarding principles assessment table, there are some incorrect references to the country "Ghana" and its regulations. PP is requested to carefully review such incorrect references and make appropriate corrections along the table, as the project is located in Kenya. 2) In Appendix-1, safeguarding principles assessment table, the responses for some of the safeguarding principles is provided as "YES" or "POTENTIALLY". However, relevant information about those principles and mitigations measures are not included in the section D.1 of the PDD and respective explanation section within Appendix-1 table, as per the PDD template guide instructions. Kindly review and include the necessary information. 3) In Appendix-1, in the safeguarding principles assessment table, one of the responses for Principle no. 9.10.2 is not selected. Please review.				
Project Participant's response				Date: 25/09/2024
1. Appendix-1, safeguarding principles assessment table, has been corrected with the right references to the country "Kenya". 2. In Appendix-1, safeguarding principles assessment table, the responses for some of the safeguarding principles is provided as "YES" or "POTENTIALLY" have been corrected to No hence no mitigation needed under section D.1. 3. Principle no. 9.10.2 has been selected.				
Documentation provided by Project Participant				
-				
VVB assessment				Date: 28/09/2024
1) PP has now made the necessary corrections in safeguarding principles table of Appendix-1 with right references to country Kenya. Also, the relevant information is now updated in				

line with reference to Kenya. This was found to be correct and acceptable to the assessment team. Hence, Comment#01 is closed.	
2) Assessment team noted that, PP has changed the response for some of the principles to "NO". However, there is still one principle (9.4.1) for which the response is mentioned as "YES". But it is not included in section D.1. of the PDD. PP is requested to clarify. Hence, Comment#02 is Open.	
3) In Appendix-1, in the safeguarding principles assessment table, one of the responses for Principle no. 9.10.2 is now selected by the PP. However, there is still one more principle identified (P.9.3.1) for which any of the options are not selected. Hence, Comment#03 is closed.	
Thus, CAR06 is Open.	
Project Participant's response	Date: 03/10/2024
2.PP has amended principle 9.4.1 to No	
3.PP has amended principle 9.10.2 and principle 9.3.1 to no.	
Documentation provided by Project Participant	
-	
VVB assessment	Date: 09/10/2024
2) Assessment team noted that, PP has changed the response for principle 9.4.1 to "NO". Hence, not needed to be included under section D.1 of PDD. Hence, Comment#02 is closed.	
3) In Appendix-1, in the safeguarding principles assessment table, one of the responses (i.e. NO) for Principle no. 9.3.1 is now selected by the PP. hence, Comment#03 is closed.	
Thus, CAR06 is Closed.	

CAR ID	07	Section no.	N.A.	Date: 29/08/2024
Description of CAR				
Please refer to the additional comments in the PDD and Ex-ante ER sheet and resolve the same.				
Project Participant's response				Date: 25/09/2024
Additional comments on the PDD and ER sheet have been resolved.				
Documentation provided by Project Participant				
-				
VVB assessment				Date: 28/09/2024
The comments in the PDD and ex-ante ER are not closed yet. The open comments require PP's attention. Hence, CAR07 is Open.				
Project Participant's response				Date: 03/10/2024
Responses to open comments in ERs and PD have been submitted.				
Documentation provided by Project Participant				
-				
VVB assessment				Date: 09/10/2024

The comments in the PDD are not closed yet. The open comments require PP's attention. Hence, CAR07 is Open.	
Project Participant's response	Date: 23/10/2024
PP has provided responses on the PDD.	
Documentation provided by Project Participant	
-	
VVB assessment	Date: 24/10/2024
The comments in the PDD are not closed yet. The open comments require PP's attention. Hence, CAR07 is Open.	
Project Participant's response	Date: 11/11/2024
PP has provided responses on the PDD.	
Documentation provided by Project Participant	
-	
VVB assessment	Date: 13/11/2024
The comments in the PDD are now resolved by the PP. Assessment team checked the revised PDD, ER sheet and SDG Tool and found that appropriate corrections and clarifications are now provided by the PP at the relevant places.	
Thus, CAR07 is closed.	

Table 4. Forward Action Requests (FAR) from this Validation (for next verification)

FAR ID	01	Section No.	Section C of PDD	Date: 18/02/2025
Description of FAR				
In-line with GS4GG Principles and Requirements, v.2.0 para 5.1.46, delay in the completion of re-validation beyond the last date of current certification cycle shall result in a reduction of any issuance of Certified Products and/or Impact Statements available during following certification cycle. Thus, PD cannot claim credits during the delayed period from 26/04/2024 to 30/01/2025. The start date of 3 rd CP will be considered as 31/01/2025.				
Hence, at the time of performance review for third crediting period, verifying VVB shall check the start date of monitoring period in accordance to above mentioned dates.				
Project Participant's response				Date: DD/MM/YYYY
-				
Documentation provided by Project Participant				
-				
VVB assessment				Date: DD/MM/YYYY
-				

Appendix 2: Audit Team CVs

Name	SHORT CV. BACKGROUND INFORMATION
Dr. N. Premjit Singh	Dr. N Premjit Singh has a PhD in Mechanical Engineering from the Indian Institute of Technology (IIT) Madras, Chennai, India. M.Tech in Energy Technology, Tezpur University, Napaam, India, and B.Tech in Mechanical Engineering, NERIST, Nirjuli, India. He has extensive experience of about 8 years with DOEs, including UNFCCC CDM and other carbon related schemes (e.g., VCS, GS, GCC), and 5 years+ in research projects, renewable energy, and energy audits. In Applus+ as an internal staff member since March 2023, he has been the Product Assurance Manager for CDM/VCS/GS4GG/GCC Department to ensure the quality of the performance of different assessments, coordinate the global team for technical reviews, and identify the training needs for the auditors and technical reviewers to improve the quality of reports. He holds experience as a Lead Auditor, Validator and Verifier for GHG mitigation projects and programmes of activities in Sectoral Scope 1.2 (Renewables) and 3.1. (Energy Demand) and is qualified as per Applus+ procedures as Lead Auditor, Validator, Verifier, Technical Expert for SS/TA 1.2. and Technical Reviewer. Dr. N Premjit Singh is based in Gurugram, India. Dr. N Premjit Singh participated as part of the Audit Team as Lead Auditor and Technical Expert.
Mr. Saurabh Gaikwad	Mr. Saurabh Gaikwad holds a Bachelor of Technology (B. Tech) degree in Environmental Engineering from KIT's College of Engineering in Kolhapur, Maharashtra, India. With more than 3 years of experience, he has worked extensively in the field of Carbon Markets and Climate Change, specifically focusing on UNFCCC CDM and other carbon-related schemes such as VCS, GS, GCC, etc. During this time, he has been involved in audit teams for various projects under CDM/VCS/GS/GCC, assuming the roles of Trainee Validator, Verifier, and Auditor in Training. Since June 2022, Mr. Saurabh Gaikwad has been working at Applus+ Certification as Technical Support for the CDM Department. In this role, he actively participates in different stages of the VVC processes and conducts administrative reviews of final submission documents and post submission registry findings reviews to ensure the quality of reports, project documents and compliance with standard requirements. Additionally, he serves as Auditor and Technical Expert for the Validation and Verification of Project Activities, encompassing both renewable and non-renewable projects, under the CDM/VCS/GS4GG/GCC, etc. programs. Mr. Saurabh Gaikwad is based in Pune, India. Mr. Saurabh Gaikwad participated as part of the Audit Team as Auditor and Technical Expert in Training.

Ms. Hannah Mathile 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. Hannah is based in Nairobi, Kenya. Ms. Hannah Mathile Kitundu participated as a local expert to the Audit Team.
Mr. Miguel A. Cortés	Mr. Miguel Cortés holds a Bachelor's Science Degree on Civil and Environmental Engineering, being specialized on Hydric Resources. He has worked as CDM/VCS/GS and environmental consultant for different industries of multidisciplinary sectors world widely. Mr. Miguel Cortés counts with several years of GHG assessment experience, working and being qualified as Lead Auditor and Technical Reviewer for different DOEs world widely, as well as has been part of Gold Standard expert's committees and has been approved as a member of the UNFCCC RIT in 2019. Furthermore, he has performed his professional GHG assessment portfolio career worldwide and focusing in Latin America, developing assessments for projects in Argentina, Mexico, Panama, Colombia and Chile, among others. Mr. Miguel Cortés is based in Bogota, Colombia. Mr. Miguel Cortés participated as part of the Technical Review experts' panel.

Appendix 3: Safeguarding principle assessment

SOCIAL SAFEGUARDING PRINCIPLES			
Reference requirement	Question	PD Response	VVB assessment
P.1 Human Rights			
P.1.1.1	Does the project developer, its representatives and the Project disrespect internationally proclaimed human rights?	☐ YES	The project fulfils the requirement of Gold Standard certification and is neither in conflict with the economic livelihood, local community nor violating any human rights, hence there is no requirement of any mitigation measures in the project. The assessment team confirms that Project activity fulfils the GS certification requirement outlined in the P.1 of the GS4GG safeguarding principles requirements version 2.1
-		☒ NO	
P.1.1.1	Is the project involved or complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights?	☐ YES	
-		☒ NO	
P.1.1.2	Have local communities or individuals raised human rights concerns regarding the project (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES	
-		☒ NO	
P.1.1.3	Is there a risk that rights-holders (e.g., Project-affected stakeholders) do not have the capacity to claim their rights?	☐ YES	
-		☒ NO	
P.1.1.3	Does this project undermine national or regional measures for the realisation of the right to development?	☐ YES	
-		☒ NO	
P.1.1.1	adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalised groups?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.1.1.2	inequitable or discriminatory impacts on affected populations, particularly people living in poverty or marginalised or excluded individuals or groups, including persons with disabilities?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.1.1.3	restrictions in availability, quality of and/or access to resources or basic services, in particular to marginalised individuals or groups, including persons with disabilities?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.1.1.3	exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.			
<i>The project is implemented on the ground by ECOA Climate Capital in collaboration with local distribution partners. The project developer takes care that the project respect internationally proclaimed human rights^{1/1/1/1} and is not complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights.</i> ^{1/1}			

The Republic of Kenya has ratified many UN Human Rights Conventions. ^{/1/1/}
The project will not discriminate with regards to participation and inclusion as the improved cookstoves (ICS) can be purchased and used by everybody within the project boundary willing to participate in the program.
PP will ensure that the project respects the internationally proclaimed human rights and is no complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights^{1/}. VVB noted during remote audit that PP will uphold the human rights during project implementation and will ensure that human rights of people are well respected.

P.2 | Gender Equality and Women's Empowerment

<u>P.2.1.1 </u>	Have women's groups/leaders raised gender equality concerns regarding the project, (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interviews.
-		☒ NO	
-			
<u>P.2.1.2 </u>	Does the project undermine the principles of non-discrimination, equal treatment, and equal pay for equal work?	☒ YES	
-		☐ NO	
-			
<u>P.2.1.2 </u>	Does the project prevent men and women from having equal opportunities to participate in identified tasks and activities, whether through paid work, volunteer work, or community contributions, as appropriate?	☐ YES	
-		☒ NO	
-			
<u>P.2.1.2 </u>	Does the project limit the participation of women or men based on pregnancy, maternity/paternity leave, or marital status?	☐ YES	
-		☒ NO	
<u>P.2.1.2 </u>	Is information about project objectives being communicated in a way that is inappropriate for the local context and not tailored to the methods of understanding of both women and men, which could hinder their participation?	☐ YES	
-		☒ NO	
<u>P.2.1.3 </u>	Has the project assessed gender risks without referencing the country's gender strategy or equivalent national commitment?	☐ YES	
-		☒ NO	
<u>P.2.1.4 </u>	Has expert stakeholder(s) been involved, and has their input been requested for the project design on gender equality and women's empowerment?	☐ YES	
-		☒ NO	

If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

PP will ensure that the project undermines the principles of non-discrimination, equal treatment, and equal pay for equal work. VVB noted during remote audit that PP will ensure equal treatment and equal pay for equal work for both men and women.

Would the project potentially involve or lead to:

<u>P.2.1.1 </u>	adverse impacts on gender equality and/or the situation of women and girls?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.2.1.1 </u>	exacerbation of risks of gender-based violence? For example, through the influx of	☐ YES	
-		☐ POTENTIALLY	

-	workers to a community, changes in community and household power dynamics, increased exposure to unsafe public places and/or transport, etc.	☒ NO	confirmed by the validation team during the remote audit and interviews.
<u>P.2.1.2 </u>	reproducing discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.2.1.2 </u>	limitations on women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well-being.	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
Briefly describe below how the project is addressing any identified risk to gender equality and women's empowerment.			
<i>The Project is in line with Kenya constitution. ^{/1/}</i> <i>Kenya has ratified the principle of equality and Non-Discrimination into its respective constitution, which shall guarantee equal gender rights. Kenya has ratified the principle of equality into its respective constitution^{/1/}, which shall guarantee equal gender rights.</i> <i>The Part 3 of the document further states "aims at promoting or furthering the interests of - (i) any faith or religious group; (ii) any tribal group, place of origin, race or gender; (iii) only a particular area within any part of Kenya;"</i> <i>PP will ensure that the project undermines the principles of non-discrimination, equal treatment, and equal pay for equal work.</i> <i>VVB noted during remote audit that PP will ensure equal treatment and equal pay for equal work for both men and women.</i>			
P.3 Community Health AND Safety			
<u>P.3.1.1 </u>	Does the project involve potential risks to the health and safety of affected communities during its life cycle?	☐ YES	PP confirmed that all the employees will be trained about health and safety issues during operation phase of the project requirement outlined in the GS4GG safeguarding principles requirements version 2.1
-		☒ NO	
<u>P.3.1.2 </u>	Does the project involve any potential risks to the workers' safety and health?	☐ YES	
-		☒ NO	
If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project potentially involve or lead to:			
<u>P.3.1.1 </u>	construction and/or infrastructure development (e.g., roads, buildings, dams)?	☐ YES	
-		☒ NO	
<u>P.3.1.2 </u>	air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.3.1.2 </u>		☐ YES	
-		☐ POTENTIALLY	

-	harm or losses due to failure of structural elements of the project (e.g., collapse of buildings or infrastructure)?	☒ NO	
P.3.1.2	risks of water-borne or other vector-borne diseases (e.g., temporary breeding habitats), communicable and noncommunicable diseases, nutritional disorders, mental health?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.3.1.2	transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g., explosives, fuel and other chemicals during construction and operation)?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.3.1.2	adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g., food, surface water purification, natural buffers from flooding)?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
Briefly describe below how the project is addressing any identified risk related to community health and safety.			
<i>The project activity doesn't expose the community to increased health risks and is not adversely affecting the health of workers and the community.</i> <i>Cooking with improved cookstoves is actually safer than any other open flame stove use or traditional stoves. The workers participating in the project activity are not exposed to unsafe or unhealthy work environments as the sale/distribution of efficient cookstoves or the monitoring activities of the project will not include any hazardous chemicals or other hazardous material.</i>			
P.4 Cultural Heritage, Indigenous People, Displacement and Resettlement			
P.4.1 Sites of Cultural and Historical Heritage	-	-	
P.4.1.1	Does the project involve altering, damaging, or removing sites, objects, or structures of significant cultural heritage?	☐ YES	
-		☒ NO	
If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project potentially involve or lead to:			The PA does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
P.4.1.1	activities adjacent to or within a cultural heritage site?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.4.1.1	significant excavations, demolitions, movement of earth, flooding or other environmental changes?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.4.1.1	alterations to landscapes and natural features with cultural significance?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.4.1.1		☐ YES	

-	adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g., knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	☐ POTENTIALLY	
-		☒ NO	
<u>P.4.1.2</u>	utilisation of tangible and/or intangible forms (e.g., practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.4.1.2</u>	If answer to question above is "YES" or "POTENTIALLY" - are the communities made aware of their right under the law, scope and nature of proposed development and its potential consequences?	☐ YES	
-		☐ NO	
-		☒ NA	
<u>P.4.1.3</u>	If answer to question above is "YES" - does the project provide equitable sharing of benefits from commercialisation of such knowledge, innovation, or practice, consistent with their customs and traditions?	☐ YES	
-		☐ NO	
-		☒ NA	
<u>P.4.1.4</u>	If answer to question above is "YES" - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES	
-		☐ NO	
-		☒ NA	
<u>P.4.1.4</u>	If answer to question above is "YES", has project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES	
-		☐ NO	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
<i>The project activity doesn't include sites, structures or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture. The Project will introduce efficient cookstoves in urban and peri-urban households in the Republic of Kenya and it does not require alteration, damage or removal of any historical, artistic, traditional, religious or cultural heritage issue.</i>			
<u>P.4.2</u> <i>Forced Eviction and Displacement</i>	-	-	
<u>P.4.2.1</u>	Does the project involve any risks related to involuntary relocation of people?	☐ YES	The PA does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during
-		☒ NO	
If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements			
N/A			
Would the project potentially involve or lead to:			

<u>P.4.2.1</u>	risk of forced evictions or involuntary relocation of people?	☐ YES	the remote audit and interview.
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.4.2.2</u>	temporary or permanent and full or partial physical displacement (including people without legally recognisable claims to land)?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.4.2.2</u>	economic displacement (e.g., loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.4.2.2</u>	If answer to question above is "YES" or "POTENTIALLY", - has the project developed Resettlement Action Plan or Livelihood Action Plan in consultation and agreement with affected individual, group or community? - has the project integrated Resettlement Action Plan or Livelihood Action Plan into the Project design?	☐ YES	
-		☐ NO	
-		☒ NA	
<u>P.4.2.3</u>	If answer to question above is "YES" - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES	
-		☐ NO	
-		☒ NA	
<u>P.4.2.3</u>	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES	
-		☐ NO	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
<i>The project activity will introduce portable improved cookstoves in urban and peri-urban households in Kenya and therefore no physical or economic relocation of people is involved. The use of efficient cookstoves is voluntary.</i>			
<u>P.4.3 Land tenure and other rights</u>	-	-	
<u>P.4.3.1</u>	Does the project involve any risks related to identifying and managing legitimate tenure rights that may be affected by the project?	☐ YES	The PA does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.			
<i>N/A</i>			
Would the project potentially involve or lead to:			
<u>P.4.3.1</u>	impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	

<u>P.4.3.1</u>	uncertainties with regards to land tenure, access rights, usage rights or land ownership?	☐ YES	
-	Examples include, but are not limited to water access rights, community-based property rights and customary rights.	☐ POTENTIALLY	
-		☒ NO	
<u>P.4.3.2</u>	Changes in legal arrangements, if yes, are the changes done in line with relevant laws and regulations?	☐ YES	
-		☐ NO	
-		☒ NA	
<u>P.4.3.2</u>	Changes in legal arrangements, if yes, are these changes agree with free, prior and informed consent of the involved stakeholders?	☐ YES	
-		☐ NO	
-		☒ NA	
<u>P.4.3.3</u>	Does some other entity (other than the project developer) hold uncontested land title for the entire Project Boundary?	☐ YES	
-		☒ NO	
-		☐ NA	
<u>P.4.3.4</u>	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES	
-		☒ NO	
-		☐ NA	
<u>P.4.3.4</u>	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES	
-		☐ NO	
-		☒ NA	
<u>P.4.3.5</u>	Have project developer in consultation with stakeholders established a functioning mechanism to receive, process, resolve, communicate and record grievances?	☐ YES	
-		☐ NO	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
<i>The project doesn't require any change to land tenure arrangements and/or other rights.</i> <i>The project does not involve land-use tenure.</i>			
<u>P.4.4</u> <u>Indigenous peoples</u>	-	-	
<u>P.4.4.1</u>	Does the project involve Indigenous People within the Project area of influence who may be affected directly or indirectly by the Project?	☐ YES	The PA does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			

Would the project potentially involve or lead to:			
<u>P.4.4.1 </u>	affect areas where indigenous peoples are present (including project area of influence)	☐ YES	The PA does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.4.4.1 </u>	affect areas, land and territory claimed by indigenous peoples?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.4.4.1 </u>	impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.4.4.7 </u>	If answer to above questions is "YES" or "POTENTIALLY", - Is it determined that the proposed project may affect the rights, lands, resources, or territories of indigenous people? - Has an "Indigenous People Plan" (IPP) or "Indigenous People Plan Framework" been elaborated and included in the project documentation? - Was the plan developed in accordance with the effective and meaningful participation of indigenous peoples and in accordance with UNDP Guidelines?	☐ YES	
		☐ NO	
		☒ NA	
<u>P.4.4.3 </u>	risk of forcibly removing indigenous people from their lands and territories?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.4.4.4 </u>	utilisation and/or commercial development of natural resources on lands and territories claimed by indigenous peoples? Consider, and where appropriate ensure, consistency with the answers under Principle 4.1 above	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.4.4.5 </u>	If answer to question above is "YES" or "POTENTIALLY" - Did the project obtain free, prior and informed consent from indigenous people before taking their cultural, intellectual, religious, and/or spiritual property? - Does the project ensure that the indigenous people receive an equitable sharing of benefits resulting from the use of their traditional knowledge and practices? ?	☐ YES	
<u>P.4.4.6 </u>		☐ NO	
		☒ NA	

	- Does the project ensure that the sharing of benefits resulting from the use of indigenous peoples' traditional knowledge and practices is culturally appropriate and inclusive? - Does the project ensure that the provision of equitable sharing of benefits does not impede land rights or equal access to basic services including health services, clean water, energy, education, safe and decent working conditions, and housing?		
<u>P.4.4.8 </u>	Does the project lack appropriate feedback and grievance channels for Indigenous Peoples and their representatives?	☐ YES	
-		☐ NO	
-		☒ NA	
<u>P.4.4.8 </u>	Has a grievance mechanism not been established at the beginning of programme or project implementation with due consideration given to customary dispute settlement mechanisms among the Indigenous Peoples concerned and will it remain operational throughout the project cycle?	☐ YES	
-		☐ NO	
-		☒ NA	
<u>P.4.4.9 </u>	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES	
-		☐ NO	
-		☒ NA	
<u>P.4.4.9 </u>	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES	
-		☐ NO	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
<i>N/A</i>			
P.5 Corruption	-	-	
<u>P.5.1.1 </u>	Does the project involve, or is it complicit in, contributing to or reinforcing corruption or corrupt projects?	☐ YES	The PA does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
<u>P.5.1.1 </u>	Does the project have a risk of encouraging bribery, kickbacks, or other unethical behavior?	☐ YES	
-		☒ NO	

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

N/A

ECONOMIC SAFEGUARDING PRINCIPLES

P.6 | Economic Impacts

P.6.1 | Labour Rights and Working Conditions

P.6.1.1	Does the project involve, facilitate, or condone forced labor, or pose a potential risk of forced labor?	☐ YES	The Project activity is said to conduct trainings ^{1/} for the workers in Health and safety during the operation phase and the project owners will comply with national labor and safety laws embodied in ILO ^{1/} . Workers can establish organization's ^{1/} and also there won't be any type of Child labour involved in the Project activity ^{1//1//1/} . All the information was confirmed by the validation team during the remote audit.
-		☒ NO	
P.6.1.1	Does the project violate any labor or health and safety laws, international obligations, or ILO conventions?	☐ YES	
-		☒ NO	
P.6.1.2	Does the project violate the principles of equal opportunity and fair treatment in its employment decisions?	☐ YES	
-		☒ NO	
P.6.1.3	Does the project violate national laws, if available regarding non-discrimination in employment?	☐ YES	
-		☒ NO	
P.6.1.4	Does the project allow child labor?	☐ YES	
P.6.1.5		☒ NO	
P.6.1.7	Does the project have insufficient processes and measures in place to ensure the safety and health of project workers?	☐ YES	
P.6.1.8		☒ NO	
P.6.1.9	Does the project have insufficient measures to safeguard and support vulnerable project workers, such as women, people with disabilities, migrant workers, and young workers, and to prevent any kind of harassment, abuse, bullying, or exploitation, including gender-based violence (GBV)?	☐ YES	
-		☒ NO	
P.6.1.10	Does the project have no grievance mechanism available for workers to voice workplace concerns? Is information about this mechanism not provided to workers at the time of recruitment, or is it not easily accessible?	☐ YES	
-		☒ NO	
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
<i>The Project Developer ensures the training of workers^{1/}, documentation and reporting of accidents and incidents^{1/}, and emergency preparedness and response measures.</i>			
Would the project potentially involve or lead to:			
(NOTE: APPLIES TO BOTH PROJECT AND CONTRACTOR WORKERS)			
P.6.1.1	use of forced labour?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.6.1.1		☐ YES	

-	working conditions that do not meet national labour laws and international commitments?	☐ POTENTIALLY
-		☒ NO
<u>P.6.1.1 </u>	working conditions that may deny freedom of association and collective bargaining?	☐ YES
-		☐ POTENTIALLY
-		☒ NO
<u>P.6.1.1 </u>	absence of documented working agreements with all individual workers if such agreements do not exist, or do not address working conditions and terms of employment, the project developer shall provide reasonable working conditions and terms of employment.	☐ YES
-		☐ POTENTIALLY
-		☒ NO
<u>P.6.1.1 </u>	use of migrant workers? if engaged, the developer shall ensure that they are engaged substantially equivalent terms and conditions to non-migrant workers carrying out similar work.	☐ YES
-		☐ POTENTIALLY
-		☒ NO
<u>P.6.1.1 </u>	having no arrangements for basic services [1] for workers? the project developer shall put in place and implement policies on the quality and management of the accommodation and provision of basic services in a manner consistent with the principles of non-discrimination and equal opportunity. Workers' accommodation arrangements should not restrict workers' freedom of movement or of association	☐ YES
-		☐ POTENTIALLY
-		☒ NO
<u>P.6.1.2 </u>	any form of discrimination or harassment based on factors unrelated to job requirements, such as gender, race, nationality, ethnicity, social or indigenous origin, religion or belief, disability, age, or sexual orientation?	☐ YES
-		☐ POTENTIALLY
-		☒ NO
<u>P.6.1.2 </u>	any form of discrimination in any aspect of employment, such as recruitment, compensation, working conditions, training, job assignment, promotion, termination, or discipline?	☐ YES
-		☐ POTENTIALLY
-		☒ NO
<u>P.6.1.2 </u>	harassment, intimidation, and/or exploitation, especially in regard to women?	☐ YES
-		☐ POTENTIALLY
-		☒ NO
<u>P.6.1.3 </u>	discriminatory working conditions and/or lack of equal opportunity where national law provides provision to address non-discrimination in employment?	☐ YES
-		☐ POTENTIALLY
-		☒ NO
<u>P.6.1.4 </u>	use of child labour? (including third-party engaged workers)	☐ YES
-		☐ POTENTIALLY
-		☒ NO

P.6.1.4	inadequate and verifiable mechanisms for age verification?	☐ YES
-		☒ NO
P.6.1.7	no processes and measures in place for the safety and health of project workers?	☐ YES
-		☒ NO
P.6.1.7	No provision of safety and health training provisions, including on the proper use and maintenance of personal protective equipment conducted by competent persons and the maintenance of training records?	☐ YES
-		☒ NO
P.6.1.7	No provision to record and document accidents, diseases, incidents, and any resulting injuries, illnesses, or deaths?	☐ YES
-		☒ NO
P.6.1.8	occupational health and safety risks due to physical, chemical, biological and psychosocial hazards (including violence and harassment) throughout the project life-cycle?	☐ YES
-		☒ NO
P.6.1.9	No measures to protect vulnerable project workers from harassment, exploitation, and gender-based violence (GBV)? This includes women, people with disabilities, migrant workers, and young workers.	☐ YES
-		☒ NO
P.6.1.10	No grievance mechanism available for workers to voice workplace concerns.	☐ YES
-		☒ NO
P.6.1.11	No measures for due diligence and the establishment of policies and procedures to manage and monitor the performance of third-party employees in the project?	☐ YES
-		☒ NO

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

- The project is implemented on the ground by the enterprise ECOA Climate Capital in collaboration with other project partners. The employees' rights are a cross-cutting issue and respected in all of the projects of ECOA Climate Capital and other project partners. Kenya has ratified many ILO Conventions^{1/}, amongst others convention 100 (Equal Remuneration Convention)^{1/} and convention 98 (Right to Organise and Collective Bargaining Convention)^{1/}. All employees will work voluntarily for the project, no forced labour is used and all employment is in compliance with national laws and consistence with the principles and standards of the ILO conventions^{1/}. In fact, Kenya has ratified many ILO Conventions, amongst others convention 29 (Forced Labour Convention)^{1/} and 105 (Abolition of Forced Labour Convention)^{1/}.*
- The workers are able to establish and join labour organizations.^{1/}*
- All employees will work voluntarily for the project, no forced labour is used and all employment is in compliance with national laws and consistence with the principles and standards of the ILO conventions. In fact, Kenya has ratified many ILO Conventions, amongst others convention 29 (Forced Labour Convention)^{1/} and 105 (Abolition of Forced Labour Convention)^{1/}.*

4. *The working agreements with the individual workers will be documented and implemented and the minimum requirements stated in section 3.6.1. of GS4GG Safeguarding Principles & Requirements (version 2.0) will be respected whenever applicable.*
5. *All the possible staff hired has a minimum age of 18. Kenya has ratified ILO Convention 182 (Worst Forms of Child Labour Convention).^[1]*

All the works will be made by using appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures.

The Project Developer ensures the training of workers^[1], documentation and reporting of accidents and incidents and emergency preparedness and response measures. All the supporting documents will be provided as follows: Training Attendance sheets^[1], Employee Records^[1], etc.

P.6.2 | Negative Economic Consequences

<u>P.6.2.1 </u>	Is there a risk of project failure during implementation or after project certification due to a lack of financial resources?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PD was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
<u>P.6.2.2 </u>	Does the project have potential negative impacts or pose a risk to the local economy?	☐ YES	
-		☒ NO	
<u>P.6.2.2 </u>	Are there any potential risks or negative impacts this project may have on vulnerable or marginalised social groups, despite the benefits it may bring?	☐ YES	
-		☒ NO	
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project involve or lead to:			
<u>P.6.2.2 </u>	economic impacts (negative/detrimental) to the local economy?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.6.2.2 </u>	negative economic consequences during and after project implementation, e.g., for vulnerable and marginalised social groups in targeted communities?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

The project is based on a commercial model selling improved cookstoves in order to ensure the economic durability of the project. Carbon revenues are amongst others used for sensitizing end-users and awareness raising, fortify the distribution/supply chain and upscale the project.

Improved cookstoves can be purchased and used by everybody within the project boundary willing to participate in the program.

There are no expected any direct economic impact or potential risks to the local economy.

P.7 | Climate and Energy

P.7.1 | GHG Emissions

<u>P.7.1.1 </u>	☐ YES
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-	Does the project have a risk of increasing greenhouse gas emissions over the Baseline Scenario?	☒ NO	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project involve or lead to:			
<u>P.7.1.1</u>	increase greenhouse gas emissions over the Baseline Scenario?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
<i>The project will reduce the GHG emissions as it will be monitored and verified in line with the GS4GG.</i>			
<u>P.7.2 Energy supply</u>			
<u>P.7.2.1</u>	Does the project pose a risk to the availability and reliability of energy supply to other users?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project involve or lead to:			
<u>P.7.2.1</u>	negative impact on the availability and reliability of energy supply to other users?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
<i>The project does not use energy from a local grid or power supply. Biomass use (charcoal) will be significantly reduced by introducing highly efficient charcoal stoves.</i>			
<u>P.8 Water</u>			
<u>P.8.1 Impact on Natural Water Patterns/Flows</u>			
<u>P.8.1.1</u>	Does the project increase water usage to a level that will not allow for the maintenance of environmental flows?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
<u>P.8.1.1</u>	Does the project result in the discharge of wastewater that does not meet the required standard for beneficial reuse and could therefore negatively impact the environmental flow?	☐ YES	
-		☒ NO	
<u>P.8.1.1</u>	Does the project have the potential risk to exceed the rate of recharge for the groundwater source?	☐ YES	
-		☒ NO	

P.8.1.1	Does the project involve any processes or activities that could contaminate the groundwater and render it unsuitable for use?	☐ YES	
-		☒ NO	
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project involve or lead to:			
P.8.1.1	affect the natural or pre-existing pattern of watercourses, groundwater and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.8.1.1	Wastewater discharge of quality that does not meet the required standard for beneficial reuse?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.8.1.1	significant extraction, diversion of ground water? For example, construction of dams, reservoirs, river basin developments, groundwater extraction	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.8.1.2	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES	
-		☐ NO	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
The project activity will not negatively affect natural or pre-existing pattern of watercourses, ground- water and/or watersheds.			
P.8.2 Erosion and/or Water Body Instability			
P.8.2.1	Does the project have a risk of negatively impacting the catchment and has it been assessed and addressed?	☐ YES	
-		☒ NO	
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project involve or lead to:			
P.8.2.2	negatively impact on the catchment area?	☐ YES	
-		☐ POTENTIALLY	

<u>P.8.2.5 </u>	<i>If yes, Erosion prevention measures, including soil and slope protection measures, must be implemented before project commencement. These measures should involve natural terracing, infiltration strips, permanent ground cover, hedge and tree rows, and effective slope length assessment. Regular reassessment of these measures is necessary.</i>	☒ NO	
<u>P.8.2.6 </u>	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES	
-		☐ NO	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
<i>The project will not cause additional erosion and/or water body instability of or disrupt the natural pattern of erosion.</i>			
P.9 Environment, ecology and land use			
P.9.1 Landscape Modification and Soil			
<u>P.9.1.1 </u>	Is there any risk of soil resource degradation or loss of ecosystem services provided by soils in the project? <i>If yes, the project shall maintain healthy soils by minimising negative impacts on soil health, productivity, structure, and water retention. Steps to minimise soil degradation include crop rotation, composting, using N-fixing plants, and reducing tillage and ecologically harmful substances.</i>	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
<u>P.9.1.3 </u>			
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project involve or lead to:			
<u>P.9.1.4 </u>	production, harvesting, and/or management of living natural resources by small-scale landholders and/or local communities?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.9.1.4 </u>	if answer to above question "yes" or "potentially", does project adopt appropriate and culturally sensitive sustainable resource management practices?	☐ YES	
-		☐ NO	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
<i>The Project itself does not involve the use of land and soil for production of crops or other products.</i>			
P.9.2 Vulnerability to Natural Disaster			
<u>P.9.2.1 </u>		☐ YES	

-	Does the project have any risks associated with natural or man-made hazards that could result from land use changes due to the project?	☒ NO	The PD does not identify any risks against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project involve or lead to:			
P.9.2.2	any potential risks that require emergency preparedness and response planning?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.9.2.2	if answer to above question "yes" or "potentially", did the project developer disclose appropriate information about emergency preparedness and response to affected communities?	☐ YES	
-		☐ NO	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
<i>The Project will not be susceptible to or will lead to increased vulnerability to any extreme climatic conditions.</i>			
P.9.3 Biosafety and Genetic Resources			
P.9.3.1	Does the project involve the transfer, handling, and use of genetically modified organisms/living modified organisms that may result in adverse effects on biological diversity?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project involve or lead to:			
P.9.3.1	the transfer, handling and use of genetically modified organisms/living modified organisms (GMOs/LMOs) that result from modern biotechnology	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.9.3.1	If answer to above question is "yes" has a risk assessment by a competent Expert stakeholder been carried out in accordance with Annex iii of the Cartagena protocol on biosafety to the convention on biological diversity?	☐ YES	
-		☐ NO	
-		☒ NA	
P.9.3.2	If answer to above question is "yes" has any risks identified in the risk assessment?	☐ YES	
-		☐ NO	
-		☒ NA	
P.9.3.3		☐ YES	

-	Forestry (for example Afforestation/Reforestation) involving GMO planting?	☐ NO	
-	Note - Forestry projects (for example Afforestation/ Reforestation) involving GMO planting are not eligible for Certification under Gold Standard for the Global Goals.	☒ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
<i>The Project is not negatively impacted by the use of genetically modified organisms or GMOs.</i>			
P.9.4 Release of pollutants			
P.9.4.1 	Does the project have a risk of releasing pollutants to air, water, and land in routine, non-routine, or accidental circumstances?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project involve or lead to:			
P.9.4.1 	any potential risk of pollutant release that cannot be avoided?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.9.4.3 	If answer to above question is "Yes" or "potentially", has the project identified all potential pollution sources that may degrade the quality of soil, air, surface, and groundwater in the project area?	☐ YES	
-		☐ No	
-		☒ NA	
P.9.4.2 	If answer to above question is "Yes" or "potentially", do the pollution prevention and control technologies and practices applied during the project life cycle align with national regulations or international best practices?	☐ YES	
-		☐ No	
-		☒ NA	
P.9.4.3 	If answer to above question is "Yes", is there a monitoring plan to ensure that mitigation measures are implemented, and resources are protected?	☐ YES	
-		☐ No	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
<i>The Project does not release any different pollutants to the environment which would not be released in the baseline already. The release of PM and carbon monoxide are significantly reduced by the introduction of efficient cookstoves.</i>			
P.9.5 Hazardous and Non-hazardous Waste			
P.9.5.1 	Does the project involve the generation of waste materials (both hazardous and non-hazardous)?	☐ YES	The PD does not identify any risk against the defined principle. The
-		☒ NO	

<u>P.9.5.3 </u>	Does the project involve risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☐ YES	justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
<u>P.9.5.5 </u>	Does the project involve the use of any chemicals or materials subject to international bans or phase-outs?	☐ YES	
-		☒ NO	
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project involve or lead to:			
<u>P.9.5.1 </u>	the generation and management of waste materials?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.9.5.1 </u>	treatment, destruction, or disposal of waste material?	☐ YES	
-		☒ No	
-		☐ NA	
<u>P.9.5.1 </u>	If answer to above question is "Yes", does the project involve an environmentally friendly method that includes appropriate control of emissions and residues resulting from the handling and processing of waste material?	☐ YES	
-		☐ No	
-		☒ NA	
<u>P.9.5.3 </u>	risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☐ YES	
-		☒ No	
-		☐ NA	
<u>P.9.5.3 </u>	If answer to above question is "yes", does project have measures in place to address health risks?	☐ YES	
-		☐ No	
-		☒ NA	
<u>P.9.5.4 </u>	Involve manufacture, trade, and use of chemicals and hazardous materials subject to international bans or phase-outs due to their high toxicity to living organisms, environmental persistence, potential for bioaccumulation, or potential for depletion of the ozone layer	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
The Project is not involving the manufacture, trade, release, and/or use of hazardous chemicals and or materials.			
<u>P.9.6 Pesticides & Fertilisers</u>			
<u>P.9.6.1 </u>	Does the project involve the use of chemical pesticides?	☐ YES	The PD does not identify any risk against the defined principle. The
-		☒ NO	
<u>P.9.6.5 </u>		☐ YES	

-	Does the project involve purchase, store, manufacture, trade or use products that fall in Classes IA (extremely hazardous) and IB (highly hazardous)	☒ NO	justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
<u>P.9.6.6</u>	Does the project use fertilisers, and if so, are measures being taken to minimise their use and nutrient losses to the environment?	☐ YES	
-		☒ NO	
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project involve or lead to:			
<u>P.9.6.1</u>	chemical pesticides use for pest management?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.9.6.4</u>	If answer to question above is "yes" or "potentially", does project has documented Chemical Pesticides Policy in place?	☐ YES	
-		☐ No	
-		☒ NA	
<u>P.9.6.5</u>	purchase, store, use, manufacture, or trade in Class II (moderately hazardous) pesticides?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.9.6.5</u>	If answer to question above is "yes" or "potentially", does project has appropriate controls on manufacture, procurement, or distribution and/or use of these chemicals?	☐ YES	
-		☐ No	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
No application of pesticides and/or fertilisers is done in the project activity.			
<u>P.9.7 Harvesting of Forests</u>	-	-	
<u>P.9.7.1</u>	Does the project have a risk of unsustainable forest management, including timber harvesting?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
-			
<u>P.9.7.1</u>	Does the project pose a risk of depleting biodiversity and ecosystem functionality in areas where improved forest management is undertaken?	☐ YES	
-		☒ NO	
-			
<u>P.9.7.1</u>	Does the project risk not meeting requirements for environment-friendly, socially beneficial, and economically viable plantations using native species whenever possible?	☐ YES	
-		☒ NO	
-			
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
No harvesting of forests is involved.			

P.9.8 Food Security			
P.9.8.1 	Does the project involve the risk of negatively influencing access to and availability of food for people affected?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
If the answer to the question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project involve or lead to:			
P.9.8.1 	modification of the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
The Project doesn't modify the quantity or nutritional quality of food available.			
P.9.9 Animal Welfare			
P.9.9.1 	Does the project involve any risks to animal welfare? Animal welfare shall be ensured by providing access to water and food, appropriate environment, humane treatment, and staff training. Evidence of mistreatment will be treated as an immediate non-conformity.	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
P.9.9.2 	Does the project involve any potential risk of excessive or inadequate use of veterinary medicines?	☐ YES	
-		☒ NO	
P.9.9.4 	Does the project involve the risk of administering synthetic growth promoters, including hormones?	☐ YES	
-		☒ NO	
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project involve or lead to:			
P.9.9.1 	animal husbandry or harvesting of fish populations or other aquatic species?[2]	☐ YES	
-		☐ No	
-		☒ NA	
P.9.9.1 	limiting access for animals to basic needs like drinking water, adequate food, daylight, appropriate shelter etc.?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.9.9.3 	inadequate measures to isolate sick animals and control the spread of disease, especially zoonotic diseases?	☐ YES	
-		☐ No	
-		☒ NA	
P.9.9.5 		☐ YES	

-	inadequate low-stress methods, equipment, and facilities that facilitate calm animal movement.	☐ No	
-		☒ NA	
<u>P.9.9.6 </u>	inadequate measures to ensure that animals are exposed to the least stress possible during transportation and slaughtering?	☐ YES	
-		☐ No	
-		☒ NA	
<u>P.9.9.7 </u>	inappropriate spacing per animal and stocking rates per land unit?	☐ YES	
-		☐ No	
-		☒ NA	
<u>P.9.9.8 </u>	inadequate measures to address the specific needs of aquatic animals?	☐ YES	
-		☐ No	
-		☒ NA	
<u>P.9.9.9 P.9.9.10 </u>	primary production of living natural resources such as animal husbandry, aquaculture, and fisheries? If the answer is yes, implement industry-standard sustainable management practices in line with to one or more relevant and credible standards and utilise available technologies.	☐ YES	
-		☐ No	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
<i>The Project doesn't involve animal husbandry.</i>			
<u>P.9.10 High Conservation Value Areas and Critical Habitats</u>	-	-	
<u>P.9.10.1 </u>	Does the project have the risk of negatively impacting HCV areas and/or critical habitats?	☐ YES	
-		☒ NO	
<u>P.9.10.2 </u>	Does the project in the project area or area of downstream impacts have risks to the following: native tree patches, individual native trees, freshwater resources (including rivers, lakes, swamps, temporary water bodies, and wells), habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?	☐ YES	
-		☒ NO	
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			The PA does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
<i>N/A</i>			
Would the project involve or lead to:			
<u>P.9.10.1 </u>	identified habitats as HCV areas and or Critical habitats?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
<u>P.9.10.1 </u>		☐ YES	

-	If answer to above question is "yes", does the project have any risks that could negatively impact the catchment, project success, and surrounding HCV and ecological assets, as well as any measurable adverse impacts on the criteria or biodiversity values for which the critical habitat was designated, and on the ecological processes supporting that biodiversity?	☐ NO
-		☒ NA
<u>P.9.10.1 </u>	If answer to above question is "yes", is a robust, appropriately designed, and long-term Habitats and Biodiversity Action Plan absent which will make the project unable to achieve net gains of those biodiversity values for which the critical habitat was designated?	☐ YES
-		☐ NO
-		☒ NA
<u>P.9.10.2 </u>	Does the project area or area of downstream impacts have native tree patches, individual native trees, freshwater resources (including rivers, lakes, swamps, temporary water bodies, and wells), habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?	☐ YES
-		☐ POTENTIALLY
-		☒ NO
<u>P.9.10.2 </u>	If the answer to the above question is "yes", will the project have any adverse effects on these areas?	☐ YES
-		☐ No
-		☒ NA
<u>P.9.10.3 </u>	If the answer to above question is "yes", does the project has opportunities to minimise unwarranted conversion or degradation of the habitat and to enhance the habitat as part of its development?	☐ YES
-		☐ No
-		☒ NA
<u>P.9.10.4 </u>	Is the project applying Land Use & Forest Activity Requirements and managing a minimum 10% of the project area to protect or enhance the biological diversity of native ecosystems following HCV approach as per the given requirements?	☐ YES
-		☐ NO
-		☒ NA
<u>P.9.10.5 </u>	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES
-		☐ NO
-		☒ NA
If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
<i>The project is not located in an area within a high conservation value area or within critical natural habitats. Furthermore, the aim of the project is to reduce biomass consumed in the project area for cooking which may save the natural resources.</i>		
<u>P.9.11 Endangered Species</u>		
<u>P.9.11.1 </u>		☐ YES

-	Does the project lead to the reduction or negative impact on any recognised Endangered, Vulnerable or Critically Endangered species?	☒ NO	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project involve or lead to:			
P.9.11.2	distortion of habitats of endangered species?	☐ YES	
-		☐ Potentially	
-		☒ NA	
P.9.11.2	If answer to the above question is "yes", does the project plan to protect and enhance them?	☐ YES	
-		☐ POTENTIALLY	
-		☐ NO	
-		☒ N/A	
P.9.11.2	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☐ NO	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
a) <i>The project boundary is the physical, geographical sites of the distributed cookstoves. There are no endangered species identified as potentially being present the project boundary.</i>			
b) <i>The distributed cookstoves are not expected to potentially impact other areas where endangered species may be present through transboundary affects.</i>			
P.9.12 Invasive Alien species			
P.9.12.1	Does project introduce any alien species (not currently established in the country or region of the project) into new environments?	☐ YES	
-		☒ NO	
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
N/A			
Would the project involve or lead to:			
P.9.12.1	risk of introducing any alien species with a high risk of invasive behaviour regardless of whether such introductions are permitted under the existing regulatory framework?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☐ POTENTIALLY	
-		☒ NO	
P.9.12.1	risk of potential accidental or unintended introductions including the transportation of	☐ YES	
-		☐ POTENTIALLY	

-	substrates and vectors (such as soil, ballast, and plant materials) that may harbour alien species.	☒ NO
<u>P.9.12.2</u>	risk of spreading alien species into areas in which they have not already been established?	☐ YES
-		☐ POTENTIALLY
-		☒ NO
If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
<i>The project does not introduce any alien species.</i>		

1[1] Basic services requirements refer to minimum space, supply of water, adequate sewage and garbage disposal system, appropriate protection against heat, cold, damp, noise, fire, and disease-carrying animals, adequate sanitary and washing facilities, ventilation, cooking and storage facilities and natural and artificial lighting, and in some cases basic medical services.

1[2] 'Involve' means if the project mechanism and/or impact(s) are achieved via changing animal husbandry practices in some way.