

TEMPLATE

MONITORING REPORT

PUBLICATION DATE **14.10.2020**

VERSION **v. 1.1**

RELATED SUPPORT - **TEMPLATE GUIDE Monitoring Report v. 1.1**

This document contains the following Sections

Key Project Information

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SECTION B - Implementation of project

SECTION C - Description of monitoring system applied by the project

SECTION D - Data and parameters

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KEY PROJECT INFORMATION

This template has been revised to aid a consistent interpretation and to better support project developers submitting documentation for certification. Please read the accompanying guide to understand how to complete this template accurately.

[TEMPLATE GUIDE Monitoring Report v. 1.1](#)

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Programme of Activity Information – (delete below table if N/A)

GS ID of Programme	GS12943
Title of Programme	OYU-Building Sustainable Nigerian Communities
Version of POA-DD applicable to this monitoring report	6.2
Name and GS ID of fully Validated CPA/VPAs (i.e. non compliance check)	Name: 1. GS 12943 OYU - Building Sustainable Nigerian Communities VPA 01 GS ID: 1. GS12944

Key Project Information

GS ID (s) of Project (s)	GS12944
Title of the project (s) covered by monitoring report	GS 12943 VPA-1 OYU - Building Sustainable Nigerian Communities VPA 01
Version number of the PDD/VPA-DD (s) applicable to this monitoring report	8.0
Version number of the monitoring report	7.0
Completion date of the monitoring report	23/02/2026
Date of project design certification	22/08/2025
Date of Last Annual Report	N/A as this project is not registered/ design certified
Monitoring period number	1 st

Duration of this monitoring period	22/08/2023 to 31/08/2024 ¹ (inclusive of both dates)
Project Representative	OYU – Green Private Limited
Host Country	Nigeria
Activity Requirements applied	☒ Community Services Activities ☐ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☐ N/A
Methodology (ies) applied and version number	Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) version 4.0
Product Requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ N/A

Table 1 - Sustainable Development Contributions Achieved

Sustainable Development Goals Targeted	SDG Impact	Amount Achieved	Units/ Products
13 Climate Action (mandatory)	Emission Reductions	255,755	VERs
3. Good health and well being	Reduced incidence of disease caused by air pollutants	97.66%	End users in % perceiving improved health conditions

¹ The application of retroactive crediting in accordance with **Paragraph 5.1.37 of the Gold Standard Principles and Requirements**, which allows retroactive performance certification for up to two years prior to the Project Design Certification date. Accordingly, emission reductions were considered from **23/08/2023**, resulting in a shorter eligible Monitoring period duration i.e., from 23/08/2023 to 31/08/2024 for VERs Claims

5. Gender equality	Women empowerment and gender equality	95.31%	Percentage End users confirming time saving
8. Decent work and economic growth	Increased employment opportunities	20	Number of jobs created

Table 2 – Product Vintages

		Amount Achieved			
Start Dates	End Dates	VERs	ADALYs		
22/08/2023	31/12/2023	48,231	0		
01/01/2024	31/08/2024	207,524	0		

SECTION A. DESCRIPTION OF PROJECT

A.1. General description of project

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Empowering Nigerian Communities Through Clean Cooking

This project aims to transform the lives of rural and tribal Nigerians by addressing critical health, economic, and environmental challenges. By providing and promoting the use of improved cookstoves and fuel switch from conventional wood to wood pellets, we seek to reduce indoor air pollution, improve respiratory health, and enhance the overall well-being of these communities. Additionally, the project will create local jobs and foster environmental stewardship by raising awareness about climate change and the benefits of sustainable cooking practices.

This project aims to replace inefficient traditional cookstoves with modern, energy-efficient alternatives and fuel switch. By improving cooking efficiency and reducing indoor air pollution, we seek to enhance the health, well-being, and economic prospects of rural and tribal communities. Additionally, the project will create local jobs and contribute to environmental sustainability by mitigating greenhouse gas emissions. Fuel used in baseline scenario is wood and in project scenario is wood pellets.

The location of the project is Nigeria, particularly in Enugu and Gombe state, in various districts. A list of districts and stove count is provided in section A.2.

Without project intervention, target households rely heavily on inefficient and polluting traditional cookstoves, consuming non-renewable biomass fuels for daily cooking needs.

A.2. Location of project

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The geographical boundary for the project is located in Nigeria, particularly in the states of Gombe and Enugu, as mentioned in the form of extreme geographic coordinates of Nigeria as follows:

Latitude - 10° 00' N

Longitude - 8° 00' E²



The following table showcases the distribution of Improved cookstoves across different districts of Host country i.e. Nigeria.

² https://www.mapsofworld.com/lat_long/nigeria-lat-long.html

Name of Districts	Stove type				Grand Total
	PC100	T100	T500	U100	
Abakpa Ii		1524		11679	13203
Akko	2			2	4
Amorji		737			737
Bagadaza				1	1
BAJOGA	1				1
BOJUDE				1356	1356
BOLARI EAST	60			2	62
BOLARI WEST	38				38
Deba			70	252	322
Difa / Lubo / Kinafa				189	189
DUKKU				4310	4310
Enugu				44	44
EZIAMA				44	44
Gabukka	2				2
GARKO	12316			1433	13749
Gombe	17	11	1	60	89
Gwani / Shinga / Wade		781	30	5439	6250
Hinna		911	901	9509	11321
Jagali South				861	861
Kaltungo Area Court"				8	8
Kanawa / Wajari		491	294	3602	4387
KASHERE	12110				12110
KPAK	1				1
Kumo	1	2			3
KUMO CENTRAL	1009				1009
KUMO WEST	1833				1833
Kuri /Lano / Lambam				1486	1486
Kwadon / Liji / Kurba				356	356
Mbuluiyiukwu		6359		710	7069
NAFADA				2795	2795
Nafada West				279	279
NASARAWA				70	70
Nono / Kunwal / W. Birdeka				6304	6304
Pantami				2	2
SHAMAKI	67				67
SHONGOM				8598	8598
YALMALTU/ DEBA				18506	18506
Zambuk / Kwali			216	4540	4756
Grand Total	27457	10816	1512	82437	122222

A.3. Reference of applied methodology

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This VPA instance involves distributing project devices to households participating in the project in the host country, Nigeria.

SELECTED GHG OF BASELINE AND MONITORING METHODOLOGY: TPDDTEC REDUCED EMISSIONS FROM COOKING AND HEATING: Technologies and Practices to Displace Decentralized Thermal Energy Consumption v4.0³.

REQUIREMENTS AND GUIDELINES: Usage Rate monitoring, version 2.0⁴

ACTIVITY REQUIREMENTS: Community Services Activity Requirements v1.2⁵

CDM TOOL 30 – Calculation of the fraction of non-renewable biomass version 04.0⁶

A.4. Crediting period of project

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The VPA's first crediting period shall last for 5 years starting from 22/08/2023 to 21/08/2028 and shall be renewed twice totaling 15 years, 0 months.

In accordance with Paragraph 5.1.37 of *PRINCIPLES & REQUIREMENTS v2.1*, the crediting period has been revised to commence on 22/08/2023, i.e., two years retroactively from the Project Design Certification date of 22/08/2025.

³ https://globalgoals.goldstandard.org/standards/407_V4.0_EE_ICS_Reduced-Emissions-from-Cooking-and-Heating-TPDDTEC.pdf

⁴ https://globalgoals.goldstandard.org/standards/407G_V2.0_EE_ICS_TPDDTEC_Usage-guidelines.pdf

⁵ https://globalgoals.goldstandard.org/standards/201_V1.2_AR_Community-Services-Activity-Requirements.pdf

⁶ <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-30-v4.0.pdf>

SECTION B. IMPLEMENTATION OF PROJECT

B.1. Description of implemented project

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(a) Purpose of the specific-case VPA(s) and the measures taken for GHG emission reductions or net GHG removals by sinks;

OYU - Green Private Limited is distributing improved cookstoves to rural Nigerian households to replace traditional, inefficient cookstoves. The distribution occurred over a period of 6 months starting from 01-August-2023 to 31-December-2023. This initiative aims to reduce greenhouse gas emissions by promoting cleaner and more efficient cooking practices.

(b) Description of the technology employed and installed equipment and/or infrastructure, including information requested by the eligibility criteria;

The technology distributed offer four kinds of stove type:

- (a) T100
- (b) T500
- (c) U100
- (d) PC100

TECHNICAL SPECIFICATION (Material and construction):

Component Stove Type: U100, T100, PC100, T500	Minimum Standard Requirements	Means of verification	Comments/remarks
Outer body	>= 1 mm thick mild steel or galvanized, stainless steel	By inspection and measurement Powerstove Ure Model sample	1 mm light metal sheet (outer body and top outer body made of stainless sheet with pot stand). The stove outer body painted red, but still needs some good finishing. - sharp edges

			observed, pot sitters not uniform, stove stand to be raised at least 20 mm from the ground.
Combustion Chamber	≥ 1 mm thick stainless steel/ mild steel/ ≤ 20 mm fired clay		Made of perforated metal sheet for proper air distributions in the combustion chamber and divergence shape for proper heat spread
Provision for air inlet	durable grate or holes	By measurement	20 mm diameter air inlet door (primary). Secondary air inlet with 10 holes, diameter, 20 mm distributed round the stove body 10 mm from the stove stand.
Insulation material	Rock wool/ceramic fiber	By inspection	Air gap of 6 cm is provided between the combustion chamber inner wall and stove outer wall as means of insulation
Top with pot stand	≤ 10 mm high cast iron/thick mild steel/ stainless steel	By inspection and measurement	Height of pot stands not uniform, 20 mm high. Reduce it to about 12mm

Handles or hand grip	Non-metallic or insulated material and can withstand high temperature of outer body	By measurement with digital thermometer UT321	Metallic handle painted red and withstand high outer body temperature
Fuel type	Wood pellets	As per survey conducted by PD	Processed wood precured from a known/tracible source

The following table consists of additional characteristics specific to stove type for all 4 types of project technology I.e. ICS:

Technical specifications	U100	T100	PC100	T500
Thermal Efficiency (%)	38.2	58.9	45.8	45.9
Energy Output Rate (kW)	0.109	0.168	0.131	0.131
Stove Size (L*B*H mm)	367*312*308	341*301*302	325*270*255	367*312*308
Weight (kgs)	2.4	2.8	2.6	2.9
Lifespan (Based on proper use and handling)	5years	5 years	5 years	5 years

S.no.	Model type	Pictures of stove
1	T100	
2	T500	

3	U100	 The Everest U100 is a black, cylindrical, single-burner gas stove. It features a black lid with two silver-colored handles and a central burner. The body of the stove has two silver-colored handles on the sides and a black base. The brand name 'EVEREST' is embossed on the side.
4	PC100	 The Everest PC100 is a black, cylindrical, single-burner gas stove. It features a silver-colored lid with four silver-colored handles and a central burner. The body of the stove has two silver-colored handles on the sides and a black base. The brand name 'EVEREST' is embossed on the side. The stove has a distinctive design with a silver-colored band around the middle and a black base with a silver-colored handle.

d) Relevant dates for the specific-case VPA(s) (e.g. construction, commissioning, continued operation periods, etc.);

Start Date as per VPA-DD	01/08/2023
Continued operation period	Since the start date Additionally, PD has considered a lag time of 1 day as the user might not have started using the stove right from the day of installation.

B.1.1 Forward Action Requests

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FAR 1. PD shall mention end date of stakeholder feedback round, details comments received and complete stakeholder consultation report once feedback round is completed.

Response: Details of Stakeholder feedback round is updated in Stakeholder consultation report

B.2. Post-Design Certification changes

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B.2.1. Temporary deviations from the approved Monitoring & Reporting Plan, methodology or standardized baseline

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There are no deviations

B.2.2. Corrections

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There are no corrections

B.2.3. Changes to start date of crediting period

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No changes

B.2.4. Permanent changes from the Design Certified monitoring plan, applied methodology or applied standardized baseline

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No changes

B.2.5. Changes to project design of approved project

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No changes

SECTION C. DESCRIPTION OF MONITORING SYSTEM APPLIED BY THE PROJECT

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The CME employs a management system to guarantee that all VPA Implementers under the PoA effectively implement, operate, and monitor their VPAs in a verifiable manner. The PoA follows the following management and operational System:

1. The Program Manager is responsible for maintaining records and implementing a documentation control process for each VPA under the PoA.
2. The CME made sure that end users know about and agree to their unit ICS being part of the PoA. This is done primarily by signing user agreements. Additionally, this credit transfer information is spread through informational materials, training sessions, print media etc. during consultations with beneficiaries and other local population.
3. The CME provided guidance, training, and instructions to field staff on how to collect the necessary data. The Program Manager maintains records of these training sessions. The field staff compiled a list of installed or distributed units, along with the required end-user and baseline information, and regularly updated the electronic database management system. This system is managed by the Program Manager at the CME or VPA Implementer's office.
4. The record of total project devices distributed about the ICS implemented in the project boundary. This record is maintained. The total distribution record includes information about the ICS system, such as, but not limited to:
 - Type of stove
 - Unique serial number of the units installed / distributed
 - Date of installation / distribution
 - Address of the beneficiary

SECTION D. DATA AND PARAMETERS

D.1. Data and parameters fixed ex ante or at renewal of crediting period

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SDG 13

Data/parameter	ICS 1 Baseline scenario survey results
Unit	N/A
Description	Report of the results of the baseline scenario survey
Source of data	The report presents the results of the Baseline Scenario Survey, relevant for the baseline scenario definition.
Value(s) applied	The average woody biomass consumption is 6.6kg/household/day.
Choice of data or Measurement methods and procedures	The baseline scenario methods are presented in section B.4 of the VPA-DD
Purpose of data	Calculation of baseline emissions
Additional comment	N/A

Data/parameter	ICS 2 Project technology description
Unit	N/A
Description	Manufacturer specifications provided by implementation partner who manufactures the stove.
Source of data	The methodology requires that any of the following sources shall be used: - Manufacturer specifications

Value(s) applied	TECHNICAL DETAILS			
	Component U100, PC100. T500 & T100	Minimum Standard Requirements	Means of verification	Comments/remarks
	Outer body	>= 1 mm thick mild steel or galvanized, stainless steel	By inspection and measurement Powerstove Ure Model sample	1 mm light metal sheet (outer body and top outer body made of stainless sheet with pot stand). The stove outer body painted red, but still needs some good finishing. - sharp edges observed, pot sitters not uniform, stove stand to be raised at least 20 mm from the ground.
	Combustion Chamber	>= 1 mm thick stainless steel/ mild steel/<= 20 mm fired clay		Made of perforated metal sheet for proper air distributions in the combustion chamber and divergence shape for proper heat spread
	Provision for air inlet	durable grate or holes	By measurement	20 mm diameter air inlet door (primary). Secondary air inlet with 10 holes, diameter, 20 mm

				distributed round the stove body 10 mm from the stove stand.
	Insulation material	Rock wool/ceramic fiber	By inspection	Air gap of 6 cm is provided between the combustion chamber inner wall and stove outer wall as means of insulation
	Top with pot stand	<=10 mm high cast iron/thick mild steel/stainless steel	By inspection and measurement	Height of pot stands not uniform, 20 mm high. Reduce it to about 12mm
	Handles or hand grip	Non-metallic or insulated material and can withstand high temperature of outer body	By measurement with digital thermometer UT321	Metallic handle painted red and withstand high outer body temperature
	Fuel used	Wood pellets	As per survey conducted by PD	Processed wood procured from a known/tracible source
Choice of data or Measurement methods and procedures	The manufacturer of the project technology, in the manufacturer's specifications, has provided the detailed description of the product technology.			
Purpose of data	Evaluation of SDG Outcomes & Calculation of baseline and project emissions			

Additional comment	The project devices are specifically designed to operate exclusively with wood pellets to achieve the targeted thermal efficiency and optimal fuel consumption
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Data/parameter	ICS 3 Expected technical life of project technology
Unit	Time period (years)
Description	The expected technical life of all type of stoves distributed as part of this VPA shall be defined in the VPA-DD.
Source of data	The methodology requires that any of the following sources shall be used: - Manufacturer specifications - Certifications by national standards body or an appropriate certification party recognized by national standards body - For stoves built on-site at the end user location, field reports, which comply with the general requirements for sampling, of average technical life of the same stove type operated under similar conditions (socioeconomic and cultural). Simulation modelling may be applied together with such field reports to estimate the average technical life. Professional opinion or expert opinion is not accepted as a source for this parameter. The CME has sourced the data for the parameter from manufacturer guarantee as per the provided confirmation letter.
Value(s) applied	U100 – 5 years T100 – 5 years PC100 – 5 years T500 – 5 years
Choice of data or Measurement methods and procedures	The ICS implementation partner is the manufacturer of the project technology, and the technical specifications document serves as a confirmation of the expected technical life of the project technology. They have stringent quality control checks at their manufacturing facility to ensure that the beneficiaries

	can use the stove with minimal wear and tear affecting the performance and efficiency of the stoves for 5 years in ordinary conditions.
Purpose of data	Calculation of project emissions and project emission savings
Additional comment	The expected technical life of project technology equals the 5-year crediting period of the project and therefore measures to ensure that end users are provided replacement technology of comparable or higher quality at the end of the technical life, by either replacing with comparable or better technology, or retrofitting essential parts with performance guarantee is not needed.

Data/parameter	ICS 5 Avoidance of double counting or double claiming among project participants
Unit	N/A
Description	Evidence of avoidance of double counting or double claiming with other parties directly involved with the project or program.
Source of data	The Carbon Credit rights transfer agreements signed by end users, along with the Project Database maintained by the CME, which includes distribution records of the project cookstoves.
Value(s) applied	The CME shall provide the project database as proof
Choice of data or Measurement methods and procedures	N/A as there is no measurement method for ownership transfer
Purpose of data	To ensure avoidance of double counting
Additional comment	N/A No comments

Data/parameter	ICS 6 Avoidance of double counting or double claiming with other mitigation actions
Unit	N/A
Description	Review and analysis of mitigation actions in other voluntary market or UNFCCC/compliance mechanisms
Source of data	Using publicly available information from Gold Standard and other voluntary standards, at a minimum Verra and any recognized national or regional standards in the project location, and UNFCCC CDM project & PoA database: - Identify and list any mitigation actions of similar technology, i.e., that provide the same kind of output and use the same kind of equipment or conversion process, operating in overlapping spatial boundaries. If one or more are identified: - Describe the practices that will be implemented to ensure that the programme or project activity quantifies emission reductions only from technology it has implemented, - Describe the practices to avoid that the programme or project activity implementation displaces technology of other mitigation actions, and - Design a method to discount emission reductions in case the programme or project activity is found to displace or operate alongside another mitigation action. The CME has reviewed the Gold Standard and, Verra and UNFCCC CDM project & PoA registries
Value(s) applied	N/A No value applied
Choice of data or Measurement methods and procedures	N/A No measurement method applied
Purpose of data	To ensure avoidance of double counting
Additional comment	N/A No comments

Data/parameter	ICS 7 Regulatory framework for provision of thermal energy services
Unit	NA
Description	Evidence that the project does not undermine or conflict with any national, sub-national or local regulations or guidance for thermal energy supply/devices or fuel supply or use
Source of data	Self-declaration by Project developer
Value(s) applied	N/A No value applied
Choice of data or Measurement methods and procedures	N/A No measurement method applied
Purpose of data	To ensure that the project does not undermine or conflict with any national, sub-national or local regulations or guidance for thermal energy supply/devices or fuel supply or use
Additional comment	Undertake at the start of each crediting period.

Data/parameter	ICS 8 EF_{b,f,CO_2}
Unit	tCO ₂ /TJ
Description	CO ₂ emission factor arising from use of fuels in baseline scenario
Source of data	Wood: Methodology default, 112 tCO ₂ /TJ
Value(s) applied	The methodology default value of 112 tCO ₂ /TJ for fuelwood is applied.
Choice of data or Measurement methods and procedures	Default Value from the respective methodology

Purpose of data	For Emission Reduction Calculations
Additional comment	N/A No comments

Data/parameter	ICS 9 $EF_{b,f,nonCO2}$
Unit	tCO ₂ /TJ
Description	Non-CO ₂ emission factor arising from use of fuels in baseline scenario
Source of data	Wood: Methodology default: - 9.46 tCO ₂ e/TJ (AR5 GWP) or - 8.692 tCO ₂ e/TJ (AR4 GWP)
Value(s) applied	9.46 tCO ₂ e/TJ (AR5 GWP)
Choice of data or Measurement methods and procedures	Default Value from the respective methodology
Purpose of data	For Emission Reduction Calculations
Additional comment	N/A

Data/parameter	ICS 10 $EF_{p,f,CO2}$
Unit	tCO ₂ /TJ
Description	CO ₂ emission factor arising from use of fuels in project scenario
Source of data	Wood: Methodology default, 112 tCO ₂ /TJ
Value(s) applied	The methodology default value of 112 tCO ₂ /TJ for fuelwood is applied.

Choice of data or Measurement methods and procedures	Default Value from the respective methodology
Purpose of data	For Emission Reduction Calculations
Additional comment	N/A

Data/parameter	ICS 11 $EF_{p,f,nonCO_2}$
Unit	tCO ₂ /TJ
Description	Non-CO ₂ emission factor arising from use of fuels in project scenario
Source of data	Wood: Methodology default: - 9.46 tCO ₂ e/TJ (AR5 GWP) or - 8.692 tCO ₂ e/TJ (AR4 GWP)
Value(s) applied	9.46 tCO ₂ e/TJ (AR5 GWP)
Choice of data or Measurement methods and procedures	Default Value from the respective methodology
Purpose of data	For Emission Reduction Calculations
Additional comment	N/A

Data/parameter	ICS 12 $NCV_{b,fuel}$
Unit	TJ/ton
Description	Net calorific value of the fuels used in the baseline
Source of data	Wood: Methodology default, 0.0156 TJ/ton
Value(s) applied	0.0156 TJ/ton

Choice of data or Measurement methods and procedures	Default Value from the respective methodology
Purpose of data	For Emission Reduction Calculations
Additional comment	N/A No Comments

Data/parameter	ICS 13 $NCV_{p,fuel}$
Unit	TJ/ton
Description	Net calorific value of the fuels used in the project
Source of data	Wood: Methodology default, 0.0156 TJ/ton
Value(s) applied	0.0156 TJ/ton
Choice of data or Measurement methods and procedures	Default Value from the respective methodology
Purpose of data	For Emission Reduction Calculations
Additional comment	N/A

Data/parameter	ICS 17 $fNRB_{i,y}$
Unit	percentage
Description	Fractional non-renewability status of woody biomass fuel during year y, in case the baseline fuel is biomass or charcoal
Source of data	Determined by following the CDM TOOL30, Calculation of the fraction of non-renewable biomass
Value(s) applied	81.91

	%
Choice of data or Measurement methods and procedures	Assessment based on CDM Methodological tool 30: Calculation of the fraction of non-renewable biomass, Version 04.0
Purpose of data	For Emission Reduction Calculations
Additional comment	No comments

Data / Parameter	ICS 18 $P_{b,y}$
Unit	mass or volume units/household-day, mass or volume units/person-meal, etc.
Description	Quantity of fuel that is consumed in baseline scenario b during year y
Source of data	Baseline KPT
Value(s) applied	6.6 kg/household/day
Measurement methods and procedures	Measured
Monitoring frequency	At the start of crediting period (fixed for one crediting period)
QA/QC procedures	Compliance with the general requirements for sampling (Section 4.4), general requirements for QA/QC (Section 4.5) and Annex 2 Kitchen performance test. Of applied methodology ⁷
Purpose of data	Baseline Emission Calculation
Additional comment	N/A

⁷ https://globalgoals.goldstandard.org/standards/407_V4.0_EE_ICS_Reduced-Emissions-from-Cooking-and-Heating-TPDDTEC.pdf

D.2 Data and parameters monitored

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Data / Parameter	ICS 15 Avoidance of double counting or double claiming among project technology end users
Unit	NA
Description	Evidence of avoidance of double counting or double claiming with project technology end-users
Source of data	Carbon Credit rights transfer agreement signed by end users and Project Database
Value(s) applied	No double counting. Evidence of carbon waiver transfer to be provided during verification
Measurement methods and procedures	N/A No methods applied
Monitoring frequency	Monitored whenever project technology is sold or otherwise disseminated
QA/QC procedures	Cross check using general internet search and search of public records of Gold Standard and other voluntary market and UNFCCC mechanisms
Purpose of data	Avoidance of double counting
Additional comment	N/A

Data / Parameter	ICS 16 Presence of stove stacking
Unit	NA
Description	Descriptive statistics of the presence and usage practices of baseline- and other non-project-technology by project technology end users
Source of data	Usage Survey- use of other stoves, to capture cooking habits and stove usage of households in the region, including quantification of use of baseline devices, by formulating questions and/or collecting evidences to determine the frequency of usage of both the project

	devices and baseline devices, or monitoring surveys to capture the number of meals cooked.
	The surveys may be integrated with the usage survey
Value(s) applied	No Stove Stacking found
Measurement methods and procedures	N/A
Monitoring frequency	Annual
QA/QC procedures	The calculation of $SFS_{p,b,y}$, $SFC_{p,y}$, SE_{b,y,CO_2} and/or $SE_{b,y,non-CO_2}$ shall be cross-checked with the observed presence of stove stacking. Ensure any stove stacking is considered so that emission reductions are calculated only from real reduction of, or replacement of, baseline fuel use.
Purpose of data	Calculation of Emission Reductions
Additional comment	N/A

Data / Parameter	ICS 19 $P_{p,y}$
Unit	mass or volume units/household-day, mass or volume units/person-meal, etc.
Description	Quantity of fuel that is consumed in project scenario p during year y
Source of data	Project KPT
Value(s) applied	0.8 kg/household/day
Measurement methods and procedures	Measured
Monitoring frequency	Updated every two years, or more frequently
QA/QC procedures	Compliance with the general requirements for sampling (Section 4.4), general requirements for QA/QC (Section

	4.5) and Annex 2 Kitchen performance test. Of the applied methodology v4.0 ⁸
Purpose of data	Emission Reduction Calculations
Additional comment	In project scenario, the beneficiaries use Wood pellets as fuel

Data / Parameter	ICS 22 SE _{b,y,CO2}																	
Unit	tons/technology*day																	
Description	Specific CO ₂ emissions for a baseline b technology in year y																	
Source of data	Calculated from P _{b,y} EF _{b,f,CO2} and other information to obtain the emissions of the required units																	
Value(s) applied	0.012 tCO ₂ /technology/day																	
Measurement methods and procedures	Calculated as per guidance provided in GS approved ER tool for parameter ICS 22.1 ⁹																	
Monitoring frequency	Updated every two years, or more frequently																	
QA/QC procedures	Cross-check with proportional efficiency of baseline and project technology: <table><tr><td>Type of stove</td><td>η_{new}/η_{old}</td><td>P_{b,y}/ P_{p,y}</td></tr><tr><td>T100</td><td>3.06</td><td>2.64</td></tr><tr><td>U100</td><td>3.93</td><td>2.64</td></tr><tr><td>PC100</td><td>2.55</td><td>2.64</td></tr><tr><td>T500</td><td>3.05</td><td>2.64</td></tr></table>			Type of stove	η _{new} /η _{old}	P _{b,y} / P _{p,y}	T100	3.06	2.64	U100	3.93	2.64	PC100	2.55	2.64	T500	3.05	2.64
Type of stove	η _{new} /η _{old}	P _{b,y} / P _{p,y}																
T100	3.06	2.64																
U100	3.93	2.64																
PC100	2.55	2.64																
T500	3.05	2.64																

⁸ https://globalgoals.goldstandard.org/standards/407_V4.0_EE_ICS_Reduced-Emissions-from-Cooking-and-Heating-TPDDTEC.pdf

⁹ <https://globalgoals.goldstandard.org/407-4-tpddtec-er-calculation-tool/>

Purpose of data	Emission Reduction Calculations
Additional comment	N/A No Comments

Data / Parameter	ICS 23 SE_{p,y,CO_2}
Unit	tCO ₂ /technology*day
Description	Specific CO ₂ emissions for a project p technology in year y
Source of data	Calculated from $P_{p,y}$, EF_{p,f,CO_2} and other information to obtain the emissions in the required units
Value(s) applied	0.001 tCO ₂ /technology/day
Measurement methods and procedures	Calculated from $P_{p,y}$, EF_{p,f,CO_2} and $NCV_{p,fuel}$
Monitoring frequency	Updated every two years, or more frequently
QA/QC procedures	Determined through fuel specification sheet
Purpose of data	Emission Reduction Calculations
Additional comment	Applies when using Method 3

Data / Parameter	ICS 24 $SE_{b,y,non-CO_2}$
Unit	tCO ₂ e/technology*day
Description	Specific non-CO ₂ emissions for a baseline b technology in year y
Source of data	Calculated from $P_{b,y}$, $EF_{b,f,nonCO_2}$
Value(s) applied	0.001 tCO ₂ /technology/day

Measurement methods and procedures	Calculated as per guidance provided in GS approved ER tool for parameter ICS 22.1 ¹⁰
Monitoring frequency	Updated every two years, or more frequently
QA/QC procedures	The calculation method, inputs and their sources shall be described in detail in the monitoring report as this is a monitored parameter
Purpose of data	Emission Reduction Calculations
Additional comment	Applies when using Method 3

Data / Parameter	ICS 25 $SE_{p,y,nonCO2}$
Unit	tCO ₂ e/technology*day
Description	Specific non-CO ₂ emissions for a project p technology in year y
Source of data	Calculated from $P_{p,y}$
Value(s) applied	0.001 tCO ₂ /technology/day
Measurement methods and procedures	$P_{b,y} - P_{p,y}$
Monitoring frequency	Updated every two years, or more frequently
QA/QC procedures	Taken a value equal to $SE_{p,y,CO2}$ as per data availability
Purpose of data	Emission Reduction Calculations
Additional comment	Applied when using method 3

¹⁰ <https://globalgoals.goldstandard.org/407-4-tpddtec-er-calculation-tool/>

Data / Parameter	ICS 26 $U_{p,y}$
Unit	Percentage
Description	Weighted average usage rate in project scenario p during year y
Source of data	Usage survey, following the description in section 4.1. Usage survey. The survey result must provide the statistically valid proportion of users actively using the project technology for each project technology age cohort. From the annual usage survey results, calculate the weighted average percent of users actively using the project technology, where the weighting is by the quantity of project technologies of each age cohort being credited in a given project scenario.
Value(s) applied	90%, for the good practice in the "Requirements and Guidelines: Usage Rate Monitoring" ¹¹
Measurement methods and procedures	Sampling Surveys (physical) may be conducted to record the continued operation of project devices.
Monitoring frequency	At least annually
QA/QC procedures	The estimated sample size is 41 for project surveys as per the stratified sampling method. To obtain the best values for parameters like fuel consumption, stove stacking etc. this size is deemed insufficient as it does not cover sufficient numbers of each type of stoves. In particular, the T500 stove category is represented by only one sample, which is insufficient to generate statistically reliable and conservative estimates. To address this limitation, the project has adopted the Gold Standard applicable sampling guidelines for sample

¹¹ https://globalgoals.goldstandard.org/standards/407G_V2.0_EE_ICS_TPDDTEC_Usage-guidelines.pdf

	size calculation and implemented random sampling proportionate to total stoves distributed of each type; to ensure a sufficient number of samples within each stove category, including T500. The revised sampling proportions were cross-checked against both CDM-based stratification and Gold Standard-derived sampling requirements. The Gold Standard-based sample size was found to be more than double the CDM-derived estimate and has therefore been adopted to ensure adequate representation across all stove categories and improve the robustness of parameter estimation. Therefore, Simple random sampling method is applied as per GS sampling guide for all surveys (as demonstrated above). Sample size is calculated to be 128. Same sample size is adopted for usage survey as it is integrated with the monitoring survey
Purpose of data	Emission Reduction Calculations
Additional comment	N/A

Data / Parameter	ICS 27 $N_{b,p,y}$
Unit	days
Description	Number of project technology-days included in the project database for baseline b/project p pair in year y
Source of data	Calculated from Ex-post ER sheet as the sum of the number of project technology units times the calendar days during the year y that they were present at the end user locations Additionally, PD has considered a lag time of 1 day as the user might not have started using the stove right from the day of installation.
Value(s) applied	36753230
Measurement methods and procedures	- Calculated from project database as per the installation dates of individual devices.

	Also, usage survey was conducted to assess the usage of ICS
Monitoring frequency	Calculated annually
QA/QC procedures	Cross check the results of the usage survey with the contents of the project database to confirm whether the project technology units surveyed are present at end user locations as expected, or not. If there is discrepancy, this must be explained or corrected.
Purpose of data	Emission Reduction Calculations
Additional comment	N/A

Data / Parameter	ICS 28 LE _{p,y}
Unit	tCO ₂ e per year
Description	Leakage in project scenario p during year y
Source of data	As per section 3.11 of the respective methodology
Value(s) applied	Default discount value of 0.95
Measurement methods and procedures	N/A No method applied
Monitoring frequency	Default discount value of 0.95 applied to emission reductions
QA/QC procedures	Compliance with the general requirements for sampling (Section 3.1) and general requirements for QA/QC (Section 3.2) of applied methodology TPDDTEC v4.0 ¹²
Purpose of data	For calculation of Leakage
Additional comment	N/A

¹²https://globalgoals.goldstandard.org/standards/407_V4.0_EE_ICS_Reduced-Emissions-from-Cooking-and-Heating-TPDDTEC.pdf

SDG 3

Data / Parameter	N _{SDG 3}
Unit	Percentage
Description	Percentage of ICS users perceiving health conditions improved after using ICSs
Source of data	Project Surveys
Value(s) applied	97.66%
Measurement methods and procedures	End-users of ICS in the project area are surveyed on the influence of ICS usage on their health conditions
Monitoring frequency	Annually
QA/QC procedures	Questions will be included in the survey questionnaire to assess the parameter. Survey results will determine the proportion of population who perceive improved health conditions.
Purpose of data	Calculation of parameter N _{SDG 3}
Additional comment	N/A

SDG 5

Data / Parameter	N _{SDG 5}
Unit	Percentage
Description	Time saving from collection of fuel wood and cooking
Source of data	Project Surveys
Value(s) applied	95.31%
Measurement methods and procedures	End-users of ICS in the project area are surveyed the number of hours reduced due to usage of the project cookstove via cooking and fuel wood collection
Monitoring frequency	Annually
QA/QC procedures	Questions will be included in the survey questionnaire to assess the parameter. Survey results will determine the

	average time saving associated with fuel collection and cooking among end-users.
Purpose of data	To monitor the positive contribution of the proposed project related to the SDG 5 contribution
Additional comment	N/A

SDG 8

Data / Parameter	N _{EP}
Unit	Number
Description	Number of people employed
Source of data	Employees list
Value(s) applied	20
Measurement methods and procedures	Record keeping the number of employees hired in the project
Monitoring frequency	Annually
QA/QC procedures	Employment Records maintained by the CME
Purpose of data	Calculation of the parameter "Number of people employed"
Additional comment	N/A

D.3. Comparison of monitored parameters with last monitoring period

Data/Parameter	Value obtained in this monitoring period	Value obtained last monitoring period

N/A as the respective document reflects the first monitoring period

D.4. Implementation of sampling plan

>>

Description of Sampling plan:

Gold Standard

The large number of ICS units planned for distribution under the VPA, monitoring each individual unit is not economically feasible. Therefore, simple random sampling method is used as part of a project-wide Sampling Plan, designed in accordance with the Section 4.4. of the applicable methodology outlines the general requirements for sampling.

As per the applied methodology, the required surveys for this project include the monitoring cum usage survey (Up,y), the baseline and project performance field tests (Pb,y and Pp,y). The project surveys have the same sample sizing size and data collection guidelines as the baseline scenario survey (Section 4.3 in the applied methodology). The minimum sample size is 100 for group size that is more than 1,000. For baseline field test (BFT), a sample size of 128 is adopted considering non-responsive rate of 20%. Marginal oversampling is adopted in the sample size of 128 so as to ensure accurate results from all the field surveys and tests. The project surveys have the same sample size (i.e. 128) and data collection guidelines as the baseline scenario survey (as per Section 4.3 in the applied methodology).

Demonstration of Quality assurance in Sampling design:

As part of this VPA, project stove distribution includes four types of stoves with their respective efficiencies being different. Therefore, sample size calculation as per the stratified random sampling approach is also demonstrated for an accurate as well as conservative estimation of sample size, which factors in all the aspects of project implementation.

The goal is to obtain an unbiased and reliable estimate of the proportion or mean value of key variables throughout the crediting period. According to the Standard for "Sampling and Surveys for CDM Project Activities and Programme of Activities," paragraph 11 specifies that a 90/10 confidence/precision level is required for small-scale projects, and a 90/10 or 95/10 for large-scale projects. Since this project is classified as large under the Gold Standard guidelines, a 90/10 confidence/precision level is applied to all parameters, unless the project's average annual emission reductions fall below the specified threshold.

Since, the distribution covers four types of stoves with their respective efficiencies being different, four strata are created and sample size is calculated for each strata.

Sample Size as per stratified sampling:

In order to calculate the required sample size estimates, values for the proportions, mean values, and standard deviations are required. As per Guideline for Sampling and

surveys for CDM project activities and programmes of activities, version 4.0 (Appendix 1, paragraph 5 on Page 27 of 114)¹³, there are different ways available to obtain the estimates of the parameter of interest:

- (a) We may refer to the result of previous studies and use these results
- (b) In a situation where we do not have any information from previous studies, we could take a preliminary sample as a pilot and use that sample to provide our estimates
- (c) We could use “best guesses” based on the researcher’s own experiences.

Following the (c) approach for the expected proportion, PD has taken a value of 90% for each type of stove.

To estimate the sample size, the following equation is used¹⁴:

$$n \geq \frac{1.645^2 NV}{(N-1) \times 0.1^2 + 1.645^2 V} \quad \text{Equation (4)}$$

where:

Parameter	Value
n = Sample size	To be calculated
N = Population size (Total number of households/ICS)	122,222
$mean$ = Expected mean	0.9
SD = Expected standard deviation	0.09
1.645 = Represents the 90% confidence required (In the case of 95% confidence, 1.96 shall be used)	
0.1 = Represents the 10% relative precision	

Where: $V = \frac{SD^2}{\bar{p}^2} = \frac{\text{overall variance}}{\bar{p}^2}$ and $\bar{p}$ is the overall proportion.

¹³ [Meth_GC48 \(ver04.0\).pdf \(unfccc.int\)](#)

¹⁴ [Meth_GC48 \(ver04.0\).pdf \(unfccc.int\)](#)

$$SD^2 = \frac{(g_a \times p_a(1 - p_a)) + p_b(g_b \times (1 - p_b)) + (g_c \times p_c(1 - p_c)) + \dots + (g_k \times p_k(1 - p_k))}{N}$$

Equation (5)

$$\bar{p} = \frac{(g_a \times p_a) + (g_b \times p_b) + (g_c \times p_c) + \dots + (g_k \times p_k)}{N}$$

Equation (6)

Calculation of Sample size, n:

Calculation of Sample Sizes in Simple Random Sampling for Parameter $B_{y=1, new, ij, survey}$		
Definition	Value	Justification
The population size N is	1,22,222	Number of stoves registered
The expected overall proportion is	0.90	assumption
The expected SD^2 is SD^2	0.09	assumption
The value of V is	0.11	
Sample size	30.06	
Therefore the sample size for parameters $N_{y, ij}$ and $B_{y=1, new, ij, survey}$ is	31	
	39	Inclusive of 20% non-response

As per para 25, appendix 1 of CDM sampling guideline ver 4.0, calculation of G_i is demonstrated as follows:

$$n_i = \frac{g_i}{N} \times n \quad \text{where } i=1, \dots, k \text{ and } k \text{ is the number of districts in the area (in this case 4).}$$

Where:

g_i = Size of the i^{th} group (district) where $i=1, \dots, k$
 N = Population total

In our case, g_i is the number of stoves i.e. strata.

Strata (Type of stove)	Count of ICS g_i	Confidence Interval	SD^2	$\bar{p}$	n	Sample size $n_i = \frac{g_i}{N} \times n$
PC100	27457	0.9	2471.13	24711.3	39	9
T100	10816	0.9	973.44	9734.4	39	4
T500	1512	0.9	136.08	1360.8	39	1
U100	82437	0.9	7419.33	74193.3	39	27
	122222		0.09	0.9		41

The estimated sample size is 41 for project surveys as per the stratified sampling method. To obtain the best values for parameters like fuel consumption, stove stacking etc. this size is deemed insufficient as it does not cover sufficient numbers of each type

of stoves. In particular, the T500 stove category is represented by only one sample, which is insufficient to generate statistically reliable and conservative estimates.

To address this limitation, the project has adopted the Gold Standard applicable sampling guidelines for sample size calculation and implemented random sampling proportionate to total stoves distributed of each type; to ensure a sufficient number of samples within each stove category, including T500.

The revised sampling proportions were cross-checked against both CDM-based stratification and Gold Standard-derived sampling requirements. The Gold Standard-based sample size was found to be more than double the CDM-derived estimate and has therefore been adopted to ensure adequate representation across all stove categories and improve the robustness of parameter estimation.

Therefore, Simple random sampling method is applied as per GS sampling guide for all surveys (as demonstrated above). Sample size is calculated to be 128. The monitoring surveys were carried out by the CME field team starting from 15th July 2024 to 15th October 2024.

QA/QC

The CME is responsible for maintaining accurate and transparent records, as well as overseeing monitoring and evaluation. All project documentation and records must be readily accessible for review and cross-referencing by a third-party auditor.

SECTION E. CALCULATION OF SDG IMPACTS

E.1. Calculation of baseline value or estimation of baseline situation of each SDG Impact

>>

Ex ante calculations related to the outcomes of SDG 3

Estimated percentage of users reporting improved health conditions after using the project's improved cookstoves.

These cookstoves not only reduce fuelwood consumption but also emit significantly less smoke compared to the baseline stoves previously used in the project area. The reduction in smoke helps decrease respiratory diseases and other health hazards, leading to lower medical expenses and reduced air pollution. Consequently, the use of high-efficiency cookstoves contributes to better health conditions in households.

$$\text{Net Benefit (SDG 3)} = \text{Health}_{\text{Project}} - \text{Health}_{\text{Baseline}} = 97.66\% - 0\% = 97.66\%$$

Ex ante calculations related to the outcomes of SDG 5

The use of the project's improved cookstove in households significantly reduces the time spent on fuelwood collection, a task predominantly carried out by women. Fuel collection is time-consuming and labor-intensive, taking away productive hours from women and young girls, leading to time poverty and missed opportunities. With the improved cookstove, the daily fuel requirement is reduced by more than half compared to the baseline scenario, resulting in substantial time savings. Fewer trips are needed to collect fuel, allowing for more efficient use of time.

$$\text{Net Benefit (SDG 5)} = T_{\text{Project}} - T_{\text{Baseline}} = 95.31\% - 0\% = 95.31\%$$

Ex ante calculations related to the outcomes of SDG 8

Total number of jobs

The VPA is lead to 20 job roles created through stove production and distribution processes.

Ex ante calculations related to the outcomes of SDG 13

Emission reductions

Methodological Considerations for Achieving Sustainable Development Goal 13

Since the baseline fuel and project fuel are different, emission reductions come solely from improved efficiency. Therefore, the project will use Method 3 to calculate the emission reduction. The GHG emissions reduction achieved by the project activity in year y is calculated using Equation 3. This equation has been adjusted to account for leakage, with the project applying a default value of 0.95 to Equation 3, as specified in Section 3.10.4 of the respective methodology. Following the TPDDTEC methodology, version 4.0, emission reductions can be estimated using the following formulas:

$$BE_y = \sum_{b,p} (N_{b,p,y} \times U_{p,y} \times (f_{NRB,b,y} \times SE_{b,y,CO_2} + SE_{b,y,nonCO_2})) \quad Eq. 3$$

Where:

ER_y = Emission reduction for total project activity in year y (tCO₂e/yr)

$\Sigma b,p$ = Sum over all relevant baseline b /project p pairs

$N_{b,p,y}$ = Number of project technology-days included in the project database for baseline b /project p pair in year y (days)

$U_{p,y}$ = Cumulative Usage rate for technologies in project scenario p in year y (fraction)

SE_{b,y,CO_2} = Specific CO₂ emissions for a baseline b technology in year y (tCO₂/technology*day) (Refer to Section 4.1 | below for further details)

$SE_{b,y,non-CO_2}$ = Specific non-CO₂ emissions for a baseline b technology in year y (tCO₂/technology*day) (Refer to Section 4.1 | below for further details)

$NCV_{b,fuel}$ = Net calorific value of the fuel(s) that is substituted or reduced in baseline b (TJ/mass or volume units)

$f_{NRB,b,y}$ = Fraction of biomass used in year y for baseline scenario b that can be established as non-renewable biomass (fraction). This term is included when the baseline practice was use of biomass, even if a fossil fuel baseline emission factor must be applied due to the project activity introducing fossil fuel.

$$PE_y = \sum_{b,p} (N_{b,p,y} \times U_{p,y} \times (f_{NRB,b,y} \times SE_{p,y,CO_2} + SE_{p,y,nonCO_2})) \quad Eq. 4$$

PE_y = Project Emission for total project activity in year y (tCO₂e/yr)

SE_{b,y,CO_2} = Specific CO₂ emissions for a Project p technology in year y (tCO₂/technology*day) (Refer to Section 4.1 | below for further details)

$SE_{b,y,non-CO_2}$ = Specific non-CO₂ emissions for a Project p technology in year y (tCO₂/technology*day) (Refer to Section 4.1 | below for further details)

$f_{NRB,b,y}$ = Fraction of biomass used in year y for baseline scenario b that can be established as non-renewable biomass (fraction). This term is included when the baseline practice was use of biomass, even if a fossil fuel baseline emission factor must be applied due to the project activity introducing fossil fuel.

$$ER_y = BE_y - PE_y - \sum_n LE_{p,y} \quad Eq. 5$$

ER_y = Emission reduction for total project activity in year y (tCO₂e/yr)

$LE_{p,y}$ = Leakage for project scenario p in year y (tCO₂e/yr)

Above methodological choices used by the CME for the calculation of the SDG 13 and the usage rate for the current monitoring period was 90%.

PC100 (per ICS)					
Description	Abbreviation	Equal	Value	Unit	Note
Net Emission reduction for total project activity in year y after Leakage (tCO ₂ e/yr)	ER _y	=	2.539932	tCO ₂ e/year	
Net Emission reduction for total project activity in year y after Leakage (tCO ₂ e/yr)	ER _y	=	0.211661	tCO ₂ e/month	
Net Emission reduction for total project activity in year y after Leakage (tCO ₂ e/yr)	ER _y	=	0.006959	tCO ₂ e/day	
$BE_y = \sum_{b,p} (N_{b,p,y} \times U_{p,y} \times (f_{BB,b,y} \times SE_{b,y,CO_2} + SE_{b,y,nonCO_2}))$ Eq. 3					
Baseline emissions for total project activity in year y (tCO ₂ e/yr)	BE _y	=	0.009378	tCO ₂ e/day	
Sum over all relevant baseline b/project p pairs	Z _{b,p}	=	N/A	-	
Number of project technology-days included in the project database for baseline b/project p pair year y (days)	N _{b,p,y}	=	1	day	Calculate for 1 day
Cumulative usage rate for technologies in project scenario p in year y (fraction)	U _{p,y}	=	90%	-	Calculate for 1 stove
Specific CO ₂ emissions for a baseline b technology in year y (tCO ₂ /technology*day)	SE _{b,y,CO2}	=	0.012	tCO ₂ /technology/day	
Specific non-CO ₂ emissions for a baseline b technology in year y (tCO ₂ e/technology*day)	SE _{b,y,non-CO2}	=	0.0010	tCO ₂ /technology/day	
Fraction of biomass used in year y for baseline scenario b that can be established as non-renewable biomass (fraction). This term is included when the baseline practice was use of biomass, even if a fossil fuel baseline emission factor must be applied due to the project activity introducing fossil fuel.	f _{NRB,b,y}	=	0.8191	-	
$PE_y = \sum_{b,p} (N_{b,p,y} \times U_{p,y} \times (f_{BB,b,y} \times SE_{b,y,CO_2} + SE_{b,y,nonCO_2}))$ Eq. 4					
Project emissions for total project activity in year y (tCO ₂ e/yr)	PE _y	=	0.002053	tCO ₂ e/day	
Specific CO ₂ emissions for a project p technology in year y (tCO ₂ /technology*day)	SE _{p,y,CO2}	=	0.001	tCO ₂ /technology/day	
Specific non-CO ₂ emissions for a project p technology in year y (tCO ₂ e/technology*day)	SE _{p,y,non-CO2}	=	0.0013	tCO ₂ /technology/day	
Fraction of biomass used in year y for baseline scenario b that can be established as non-renewable biomass (fraction). This term is excluded from the equation when the project is using a fossil fuel.	f _{NRB,b,y}	=	0.8191	-	

Example: ER Calculation for PC100

Year	Baseline estimate (tCO ₂ e)	Project estimate (tCO ₂ e)	Net Benefit (tCO ₂ e)
2023 (23/08/2023 to 31/12/2023)	0	48,231	48,231
2024 (01/01/2024 to 31/08/2024)	0	207,524	207,524
Total	0	255,755	255,755

E.2. Calculation of project value or estimation of project situation of each SDG Impact

>> SDGs impacted by the project

SDG 13	Emission Reduction in year	255,755 GSVER	Calculated
SDG3	Percentage users confirming less smoke/PM	97.66%	Monitoring survey
SDG5	Percentage users confirming time saving	95.31%	Monitoring survey
SDG8	Number of jobs created	20	Salary Slips

E.3. Calculation of leakage

>>

As per the methodology Reduced Emissions from Cooking and Heating: Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 4 the following leakages are to be considered:

Option 1: Apply a default adjustment factor of 0.95 to the emission reductions to approximate leakage emissions. In this case, the term " $-\sum LE_{p,y}$ " in equations 1,2, or 3 changes to " $*95\%$ ".

Therefore, the Total ERs would be multiplied by the factor of 95% to accommodate

E.4. Calculation of net benefits or direct calculation for each SDG Impact

SDG	SDG Impact	Baseline estimate	Project estimate	Net benefit
13	Reduction in GHGs emissions	0	255,755	255,755
3	Perceived health conditions improved by the ICS users	0%	97.66%	97.66%
5	Perceived time saved by women in fuel collection and cooking	0%	95.31%	95.31%
8	Total number of jobs created	0	20	20

E.5. Comparison of actual SDG Impacts with estimates in approved PDD

SDG	Values estimated in ex ante calculation of approved PDD for this monitoring period	Actual values ¹⁵ achieved during this monitoring period
13	310,806	2,55,755

¹⁵ Whenever emission reductions are capped, both the original and capped values used for calculations must be transparently reported. Use brackets to denote original values.

3	100%	97.66%
5	100%	95.31%
8	20	20

E.5.1. Explanation of calculation of value estimated ex ante calculation of approved PDD for this monitoring period

>>

The ERs for the SDG 13 were calculated based on the distribution of 122,222 cookstoves during the monitoring period and it was observed that all the 122,222 cookstoves were operational during this period therefore the changes in the ERs were due to the number of operating days of the project technology observed

E.6. Remarks on increase in achieved SDG Impacts from estimated value in approved PDD

>>

none of the SDG Impacts has reflected an increased achieved value in Monitoring period as compared to Ex-ante estimation.

SECTION F. SAFEGUARDS REPORTING

>>

In the first monitoring period, there has been no rising requirement of additionally monitoring any specific safeguard. The grievances received during this period have been resolved from the ICS implementation partner's end which mostly included guidance on the usage of the stove. All grievance channels are fully operational as well.

Other grievances related to the stove like small parts repair, cleaning of stove, fixing handles arise due to mishandling of stove. Such grievances are duly recorded and the representative of CME takes corrective action so that stove usage is not hampered.

SECTION G. STAKEHOLDER INPUTS AND LEGAL DISPUTES

G.1. List all Inputs and Grievances which have been received via the Continuous Input and Grievance Mechanism together with their respective responses/mitigations.

>>

Name of Beneficiary	Issues Raised	Resolution	Issue Resolved	Stove ID
Margaret	Stove Cleaning	Cleaning done	Yes	EN000697373
Jalian Egbuabo	Burner Repairing, Stove Cleaning	Repairing Done	Yes	EN000693912
Cythia Oya	Stand repair	Repairing Done	Yes	EN000686627
Ramond Samual	Burner Repairing	Repairing Done	Yes	EN000690120
Alice Unanshi	Stove repair (Bolts change)	Bolts changed	Yes	EN000691641
Laido Usman	Stove Handle Repair	Repairing Done	Yes	EN000684904
Rahamu Nudu	Stand Issue	Repairing Done	Yes	GB623954624
Musa Waziri	Bolt issue	Bolts Changed	Yes	GB627789271
Saidu Waisu	Stove Handle Repair	Repairing Done	Yes	GB623954467

G.2. Report on any stakeholder mitigations that were agreed to be monitored.

>>

There was no mitigation that was agreed to be monitored with any stakeholder during the monitoring period.

G.3. Provide details of any legal contest that has arisen with the project during the monitoring period

>>

Not Applicable, project is in compliance with the Host Country's legal, environmental, ecological, and social regulation and has not been legally challenged in the concerned monitoring period.

Revision History

Version	Date	Remarks
1.1	14 October 2020	Hyperlinked section summary to enable quick access to key sections Improved clarity on Key Project Information Section for POA monitoring Forward action request section Improved Clarity on SDG contribution/SDG Impact term used throughout Clarity on safeguard reporting Clarity on design changes Leakage section added for VER/CER projects Addition of Comparison of monitored parameters with last monitoring period Provision of an accompanying Guide to help the user understand detailed rules and requirements
1.0	10 July 2017	Initial adoption