



KENYA JIKO KISASA IMPROVED COOKSTOVE PROGRAM I

Project title	Kenya Jiko Kisasa Improved Cookstove Program I
Project ID	3197
Monitoring period	21-June-2022 to 20-June-2024
Original date of issue	27-January-2025
Most recent date of issue	23-May-2025
Version	04
VCS Standard Version	4.7
Prepared by	Guangzhou Iceberg Environmental Consulting Services Co., Ltd. Email: baoji@icebergchina.com ; hanjin@icebergchina.com

CONTENTS

1	PROJECT DETAILS.....	4
1.1	Summary Description of the Implementation Status of the Project	4
1.2	Audit History.....	5
1.3	Sectoral Scope and Project Type	5
1.4	Project Proponent	5
1.5	Other Entities Involved in the Project	5
1.6	Project Start Date	5
1.7	Project Crediting Period	6
1.8	Project Location	6
1.9	Title and Reference of Methodology	7
1.10	Double Counting and Participation under Other GHG Programs	8
1.11	Double Claiming, Other Forms of Credit, and Scope 3 Emissions.....	8
1.12	Sustainable Development Contributions	9
1.13	Commercially Sensitive Information.....	15
2	SAFEGUARDS AND STAKEHOLDER ENGAGEMENT	15
2.1	Stakeholder Engagement and Consultation.....	15
2.2	Risks to Stakeholders and the Environment.....	18
2.3	Respect for Human Rights and Equity	20
2.4	Ecosystem Health	21
3	IMPLEMENTATION STATUS	23
3.1	Implementation Status of the Project Activity	23
3.2	Deviations	23
3.3	Grouped Projects	23
3.4	Baseline Reassessment.....	23
4	DATA AND PARAMETERS.....	24
4.1	Data and Parameters Available at Validation	24
4.2	Data and Parameters Monitored.....	26
4.3	Monitoring Plan	31

5	QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS	37
5.1	Baseline Emissions	37
5.2	Project Emissions	37
5.3	Leakage Emissions	38
5.4	GHG Emission Reductions and Carbon Dioxide Removals	38
	APPENDIX 1: STATEMENTS ABOUT OUTCOMES OF SDGS.....	42

1 PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The project involves distribution of fuel-efficient Jiko Kisasa improved cookstoves (hereinafter referred to as “ICSs”) in the Republic of Kenya. The ICSs disseminated through this project replace the old low efficient baseline cookstoves in rural area of Kenya. The ICSs are produced by local factories.

Through this project, Guangzhou Iceberg Environmental Consulting Services Co., Ltd. (hereinafter referred to as “Iceberg”) plans distribute approximately 100,000 ICSs free of charge to households in rural area of Kenya in 2 years. The start date of the project was 21/06/2022. 26,130 ICSs have been distributed till 20/06/2024, and 25,966 are still operating according to the monitoring survey.

In villages with concentrated households, stoves were distributed at community centers, with local partners assisting in registration and delivery. Village leaders pre-registered households, and end users collected stoves from designated locations on the scheduled date.

Before the implementation of the project, local people mostly used traditional solid-fuel cooking solutions such as open fire or three-stone fires. They spent plenty of time to collect firewood every day due to low combustion efficiency of baseline cooking devices. The ICS burnt wood more efficiently thereby improving thermal transfer to pots, hence saving firewood. The project has reduced the GHG emission by less non-renewable firewood combustion as well as slowing the rapidly progressing deforestation in Kenya. By explaining the energy efficiency of the project ICS and the benefits to them, end users are encouraged to use the project stoves and stop using the baseline stoves. Even if a baseline stove is used, the amount of firewood using the baseline stove is excluded from the emission reduction calculation.

Iceberg cooperates with local partners to ensure that the ICSs reach the target communities. The local partners are in charge of the distribution. They help Iceberg to gain access to the communities and identify local suppliers. Iceberg has provided enough training to the local partners to ensure that they can implement the project smoothly. The distribution has been on-site supervised by Iceberg. All data are collected by online system.

The crediting period of the project is expected to be 10 years. The average annual GHG emission reduction from the project is expected to be 222,137 tCO_{2e}. The total GHG emission reduction is 2,221,373 tCO_{2e}. This monitoring period is the first one, which is from 21/06/2022 to 20/06/2024. The GHG emission reduction of this monitoring period from the project is 94,580 tCO_{2e}.

1.2 Audit History

Audit type	Period	Program	Validation/verification body name	Number of years
Verification	21-June-2022– 20-June-2024	VCS	4K Earth Science Private Limited	Two years
Validation	21-June-2022– 20-June-2032	VCS	4K Earth Science Private Limited	10 years

1.3 Sectoral Scope and Project Type

Sectoral scope ¹	03 - Energy demand
Project activity type	Type: II – Energy efficiency improvement projects

1.4 Project Proponent

Organization name	Guangzhou Iceberg Environmental Consulting Services Co., Ltd.
Contact person	Ji BAO
Title	General Manager
Address	No.106 Fengze East Road, Nansha District, Guangzhou, China
Telephone	+8613560420840
Email	baoji@icebergchina.com; hanjin@icebergchina.com

1.5 Other Entities Involved in the Project

No other entities involved. The Project proponent is the only entity which is in charge of the project.

1.6 Project Start Date

Project start date	21-June-2022
Justification	The date of the first installation of the project ICS, which is the date on which the project began generating GHG emission reductions.

¹ Projects, activities, or methodologies may be developed under any of the 16 VCS sectoral scopes: <https://verra.org/programs/verified-carbon-standard/vcs-program-details/#sectoral-scopes>

1.7 Project Crediting Period

Crediting period	☐ Seven years, twice renewable ☒ Ten years, fixed ☐ Other
Start and end date of first or fixed crediting period	21-June-2022 to 20-June-2032

1.8 Project Location

The project location is in the Republic of Kenya. From 21/06/2022 to 20/06/2024, 26,130 project ICSs have been distributed, covering 50 villages, located in Kiambu County and Muranga County of Kenya.

Table 1: Geographical coordinates of the Republic of Kenya

Orientation	Latitude	Longitude
Eastmost	3°48'58" N	41°53'59" E
Westmost	1°03'35" S	33°55'46" E
Southmost	4°40'33" S	39°19'32" E
Northmost	4°15'41" N	35°23'57" E



Figure 1: Map of the Republic of Kenya

1.9 Title and Reference of Methodology

Type (methodology, tool or module).	Reference ID, if applicable	Title	Version
Methodology	VMR0006	Methodology for Installation of High Efficiency Firewood Cookstoves	1.1
Tool	TOOL30	Calculation of the fraction of non-renewable biomass	3.0

1.10 Double Counting and Participation under Other GHG Programs

1.10.1 No Double Issuance

Is the project receiving or seeking credit for reductions and removals from a project activity under another GHG program?

☐ Yes ☒ No

1.10.2 Registration in Other GHG Programs

Was the project registered or seeking registration under any other GHG programs?

☐ Yes ☒ No

1.11 Double Claiming, Other Forms of Credit, and Scope 3 Emissions

1.11.1 No Double Claiming with Emissions Trading Programs or Binding Emission Limits

Are project reductions and removals or project activities also included in an emissions trading program or binding emission limit? See the *VCS Program Definitions* for definitions of emissions trading program and binding emission limit.

☐ Yes ☒ No

1.11.2 No Double Claiming with Other Forms of Environmental Credit

Has the project activity sought, received, or is planning to receive credit from another GHG-related environmental credit system? See the *VCS Program Definitions* for definition of GHG-related environmental credit system.

☐ Yes ☒ No

1.11.3 Supply Chain (Scope 3) Emissions

Do the project activities affect the emissions footprint of any product(s) (goods or services) that are part of a supply chain?

☒ Yes ☐ No

Is the project proponent(s) or authorized representative a buyer or seller of the product(s) (goods or services) that are part of a supply chain?

☒ Yes ☐ No

Has the project proponent(s) or authorized representative posted a public statement on their website saying, "Carbon credits may be issued through the Verified Carbon Standard project [project ID] for the greenhouse gas emission reductions or removals associated with [project

proponent or authorized representative organization name(s)] [name of product(s) whose emissions footprint is changed by the project activities].”

☒ Yes

☐ No

The project proponent has posted a public statement on their website, the link of the website is:
<http://www.icebergchina.com/ensnew/contents/304/115.html>

1.12 Sustainable Development Contributions

Before the implementation of the project, local people in the project location used non-renewable biomass for cooking with open fire or three-stone fire. The project distributes fuel-efficient ICS to replace the baseline cookstoves in households, which leads to less firewood consumption, and reduces people's exposure to hazardous indoor air. Hence people spend less time to collect firewood which reduces women and children's drudgery. The production and distribution of ICSs have provided job opportunities to local people which will increase their incomes. And the project contributes to less deforestation and less GHG emissions too.

Table 1: Sustainable Development Contributions

Row number	SDG target	SDG indicator	Net impact on SDG indicator	Current project contributions	Contributions over project lifetime
1)	1.4	Project-specific indicator: Number of households with access to basic services	Implemented activities to increase	According to the ICS distribution database and monitoring survey, 26,130 households have received ICSs, and 25,966 are still operating.	According to the ICS distribution database and monitoring survey, 26,130 households have received ICSs, and 25,966 are still operating.
2)	2.1	2.1.1 Prevalence of undernourishment.	Implemented activities to decrease	The project is implemented in rural area of Kenya, where the income of the local population is generally low. The ICS reduces time on cooking and collecting firewood, saves money on buying firewood. This allows for more time and money for productive work. According to the ICS distribution database and monitoring survey, 26,130 households have received ICSs, and 25,966 are still operating, which help them improve their nutrition status.	The project is implemented in rural area of Kenya, where the income of the local population is generally low. The ICS reduces time on cooking and collecting firewood, saves money on buying firewood. This allows for more time and money for productive work. According to the ICS distribution database and monitoring survey, 26,130 households have received ICSs, and 25,966 are still operating, which help them improve their nutrition status ² .

² <https://www.sciencedirect.com/science/article/pii/S2468227620301551#bib0021>

3)	3.9	Project-specific indicator: Number of households experiencing health benefits due to reduced exposure to indoor air pollution	Implemented activities to decrease	According to the monitoring survey, all users admitted that the project cookstove had improved indoor air quality and reduced air quality related diseases, like cough or trachitis according to the monitoring survey. Thus, 25,966 households experiencing health benefits due to reduced exposure to indoor air pollution.	According to the monitoring survey, all users admitted that the project cookstove had improved indoor air quality and reduced air quality related diseases, like cough or trachitis according to the monitoring survey. Thus, 25,966 households experiencing health benefits due to reduced exposure to indoor air pollution.
4)	4.3	Project specific indicator: Number of persons who received any informal training	Implemented activities to increase	According to the training record, 8 staff have received training about the survey method and monitoring plan etc.	According to the training record, 8 staff have received training about the survey method and monitoring plan etc.
5)	5.4	5.4.1 Proportion of time spent on unpaid domestic and care work, by sex, age, and location.	Implemented activities to decrease	According to the monitoring survey, the time spent on cooking and collecting firewood every day for women and girls who use ICSs has decreased about 27% ³ .	According to the monitoring survey, the time spent on cooking and collecting firewood every day for women and girls who use ICSs has decreased about 27%.

³ Compared between baseline survey and monitoring survey, the result is calculated in Grid AV165 and AZ165 of the submitted spreadsheet "2_Data recording of Monitoring Survey".

6)	6.6	Project specific indicator: Quantity of non-renewable biomass in forest, which is a water-related ecosystem, saved by reducing fuel consumption	Implemented activities to increase	According to the result of calculation of emission reductions, the project has saved 46,169 tonnes of non-renewable biomass ⁴ during this monitoring period.	According to the result of calculation of emission reductions, the project has saved 46,169 tonnes of non-renewable biomass during this monitoring period.
7)	7.1	7.1.2 Proportion of population with primary reliance on clean fuels and technology.	Implemented activities to increase	According to the ICS distribution database and usage survey (including in the monitoring survey), 26,130 households have received ICSs, and 25,966 are still operating, which are primary reliance on clean fuels and technology.	According to the ICS distribution database and usage survey (including in the monitoring survey), 26,130 households have received ICSs, and 25,966 are still operating, which are primary reliance on clean fuels and technology.

⁴ The result is recorded in Grid B25 of the submitted document "1_MR-ER calculate sheet".

8)	8.3 8.5	8.3.1 Proportion of informal employment in total employment, by sector and sex. 8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities	Implemented activities to increase	According to the data provided by the ICS producer, before the implementation of the project, the manufacturer and distributor had 5 full-time employee and 20 part-time employees, and 8 of them were women, 1 was with disabilities. After the implementation of the project, it has 7 full-time employee and 30 part-time employees, and 18 of them are women, 1 is with disabilities. ⁵ .	According to the data provided by the ICS producer, before the implementation of the project, the manufacturer and distributor had 5 full-time employee and 20 part-time employees, and 8 of them were women, 1 was with disabilities. After the implementation of the project, it has 7 full-time employee and 30 part-time employees, and 18 of them are women, 1 is with disabilities.
9)	9.3	9.3.1 Proportion of small-scale industries in total industry value added	Implemented activities to increase	According to the data provided by the ICS producer, prior to the Project, the production capacity of the factory is 10200 devices per month. After the implementation of the Project, the production capacity expanded to 16800 devices per month ⁶ .	According to the data provided by the ICS producer, prior to the Project, the production capacity of the factory is 10200 devices per month. After the implementation of the Project, the production capacity expanded to 16800 devices per month.
10)	13.0	Tonnes of greenhouse gas emissions avoided or removed	Implemented activities to increase	By saving 46,169 tonnes of non-renewable biomass, the project has prevented the release of 94,580 tonnes of CO ₂ emissions into the atmosphere.	By saving 46,169 tonnes of non-renewable biomass, the project has prevented the release of 94,580 tonnes of CO ₂ emissions into the atmosphere.

⁵ Please refer to appendix 1 "Statement about outcomes of SDGs"

⁶ Please refer to appendix 1 "Statement about outcomes of SDGs".

11)	15.1 15.2	15.1.1 Forest area as a proportion of total land area 15.2.1 Progress towards sustainable forest management	Implemented activities to increase	According to the result of calculation of emission reductions, the project has saved 46,169 tonnes of non-renewable biomass during this monitoring period.	According to the result of calculation of emission reductions, the project has saved 46,169 tonnes of non-renewable biomass during this monitoring period.
-----	--------------	--	------------------------------------	--	--

1.13 Commercially Sensitive Information

There is no commercially sensitive information has been excluded from the public version of the monitoring report.

2 SAFEGUARDS AND STAKEHOLDER ENGAGEMENT

2.1 Stakeholder Engagement and Consultation

2.1.1 Stakeholder Identification

Stakeholder Identification

The process used to identify stakeholders likely impacted by the project shows below:

1. Initial Scoping and Community Engagement:

Conduct preliminary research to identify target communities and hold initial meetings with local leaders for preliminary feedback.

2. Stakeholder Mapping:

Identify key groups including households, community organizations, local businesses, government agencies, and NGOs, ensuring vulnerable groups are considered.

3. Detailed Stakeholder Analysis:

Perform social and economic impact assessments to evaluate how different groups will be affected.

4. Documentation and Communication:

Document all findings and clearly communicate project objectives and potential impacts using various channels.

Then the following stakeholders have been identified:

- (a) The ICS end-users
- (b) Stove manufacturer and distributor
- (c) Local authorities

Legal or customary tenure/access rights	The project does not involve local people's tenure rights.
Stakeholder diversity and changes over time	• Social Diversity: The ICS end-users vary widely in terms of family size, education levels, and gender roles. Women often play a central role in cooking and are thus primary users of cookstoves, whereas men might be more involved in decision-making processes regarding household purchases. • Economic Diversity: Economically, stakeholders range from low-income households struggling with daily subsistence to local businesses. • Cultural Diversity: Cultural diversity is evident in the varying customs, traditions, and practices related to cooking and fuel use. The project proponent respects and integrates local knowledge and cultural practice. • Differences and Interactions The interactions between these diverse groups are complex. Households rely on local authorities for support, while local authorities act as intermediaries between households and project implementers. Stove manufacturer and distributor interacts with households to provide new technologies and technical support. Local authorities interact with all these groups to provide regulatory support and technical assistance. Changes Over Time No obvious change in the make-up of stakeholder groups, economic development, social behavior or culture practice happened in this monitoring period according to the project survey.
Expected changes in well-being	Prior to the Project, the production capacity of the factory is 10200 devices per month. After the implementation of the

	Project, the production capacity expanded to 16800 devices per month.
Location of stakeholders	The end users who use ICS from the project are rural people in Kenya. The stove manufacturer and distributor locates in Thika County, Kenya. Local authorities are leaders of local villages and representatives of national government.
Location of resources	The end users usually collect firewood near their villages.

2.1.2 Stakeholder Consultation and Ongoing Communication

Ongoing consultation	The project proponent has provided different measures to communicate and consult with stakeholders during this monitoring period: 1. Put a hard copy of opinion book in each village to record any incidences or occurrences. 2. A email address that could be used to complain any problems concerning the project. 3. Ensure that a close collaboration is groomed and maintained between the representatives of JCI and Iceberg with the users and the village elders.
Date(s) of stakeholder consultation	19-May-2022
Communication of monitored results	The email has been checked every day, and the opinion book has been checked every month. The project monitoring was conducted by trained local staff, and the results were communicated by them to ensure transparency and timeliness.
Consultation records	The emails and opinion books were checked. No negative opinion was identified.
Stakeholder input	They all expressed their like to the project and thought the project would help a lot of local people. So there is no need for any updates to the project design.

2.1.3 Free, Prior, and Informed Consent

Consent	The local people were informed and fully explained about the project in advance during the stakeholder consultation meeting. They were happy for the implementation of the project.
Outcome of FPIC	The project proponent has signed carbon transfer agreements with the end users as well as cookstove manufacturer and distributor to confirm that PP is authorized to develop the project as the sole project proponent and has the sole ownership of all the carbon credits generated from the project.

2.1.4 Grievance Redress Procedure

Grievances received	Resolution and outcome
No grievance received.	NA. Since stakeholders can submit their opinions to the project through phones, emails and opinion books, it is easy for them to conduct ongoing consultation.

2.1.5 Public Comments

Summary of comments received	Actions taken
No negative comment received ⁷ .	NA

2.2 Risks to Stakeholders and the Environment

2.2.1 Management Experience

The project proponent is committed to developing high quality greenhouse gas emission reduction projects via provide clean water and energy to people in developing countries through carbon finance. The company's core staffs have more than 10 years of experience in developing CDM, VCS and GS projects. And the project proponent has successfully developed community projects in 7 countries in Africa and Asia.

⁷ <https://registry.verra.org/app/projectDetail/VCS/3197>

2.2.2 Risk assessment

	Risk identified	Justification	Mitigation or preventative measure(s) taken
Natural and human-induced risks to stakeholders' wellbeing	No risk identified.	The ICS is a basic service necessary to lead a healthy and productive life, and it has improved stakeholders' wellbeing.	NA
Risks to stakeholder participation	No risk identified	The ICS is a basic service necessary to lead a healthy and productive life, including saving time and money for wood fuel at the household level.	NA
Working conditions	No risk identified	The project needs periodic surveys only, there is no risk identified for working conditions.	NA
Safety of women and girls	No risk identified	The project involves provide ICS free to local people only, there is no risk identified for safety of women and girls.	NA
Safety of minority and marginalized groups, including children	No risk identified	The project involves s provide ICS free to local people, there is no risk identified for safety of minority or marginalized groups.	NA
Pollutants (air, noise, discharges to water, generation of waste, and release of hazardous materials and chemical pesticides and fertilizers)	No risk identified	The ICS has reduced the pollutant with higher thermal efficiency.	NA

2.3 Respect for Human Rights and Equity

2.3.1 Labor and Work

	Risks identified ⁸	Justification	Mitigation or preventative measure(s) taken
Discrimination	No risk identified	Equal pay for equal work for all employees.	NA
Sexual harassment	No risk identified	The staff has been trained about harassment prevention and reporting.	NA
Gender equity in labor and work	No risk identified	Equal pay for equal work for all employees.	NA
Forced labor	No risk identified	The employees are working voluntarily, and have signed labor contracts.	NA
Child labor	No risk identified	No child labor involved.	NA
Human trafficking	No risk identified	No human trafficking involved.	NA

2.3.2 Human Rights

Risks identified	Justification	Mitigation or preventative measure(s) taken
No risk identified	The project involves distributing ICS to local people free of charge only. ICS is a basic device in their life. And the project proponent has signed an agreement with the local people who voluntarily received an ICS. The project continues recognize, respect, and promote the protection of the rights of local community.	NA

⁸ The identified risks and commensurate mitigation or preventative measure(s) for forced labor, child labor, and human trafficking, must be inclusive of staff and contracted workers employed by third parties.

2.3.3 Indigenous Peoples and Cultural Heritage

Risks identified	Justification	Mitigation(s) or preventative measure taken
No risk identified	The staff of the project has been trained to protect the rights of indigenous people, preserve and protect cultural heritage during the implementation of the project. And during this monitoring period, they have not violated the rights of indigenous people or damaged the cultural heritage.	NA

2.3.4 Property Rights

Risks identified	Justification	Mitigation or preventative measure(s) taken
No risk identified	The project involves distributing ICS to local people free of charge only.	NA

2.3.5 Benefit Sharing

Summary of the benefit sharing plan	The project has no impact on property rights as described in Section 2.3.4 above. Not applicable.
Benefit sharing during the monitoring period	Not applicable.

2.4 Ecosystem Health

	Risk identified	Justification	Mitigation or preventative measure(s) taken during the monitoring period
Impacts on biodiversity and ecosystems	No risk identified	The project has reduced the consumption of firewood, which protects the biodiversity and ecosystems.	NA
Soil degradation and soil erosion	No risk identified	The project has no impact on soil degradation or soil erosion.	NA

Water consumption and stress	No risk identified	The project has no impact on water consumption and stress.	NA
------------------------------	--------------------	--	----

2.4.1 Rare, Threatened, and Endangered species

Species or habitat	The project involves distributing ICS to local people free of charge only. The project is not located in, or adjacent to habitats for rare, threatened, or endangered species.
Areas needed for habitat connectivity	The project involves distributing ICS to local people free of charge only. The project has not adversely impacted areas needed for habitat connectivity during the monitoring period.

	Risks identified	Justification	Mitigation or preventative measure(s) taken
Habitats for rare, threatened, and endangered species	No risk identified	The project distributing ICS to local people in villages. There is on habitats for rare, threatened, and endangered species.	Not applicable
Areas for habitat connectivity	No risk identified	The project distributing ICS to local people in villages. There is on areas for habitat connectivity.	Not applicable

2.4.2 Introduction of species

N/A

2.4.3 Ecosystem conversion

The project is not an ARR, ALM, WRC or ACoGS project, hence not applicable.

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

Based on ICS distribution database, the project has distributed 26,130 ICSs to end users free of charge during this monitoring period, which is from 21/06/2022 to 20/06/2024. Each ICS distributed in this project has a unique identification ID, the distribution date and the user's basic information (e.g. name, address, phone number, unique identification ID) has been recorded in electronic database. The ICS is also labelled with programme's logo. Hence, the above methods can make sure that it will avoid double counting of emission reductions.

According to monitoring survey conducted by local partners from 01/09/2023 to 14/11/2023, the usage rate is 99.38% during this monitoring period. Hence, the number of project ICS still operating is calculated as $26,130 \times 99.38\% = 25,966$. And the emissions reduction of this monitoring period can be calculated precisely based on above data.

From 21/06/2022 to 20/06/2024, 26,130 project ICSs have been distributed, covering 50 villages, located in Kiambu County and Muranga County of Kenya. In the beginning, the project proponent planned to distribute 100,000 ICSs free of charge to households in rural area of Kenya in 2 years. However, this plan has not yet materialized due to lack of funding.

No other change so far.

3.2 Deviations

3.2.1 Methodology Deviations

There is no methodology deviation applied during this monitoring period.

3.2.2 Project Description Deviations

There is no project description deviation applied during this monitoring period.

3.3 Grouped Projects

The project is not a grouped project.

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes ☒ No

4 DATA AND PARAMETERS

4.1 Data and Parameters Available at Validation

Data / Parameter	$f_{NRB,y}$		
Data unit	Fraction of woody biomass saved by the project activity during year y that can be established as non-renewable biomass		
Description	Calculated		
Source of data	0.89		
Value applied	Fraction of woody biomass saved by the project activity during year y that can be established as non-renewable biomass		
Justification of choice of data or description of measurement methods and procedures applied	As per the “TOOL30: Calculation of the fraction of non-renewable biomass, version 3.0”.		
	Variable	Unit	Value
	Total woody biomass consumption (H)	t/yr	27,734,283
	Renewable biomass (RB)	t/yr	3,050,976
	Non-renewable biomass (NRB)	t/yr	24,683,307
	f_{NRB}	-	0.89
Purpose of data	Calculation of emission reductions		
Comments	.		

Data / Parameter	$NCV_{wood\ fuel}$
Data unit	TJ/tonne
Description	Net calorific value of the non-renewable woody biomass that is substituted or reduced
Source of data	2006 IPCC Guidelines for National Greenhouse Gas Inventories; Volume 2 Energy, Chapter 1 Introduction: Table 1.2 Default net calorific values (NCVs) and lower and upper limits of the 95 percent confidence intervals.
Value applied	0.0156
Justification of choice of data or description of measurement methods and procedures applied	2006 IPCC default value as no update in 2019 IPCC refinement
Purpose of data	Calculation of emission reductions

Comments	-
----------	---

Data / Parameter	EF_{wf,CO_2}
Data unit	tCO ₂ /TJ
Description	CO ₂ emission factor for the use of wood fuel in baseline scenario
Source of data	2006 IPCC Guidelines for National Greenhouse Gas Inventories; Volume 2 Energy, Chapter 2 Stationary Combustion: Table 2.5 Default emission factors for stationary combustion in the residential and agriculture/forestry/fishing/fishing farms categories.
Value applied	112
Justification of choice of data or description of measurement methods and procedures applied	2006 IPCC default value as no update in 2019 IPCC refinement
Purpose of data	Calculation of emission reductions
Comments	-

Data / Parameter	$EF_{wf,non\ CO_2}$
Data unit	tCO ₂ /TJ
Description	Non-CO ₂ emission factor for the use of wood fuel in baseline scenario
Source of data	2006 IPCC Guidelines for National Greenhouse Gas Inventories; Volume 2 Energy, Chapter 2 Stationary Combustion
Value applied	26.23
Justification of choice of data or description of measurement methods and procedures applied	2006 IPCC default value as no update in 2019 IPCC refinement
Purpose of data	Calculation of emission reductions
Comments	-

Data / Parameter	η_p
Data unit	Fraction
Description	Efficiency of project stove at the start of project activity.

Source of data	Manufacturer's specification and Test Report by KIRDI Stove Testing Centre in Kenya using WBT test protocol 4.2.3
Value applied	27.2%
Justification of choice of data or description of measurement methods and procedures applied	This parameter shall be determined ex-ante
Purpose of data	Calculation of emission reductions
Comments	-

4.2 Data and Parameters Monitored

Data / Parameter	$N_{y,i,j}$
Data unit	Number
Description	Number of project devices of type i and batch j operating during year y
Source of data	Monitoring Survey
Description of measurement methods and procedures to be applied	The total distribution data has been recorded and submitted as document "13_Kenya ICS distribution database". The database includes the date of distribution of each ICS, and basic information of the receiving household. The date of receipt is the date they started using ICS. A village is usually distributed together on one day, some are distributed in two days. Therefore, the date of distribution, the number of households, and the number of persons in the households receiving ICSs are summarized in the submitted document "8_ICS distribution statistic form". The number of operational days falling in this monitoring period is calculated based on the number of days from the date of receipt to the end date of the monitoring period. Which are calculated in Column L of document "8_ICS distribution statistic form". And the weighted average operational days is calculated in Grid L53. Then it is used in Grid C24 of ER calculation sheet "1_MR-ER calculation sheet". Then the number of devices still operating was obtained by multiplying the total number and usage rate. The usage rate survey was included in the Monitoring Survey. Multi-stage sampling was applied in the Monitoring Survey during this monitoring period. 8 villages were randomly chosen in the first

	stage of the sampling process. Then 20 households were randomly chosen from each of the 8 villages.
Frequency of monitoring/recording	At least once every two years
Value monitored	25,966 is applied for this monitoring period.
Monitoring equipment	26,130 project ICSs have been distributed based on Kenya ICS distribution database, and according to monitoring survey conducted by local partners from 01/09/2023 to 14/11/2023, the usage rate is 99.38%. Hence, $N_{y,i,j}=26,130*99.38\%=25,966$
QA/QC procedures to be applied	The staff has been trained to conduct the data recording and survey.
Purpose of the data	Calculation of emission reductions
Calculation method	Proportion of operational stoves obtained from the survey is multiplied by the total commissioned stoves to arrive at this value.
Comments	NA

Data / Parameter	$\eta_{new,y,i,j}$						
Data unit	Fraction						
Description	Efficiency of the improved cookstove type i and batch j implemented as part of the project activity						
Source of data	Calculation						
Description of measurement methods and procedures to be applied	Efficiency of the improved cookstoves is estimated ex-ante using equation 5 above where loss in efficiency per year is calculated, and therefore this parameter does not need to be monitored.						
Frequency of monitoring/recording	The PP uses equation 5 of the applied methodology VMR0006 version 1.1 to calculate the efficiency, and therefore this parameter does not need to be monitored.						
Value monitored	<table border="1"> <thead> <tr> <th>Age(y)</th><th>$\eta_{new,y,i,j}$</th></tr> </thead> <tbody> <tr> <td>1</td><td>25.57%</td></tr> <tr> <td>2</td><td>25.31%</td></tr> </tbody> </table>	Age(y)	$\eta_{new,y,i,j}$	1	25.57%	2	25.31%
Age(y)	$\eta_{new,y,i,j}$						
1	25.57%						
2	25.31%						
Monitoring equipment	NA						
QA/QC procedures to be applied	NA						

Purpose of the data	Calculation of emission reductions
Calculation method	Efficiency of the improved cookstoves is estimated using equation 5 of the applied methodology where loss in efficiency per year is calculated, and therefore this parameter does not need to be monitored.
Comments	NA

Data / Parameter	$B_{y=1,new,i,j,survey}$
Data unit	tonnes
Description	Quantity of woody biomass used by project devices in tonnes per device of type i
Source of data	Fuel Consumption Survey, which was included in Monitoring Survey, recorded in Column M to Column AE in submitted spreadsheet “2_Data recording of Monitoring Survey”.
Description of measurement methods and procedures to be applied	The quantity of woody biomass used by project devices per device per day has been surveyed by Fuel Consumption Survey. The Fuel Consumption Survey was included in the Monitoring Survey. Multi-stage sampling was applied in the Monitoring Survey during this monitoring period. 8 villages were randomly chosen in the first stage of the sampling process. Then 20 households were randomly chosen from each of the 8 villages. According to Equation 33 of Guideline for Sampling and surveys for CDM project activities and programmes of activities, Version 04.0, to achieve 90/10 confidence/precision, the minimum number of the sampled villages is 6. As the project proponent and its local partner has surveyed 8 villages, the 90/10 confidence/precision has been met. Please refer to Section 4.3 of the MR and the submitted spreadsheet “2_Data recording of Monitoring Survey” for details. The sampled households have recorded their daily fuel consumption <i>in</i> seven consecutive days. Then the average quantity of woody biomass used by project devices was calculated.
Frequency of monitoring/recording	Determined in the first year of project implementation

Value monitored	The Fuel Consumption Survey was conducted by local staff from 03/05/2023 to 06/06/2023. Quantity of woody biomass used by project devices is 0.5452kg/person/day according to the result of the fuel consumption survey. And the average number of persons in household is 4.18 according to the ICS distribution statistic form. Therefore, the quantity of woody biomass used by project devices in tonnes per device per year is 0.83 tonnes/device/year ($0.5452 \times 4.18 \times 365 / 1000 = 0.83$).
Monitoring equipment	Fuel Consumption Survey, and the result was recorded in Grid F176 of the submitted spreadsheet “2_Data recording of Monitoring Survey”, which used to calculate this parameter in Grid B15 of the submitted spreadsheet “1_MR-ER calculation sheet”.
QA/QC procedures to be applied	NA
Purpose of the data	Calculation of emission reductions
Calculation method	NA
Comments	NA

Data / Parameter	η_{old}
Data unit	Fraction
Description	Efficiency of baseline cookstove
Source of data	- Default value: 0.1 or 0.2; or - Surveyed prior to implementation of project activity The baseline survey was conducted by local staff of the project proponent in Kenya. It was taken from 25/05/2022 to 06/06/2022 among 120 households from 6 villages.
Description of measurement methods and procedures to be applied	(a) A default value of 0.1 shall be used if baseline device is a three-stone fire using firewood (not charcoal), or a conventional device with no improved combustion air supply or flue gas ventilation, that is without a grate or a chimney. (b) A default value of 0.2 shall be used for other types of devices. (c) If more than one type of baseline device is being replaced in the project region, weighted average values (taking the amount of woody biomass consumed by each device as the weighting factor) shall be used.

	(d) If this parameter is surveyed, project promoters may use simplified guidelines stated under Option (b) in Section 8.4 above for arriving at the minimum sample size.																														
	The following is outcome of baseline survey:																														
	<table><tr><th>Kind of cook stove in baseline scenario</th><th>Number of households</th><th>Percentage</th></tr><tr><td>open fire</td><td>4</td><td>3.33%</td></tr><tr><td>three-stone fire</td><td>116</td><td>96.67%</td></tr><tr><td>conventional stove without grate or chimney</td><td>0</td><td>0.00%</td></tr><tr><td>LPG stove</td><td>0</td><td>0.00%</td></tr><tr><td>basic charcoal or coal cookstove</td><td>0</td><td>0.00%</td></tr><tr><td>improved stove with grate or chimney</td><td>0</td><td>0.00%</td></tr><tr><td>portable improved cookstove</td><td>0</td><td>0.00%</td></tr><tr><td>others</td><td>0</td><td>0.00%</td></tr><tr><td>Total</td><td>120</td><td>100.00%</td></tr></table>	Kind of cook stove in baseline scenario	Number of households	Percentage	open fire	4	3.33%	three-stone fire	116	96.67%	conventional stove without grate or chimney	0	0.00%	LPG stove	0	0.00%	basic charcoal or coal cookstove	0	0.00%	improved stove with grate or chimney	0	0.00%	portable improved cookstove	0	0.00%	others	0	0.00%	Total	120	100.00%
	Kind of cook stove in baseline scenario	Number of households	Percentage																												
	open fire	4	3.33%																												
	three-stone fire	116	96.67%																												
	conventional stove without grate or chimney	0	0.00%																												
	LPG stove	0	0.00%																												
	basic charcoal or coal cookstove	0	0.00%																												
	improved stove with grate or chimney	0	0.00%																												
portable improved cookstove	0	0.00%																													
others	0	0.00%																													
Total	120	100.00%																													
The result of baseline survey is 3.33% using open fire and 96.67% three-stone fire, which 100% of them belongs to option(a) above. Hence, the applied value is 0.1 of η_{old} .																															
Frequency of monitoring/recording	Fixed for each individual household at the time of project implementation																														
Value monitored	0.1 is applied based on baseline survey																														
Monitoring equipment	NA																														
QA/QC procedures to be applied	NA																														
Purpose of the data	Calculation of emission reductions																														
Calculation method	NA																														
Comments	NA																														

Data / Parameter	Life span
Data unit	Years
Description	Project promoters to state the operating lifetime of project device for projects opting Equation 5 for determining project stove efficiency.
Source of data	Manufacturer's specification

Description of measurement methods and procedures to be applied	NA
Frequency of monitoring/recording	Once at the time of project stove installation
Value monitored	7
Monitoring equipment	NA
QA/QC procedures to be applied	NA
Purpose of the data	Calculation of emission reductions
Calculation method	NA
Comments	NA

4.3 Monitoring Plan

The local partners of Iceberg (i.e. project proponent) are in charge of the implementation of the monitoring plan and reporting to the project proponent. The project proponent is in charge of designing the monitoring plan and completing the monitoring report. Sampling survey has been applied for monitoring.

(a) Sampling Plan

As per the Standard for Sampling and Surveys for CDM Project Activities and Programmes of Activities, Version 09.0:

Sampling design

(1) Objectives and reliability requirements

The objective is determining the value of parameter $N_{y,i,j}$ and $B_{y=1,new,i,survey}$ during the monitoring period, and with a 90/10 confidence/precision compliance with the applied methodology.

The following parameters may be determined by sampling:

Parameter	Description	Frequency
$N_{y,i,j}$	Number of project devices of type i and batch j operating during year y	Biennial

$B_{y=1,new,i,survey}$	Quantity of woody biomass used by project devices in tonnes per device of type i and batch j	Determined in the first year of project implementation
------------------------	--	--

(2) Target population

The target population are the households who have received the project ICSSs.

(3) Sampling method and size

Multi-stage sampling was applied in the sampling survey during this monitoring period. 8 villages were randomly chosen in the first stage of the sampling process. Then 20 households were randomly chosen from each of the 8 villages. The equation 16 and 33 of “Guideline for Sampling and surveys for CDM project activities and programmes of activities” (version 04.0) were used to determine the above sample size:

$$c \geq \frac{\frac{SD_B^2}{\bar{p}^2} \times \frac{M}{M-1} + \frac{1}{\bar{u}} \times \frac{SD_w^2}{\bar{p}^2} \times \frac{(\bar{N} - \bar{u})}{(\bar{N} - 1)}}{\frac{0.1^2}{1.645^2} + \frac{1}{M-1} \times \frac{SD_B^2}{\bar{p}^2}} \quad \text{Equation (16)}$$

Where:

C	=	Number of villages that should be sampled
M	=	Total number of villages in the population
$\bar{u}$	=	Number of households to be sampled within each village
$\bar{N}$	=	Average households per village
SD_B^2	=	variance between villages
SD_w^2	=	average within village variation
p	=	Overall proportion
1.645	=	Represents the 90% confidence required
0.1	=	Represents the 10% relative precision

$$c \geq \frac{\left(\frac{SD_B}{Clustermean} \right)^2 \times \left(\frac{M}{M-1} \right) + \left(\frac{1}{u} \right) \times \left(\frac{SD_W}{Overallmean} \right)^2 \left(\frac{\bar{N}-u}{\bar{N}-1} \right)}{\left(\frac{0.1}{1.645} \right)^2 + \frac{1}{M-1} \left(\frac{SD_B}{Clustermean} \right)^2} \quad \text{Equation (33)}$$

Where:

- M = Total number of villages in the population
- $\bar{N}$ = Average households per village
- u = Number of households that have been pre-specified to be sampled per village
- 1.645 = Represents the 90% confidence required
- 0.1 = Represents the 10% relative precision

To achieve 90/10 confidence/precision, for $B_{y=1,new,i,survey}$, the minimum number of the sampled villages is 6; for $N_{y,i,j}$, the minimum number of the sampled villages is 1. As the project proponent and its local partner has surveyed 8 villages, the survey met the required 90/10 confidence/precision. The details of monitoring survey data and calculation of sampling size are recorded in document “2_Data recording of Monitoring Survey-Kenya”.

Minimum number of sampled villages for $B_{y=1,new,i,survey}$:

Overall Mean		0.5355
Cluster Mean		1153.3702
SD_B	Standard deviation between 6 villages	172.1400
SD_W	Average within village standard deviation	0.0308
$SD_B/Cluster\ Mean$		0.1492
$SD_W/Overall\ Mean$		0.0576
M	Total No. of villages	50
u	No. of households sampled for each village	20
$\bar{N}$	Average No. of households per village	497.25
C_{min}	Minimum No. of villages to be sampled	6

Minimum number of sampled villages for $N_{y,i,j}$:

Village	Proportion of cookstoves in operation(p_i)	Variance within village ($p_i(1-p_i)$)
Kiyo	1.00	0
Manyungu	0.95	0.0475
Guthuru	1.00	0
Kirwara	1.00	0
karembu	1.00	0
Komo	1.00	0
kanjai	1.00	0
Giathieko	1.00	0
p	Overall proportion	0.99
SD^2_B	variance between villages	0.0003
SD^2_W	average within village variation	0.0059
M	Total No. of villages	50
u	No. of households sampled for each village	20
$\bar{N}$	Average No. of households per village	497.25
1.645	Represents the 90% confidence required	
0.1	Represents the 10% relative precision	
C_{min}	Minimum No. of villages to be sampled	1

The start date of the project is 21/06/2022. According to the applied methodology, the fuel consumption survey has to be done in first year of implementation. The project Fuel Consumption Survey was conducted by local staff from 03/05/2023 to 06/06/2023, thus it has met the requirement. The Project Survey, which including Usage Survey was conducted from 01/09/2023 to 14/11/2023. Please refer to the submitted spreadsheet “2_Data recording of Monitoring Survey” for details.

(b) Data to be collected

Besides the above parameters, the following data has been collected as per the applied methodology:

- Date of distribution
- Geographic location of the household who received the ICS
- Quantity of project ICSs distributed
- Name and telephone number, and address of received households

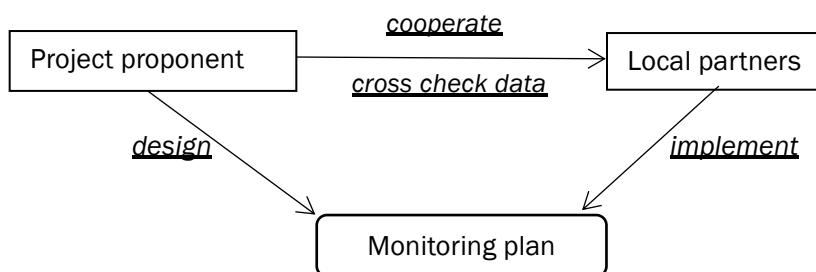
- unique identification ID for each ICS that is distributed
- Whether the cookstoves distributed under the project are being used
- Whether baseline stoves or other stoves are being used along with project stoves

The information collected will be stored in the electronic database for 2 years after the end of crediting period.

Organizational structure

Training about monitoring plan has been provided to local partners, including survey protocol, data record and analysis. The monitoring plan has been carried out by qualified personnel trained for quality assurance and quality control. The project proponent inspects local partners to confirm that the personnel are qualified and the monitoring plan has been properly implemented. The data collected has been cross checked by the project proponent.

The organizational structure for monitoring is shown as the bellow:



Roles and responsibilities:

- Project proponent

The project proponent is also project developer, who is the central figure in the implementation of the improved cookstove project. Their responsibilities include:

Technology selection: Choosing a technology design with predictable performance, ensuring it is proven to be efficient and durable under field conditions.

Monitoring and validation: Designing the monitoring plan to make sure the project function well and solve problems in time.

Data management: Ensuring accurate data collection, storage, and reporting in compliance with the project's monitoring plan.

- Local partners

Local partners act as intermediaries between the project developer and the end users. Their responsibilities include:

End user communication: Informing and notifying end users that they cannot claim emission reductions from the project.

Data collection: Assisting in the collection of data on stove usage and fuel consumption through surveys and field studies.

- Third-party validation and verification body

Third-party validation and verification body is essential for:

Validation and verification: Conducting independent validation and verification of data, including survey results and fuel consumption test results, to ensure compliance with the applied methodology and fact.

(c) Implementation plan

The main survey methods applied in the sampling plan include hardcopy questionnaires, online questionnaires, and face to face interview. The potential of refusals and other means of non-responses has been taken into account.

The main survey methods applied in the sampling plan include hardcopy questionnaires, online questionnaires, face to face interview and telephone interview. The potential of refusals and other means of non-responses will be taken into account for calculation of sample size. Meanwhile, in order to minimize the rates of non-response and answer bias, the questionnaires will be designed by professional team and widely tested before use.

Oversight and accountability of monitoring activities

- Avoidance of double counting

To avoid double counting, the project proponent has clearly communicated ownership rights and intentions of claiming the emission reductions to all other project participants, technology manufacturers and distributors through contracts. And also informed end users that they cannot claim emission reductions from the project. Exclude any cooking devices already included in other voluntary market.

- Data collection

The project developer has undertaken project-specific field surveys.

Procedures for internal auditing and QA/QC

Internal auditing procedures

- Sampling and surveys:

- Use multi-stage sampling methods for sampling to reflect the real fuel savings of the project population.
- Take surveys in two phases: the baseline scenario and the project scenario to ensure accurate comparisons.

QA/QC Procedures

- Data Collection and Verification:

Conduct usage surveys to capture the presence and usage practices of baseline and other non-project technologies by project technology end users.

Provide fuel for tests to control the weighing and use of fuel, ensuring that subjects use only the designated stock, which is pre-weighed and monitored.

- Documentation and Reporting:

Maintain detailed records of all tests, including the hand writing questionnaires and online database.

Ensure all surveyed households understand that they are expected to cook normally during the tests.

All surveyors have been trained about the protocols of surveys.

Handling non-conformances

During this monitoring period, the monitoring plan has no non-conformance.

5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

The applied methodology does not account for baseline emissions separately, but instead quantifies emission reductions as a function of the reduction in the amount of non-renewable biomass fuel consumption in the efficient project stoves as compared to baseline stoves. Please refer to Section 5.4 of the MR.

5.2 Project Emissions

The applied methodology does not account for project emissions separately, but instead quantifies emission reductions as a function of the reduction in the amount of non-renewable

biomass fuel consumption in the efficient project stoves as compared to baseline stoves. Please refer to Section 5.4 of the MR.

5.3 Leakage Emissions

Leakage is considered as default 0.95 in accordance with the applied methodology.

5.4 GHG Emission Reductions and Carbon Dioxide Removals

The project activity replaces traditional wood-based stove with ICS, therefore net GHG emission reductions are calculated by applying Equations 1 and 2.

$$ER_y = \sum_i \sum_j ER_{y,i,j} \quad \text{Equation (1)}$$

Where:

- i = Indices for the situation where more than one type/model of improved cook stove is introduced to replace three-stone fire
- j = Indices for the situation where there is more than one batch of improved cook stove of type i
- ER_y = Emission reductions during year y in t CO₂e
- $ER_{y,i,j}$ = Emission reductions by improved cook stove of type i and batch j during year y in t CO₂e

$$ER_{y,i,j} = B_{y,saving,i,j} \times f_{NRB,y} \times NCV_{wood\ fuel} \times (EF_{wf,CO_2} + EF_{wf,non\ CO_2}) \times N_{y,i,j} \times 0.95 \quad \text{Equation (2)}$$

Where:

- $B_{y,saving,i,j}$ = Quantity of woody biomass that is saved in tonnes per improved cook stove of type i and batch j during year y
- $f_{NRB,y}$ = Fraction of woody biomass that can be established as non-renewable biomass (f_{NRB}). The value is calculated to be 0.89.
- $NCV_{wood\ fuel}$ = Net calorific value of the non-renewable woody biomass that is substituted or reduced (IPCC default for wood fuel, 0.0156 TJ/tonne)⁹
- EF_{wf,CO_2} = CO₂ emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 112 tCO₂/TJ)¹⁰

⁹ AMS II.G. Version 11

¹⁰ 2006 IPCC Guidelines for National Greenhouse Gas Inventories; Chapter 2 Stationary Combustion

$EF_{wf,non\ CO_2}$ = Non-CO₂ emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 26.23 tCO₂/TJ)¹¹

$N_{y,i,j}$ = Number of improved cook stoves of type i and batch j operating during year y

0.95 = Discount factor to account for leakage

The quantity of woody biomass saved due to implementation of improved cook stoves is estimated by Equations 4 of the applied methodology:

$$B_{y,savings,i,j} = B_{y=1,new,i,survey} \times \left(\frac{\eta_{new,y,i,j}}{\eta_{old}} - 1 \right) \quad \text{Equation (4)}$$

Where:

η_{old} = Efficiency of baseline cookstove. The value is 0.1 based on baseline survey.

$\eta_{new,y,i,j}$ = Efficiency of the improved cook stove type i and batch j determined using Equation 5.

$B_{y=1,new,i,survey}$ = Annual quantity of woody biomass used by improved cook stoves in tonnes per device of type i and batch j, determined in the first year of the implementation of the project through a sample survey.

$$\eta_{new,y,i,j} = \eta_p \times (DF_n)^{y-1} \times 0.94 \quad \text{Equation (5)}$$

Where:

η_p = Efficiency of project stove (fraction) at the start of project activity; the value is 27.2% as per the specifications provided by manufacturer

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

0.94 = Adjustment factor to account for uncertainty related to project cookstove efficiency test

As validated in the registered PD, the values of relative parameters below have been applied.

As validated in the registered PD, the values of relative parameters below have been applied.

¹¹ 2006 IPCC Guidelines for National Greenhouse Gas Inventories; Chapter 2 Stationary Combustion

$$\eta_p=27.2\%;$$

$$DF_n=0.99;$$

Therefore, $\eta_{new,y,i,j}$ is calculated as below:

Age(y)	$\eta_{new,y,i,j}$
1	25.57%
2	25.31%

The project has distributed 26,130 ICSs to households during the monitoring period. According to the survey, there is only one household not use project ICS among the 160 sampled households. Therefore, the annual loss rate is 1/160. The usage rate is 159/160=99.38%.

Therefore, the $N_{y,i,j}$ is applied as below:

26,130 project ICSs have been distributed during this monitoring period, hence,

$$N_{y,i,j}=26,130*99.38\%=25,966$$

$$B_{y=1,new,i,survey}=0.83 \text{ tonnes/device/year according to monitoring survey.}$$

GHG emission reductions of the monitoring period is shown below:

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Reduction VCU (tCO ₂ e)	Removal VCU (tCO ₂ e)	Total VCU (tCO ₂ e)
21/06/2022-31/12/2022	N.A.	N.A.	0	18,124	0	18,124
01/01/2023-31/12/2023	N.A.	N.A.	0	48,033	0	48,033
01/01/2024-20/06/2024	N.A.	N.A.	0	28,422	0	28,422
Total	N.A.	N.A.	0	94,580	0	94,580

The estimated ex-ante GHG emission reductions and carbon dioxide removals and the achieved reductions and removals for the monitoring period:

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
21/06/2022-31/12/2022	23,340	18,124	-22.35%	There are three main reasons:

01/01/2023-31/12/2023	160,369	48,033	-70.05%	1) Due to a lack of funds, only 26,130 ICSs have been distributed during this monitoring period, which is the first two years of the project, and the project proponent planned to distribute 100,000 ICSs as described in registered PDD. The actual distribution quantity only counts about a quarter of the planned distribution quantity. 2) For ex-ante emission reduction calculation, it was assumed that 1.16tonnes/device/year. But the value applied in this monitoring period is only 0.83tonnes/device/year according to the survey, which is 28.27% less than the former. 3) The average operation days of all devices during the first year of this monitoring period is 202.97, which only accounts 55.61% of one whole year.
01/01/2024-20/06/2024	128,145	28,422	-77.82%	
Total	311,854	94,580	-69.67%	

APPENDIX 1: STATEMENTS ABOUT OUTCOMES OF SDGS

Statement from Jambo Capital Initiative which is the project implementer of the project.



JAMBO CAPITAL INITIATIVE

For a Better Tomorrow

HEAD OFFICE:

MAIN STAGE, JOMBAS HOUSE, GROUND FLOOR,

P.O. BOX 4816 - 01002, THIKA. TEL: 0721 317 773

Email: info@jambocapital.co.ke Website: jambocapital.co.ke

Statement from

Date: 27/03/2024

Jambo Capital Initiative for Kenya Jiko Kisasa Improved Cookstove Program

To whom it may concern:

Jambo Capital Initiative (hereinafter referred to as JCI) is the project implementer of the VCS project - Kenya Jiko Kisasa Improved Cookstove Program (hereinafter referred to as the Project). JCI declares that, before the implementation of the project, we had 5 full-time employee and 20 part-time employee, and 8 of them were women, 1 was with disabilities. After the implementation of the project, we have 7 full-time employee and 30 part-time employee, and 18 of them are women, 1 is with disabilities. Our production capacity increased from 10200 devices per month to 16800 per month.

Jambo Capital Initiative




To access our services simply dial *483* 99# and follow the prompts.