Gold Standard for the Global Goals

TEMPLATE

KEY PROJECT INFORMATION & PROJECT DESIGN DOCUMENT (PDD)

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VERSION **v. 1.2**

RELATED SUPPORT

- **TEMPLATE GUIDE Key Project Information & Project Design Document v.1.2**

This document contains the following Sections

KEY PROJECT INFORMATION

GS ID of Project	GS5642
Title of Project	Burn Stoves Project in Kenya
Time of First Submission Date	NA[1]
Date of Design Certification	28/02/2018
Version number of the PDD	4.8
Completion date of version	09/06/2023
Project Developer	Ecoa Climate Capital
Project Representative	ECOA Climate Capital
Project Participants and any communities involved	Ecoa Climate Capital
Host Country (ies)	Kenya
Activity Requirements applied	☒ Community Services Activities ☐ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☐ N/A
Scale of the project activity	☐ Micro scale ☐ Small Scale ☒ Large Scale
Other Requirements applied	NA
Methodology (ies) applied and version number	Technologies and Practices to Displace Decentralized Thermal Energy Consumption' (TPDDTEC), version 03.1
Product Requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ N/A
Project Cycle:	

[1] GS 5642 transitioned into GS4GG in 2018 and therefore did not go into Preliminary review. This is why date of first submission is left as N/A

	☒ Regular ☐ Retroactive

Table 1 – Estimated Sustainable Development Contributions

Sustainable Development Goals Targeted	SDG Impact (defined in B.6.)	Estimated Annual Average	Units or Products
1. (No poverty) End poverty in all its forms everywhere	Monetary savings related to the purchase of charcoal in the project scenario	USD 8,353,697.34	Annual monetary savings as calculated in local currency
3. (Good Health and Wellbeing) Ensure healthy lives and promote well-being for all at all ages	Perceived air quality	96%	Percentage of households reporting improved perception of in-door air quality
4. (Quality Education) Ensure equal access for all women and men to affordable and quality technical, vocational, and tertiary education, including university	Number of people receiving skill development training	50	Number of people who participated in project training
5. (Gender Equality) Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household	Average time saving associated with cooking in the project scenario	25	Average time saved cooking for women in the project scenario (measured in minutes reported by end-user)
7. (Affordable and Clean Energy) Ensure universal access to affordable, reliable and modern energy services	Number of sold/distributed ICS in use	293,444	Number of sold/distributed ICS in use

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	242	Number of jobs created
13. Climate Action (mandatory)	Emission Reductions	839,600.81	VERs/annum
15. (Life on land) Promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	Total non-renewable biomass saved	151,824.41	Tons of non-renewable biomass saved in the project scenario from continued use of project technologies

SECTION A. DESCRIPTION OF PROJECT

A.1 Purpose and general description of project

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1. General operating and implementing framework of PoA

Burn Stoves Project in Kenya ("the Project") seeks to improve health and incomes throughout Kenya by reducing time and money spent acquiring fuel for household cooking.

Background

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 success crediting period renewal and

was successfully renewed. On 31/10/2022, BURN transferred it's role as Project Developer of the Project to Ecoa Climate capital[2].

Project Objective:

Healthy Kitchens in Kenya ("the Project") seeks to improve health and incomes throughout Kenya by reducing time and money spent acquiring fuel for household cooking.

Project Plan:

To achieve this goal, the project will help Kenyans access 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. In addition, the project uses carbon finance to develop local market channels and to support other partners as they create sustainable distribution networks of locally appropriate efficient stoves.

Baseline Household Stoves:

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. Many people are forced to travel further from the town to collect wood fuel. In the worst cases, mothers are gone for many hours, causing difficulty for children and nursing infants. In some communities, girls are also tasked with collecting firewood, a responsibility which can keep them from attending school. 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 activity contributes to Kenya's sustainable development in the following ways:

1. **Air quality improvement**: the project stove has a higher fuel efficiency compared to the baseline stove. The project stove burns faster and with less smoke and

[2] Source: Amended Cover Letter

particulate matter compared with the baseline stove. The use of the stove for cooking therefore leads to improved quality of air, especially indoor air quality.

2. **Reduced fuel costs for households**: Because the stoves are more fuel efficient than the baseline stove, the households switching to project stoves will save money that would have otherwise been used to buy charcoal. The savings will then the available to the households for alternative use.

3. **Reduced GHG emissions:** Fuel consumption by households is reduced using the project stove. This in turn helps in reducing the emission GHG to the atmosphere.

4. **Reduced deforestation and improved biodiversity**: Charcoal production and use is a major contributor to deforestation in Kenya. The continued demand for charcoal puts more pressure on the few remaining forests and this will continue if it is not reversed or contained. Reduced charcoal consumption for a given cooking demand will contribute to reduced deforestation. The project activity will reduce pressure on the remaining forest in Kenya. Given that for every tonne of charcoal produced, 6 tonnes of wood is required using the traditional charcoal production kilns commonly in use in Kenya. With more forests conversed in Kenya, the biodiversity within the forests will improve.

5. **Employment creation**: Since the stoves are produced and sold in Kenya, the project activity has created employment across the stove supply chain from manufacturing, distribution, and sales of the stoves.

6. **Improved livelihoods**: The circumstances of poor families will be improved since the stoves reduce fuel costs. Reduced household fuel cost enables families to make saving which can be utilised in other areas.

7. **Access to energy services**: The improved stoves use less fuel for a given cooking demand compared to the baseline stove. Charcoal, in a number of areas, can be scarce and/or expensive to buy, the project therefore increases their ability to access energy at minimal cost. The project stoves have also been found by users to be more convenient to use, with shorter cooking time.

There are no laws, policies or mandatory requirements in Kenya, stipulating the adoption of efficient charcoal cook-stoves. This project is a voluntary action by Ecoa climate capital.

Measures for continual improvements of the project management have been established and will be implemented as part of the project.

A.1.1. Eligibility of the project under Gold Standard

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As per the Gold Standard for the Global Goals Community Services Activity Requirements, version 1.1, lists the general eligibility criteria which community service projects must meet. The proposed projects falls under 1.2.2 (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 project activity consists of energy efficient cook stoves 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 project activity therefore qualifies under section 1.2.2 (b) End- Use Energy efficiency. The project therefore is automatically eligible for Gold Standard Certification under the 3.1.1.1 since it is an approved Gold Standard Activity Requirements and/or Gold Standard Impact Quantification Methodologies associated with it and as referenced in Gold Standard Product Requirements.

A.1.2. Legal ownership of products generated by the project and legal rights to alter use of resources required to service the project

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Ecoa Climate Capital is a private organization that seeks to provide energy efficient cook stoves that transform lives, create employment and also save the forests. The stoves are produced at a factory in Ruiru, north of Nairobi, where the company manufactures the stoves. these stoves are then sold through various marketing channels.

The project proponent will clearly communicate to all project participants that the Burn Manufacturing is claiming ownership rights and selling the emission reductions resulting from the distribution of project technologies. The transfer of carbon rights will be explained to end-user through a manual and written messages in the stove packaging containing a written explanation that the rights associated with the environmental benefits of the technology belong to the Project will be included with technology

distribution/sale. The project uses warranty activated system through mobile phone where end user transfers the rights to the project through warranty activation.

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 Climate Capital as is evidenced in the amended cover letter uploaded to SustainCert.

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

A.2 Location of project

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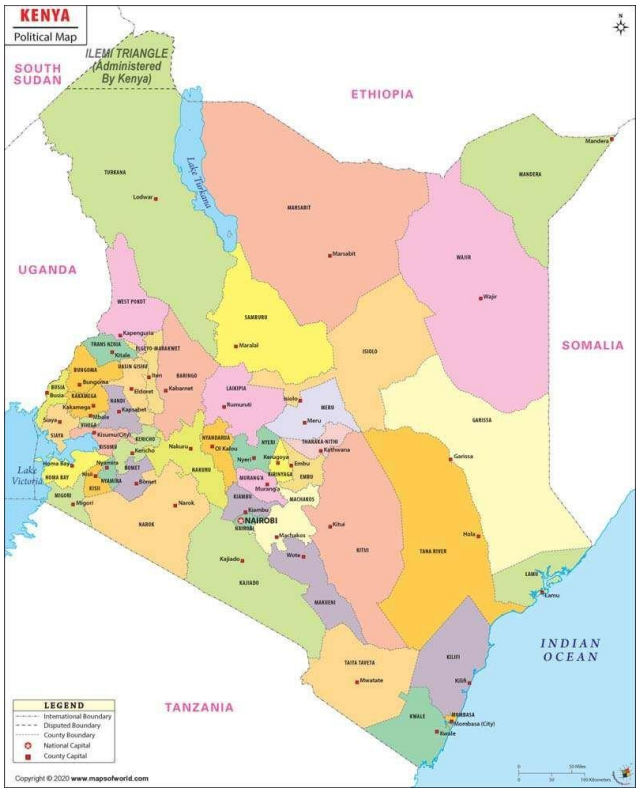
Host Country- The Republic of Kenya

Region/State/Province etc.- All the 47 counties of Kenya are covered by the project.

City/Town/Community etc.- Whole country of Kenya

Physical/Geographical location- The project is being implemented within the physical boundary of Kenya.. The map of Kenya in which the project is being implemented is shown below:



A.3 Technologies and/or measures

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The project intends to make available to all counties of Kenya each of the project technologies. Additional distribution partners and networks are progressively added to the project activity.

Ecoa Climate capital actively seeks local partnerships to enable access to communities that previously have had limited exposure to new technologies.

The project activity will continually assess technology options with the goal of providing the highest performing, most affordable, and most locally appropriate technologies to Kenyans. These objectives will be carefully balanced to identify the best technology for the project. The first technologies presented for crediting, along with additional new technologies added to the project through the design change are presented below. Household Stoves Burn Charcoal Stove (Jikokoa)

Figure A.2: Photo: Burn Design Charcoal Stove

Testing Data[3]

Power Output: 1.175 kW

Thermal Efficiency: 44.9%

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.

A.4 Scale of the project

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The project is a large scale project. The technologies each have continuous useful energy outputs of less than 150kW per unit (defined as total energy delivered usefully from start to end of operation of a unit divided by time of operation).

A.5 Funding sources of project

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There is no public funding for the project

[3] Kenya Industrial Research and Development Institute (K IRDI) Testing Report

SECTION B. APPLICATION OF APPROVED GOLD STANDARD METHODOLOGY (IES) AND/OR DEMONSTRATION OF SDG CONTRIBUTIONS

B.1. Reference of approved methodology (ies)

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The following approved Gold Standard baseline and monitoring methodology is applicable to the project activity:

a.) Technologies and Practices to Displace Decentralized Thermal Energy Consumption; Version 3.1. [4]

b.) Tool for the demonstration and assessment of additionality (Version 07.0). [5]

c.) 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)[6]

B.2. Applicability of methodology (ies)

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Justification of the choice of the methodology and why it is applicable to the project activity

Ecoa Climate Capital is implementing a project in Kenya which involves promotion and the sale of improved energy-saving charcoal stoves to both households. According to the GS VER Methodology:

"This methodology is applicable to programs or activities introducing technologies and/or practices that reduce or displace greenhouse gas (GHG) emissions from the thermal energy consumption of households and non-domestic premises. Examples of these technologies include the introduction of improved biomass or fossil fuel cook stoves, ovens, dryers, space and water heaters (solar and otherwise), heat retention cookers, solar cookers, bio-digesters, safe water supply and treatment technologies that displace water boiling, thermal insulation in cold climates, etc.

[4] http://www.cdmgoldstandard.org/project-certification/gs-methodologies
[5] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v3.pdf
[6] http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-11-v3.0.1.pdf

"Shifts in technology may occur in a gradual manner and adoption can increase over the project period. The project activity is implemented by a project proponent and potentially with additional project participants. The individual households do not act as project participants."

The Project adopts a phased approach to transitioning households towards cleaner kitchen regimes. As carbon financing is made available, the project intends to expand the availability of new technologies to include other types of improved stoves (e.g. for example pellet stoves, ethanol stoves or other suitable lower greenhouse gas technologies) which accomplish emissions reductions in accordance with the approved GS VER Methodology. When necessary the Project will monitor new baselines and will redefine clusters as new technologies and new customer groups are introduced to the project.

The methodology applicable to the project is "Technologies and Practices to Displace Decentralized Thermal Energy Consumption; Version 3.1".

The methodology uses the term 'technology' which refers to single or multiple technologies and/or practices and shifts in technology may occur in a gradual manner and adoption can increase over the project period. This project, which is seeking renewal of the crediting period involves the introduction and use of technology of improved biomass and charcoal cookstoves, which are distributed to households for use for domestic activities. The stoves are being introduced in a gradual manner as the project expands to cover existing and new areas. The following table shows a summary of how the applicability conditions of the methodology are met:

Methodology applicability requirement	**Justification regarding this VPA**
This methodology is applicable to programmes or activities introducing technologies and/or practices that reduce or displace greenhouse gas (GHG) emissions from the thermal	The proposed project activity introduces charcoal cooking technology that reduce GHG emissions from households applications

energy consumption of households and non-domestic premises	
The project activity is implemented by a project proponent and can include additional project participants. The individual households and institutions do not act as project participants.	The project activity is implemented by Ecoa Climate Capital. The individual households do not act as project participants
The project boundary needs to be clearly identified, and the technologies counted in the project are not included in any other voluntary market or CDM project activity (i.e. no double counting takes place). In some cases there maybe another similar activity within the same target area.	The project location is defined as the country of Kenya, as described in PDD A.4. The geographic boundaries of Kenya are defined as administrative county boundaries set by government entities. The project applies sales only to the GS VER registry, and no CDM or alternative registry is used for Project stoves. Publicly available information on GS VER and CDM stove projects can confirm that technologies installed by the project are not used by other groups and that double counting has been avoided
Project proponents must therefore have a survey mechanism in place together with appropriate mitigation measures so as to prevent any possibility of double counting.	Every stove has a serial number and a database of all stoves is retained by Ecoa Climate Capital for identification. During the monitoring period, the project will carry out sample surveys to identify their serials and cross check them with project database records and see if there are other stoves out there which likely to be double counted.

The technologies each have continuous useful energy outputs of less than 150kW per unit (defined as the total useful energy delivered from start to end of operation of a unit divided by time of operation). For technologies or practices that do not deliver thermal energy in the project scenario but only displace thermal energy supplied in the baseline scenario, the 150kW threshold applies to the displaced baseline technology.	The cook-stoves promoted by the project have a capacity of less than the maximum 150kW per unit. PDD Section A.3 technical specifications: Household stoves = 1.175kW
Using the baseline technology as a backup or auxiliary technology in parallel with the improved technology introduced by the project activity is permitted as long as a mechanism is put into place to encourage the removal of the old technology (e.g. discounted price for the improved technology) and the definitive discontinuity of its use.	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, future surveys will determine if households still use those which are not removed. The initial measures to be taken are: • Annual Monitoring Surveys will track the continued use of baseline technologies • Project Fuel Tests will subsume the use of any traditional stove/fuel used. • The parameter, Pp,y , is based on subsumed Project Fuel Tests and thus use of traditional stove/fuel is accounted for in project emissions calculations. • Project participants will be • incentivized to remove their old stoves, as the one year warranty of

	the project stove will not be valid if end- users have continued to use their baseline stove.
The project proponent must clearly communicate to all project participants the entity that is claiming ownership rights of and selling the emission reductions resulting from the project activity.	The project proponent will clearly communicate to all project participants that The Burn Manufacturing is claiming ownership rights and selling the emission reductions resulting from the distribution of project technologies through the following mechanisms: • Transfer of carbon rights will be explained at local consultations and end-user technology trainings Manual and written messages in the stove packaging containing a written explanation that the rights associated with the environmental benefits of the technology belong to the Project will be included with technology distribution/sale/installation Stickers are placed on product packaging to inform end users that they cannot claim emissions reductions from the project.
Project activities making use of a new biomass feedstock in the project situation (e.g. shift from non-renewable to green charcoal, plant oil or renewable biomass briquettes) must comply with relevant Gold Standard specific requirements for biomass related project activities, as defined in the latest version of the Gold Standard rules. If the biomass feedstock	This project does not involve use of a new biomass feedstock. End users continue to use charcoal fuels in the project situation.

is sourced from a dedicated plantation, the criteria must apply to both plantations established for the project activity and existing plantations that were established in the context of other activities but will supply biomass feedstock.	
Adequate evidence is supplied to demonstrate that indoor air pollution (IAP) conditions are not worsened compared to the baseline, and greenhouse gases (as listed in section II.1) emitted by the project fuel/stove combination are estimated with adequate precision. The project fuel/stove combination may include instances in which the project stove is a baseline stove. Qualitative Surveys are conducted every two to investigate air quality with the project stove. The indoor air pollutions are compared to the baseline, where the users are asked to give their comparisons and pollutants emitted by the project stove are estimated with adequate justifications.	Qualitative Surveys are conducted every two years to investigate air quality with the project stove. The indoor air pollutions are compared to the baseline, where the users are asked to give their comparisons and pollutants emitted by the project stove are estimated with adequate justifications.
Records of renewable fuel sales may not be used as sole parameters for emission reduction calculation, but may be used as data informing the equations in section II of this methodology. These records need to be correlated to data on distribution and results of field tests and surveys confirming (a) actual use of the renewable fuel and usage patterns (such as average fraction of non-renewable	The stove sales data in the sales database are used together with results of field tests and surveys confirming to estimate GHG emissions are reduced.

fuels used in mixed combustion or seasonal variation of fuel types), (b) GHG emissions, (c) evidence/justifications of CO levels not deteriorating (d) any further factors effecting emission reductions significantly. The stove sales data in the sales database are used together with results of field tests and surveys confirming to estimate GHG emissions are reduced	

B.3. Project boundary

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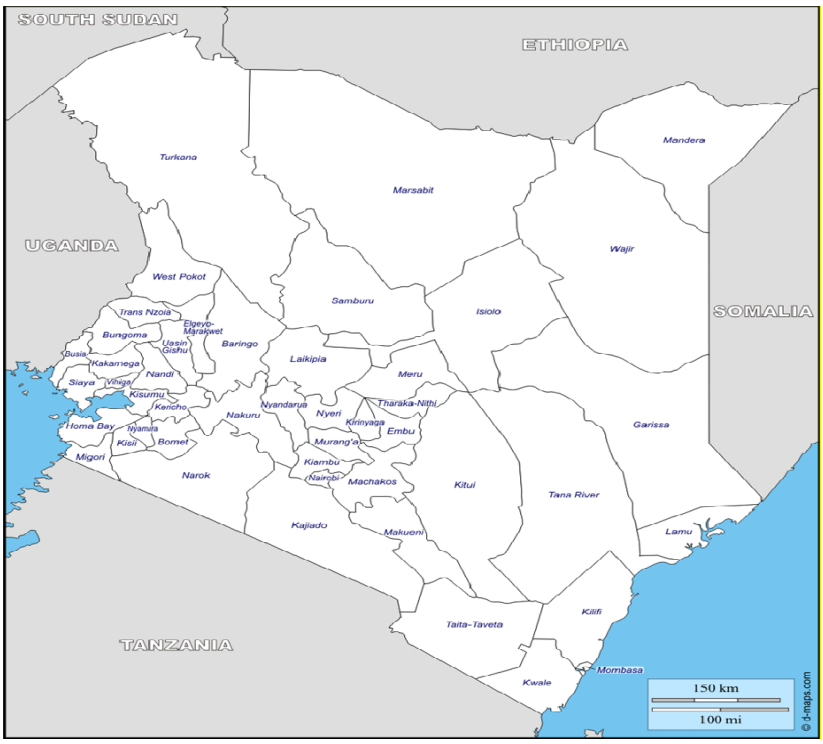
The physical/geographical boundary for the project is the physical geographic boundary of Kenya as identified on the map below

The Map of Kenya, including Counties



Source		GHGs	Included?	
Baseline scenario	Heat delivery and production of fuel and transport of fuel	CO_2	Yes	Main source of emission in the baseline
		CH_4	No	Not included in the baseline for conservativeness purposes
		N_2O	No	Not included in the baseline for conservativeness purposes
Project scenario	Heat delivery and production of fuel and transport of fuel	CO_2	Yes	Main source of emission in the project activity
		CH_4	No	Not included in the project for conservativeness purposes
		N_2O	No	Not included in the project for conservativeness purposes

Flow diagram of project equipment, systems, and flows of mass and energy by project technology:

Improved cookstoves

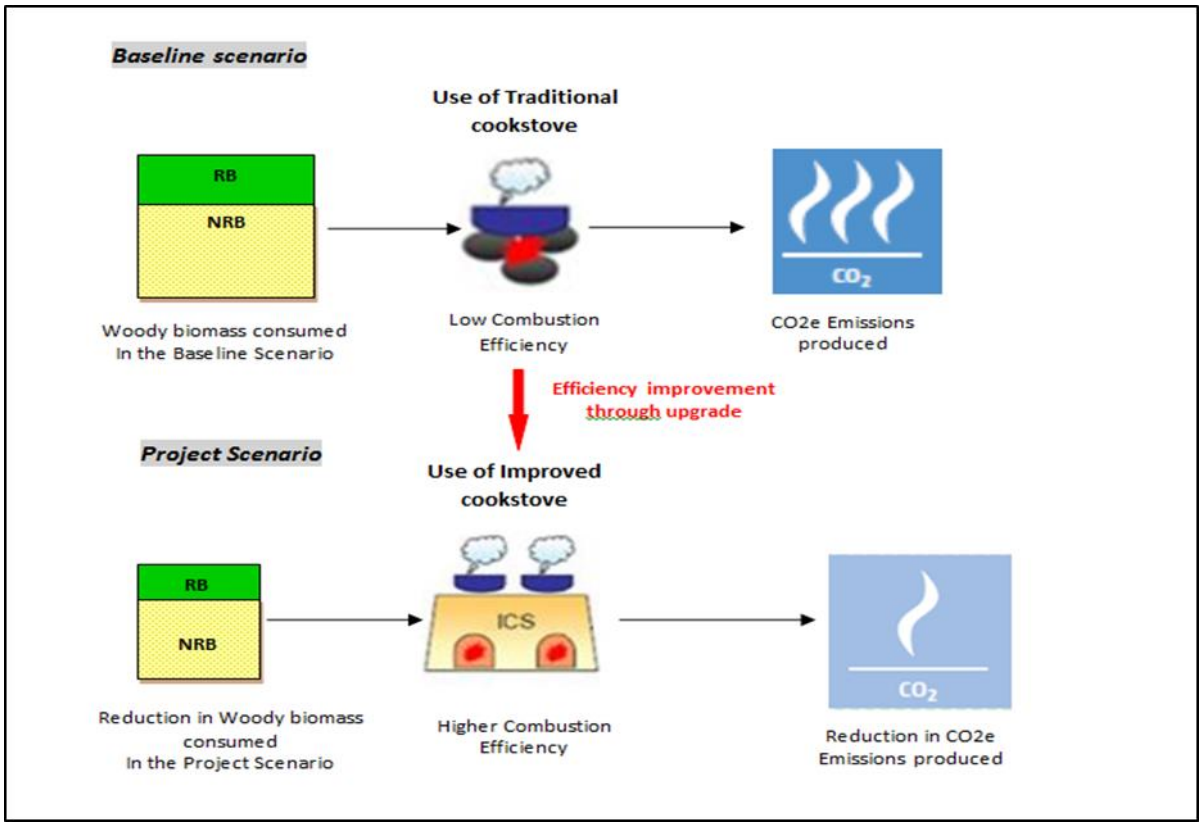


Figure 1 Baseline scenario flow chart

The project boundary covers the geographical boundary of the country of Kenya (See Section A.2 above). 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.

B.4. Establishment and description of baseline scenario

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In line with "Tool to assess the validity of the original/current baseline and to update the baseline at the renewal of a crediting period, Annex 47, EB 66, Version 3.0.1" it stipulates the following procedures to be used for the assessment of continued validity of the original baseline and its update.

Step 1: Assess the validity of the current baseline for the next crediting period

The "Procedures for the renewal of the crediting period of a registered CDM project activity" approved by the CDM Executive Board require assessing the impact of new relevant national and/or sectoral policies and circumstances on the baseline. The validity of the current baseline is assessed using the following Sub-steps:

Step 1.1: Assess compliance of the current baseline with relevant mandatory national and/or sectoral policies

There are no mandatory laws requiring households to switch to use of efficient stoves and the household makes the switch voluntarily based on the information they receive from the promotional and marketing initiatives regarding the benefits of the stove. The project therefore it's being implemented as a voluntary action.

Even though there are other improved cook stove (ICS) players in the market, the penetration of ICS, access to these stoves across the country remains low and most of the population still use the traditional stoves for their cooking. Even though thought the ceramic jikos (charcoal) have achieved high levels of penetration in urban and peri-urban areas in Kenya, the quality of most of these stoves is poor and they don't last for long[7]

Step 1.2: Assess the impact of circumstances

The project was validated and registered with a baseline scenario of thermal energy from charcoal used for cooking and water heating. The charcoal used is mostly from non-renewable biomass. The project was a voluntary investment by Ecoa climate capital which was aimed at expanding access to improved stoves to Kenyan households in order to reduce their fuel consumption. So by households adopting the use of the stove, their fuel consumption is reduced since the stove is more efficient than the baseline stove, and this will lead to reduced forest degradation since the demand for charcoal for household needs will reduce. Therefore, the continued operation of the project activity would continue to reduce charcoal consumption, hence the same baseline as identified in the previous crediting period is still valid for the project. Therefore, the assessment of the changes in market characteristics is not required for the renewal of the project's crediting period.

[7] http://cleancookstoves.org/resources/166.html

Household practices in Kenya towards household energy have not changed over time. Charcoal use for cooking is the most dominant for most households. In addition, even for high income households, the use of charcoal for cooking is common, due to the fact that the food menu cooked requires or take long to cook and charcoal cooking provides the best alternative. Although charcoal prices tend to increase over time, they price rise is mostly caused by inflation in the economy, changes in laws or regulations governing charcoal production and use, demand and supply and availability of alternative fuels such as LPG. The use of traditional stoves still persist and awareness and information is still required to change the trend. Most households in the country still continue to use charcoal for household energy provision for cooking. According to Kenya Energy Policy[8] , there is a widening gap between supply and demand for wood-fuel, a challenge that requires dedicated policy interventions to redress. Wood-fuel supply does not match demand over various parts of the country. In spite of past efforts to promote wood fuel substitutes, the number of people relying on wood fuel is not decreasing. Consequently, wood fuel will continue to be the primary source of energy for the majority of the rural population and urban poor for as long as it takes to transform the rural economy from subsistence to a highly productive economy. Currently no new fuel availability has come to the market and use of electricity for cooking is prohibitive due to high electricity tariffs and also due to the fact that most rural households are not connected to the grid. Therefore, the old baseline conditions still are valid and apply.

Hence, the new circumstances do not have an impact on the baseline emission. The conditions used to determine the baseline emissions in the previous crediting period are still valid even now. In the absence of the project activity, the baseline scenario in the project boundary is the use of stoves with low efficiencies for cooking using charcoal.

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

Use of the baseline stoves is imbedded in the Kenyan society and the mind-set of the people. Its determined by several factors ranging from type of food being cook, price and availability of alternative stoves, therefore most households continues to buy and use the baseline stoves technology. This trend is likely to continue for a long period of time. Although there are different efficient stoves in

[8] http://www.energy.go.ke/index.php/resources/file/837-national-energy-policy-final-draft.html

the market, there is still huge demand for it since most of the households have not been reached/covered due to several reason such affordability, availability, awareness etc. There are several players in the market who are selling improved cook stoves, however, due to rising population and economic hardships, the number of households falling into using charcoal is on the increase. This has led to more households using biomass to rise and create more demand for charcoal and more emissions. T the penetration rate of ICS is more in urban areas only than rural areas. However, due to low affordability and accessibility to cleaner fuels, the traditional open fire, semi-improved stove or low quality ceramic stoves, cooking methods remain extremely popular within Kenyan, especially in rural areas, where more than 80% use them. Therefore the penetration rate of the market players will not affect the baseline since more households using biomass products are on the increase.

Step 1.4: Assessment of the validity of the data and parameters

This step stipulates to "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."

In order to ensure that the project ER are calculated using the most appropriate data, the data and parameters that were only determined at the start of the crediting period and not monitored during the crediting period were examined in order to determine if they are still valid or they required updating. The data parameters were checked and the latest data parameters as per the applicable methodology and IPCC default values are applied.

The project activity was registered using the "Indicative Programme, Baseline, and Monitoring Methodology for Improved Cook-Stoves and Kitchen Regimes, Ver.01." methodology, and the project underwent a revision and by applying "Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC); Version 1.0". This renewal is being done using the methodology TPDDTEC latest version 3.1.

In accordance with the guidelines for crediting period or renewal, updates should be undertaken in the following cases:

Where IPCC default values are used, the values should be updated if any new default values have been adopted and published by the IPCC, for example, in guidelines for national GHG inventories, IPCC assessment report or special reports by the IPCC;

The default values for net calorific value (NCV) and CO2 emission factor (EF) for charcoal for fuel reduced is in the methodology has been adopted for emission reduction calculations.

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.

The emission factors have been updated for emission reduction calculations. The quantity of fuel savings by the project device has been recalculated and fraction of woody biomass used in the absence of the project activity that is non-renewable (fNRB) has been updated.

Some new data sets have been introduced based on the methodology requirement and new values are applied for the current baseline in the new crediting period.

The following data were assessed as explained above:

1. NCV for wood at 0.015 TJ/tn respectively
2. CO2 emission factor at 112 tCO_2/TJ
3. fNRB
4. Quantity of woody biomass savings by the project device at 1.6151 tonnes/year
5. $EF_{p,\ nonCO2}$ has been amended
6. $EF_{b,nonCO2}$,has been amended

Baseline Scenario

The predominant cooking fuel for families in urban and semi-urban Kenya is charcoal made from predominantly non-renewable wood using inefficient production and usage methods. The green- house gas emissions associated with the production and combustion of the charcoal is significant, in areas where the wood source is non-renewing, which is the case in Kenya. This is not only the existing scenario but also the energy baseline scenario.

As per the applicable methodology, the baseline scenario is defined by the typical baseline fuel consumption patterns in a population that is targeted for adopting

the project technology. Hence, this "target population", which in this case is the population in Kenya that uses charcoal, is a representative baseline for the project activity.

The project baseline scenario represents both urban and rural end users who predominantly use the inefficient charcoal stoves. This baseline is the same baseline that was applicable to the project during the first crediting period and has not changed for the second crediting period.

The project reduces the amount of greenhouse gases (GHGs) emitted through use of charcoal as the cooking fuel, by introducing widespread use of efficient charcoal stoves. Therefore, in the absence of the project activity, the baseline scenario would be continued use of less efficient charcoal cook stoves by households for meeting similar thermal energy needs.

A paired sampling approach was undertaken in July And august 2018 for Project and Baseline Fuel tests in Kenya.

FT Sampling Design

To determine the BFT and PFT, the project carried a Kitchen Fuel testing in three locations. This exercise was meant to establish the real life fuel usage trends in households who own and are using Jikokoa Stoves and also compare with those who have never used the JikoKoa before.

The sampling design implanted following the guidelines

i. Objectives and Reliability Requirements: to determine the average amount of project technology fuel savings by measuring mean values for Pb,y (quantity of fuel that is consumed in baseline scenario b, during year y) and Pp,y (quantity of fuel that is consumed in project scenario p, during year y)

ii. Target population: The targeted population for those who use the stove were existing Jikokoa customers and were identified through the detailed customer database which is managed by the project developer, while those who are using baseline stoves where identified though household visiting where KT scouts were used to locate them and ask for their permission to be enrolled in the KT exercise

iii. Sampling Method: The project sells stoves all over Kenya and majority of them are sold within the urban and peri-urban areas. Due to nature of the sales and the distribution patterns of the active stove users, the project proponent had to take into consideration several conditions while determining the setup of the KT. These factors were, the cost of carrying out the KT, the logistics of user identification, access, their availability and geographical location. In considering the above, the PP selected three regions from where the KT was to be carried out (i.e. Kiambu, Machakos and Murang'a). These regions represent areas where a

lot of stoves have been sold and they neighbor Nairobi, hence they are considered periurban areas. The PFT users who are within these regions and whose stoves are active (3 years and below) were selected randomly from the project database. the database was clustered based on this regions and users falling within these regions and whose stoves are active were filtered and selected randomly. However, for the BFT users, the survey enumerators were requested to scout them physically and once found, they were recruited. Those who were enlisted to the KT were located near the project stove users, hence they were all located within the project boundary.

iv. Sample Size and Desired Precision: Sample size will be sufficient to meet 90/30 confidence/precision (90/10 for single sample tests). The project selected 104 paired sample. This samples met the 90/30 rule.

v. Sampling Frame:

i. BFT: Representative households within the project boundary. These households were randomly scouted and recruited into the KT. The survey enumerators having identified the PFT, they then asked around for households who are not using the project stove and recruited them after explaining what the KT entails and seeking their consent.

ii. PFT: DCD for project scenario P as defined by sales date, technology type, and end-user information. Project stove users who were in the database and whose stoves were within the age of 1- 3 years old.

In Kenya, there is no seasonal variation in cooking patterns over different months of the year. Most communities have specific menu which they prepare year-round. As such, the timing of KT did not have to take care of any seasonal variation. Protocol The KT sampled only project users who had activated their warranty since their contacts were available in the Ecomobile system managed by the PP. The identified users were provided with charcoal to use for the entire period of the KT. Once the households were identified to participate in the KT, they were called and informed about the exercise and their consent and availability discussed. They were then visited by the KT enumerators on first day and a questionnaire was administered and also, they KT launched where each household was given charcoal and told on what to do. Each day, the enumerators visited the household and weight their remaining charcoal and determined the quantities they had used. This was repeated for the entire period of the KT (3 days with project stove and 3 days with baseline stove). The KT used a paired sample where half of the respondents were project stove users while the other half were those who were not using the project stove. The users where given fuel (charcoal) which was pre-weighed and advised to cook normally. They were also informed that enumerators will visit them daily to take records on fuel consumption. Having used their respective stove for 3 days, they swapped to the other stove (i.e. KCJ switched to start using Jikokoa and those who were using Jikokoa switched to using baseline stove (KCJ).

Sample size.
The project methodology prescribes a minimum sample size of 30 users. For this exercise, the project used a sample of 104 households. This sample size was enough to meet the precisions level of 90/10. Household Identification The project used the contact details of the sampled project stove users from the warranty activation system which contains the details of the users. They were then telephoned and requested for their participation. For those who were not using the project stove, they were randomly identified through scouting where those who were using the stove were requested to help in identifying those who have not bought it. It was easy for the selected users to recommend them since they always have interactions with them and some of them have expressed willingness to buy one should they get enough money.

From the surveys during the KT, it was established that the charcoal availability has gone down due to charcoal ban in the country. Due to this, the household fuel consumption trends has changed and now the households are using less and less charcoal due to their lack of availability and price increase.

The average charcoal consumption per household in the baseline was 1.6335kg/hh/day[9]. This was validated and verified in the second Monitoring period. In addition, Gold Standard Foundation has approved the use of these results from the baseline via email communication dated 17 June 2022 which stated:

> *"Have you conducted any survey for the baseline KPT in the second crediting period and derived any value?*
>
> *a. If yes, then use the most conservative one out of the value fixed at design certification renewal and the value derived from baseline KPT"*

The Baseline fuel consumption applied is the most conservative value as compared to the fixed value applied in CP1.

B.5. Demonstration of additionality

[9] See support Baseline Raw data file validated and then approved by Sustaincert

The project reduces the amount of greenhouse gases (GHGs) emitted through production and use of charcoal as cooking fuels, by introducing widespread use of efficient charcoal which replace existing inefficient stoves.

The project was registered with the Gold Standard and has been utilising Carbon finance to run the project and improve on the sales and up-scaling dissemination of the Burn stoves. The project has received carbon support for the past 7 years (first crediting period) and it has continued to expand considerably in its distribution scale. All the conditions which under which the project operates has not changed overtime and they still remain the same.

In line with Annex Z of Gold Standard procedures for the renewal of a crediting period, part II of the procedures i.e. 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 has therefore demonstrated that the current baseline as registered PDD is still valid and additionality of the project therefore is not to be demonstrated.

Specify the methodology, activity requirement or product requirement that establishes deemed additionality for the proposed project (including the version number and the specific paragraph, if applicable).	Community Services Activity Requirements (Version 1.2), paragraph 4.1.9: "Projects that meet any of the following criteria are considered as deemed additional and therefore are not required to prove Financial Additionality at the time of Design Certification: a) Positive list (Annex B) b) Projects located in LDC, SIDS, LLDC
Describe how the proposed project meets the criteria for deemed additionality.	The project falls under the positive list (Annex B, item 1.1.3). The project is composed of isolated units where the users of the technology are households and where each unit results in <= 1,800 MWh thermal energy savings per year (see worksheet tab 'Th.Energy savings unit level' of the ER calculation excel spreadsheet). Hence paragraph 4.1.9, (b) as per the Community Services Activity Requirements is met.

B.5.1 Prior Consideration

>>

N/A

B.5.2 Ongoing Financial Need

>>

N/A

B.6. Sustainable Development Goals (SDG) outcomes

Relevant Target/Indicator for each of the three SDGs

Sustainable Development Goals Targeted	Most relevant SDG Target	SDG Impact Indicator (Proposed or SDG Indicator)
Goal 1. End poverty in all its forms everywhere Target	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 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.	Monetary savings related to the purchase of charcoal in the project scenario
Goal 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 Indoor air pollution caused by combustion of charcoal fuel will be	Perceived air quality

	reduced since the households will be using energy efficient jikos which require less charcoal and produce less soot.	
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Target 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university. The project will provide training opportunities for men and women in Kenya.	Number of people receiving skill development training
Goal 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. The use of thermally efficient cookstoves reduces the number of hours spent, especially by women, in the preparation of meals.	Average time saving associated with cooking in the project scenario
Goal 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 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	Number of sold/distributed ICS in use

	fundamental shift in access to modern cooking practices.	
Goal 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. 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. Jobs opportunities will be open to both interested men and women without any form of bias or discrimination.	Total number of jobs created
Goal 13. Take urgent action to combat climate change and its impact	Target 13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning Efficient cook stoves leads 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.	Emission Reductions
Goal 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 15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world The collective charcoal savings realized from the project activity will significantly contribute to a reduction in the total non-	Total non-renewable biomass saved

	renewable biomass consumed in country for domestic cooking requirements.	

B.6.1 Explanation of methodological choices/approaches for estimating the SDG Impact

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The Project follows the methodological steps for estimating emission reduction as outlined in the Gold Standard Methodology, "Technologies and Practices to Displace Decentralized Thermal Energy Consumption" (version 3.1).

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

As per the methodology, 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 in Section B.6.3

B.6.2 Data and parameters fixed ex ante

SDG13

Data/parameter	$EF_{b,CO2}$
Unit	tCO2/TJ
Description	CO2 emission factor arising from use of fuels in baseline scenario
Source of data	IPCC Default emission factor
Value(s) applied	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 CO2 emission factor of the wood fuel

Additional comment	Term can include a combination of emission factors from fuel production, transport, and use.

Data/parameter	$EF_{b,nonCO2}$
Unit	tCO2/TJ
Description	Non-CO2 emission factor arising from use of fuels in baseline scenario
Source of data	IPCC defaults are applied in conjunction with credible published literature
Value(s) applied	9.46
Choice of data or Measurement methods and procedures	IPCC Default Value
Purpose of data	To determine the non-CO2 emission factor arising from use of fuels in baseline scenario
Additional comment	Can include a combination of emission factors from fuel production, transport, and use.

Data/parameter	$EF_{p,CO2}$
Unit	tCO_2/TJ
Description	CO2 emission factor arising from use of fuels in baseline scenario
Source of data	IPCC Default emission factor
Value(s) applied	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 CO2 emission factor of the wood fuel
Additional comment	Can include a combination of emission factors from fuel production, transport, and use. This has same value as $EF_{baseline}$ in projects which reduce use of the same fuel.

Data/parameter	$EF_{p,\ nonCO2}$
Unit	tCO2/TJ
Description	Non-CO2 emission factor arising from use of fuels in project scenario
Source of data	IPCC defaults are applied in conjunction with credible published literature
Value(s) applied	9.46
Choice of data or Measurement methods and procedures	IPCC Default value
Purpose of data	To determine the CH4 and N2O emission factor of the wood fuel
Additional comment	Can include a combination of emission factors from fuel production, transport, and use. This has same value as $EF_{baseline}$ in projects which reduce use of the same fuel.

Data/parameter	NCV_b
Unit	TJ/ton
Description	Net calorific value of wood fuel used in the baseline
Source of data	IPCC 2006 defaults values
Value(s) applied	0.015

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 wood fuel used in the baseline
Additional comment	If EF is in units of tCO2/t_fuel, remove NCV term from emission calculations. A wood to charcoal conversion factor of 6 is used.

Data/parameter	NCV_p
Unit	TJ/ton
Description	Net calorific value of wood fuel used in the project
Source of data	IPCC 2006 defaults values
Value(s) applied	0.015
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 net calorific factor of wood fuel
Additional comment	This has same value as $NCV_{baseline}$ in projects which reduce use of the same fuel. A wood to charcoal conversion factor of 6 is used.

Data/parameter	$f_{NRB,i,y}$
Unit	Fractional non-renewability
Description	Non-renewability status of woody biomass fuel in scenario i during year y
Source of data	C4EcoSolutions 3rd party report
Value(s) applied	0.97

Choice of data or Measurement methods and procedures	f_{NRB} analysis
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

Data / Parameter	$P_{b,y}$
Unit	t/household-year
Description	Quantity of charcoal (in firewood equivalent terms) that is consumed in baseline scenario b during year y
Source of data	Baseline FT or default baseline fuelwood consumption, baseline FT updates, and any applicable adjustment factors
Value(s) applied	3.58
Choice of data or Measurement methods and procedures	KT measurements using weighing scale and moisture meter Digital Moisture Detector- Wood moisture Wood range- 4-75% Accuracy- ± 0.5% Weighing scale 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 1.6335 kg/hh/day . This was validated and verified in the second Monitoring period of the second crediting cycle. In addition, Gold Standard has approved

	the use of these results from the baseline via email communication dated 17 June 2022 which stated: *"Have you conducted any survey for the baseline KPT in the second crediting period and derived any value?* *a. If yes, then use the most conservative one out of the value fixed at design certification renewal and the value derived from baseline KPT"* The Baseline fuel consumption applied is the most conservative value as compared to the fixed value applied in CP1.

B.6.3 Ex ante estimation of SDG Impact

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Emission reductions are to be calculated per an appliance and based on the number of days the stove is in use within the specified period of monitoring.

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 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 or remain in the database for crediting until the moment a significant drop in usage rate is observed.

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. The overall GHG reductions achieved by the project activity in year y are calculated as follows:

Where:

$$ER_y = \sum_{b,p} (N_{p,y} * U_{p,y} * P_{p,b,y} * NCV_{b,\,fuel} * (f_{NRB,b,\,y} * EF_{fuel,\,CO2} + EF_{fuel,\,nonCO2})) - \sum LE_{p,y} \quad (1)$$

ERy 2.58Emission reduction per stove per year (tCO2e/year)

∑b,p 1 Sum over all relevant (project p) couples

Np,y 365 Cumulative number of project technology-days included in the project database for project scenario p against baseline scenario b in year y

Up,y 90% Cumulative usage rate for technologies in project scenario p in year y, based on cumulative adoption rate and drop off rate revealed by usage surveys (fraction)

Pp,b,y 1.6151Specific fuel savings for an individual technology of project p against an individual technology of baseline b in year y, in tons/household/year, as derived from the statistical analysis of the data collected from the field tests

f NRB,b, y 0.97 Fraction of biomass used in year y for baseline scenario b that can be established as non-renewable biomass

NCVb,fuel 0.015 Net calorific value of the fuel that is substituted or reduced. (IPCC default for firewood fuel, TJ/ton)

EFb,fuel,CO2 112 CO2 emission factor of the fuel that is reduced. (IPCC default for charcoal fuel, 112 tCO2/TJ)

EFb,fuel,nonCO2 9.46 Non-CO2 emission factor of the fuel that is reduced

LEp,y 0 Leakage for project scenario p in year y (tCO2e/yr)

Baseline Emission estimation are conducted as follows:

BEb,y = Bb,y * ((f NRB, y * EFb,fuel, CO2) + EFb,fuel, nonCO2) * NCV b, fuel (3)

Where:

BEb,y 5.70 Emissions for baseline scenario b during the year y in tCO2e

Bb,y 3.58 Quantity of charcoal (in firewood equivalent terms) consumed in baseline scenario b during year y, in tons, as per by-default factors (cases with baseline performance field test only)

fNRB,, y 0.97 Fraction of biomass used during year y for the considered scenario that can be established as non-renewable biomass (drop this term from the equation when using a fossil fuel baseline scenario)

NCVb,fuel 0.015 NCVb,fuel Net calorific value of the fuel that is substituted or reduced (IPCC default for wood fuel, 0.015 TJ/ton)

EFb,fuel,CO2 112 EFb,fuel,CO2 CO2 emission factor of the fuel that is substituted or reduced. 112 tCO2/TJ for Wood/Wood Waste, or the IPCC default value of other relevant fuel

EFb,fuel,nonCO2 9.46 EFb,fuel,nonCO2 Non-CO2 emission factor of the fuel that is substituted or reduced

Project emission estimations are conducted as follows:

PEp,y = Bp,y * ((f NRB, y * EFp,fuel, CO2) + EFp,fuel, nonCO2) * NCVp, fuel (5)

Where:

PEp,y 3.13 Emissions for project scenario p during year y in tCO2e

Bp,y 1.962 Quantity of charcoal (in firewood equivalent terms) consumed in project scenario p during year y, in tons, and as derived from the statistical analysis conducted on the data collected during the project performance field tests (cases when no baseline performance field test are performed, e.g. by-default baseline factors)

fNRB, y 0.97 Fraction of biomass used during year y that can be established as non-renewable biomass (drop this term from the equation when using a fossil fuel baseline scenario)

NCVp,fuel 0.015 Net calorific value of the project fuel (IPCC default for wood fuel, 0.015 TJ/ton). This is equal to the baseline fuel NCV in projects which use the same fuel.

EFp,fuel,CO2 112 CO2 emission factor of the project fuel. This is equal to the baseline fuel EF in projects which use the same fuel, 112 tCO2/TJ for Wood/Wood Waste, or the IPCC default value of other relevant fuel

EFp,fuel,nonCO2 9.46 Non-CO2 emission factor of the project fuel. This is equal to the baseline fuel EF in projects which use the same fuel.

Therefore, the overall GHG reductions achieved by the project activity are then estimates as follows:

$ERy = \sum BEb,y - \sum PEp,y - \sum LEp,y$ (7)

Where:

ERy 2.58 Emission reduction for total project activity in year y (tCO2e/yr)

BEp,y 5.70 Baseline emissions for baseline scenario b in year y (tCO2e/yr)

PEb,y 3.13 Project emissions for project scenario p in year y (tCO2e/yr)

LEp,y 0.00 Leakage for project scenario p in year y (tCO2e/yr)

B.6.4 Summary of ex ante estimates of each SDG Impact

SDG 13

Year	Baseline estimate	Project estimate	Net benefit
Year 1	477,565.78	261,952.21	215,613.57
Year 2	828,130.75	454,242.52	373,888.23
Year 3	1,539,893.43	844,655.35	695,238.08
Year 4	2,156,596.58	1,182,926.56	973,670.02
Year 5	2,456,434.62	1,347,392.36	1,109,042.26
Year 6	2,692,899.64	1,477,097.08	1,215,802.56
Year 7	2,865,991.64	1,572,040.72	1,293,950.92
Total	**13,017,512.44**	**7,140,306.79**	**5,877,205.65**
Total number of crediting years			
Annual average over the crediting period	1,859,644.63	1,020,043.83	839,600.81

SDG 1

Less money is spent for purchasing charcoal in the project scenario compared to the baseline scenario. It is estimated that households achieve monetary savings of around USD USD 8,353,697.34[10] annually on average.

Year	Baseline estimate (USD)	Project estimate (USD)	Net benefit (USD)
Year 1	USD 19,284,309.18	USD 9,519,967.51	USD 7,835,910.76
Year 2	USD 16,123,037.64	USD 7,517,175.06	USD 6,187,406.93
Year 3	USD 34,546,898.73	USD 15,159,606.37	USD 12,477,912.61

[10] This translates to USD 77.99 financial savings per household per year. See Ex Ante Excel sheet tab SDG estimations

Year 4	USD 34,546,898.73	USD 14,212,130.97	USD 11,698,043.07
Year 5	USD 23,031,265.82	USD 8,843,103.72	USD 7,278,782.36
Year 6	USD 23,031,265.82	USD 8,211,453.45	USD 6,758,869.33
Year 7	USD 23,031,265.82	USD 7,579,803.19	USD 6,238,956.31
Total	USD 173,594,941.73	USD 71,043,240.27	USD 58,475,881.36
Total number of crediting years		**7**	
Annual average over the crediting period	**USD 24,799,277.39**	**USD 10,149,034.32**	**USD 8,353,697.34**

SDG 3

Less pollution-related inconveniences (such as smoke levels, itchy eyes and breathing problems) in the project scenario compared to the baseline scenario. It is estimated that at least 96%[11] of households perceive improved air quality.

Year	Baseline estimate (% households)	Project estimate (% households)	Net benefit (% households)
Year 1	0%	96%	96%
Year 2	0%	96%	96%
Year 3	0%	96%	96%
Year 4	0%	96%	96%
Year 5	0%	96%	96%

[11] Source: Usage Monitoring Surveys MPII

Year 6	0%	96%	96%
Year 7	0%	96%	96%
Total	**NA**	**NA**	**NA**
Total number of crediting years		**7**	
Annual average over the crediting period	**0%**	**96%**	**96%**

SDG 4

The training opportunities availed by way of implementation of the project activity would not be realized in its absence. It is estimated that the project activity has net positive impact.

Year	Baseline estimate (Number of people receiving training)	Project estimate (Number of people receiving training)	Net benefit (Number of people receiving training)
Year 1	0	50	50
Year 2	0	50	50
Year 2	0	50	50
Year 4	0	50	50
Year 5	0	50	50
Year 6	0	50	50
Year 7	0	50	50
Annual Average over the crediting period	**0**	**50**	**50**

SDG 5

The fuel savings projected to be experienced in the project scenario are not present in the baseline. The time savings in the project scenario are a net benefit.

Year	Baseline estimate (Minutes)	Project estimate (Minutes)	Net benefit (Minutes)
Year 1	0	25	25
Year 2	0	25	25
Year 2	0	25	25
Year 4	0	25	25
Year 5	0	25	25
Year 6	0	25	25
Year 7	0	25	25
Annual Average over the Crediting Period	**0**	**25**	**25**

SDG 7

It is estimated that an average of 293,444 ICS will be distributed and in use in the crediting period, assuming a 90%[12] usage rate in year 1. The usage rate is assumed to drop by 5% every subsequent year after year 1.

Year	Baseline estimate (ICS in use)	Project estimate (ICS in use)	Net benefit (ICS in use)
Year 1	0	75,358	75,358
Year 2	0	130,676	130,676
Year 2	0	242,989	242,989
Year 4	0	340,302	340,302

[12] In the Ex-Ante, it is assumed that Usage rate of Year 1 will be 90%. The Usage rates in the subsequent years drops by 5%. The actual usage rates will be determined via the Usage Surveys.

Year 5	0	387,615	387,615
Year 6	0	424,928	424,928
Year 7	0	452,242	452,242
Total	**NA**	**NA**	**NA**
Total number of crediting years		**7**	
Annual average over the crediting period	**0**	**293,444**	**293,444**

SDG 8

It is estimated that the project creates at least 242 jobs over 5 years (1st crediting period).

Year	Baseline estimate (Jobs)	Project estimate(Jobs)	Net benefit (Jobs)
Year 1	0	242	242
Year 2	0	242	242
Year 3	0	242	242
Year 4	0	242	242
Year 5	0	242	242
Year 6	0	242	242
Year 7	0	242	242
Total	**0**	242	242
Total number of crediting years		**7**	
Annual average over the crediting period	**0**	**242**	**242**

SDG 15

The non-renewable biomass savings are created in the project scenario as a function of reduced charcoal consumption. The estimates of the NRB savings presented below are a net benefit.

Year	Baseline estimate (Tons)	Project estimate (Tons)	Net benefit (Tons)
Year 1	290,550.26	143,434.18	118,061.06
Year 2	242,920.43	113,258.77	98,707.34
Year 2	520,506.61	228,404.74	211,500.62
Year 4	520,506.61	214,129.44	211,500.62
Year 5	347,004.41	133,236.10	141,000.41
Year 6	347,004.41	123,719.23	141,000.41
Year 7	347,004.41	114,202.37	141,000.41
Annual Average in the Crediting Period	**373,642.45**	**152,912.12**	**151,824.41**

Methodological approaches related to SDG 1

The project activity is defined by the distribution of ICS technologies to replace the use of inefficient baseline technologies for households in Kenya. The ICS technologies use significantly less charcoal when compared to the baseline scenario.
The reduced charcoal consumption will reduce the household expenditure associated with domestic energy. In so doing, the project will increase access to efficient modern

cooking technologies (basic services) with significant improvements to the end-user's quality of life.

The specific SDG 1 impact to be assessed in the project scenario is the monetary savings related to the purchase of charcoal in the project scenario. To calculate the project impact on SDG 1, the average fuel savings for each household (the monitored value **Pp,b,y**) shall be multiplied by the prevailing price (per kg) for charcoal.

Fuel savings calculated in the ex-ante is based on the difference between average baseline fuel consumption per household[13] of charcoal and average of Project fuel consumption in the project scenario[14]. It is assumed that the cost of 1 kg of charcoal at the time of the baseline KPTs was KES 45[15].

Methodological approaches related to SDG 3

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 value applied in the Ex Ante is 96%[16].

Methodological approaches related to SDG 4

The successful implementation of the project will require multiple training efforts to ensure adequate implementation capacity. These training sessions, availed primarily

[13] Source: Baseline KPTs conducted in 2018
[14] Source: Project KPTs conducted in 2022, MPII of CPII
[15] https://www.the-star.co.ke/business/kenya/2022-03-10-it-is-a-charcoal-and-gas-balance-as-fuel-costs-rise/
[16] Source: MPII, CPII Usage Monitoring Surveys

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.

Methodological approaches related to SDG 5

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 25 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.

Methodological approaches related to SDG 7

The project design in 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.

$N_{p,y}$[17] * $U_{p,y}$

Where:
$N_{p,y}$ = Number of stoves distributed
$U_{p,y}$[18] = Usage rate

Methodological approaches related to SDG 8

The implementation of the project activity will require the recruitment and employment of varied personnel.

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.

Methodological approaches related to SDG 15

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 (97%). The project will deploy at least three hundred thousand ICSs and as such, the project will have significant effect on reduced non-renewable biomass consumption rates in the country.

The specific SDG 15 impact to be assessed is the total non-renewable biomass saved. The average fuel savings for each household (the monitored value **Pp,b,y**) shall be

[17] Assumed total stove distribution count Ex Ante
[18] Assumed Usage rate Ex Ante

multiplied by the discounted number of operational ICSs (Np,y * Up,y) and thereafter multiplied by the nonrenewable Biomass fraction in the country (f NRB,b, y).

Nonrenewable Biomass saved = Pp,b,y * Np,y * Up,y * f NRB,b, y

Where:
Technologies in the project database for project scenario p through year y (Np,y)
Npy Year 1 = 83,731
Npy Year 2 = 70,005
Npy Year 3 = 150,000
Npy Year 4 = 150,000
Npy Year 5 = 100,000
Npy Year 6 = 100,000
Npy Year 7 = 100,000

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

Upy Year 1 =90%[19]
Upy Year 2 = 85%
Upy Year 3 = 80%
Upy Year 4 = 75%
Upy Year 5 = 70%
Upy Year 6 = 65%
Upy Year 7 = 60%

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

[19] Usage rate in year 1 is assumed to be 90% is and this decreases by 5% each subsequent years. The drop off rate is based on BURN's observation from previous monitoring periods, to be confirmed via actual Monitoring surveys

analysis of the data collected from the field tests (Pp,b,y) = 1.6151

Fraction of biomass used in year y for baseline scenario b that can be established as non-renewable biomass (fNRB,b,y) = 0.97

NRB saved = 151,824.41

The following sources are used:
P,b,py = Baseline KPTs 2018, Project KPTs MPII
N,p,y = Assumed Stove distribution count Ex Ante
FNRB = FNRB report [20]
U,p,y = Assumed Usage rate in the Ex Ante[21]

Methodological approaches related to SDG 13

The outcomes of the SDG 13 will be measured as reduced CO2e emissions applying the Gold Standard TPDDTEC methodology described below. The specific SDG 13 impact to be assessed is the Emission Reductions.

Emission reductions are to be calculated per an appliance and based on the number of days the stove is in use within the specified period of monitoring.

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. The overall GHG reductions achieved by the project activity in year y are calculated as follows:

Where:

$$ER_y = \sum_{b,p} (N_{p,y} * U_{p,y} * P_{p,b,y} * NCV_{b,\,fuel} * (f_{NRB,b,\,y} * EF_{fuel,\,CO2} + EF_{fuel,\,nonCO2})) - \sum LE_{p,y} \quad \textbf{(1)}$$

Where

[20] Kenya_fNRB Report_23 January 2021
[21] Actual values to be provided via Usage monitoring surveys

ERy = Emission reduction per stove per year (tCO2e/year)

∑b,p 1 = Sum over all relevant (project p) couples

Np,y = Cumulative number of project technology-days included in the project database for project scenario p against baseline scenario b in year y

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

Pp,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

f NRB,b, y = Fraction of biomass used in year y for baseline scenario b that can be established as non-renewable biomass

NCVb,fuel = Net calorific value of the fuel that is substituted or reduced.

EFb,fuel,CO2 = CO2 emission factor of the fuel that is reduced.

EFb,fuel,nonCO2 = Non-CO2 emission factor of the fuel that is reduced

LEp,y = Leakage for project scenario p in year y (tCO2e/yr)

Baseline Emission estimation are conducted as follows:

BEb,y = Bb,y * ((f NRB, y * EFb,fuel, CO2) + EFb,fuel, nonCO2) * NCV b, fuel (3)

Where:

BEb,y = Emissions for baseline scenario b during the year y in tCO2e

Bb,y = Quantity of charcoal (in firewood equivalent terms) consumed in baseline scenario b during year y, in tons,

fNRB,, y = Fraction of biomass used during year y for the considered scenario that can be established as non-renewable biomass (drop this term from the equation when using a fossil fuel baseline scenario)

NCVb,fuel = NCVb,fuel Net calorific value of the fuel that is substituted or reduced

EFb,fuel,CO2 = EFb,fuel,CO2 CO2 emission factor of the fuel that is substituted or reduced.

EFb,fuel,nonCO2 = EFb,fuel,nonCO2 Non-CO2 emission factor of the fuel that is substituted or reduced

Project emission estimations are conducted as follows:

PEp,y = Bp,y * ((f NRB, y * EFp,fuel, CO2) + EFp,fuel, nonCO2) * NCVp, fuel (5)

Where:

PEp,y = Emissions for project scenario p during year y in tCO2e

Bp,y = Quantity of fuel consumed in project scenario p during year y, in tons, and as derived from the statistical analysis conducted on the data collected during the project performance field tests (cases when no baseline performance field test are performed, e.g. by-default baseline factors)

fNRB, y= Fraction of biomass used during year y that can be established as non-renewable biomass (drop this term from the equation when using a fossil fuel baseline scenario)

NCVp,fuel = Net calorific value of the project fuel.

EFp,fuel,CO2 = CO2 emission factor of the project fuel. This is equal to the baseline fuel EF in projects which use the same fuel,

EFp,fuel,nonCO2 = Non-CO2 emission factor of the project fuel. This is equal to the baseline fuel EF in projects which use the same fuel.

Therefore, the overall GHG reductions achieved by the project activity are then estimates as follows:

ERy=∑BEb,y−∑PEp,y−∑LEp,y

Where:

ERy =Emission reductions for total project activity in year y (tCO2e/yr)

BEb,y = Baseline emissions for baseline scenario b during the year y (tCO2e/yr)

PEp,y = Project emissions for project scenario p during year y (tCO2e/yer)

LEp,y = Leakage for project scenario p in year y (tCO2e/yr)

B.7. Monitoring plan

B.7.1 Data and parameters to be monitored

SDG 13

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	1.962
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	Transparent data analysis and reporting
Purpose of data	Calculation of project emission reductions
Additional comment	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

Data / Parameter	$U_{p,y}$
Unit	Percentage
Description	Usage rate in project scenario p during year y
Source of data	Annual Usage Survey

Value(s) applied	90[22]
Measurement methods and procedures	GS requirements on Usage will be followed
Monitoring frequency	KT Measurements
QA/QC procedures	Annual or more frequently, in all cases on time for any request for issuance
Purpose of data	Calculation of emission reductions
Additional comment	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' 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 or remain in the database for crediting until the moment a significant drop in usage rate is observed.

Data / Parameter	$N_{p,y}$
Unit	Project technologies credited (units)

[22] It is assumed in Year 1 of the CP, usage rate will be 90%, and this will drop by 5% in each new subsequent year in the CP

Description	Technologies in the project database for project scenario p through year y
Source of data	Total sales record
Value(s) applied	753,736
Measurement methods and procedures	Project database records
Monitoring frequency	Continuous
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	To calculate the number project scenario P through year y.
Additional comment	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 stoves will operate in any given monitoring period will be determined and used for ER computation.

Data / Parameter	$LE_{p,y}$
Unit	tCO2e per year
Description	Leakage in project scenario p during year y
Source of data	Baseline and monitoring surveys
Value(s) applied	0
Measurement methods and procedures	KT measurements
Monitoring frequency	Every two years
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	To determine leakage in project scenario p during year y

Additional comment	Aggregate leakage can be assessed for multiple project scenarios, if 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	USD 8,353,697.34
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

SDG 3

Data / Parameter	Perceived Air quality
Unit	-
Description	Smoke levels and particulates
Source of data	Survey

Value(s) applied	96%
Measurement methods and procedures	Carrying out a survey through in person site visit of sampled households and telephone surveys.
Monitoring frequency	Biennial
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 comment	This parameter can be reported based on responded comments and is not measured directly

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	50
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 comment	

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	25
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 comment	

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	**293,444**
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 comment	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

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	242
Measurement methods and procedures	Direct measurement based on employment numbers of those employed directly by the project
Monitoring frequency	Annual - Reporting on sustainable development of the project -
QA/QC procedures	Average hourly earnings of female and male employees, by occupation, age and persons with disabilities
Purpose of data	Numbers
Additional comments	Number of people directly employed by the project

SDG 13

Data / Parameter	Number of people/households with access to the energy efficient cook stoves and the usage rates of efficient cook stoves.
Unit	Number of stove users adjusted for Usage rate
Description	Number of stove users adjusted for Usage rate
Source of data	Database and Usage survey records
Value(s) applied	839,600.81
Measurement methods and procedures	Usage Surveys
Monitoring frequency	Annual
QA/QC procedures	Check of database to ensure consistency of reported data Reporting on sustainable development of the project -

Purpose of data	Reporting on SDG Impacts of the projects
Additional comments	

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
Source of data	Project database, Monitoring & Usage Surveys
Value(s) applied	151,824.41
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 comment	

B.7.2 Sampling plan

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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.

Representativeness

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

Sample Sizing and Statistical Estimate of the Fuel or Emission Savings

All surveys to be carried out by the project proponent for fuel usage trends will involve paired samples.
Since the project database has thousands of stoves in operation, the minimum sample size should be 100.
Sample sizes drawn will need to be larger since there is a likelihood of a lot of variations in the amounts of fuel used and saved. The project proponent assumes a Coefficient of Variation (COV) of 1.8, thereby giving a sample size of 101 respondents. However, in order to ensure that drop-out cases are taken into consideration, the samples to be drawn will be slightly more by 10% to take care of those who drop out and any outliers.

Table 1: Sample sizes in cases of PAIRED samples (households sampled in the baseline and the project situation are the same).

COV	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2
90/10 precision	45	53	61	70	80	90	101	112	124

The baseline and project field test data must be analysed in combination to estimate the average annual emission reductions or average fuel savings per unit. There are two valid options for the statistical analysis:

90/30 rule: When the sample size is large enough to satisfy the "90/30 rule," i.e. the endpoints of the 90% confidence interval lie within +/- 30% of the estimated mean, overall emission reductions can be calculated on the basis of the estimated MEAN annual emission reduction per unit or MEAN fuel annual savings per unit.

90% confidence rule: When the sample sizes are such that the "90/30 rule" is not complied with, the emission or fuel saving result is not the mean (or average) test result, but a lower value, i.e. the LOWER BOUND of the one-sided 90% confidence interval.
The project proponent will employ either of the above option depending on the results from the samples.

B.7.3 Other elements of monitoring plan

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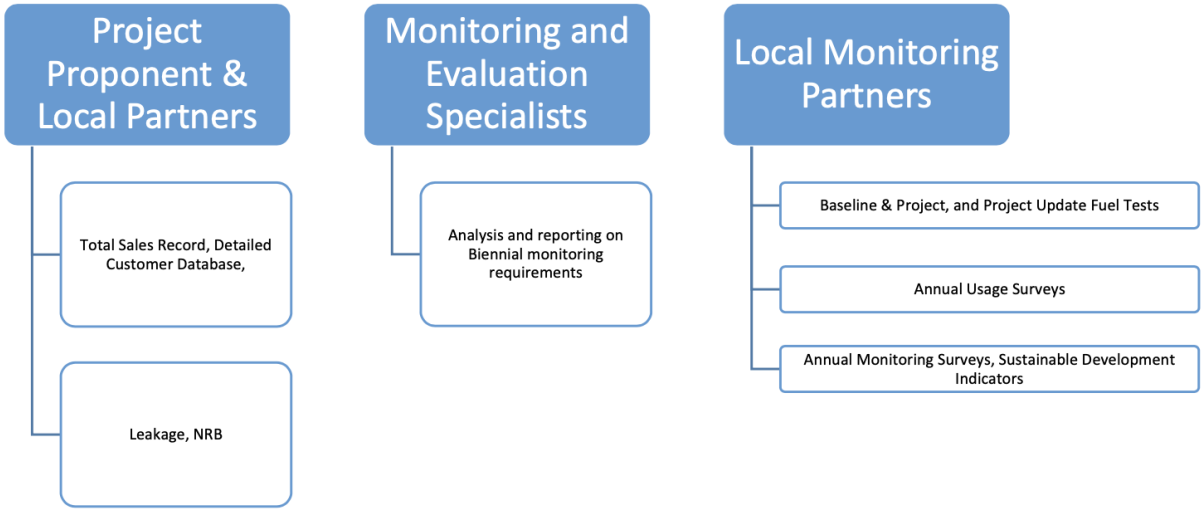
Organisational structure

The completion of all monitoring tasks will be carried out by Ecoa climate capital. Implementation of monitoring tasks will be performed according to the following diagram:



Management

A senior member of staff at Ecoa climate capital will be appointed Carbon Manager who will manage all monitoring requirements for the project. All documentation will be consolidated within the auspices of Ecoal climate capital. Ecoa Climate Capital is also responsible for organising and maintaining the Detailed Customer Database (DCD), Total Sales Record/Installation Record (TSR/IR) database.

The following on-going monitoring is conducted for the project activity. The monitoring activity provides a framework for project preparation and monitoring processes that will be undertaken, as required by the GS rules. This schedule takes into account the key parameters that are needed during the monitoring periods of the project. All required monitoring and documentation will be implemented, reported, consolidated and managed by the project proponent or a qualified expert partner to meet verification requirements.

The monitoring plan to be followed is outlined as follows:

1. Monitoring Procedure:

The project maintains sales record database consisting of SMS based customer activated warranties. The database is electronic and it has key parameters i.e. the serial number of the stove, the contact details of the customer and date of purchase. The project maintains a total sales records and project databases forms the basis for

which all the previous verifications are based. This is the same database which will be utilised in future verifications. Continuous monitoring surveys and usage surveys will be conducted annually while a leakage assessment is to be conducted every two years to update monitoring parameters over time.

The leakage assessment will involve establishing if the project has in any way lead to increase in emissions outside the project boundary and if the increase will be directly be attributed to the project activity. The leakage assessment is done below:

Source	Risk	Justification
The displaced baseline technologies are reused outside the project boundary in place of lower emitting technology or in a manner suggesting more usage than would have occurred in the absence of the project	Very low	The displaced baseline technology is the most common and easily available cooking method in the project area and most of households usually sale off the old stove as scrap metal upon purchase of new efficient stove. It is highly unlikely that displaced baseline technology is reused outside the project boundary.
The non-renewable biomass or fossil fuels saved under the project activity are used by non-project users who previously used lower emitting energy sources	Very low	As per the baseline survey, most household rely either on charcoal for cooking and those who have LPG use it in the morning to warm water of make tea even in the baseline scenario and project scenario. Therefore the LPG user will not switch back to charcoal due to the project activity, since they still use baseline stoves as the main cooking device and use LPG as convenient stove in the morning.
The project significantly impacts the NRB fraction within an area where other CDM or VER project activities account for NRB fraction in their baseline scenario	Very low	Demand for charcoal in the country is rising and due to rising demand. Other alternative forms of cleaner fuels are also becoming out of reach for ordinary people, due to rise of international oil price. As more people get urbanised, the demand for wood and charcoal will keep rising and this will impact the NRB factor of the country. Therefore the share of NRB will still be high and the project will not significantly impact it leading to other projects to account for it.

The project population compensates for loss of the space heating effect of inefficient technology by adopting some other form of heating or by retaining some use of inefficient technology	No Risk	The climate conditions and weather in Kenya does not allow for space or room heating. In highland areas where space heating might be required, the project will establish this during its annual surveys.
By virtue of promotion and marketing of a Burn Stove, the project stimulates substitution within households who commonly used a technology with relatively lower emissions, in cases where such a trend is not eligible as an evolving baseline	Very low	The Burn stove project target group is households using charcoal It is highly unlikely that households using LPG or electricity for cooking would use project technology. Thus, there is no risk for this form of leakage.

The following parameters will be assessed under leakage during KT to confirm if the above risk assumptions are valid or the project has created a leakage situation:

1. Increasing consumption of fuel savings associated with higher efficiency stoves
2. Use of a high emission fuel for cooking outside the project boundary
3. Substitution of a cooking stove type with relatively high emissions stove by

   households who commonly use a cooking fuel or stove type with relatively lower

   emissions

4. Respond to the loss of space heating effect of inefficient cook-stoves by adopting

   some other form of heating or by retaining some use of inefficient stoves

5. The traditional stoves displaced may be re-used outside the boundary

A. TotalSalesRecord/Projectdatabase

i. The TSR/IR records volume of sales or installations and location for each project scenario.

ii. The record will be kept electronically and/or in paper records and provided at verification. The sales record will contain the following information:

1. From the product distribution partner:

1. Distribution partner name and contact information
2. Model/type of project technology sold
3. Quantity of project technology sold
4. Date of sale/installation
5. End user name, phone number, and address (if possible)

iii. Frequency: Ongoing B. Project Database

The project database is derived from the total sales record with project technologies differentiated by different project warranty activated serial numbers. The differentiation of the project database into sections is based on the results of the applicable monitoring studies for each project scenario, in order that ER calculations can be conducted appropriately section by section. Technologies aged beyond their useful lifetime, as established from the date of their sale in the project database will be removed from the project database and will no longer credited.

The following on-going monitoring studies are conducted for each project scenario following the verification of the associated initial project studies. These monitoring studies investigate and define parameters that could not be determined at the time of the initial project studies or that change with time.

Monitoring Survey

The project will keep carrying out an on-going monitoring studies to investigates and define parameters that could not be determined at the time of the re-validation of the project. The surveys will investigate the following:

Monitoring Survey to be done annually, to provide information on year-to-year trends in end user characteristics such as technology use, fuel consumption and seasonal

variations. The survey will be done by applying appropriate statistical sampling method,

to identify households to be investigated.

2. b) Usage Survey to be done biennially, or more frequently to identify the usage parameter

   that is weighted based on drop off-rates that are representative of the age distribution for project stoves in the total sales record. A usage parameter will be established to account for drop off rates as project technologies age and are replaced. This parameter will be applied when calculating the quantity of fuel consumed in project scenario p during year y (Bp,y).

3. c) Project FT update to be done biennially to collect data on fuel consumption assessment representative of project technologies currently in use every two years.
4. d) Baseline FT update to be completed biennially to provide data on fuel consumption assessment representative of project technologies currently in use every two years.
5. e) Leakage Assessment will be carried out biennially in time for first verification
6. f) The non-renewable biomass fraction for this crediting period is fixed based on the results

   of the NRB assessment. The NRB assessment for the project applied is calculated.

2. Economic Gain of Fuel savings
At every period when the KT is carried out, the project will determine the fuel savings associated with use of the stove. The project will also determine the prevailing fuel prices and using the fuel savings values determined, the project will calculate the equivalent monetary gain associated with fuel saved for use of the stove by a household. This will give an indication of the project contribution to household effort in resilience towards poverty.

3. Adding a New Baseline or Project Scenario
The project proponent will continue to monitor the project and should it be established that a new baseline or project scenario has emerged, the project proponent will consider adding it to the project. The addition of the new baseline or project scenario will follow Gold Standard approval process.

4. Quality Assurance and Quality Control
The project proponent is responsible for accurate and transparent record keeping, monitoring and evaluation. All supporting documentation and records for the project are maintained by Ecoa Climate Capital and are easily accessible for spot checking and cross referencing.

Contact information in the total sales record allows a project auditor to easily contact and visit end users

The quality assurance and control also covers the project device, which the project proponent ensures that the devices being produced are of the same or comparable quality. The stoves are produced in a factory owned by Ecoa Climate Capital following well laid down manufacturing to ensure that all products are of the same quality.

5. Data Storage and Archiving
Each stove sold has a unique serial number and a customised manual which shows simple steps of activating the stove warranty by SMS. When a customer activates the stove warranty, his/her details are captures in Ecoa Climate Capital system and this is what constitutes the project database. All the data will be archived for the entire crediting period and two years after the end of crediting period.

SECTION C. DURATION AND CREDITING PERIOD

C.1. Duration of project

C.1.1 Start date of project

>>

01/11/2007

C.1.2 Expected operational lifetime of project

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7 years 0 months

C.2. Crediting period of project

C.2.1 Start date of crediting period

>>

The Second Crediting period starts 26th April 2017

C.2.2 Total length of crediting period

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7 years 0 months

SECTION D. SUMMARY OF SAFEGUARDING PRINCIPLES AND GENDER SENSITIVE ASSESSMENT

D.1 Safeguarding Principles that will be monitored

A completed Safeguarding Principles Assessment is in Appendix 1, ongoing monitoring is summarised below.

Principles	Mitigation Measures added to the Monitoring Plan
Principle x.y	N/A

D.2. Assessment that project complies with GS4GG Gender Sensitive requirements

Question 1 - Explain how the project reflects the key issues and requirements of Gender Sensitive design and implementation as outlined in the Gender Policy?	The project activity doesn't endorse any form of discrimination based on gender. Kenya has ratified ILO Convention 111 (Discrimination (employment and occupation) Convention[23]. All inhabitants of Kenya may turn to the UN Human Rights Committee, to the "Special Rapporteurs" for violations of specific human rights or to ECOSOC for women's rights violations.[24] ICS can be purchased and used by any of the women within the project boundary willing to participate in the program. It will therefore not put at risk women's access to or control to efficient cookstoves. It's not foreseen either any reduction or risk related to any other resource, entitlement or benefit. Women/children (being the ones mostly spending time for cooking and fuel procurement) are able to spend less time on cooking/fuel procurement and cook in a much cleaner kitchen environment with less pollutants and dirt, resulting in health benefits and more time for income generating activities and education. The project will help to improve womens' health conditions as reduced combustion

[23] https://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:103315
[24] http://www.claiminghumanrights.org/kenya.html?L=0

	and less harmful gases during combustion will reduce indoor air pollution and thereby increase respiratory health of the women and children. Both women and men were participating in the local stakeholder consultation meeting. A strong focus has been put on women associations and groups when inviting stakeholders to the physical meeting. It is envisaged that women will be at the center of the project developer's marketing, education and distribution chain. It is planned that women in selected communities will demonstrate and educate consumers on the cookstove and its benefits resulting in empowerment, knowledge transfer and generation of jobs for women.
Question 2 - Explain how the project aligns with existing country policies, strategies and best practices	The Project is in line with Kenya's constitution.[25] Kenya has ratified the principle of equality into its respective constitution (Chapter 4), which does not tolerate any discrimination concerning women.

[25] https://www.constituteproject.org/constitution/Kenya_2010.pdf

Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?	Not applicable, since not necessary.
Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?	Not applicable, since not necessary.

SECTION E. SUMMARY OF LOCAL STAKEHOLDER CONSULTATION

The below is a summary of the 2 step GS4GG Consultation for monitoring purposes. Please refer to the separate Stakeholder Consultation Report for a complete report on the initial consultation and stakeholder feedback round.

E.1 Summary of stakeholder mitigation measures

>>

Based on the past implementation status of the proposed project and periodic verification process, the project proponent does not find a stakeholders consultation to be necessary during the revalidation and renewal of the crediting period for this project. As such, the consultation process will not take place during this transition process.

From the previous stakeholders comments received regarding artisan training and indoor air pollution education, the PP has addressed the two issues as discussed below. During this transition process, this section was addressed in the earlier process.

The PP has trained selected artisan who have received training on how to repair stoves. These artisans are located across the country and they are the first contacts to address any malfunction issues raised by any customer who may encounter problems with the stove.

The stove is being marketed to people across the country and the PP has developed a manual which shows the benefits of the stove and how it reduces fuel and indoor (smoke) emissions. The

PP is also running a commercial adverts which also informs people about the benefit of adopting the stove and through this forum, customers are being educated about the benefits of the stove.

Therefore, during this transition process, this section was addressed in the earlier process.

E.2 Final continuous input / grievance mechanism

Method	Include all details of Chosen Method (s) so that they may be understood and, where relevant, used by readers.	Justification
Continuous Input / Grievance Expression Process Book (mandatory)	BURN Manufacturing New Horizons Industrial Park Go Downs 8-11, Ruiru KENYA	The stakeholders were pleased to have an input book opened at the head office of BURN. Complaints or any other concerns can be stated and will be filed directly at the head office.
GS Contact (mandatory)	help@goldstandard.org	
Other	BURN: +254 706 585629 BURN: info@burnmfg.com	The phone number of the head offices of BURN will be made known to all project beneficiaries BURN's email address will be made known to all project beneficiaries

APPENDIX 1 - SAFEGUARDING PRINCIPLES ASSESSMENT

Complete the Assessment below and copy all Mitigation Measures for each Principle into SECTION D above. Please refer to the instructions in the Guide to Completing this Form.

Assessment Questions/ Requirements	Justification of Relevance (Yes/potentially/no)	How Project will achieve Requirements through design, management or risk mitigation.	Mitigation Measures added to the Monitoring Plan (if required)
Principle 1. Human Rights			
1. The Project Developer and the Project shall respect internationally proclaimed human rights and shall not be complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights 2. The Project shall not discriminate with regards to participation and inclusion	No	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 and is no complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights.	N/A

		Kenya has ratified many UN Human Rights Conventions.[26] 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.	
Principle 2. Gender Equality			
1. The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women 2. Projects shall apply the principles of non discrimination, equal treatment, and equal pay for equal work	No	The project activity doesn't endorse any form of discrimination based on gender. Kenya has ratified ILO Conventions 45 (Underground Work) (Women) Convention) and 111 (Discrimination (employment and	N/A

[26] http://www.claiminghumanrights.org/kenya.html?&L=0

3. The Project shall refer to the country's national gender strategy or equivalent national commitment to aid in assessing gender risks 4. (where required) Summary of opinions and recommendations of an Expert Stakeholder(s)		occupation) Convention[27]. All inhabitants of Kenya may turn to the UN Human Rights Committee, to the "Special Rapporteurs" for violations of specific human rights or to ECOSOC for women's rights violations[28] ICS can be purchased and used by any of the women within the project boundary willing to participate in the program. It will therefore not put at risk women's access to or control to efficient cookstoves. It's not foreseen either any reduction or risk related to any other resource, entitlement or benefit.	

[27] https://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:103244
[28] http://www.claiminghumanrights.org/kenya.html?&L=0

		On the contrary, women/children (being the ones mostly spending time for cooking and fuel procurement) are able to spend less time on cooking/fuel procurement and cook in a much cleaner kitchen environment with less pollutants and dirt, resulting in health benefits and more time for income generating activities and education. It is not either foreseen that the Project would adversely affect man and women in marginalized or vulnerable communities. The project activity will take into account gender roles and the abilities of women and men to participate and benefit from the project activities. It is envisaged that women will be at the center of the	

		project developer's marketing, education and distribution chain. It is planned that women in selected communities will demonstrate and educate consumers on the stove and its benefits, resulting in empowerment, knowledge transfer and generation of jobs for women. The Project will not include any specific gender related risks.	
Principle 3. Community Health, Safety and Working Conditions			
1. The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community	No	The project activity doesn't expose the community to increased health risks and is not adversely affecting the health of workers and the community. Cooking with improved cookstoves is actually safer than any other open flame stove use or traditional stoves The workers	N/A

		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.	
Principle 4.1 Sites of Cultural and Historical Heritage			
Does the Project Area include sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture? >>	No	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 Kenya and it does not require alteration, damage or removal of any historical, artistic, traditional, religious or cultural heritage issues.	**NA**
Principle 4.2 Forced Eviction and Displacement			

Does the Project require or cause the physical or economic relocation of peoples (temporary or permanent, full or partial)? >>	No	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 voluntarily.	**NA**
Principle 4.3 Land Tenure and Other Rights			
a. Does the Project require any change, or have any uncertainties related to land tenure arrangements and/or access rights, usage rights or land ownership? b. For Projects involving land use tenure, are there any uncertainties with regards to land tenure, access rights, usage rights or land ownership? >>	**No**	The project doesn't require any change to land tenure arrangements and/or other rights. The project does not involve land-use tenure.	**NA**
Principle 4.4 - Indigenous people			
Are indigenous peoples present in or within the area of influence of the Project and/or is the Project located on	**No**	There are no indigenous people present within the area of influence nor the project has	**NA**

land/territory claimed by indigenous peoples? >>		an impact on territory claimed by indigenous people.	
Principle 5. Corruption			
1. The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects	No	The Project doesn't involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects. The project is, in fact, implemented on the ground by Ecoa Climate Capital. The ethical codes of Ecoa Climate Capital and other project partners are against corruption	NA
Principle 6.1 Labour Rights			
1. The Project Developer shall ensure that all employment is in compliance with national labour occupational health and safety laws and with the principles and standards embodied	No	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	NA

in the ILO fundamental conventions 2. Workers shall be able to establish and join labour organisations 3. Working agreements with all individual workers shall be documented and implemented and include: a) Working hours (must not exceed 48 hours per week on a regular basis), AND b) Duties and tasks, AND c) Remuneration (must include provision for payment of overtime), AND d) Modalities on health insurance, AND		respected in all of the projects of Ecoa Climate Capital and other project partners. Kenya has ratified many ILO Conventions, amongst others convention 100 (Equal Remuneration Convention) and convention 98 (Right to Organise and Collective Bargaining Convention).[29] 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	

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

e) Modalities on termination of the contract with provision for voluntary resignation by employee, AND f) Provision for annual leave of not less than 10 days per year, not including sick and casual leave. 4. No child labour is allowed (Exceptions for children working on their families' property requires an Expert Stakeholder opinion) 5. The Project Developer shall ensure the use of appropriate equipment, training of workers, documentation and reporting of accidents		Conventions, amongst others convention 29 (Forced Labour Convention) and 105 (Abolition of Forced Labour Convention).[30] The workers are able to establish and join labour organizations. 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 1.2) will be respected whenever applicable.	

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

and incidents, and emergency preparedness and response measures		The employment model applied will be also locally and culturally appropriate. Moreover, all the possible staff hired follows Convention C138 (Minimum Age Convention). Kenya has ratified besides C138 as well ILO Convention 182 (Worst Forms of Child Labour Convention).[31]	
Principle 6.2 Negative Economic Consequences			
1. Does the project cause negative economic consequences during and after project implementation?	**No**	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	NA
>>			

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

		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 not expected any direct economic impact or potential risks to the local economy.	
Principle 7.1 Emissions			
Will the Project increase greenhouse gas emissions over the Baseline Scenario?	No	The project will reduce the GHG emissions as it will be monitored and verified in line with the GS4GG.	NA
>>			
Principle 7.2 Energy Supply			
Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?	No	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.	NA
>>			

Principle 8.1 Impact on Natural Water Patterns/Flows			
Will the Project affect the natural or pre-existing pattern of watercourses, ground-water and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	NO	The project activity will not negatively affect natural or pre- existing pattern of watercourses, ground- water and/or watersheds.	NA
>>			
Principle 8.2 Erosion and/or Water Body Instability			
a. Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion? b. Is the Project's area of influence susceptible to excessive erosion and/or water body instability?	No	The project will not cause additional erosion and/or water body instability of or disrupt the natural pattern of erosion.	NA
>>			
Principle 9.1 Landscape Modification and Soil			
Does the Project involve the use of land and soil for	No	The Project itself does not involve the use of land and soil	NA

production of crops or other products? >>		for production of crops or other products.	
Principle 9.2 Vulnerability to Natural Disaster			
Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions? >>	No	The Project will not be susceptible to or will lead to increased vulnerability to any extreme climatic conditions.	NA
Principle 9.3 Genetic Resources			
Could the Project be negatively impacted by or involve genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development, or take place in facilities or farms that include GMOs in their processes and production)? >>	No	The Project is not negatively impacted by the use of genetically modified organisms or GMOs.	NA
Principle 9.4 Release of pollutants			

Could the Project potentially result in the release of pollutants to the environment?	Potentially	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.	NA
>>			
Principle 9.5 Hazardous and Non-hazardous Waste			
Will the Project involve the manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials?	No	The Project is not involving the manufacture, trade, release, and/or use of hazardous chemicals and or materials.	NA
>>			
Principle 9.6 Pesticides & Fertilisers			
Will the Project involve the application of pesticides and/or fertilisers?	No		NA
>>			
Principle 9.7 Harvesting of Forests			
Will the Project involve the harvesting of forests?	No	No harvesting of forests is involved.	NA
>>			

Principle 9.8 Food			
Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	No	The Project doesn't modify the quantity or nutritional quality of food available.	NA
>>			
Principle 9.9 Animal husbandry			
Will the Project involve animal husbandry?	No	The Project doesn't involve animal husbandry.	NA
>>			
Principle 9.10 High Conservation Value Areas and Critical Habitats			
Does the Project physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified?	No	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.	NA
>>			
Principle 9.11 Endangered Species			

a. Are there any endangered species identified as potentially being present within the Project boundary (including those that may route through the area)? a. Does the Project potentially impact other areas where endangered species may be present through transboundary affects?	No	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.	NA
>>			

APPENDIX 2- CONTACT INFORMATION OF PROJECT PARTICIPANTS

Organization name	Ecoa Climate Capital
Registration number with relevant authority	-
Street/P.O. Box	72201
Building	C/O AXIS Fiduciary Ltd 2nd Floor, The Axis, 26 Cybercity
City	Ebene
State/Region	Ebene
Postcode	
Country	Mauratius
Telephone	+254 718 125 639
E-mail	peter@burnmanufacturng.com
Website	www.burnmanufacturing.com
Contact person	
Title	Chief Executive Officer
Salutation	Mr.
Last name	Scott
Middle name	-
First name	Peter
Department	Management
Mobile	+254 718125 639
Direct tel.	+254 718125 639
Personal e-mail	peter@burnmanufacturng.com

APPENDIX 3- LUF ADDITIONAL INFORMATION

Risk of change to the Project Area during Project Certification Period:	
Risk of change to the Project activities during Project Certification Period:	
Land-use history and current status of Project Area:	
Socio-Economic history:	
Forest management applied (past and future)	
Forest characteristics (including main tree species planted)	
Main social impacts (risks and benefits)	
Main environmental impacts (risks and benefits)	
Financial structure	
Infrastructure (roads/houses etc):	
Water bodies:	
Sites with special significance for indigenous people and local communities - resulting from the Stakeholder Consultation:	
Where indigenous people and local communities are situated:	
Where indigenous people and local communities have legal rights, customary rights or sites with special cultural, ecological, economic, religious or spiritual significance:	

APPENDIX 4-SUMMARY OF APPROVED DESIGN CHANGES

Please refer to Design Change Requirements for more information on procedures governing Design Changes

Revision History

Version	Date	Remarks
1.2	14 October 2020	Hyperlinked section summary to enable quick access to key sections Improved clarity on Key Project Information Inclusion criteria table added Gender sensitive requirements added Prior consideration (1 yr rule) and Ongoing Financial Need added Safeguard Principles Assessment as annex and a new section to include applicable safeguards for clarity Improved Clarity on SDG contribution/SDG Impact term used throughout Clarity on Stakeholder Consultation information required Provision of an accompanying Guide to help the user understand detailed rules and requirements
1.1	24 August 2017	Updated to include section A.8 on 'gender sensitive' requirements
1.0	10 July 2017	Initial adoption