2.

PROJECT DESIGN DOCUMENT (PDD) FORM FOR ARTICLE 6.4 PROJECTS

(Version 01.0)

BASIC INFORMATION	
Project title:	>>Improved cookstove programme for climate & community impact in rural Kenya
UNFCCC project reference number:	>> XXX
Host Party:	Kenya
Other participating Parties:	Norway
Activity participant(s): (add rows if needed)	see table below
PDD version number:	>> 1
PDD completion date:	10/05/2024
Applied methodologies and standardised baselines, and their versions:	>> Comprehensive Lowered Emission Assessment and Reporting (CLEAR) Methodology for Cooking Energy Transitions. Version 1.0 Standardized Baseline- Not applicable
Sectoral scope(s):	>> 03 Energy Demand
Type of the project:	☒ Emission reductions activity ☐ Removals activity ☐ Combined emission reductions and removals activity
Estimated annual emission reductions or net removals over the crediting period (tCO_2e/year):	>>12,227 tCO2e/year

Activity participant(s):

Type of Party	Name of activity participant(s)	Party that is to provide authorization
Host Party	>> FourSea LTD	Kenya
Choose a type of Party.	>>	Choose a Party.
Choose a type of Party.	>>	Choose a Party.

SECTION A. Project description

A.1. Project purpose and general description

>> The proposed project aims to distribute improved cookstoves (ICS) to rural households in Kisii County, Kenya. These cookstoves are designed to reduce household firewood consumption and harmful emissions through improved thermal efficiency and more complete combustion. The project seeks to address the widespread use of traditional biomass cooking methods, which contribute to forest degradation, indoor and ambient air pollution, climate emissions and negative impacts on health and livelihoods.

The project will focus on approximately 15,000 households in Kisii County, an area where households heavily rely on firewood for cooking. The selected regions have been identified as being particularly dependent on traditional biomass cooking methods, which lead to inefficient fuel use and high emissions. By introducing ICS, the project aims to improve fuel efficiency by reducing firewood consumption by 40-60%, directly contributing to lower greenhouse gas (GHG) emissions.

The ICS technology consists of cookstoves that utilize durable materials, such as ceramic liners and metal cladding, designed to optimize heat retention and airflow. These cookstoves will be distributed to households, with local technicians providing installation, training, and ongoing maintenance support. The project will also promote safe cooking practices to maximize the benefits of the cookstoves.

The project boundary includes all households receiving ICS in Kisii County.

The baseline scenario assumes that households will continue using approximately 10 kg of firewood per day (equivalent to 3.65 tonnes per year), using traditional cooking methods like three-stone fires or rudimentary metal cookstoves. This high fuel consumption results in inefficient combustion and harmful emissions, particularly in terms of GHG emissions.

The project is expected to lead to significant GHG emission reductions. With the adoption of the technology across 15,000 households, the project aims to reduce a total of more than 60,000 tonnes of CO_2-equivalent emissions over the 5-year crediting period.

A.2. Confirmation that the project aligns with the A6.4 activity types indicated by the host Party

>> This ICS project, hosted in Kisii county in Kenya, focuses on enhancing household energy efficiency through the adoption of cleaner cooking technologies. The project utilizes more efficient biomass-based cookstoves that significantly reduce fuel consumption and associated GHG emissions compared to traditional cooking methods. By improving combustion efficiency and reducing the need for non-renewable biomass, the project aligns with internationally recognized methodologies and contributes meaningfully to emission reductions.

Kenya's Clean Cooking Transition Strategy (2024) acknowledges improved biomass cookstoves as a key component of its national clean cooking agenda, particularly as a near-term solution for expanding access to cleaner cooking in underserved areas. The project supports Kenya's stated priorities for Article 6.4 activities and contributes to its low-carbon development goals. It is therefore in compliance with the host Party's criteria for approval under the mechanism.

A.3. Demonstration that the project, does not constrain, but aligns with the policies, options and implementation plans of the host Party

>> The proposed ICS project aligns fully with Kenya's national climate strategies and international commitments:

- In its updated Nationally Determined Contribution (NDC) submitted in 2020, Kenya identifies clean cooking as a priority area for reducing emissions in the energy sector, particularly by scaling up access to cleaner, more efficient cookstoves and alternative fuels. The project directly supports this goal by promoting ICS technologies that reduce biomass consumption and household GHG emissions.
- Kenya's Long-Term Low Emissions Development Strategy (LT-LEDS, 2022) outlines the need for transformative energy access that includes a transition to clean cooking solutions as part of a broader strategy for achieving net-zero emissions by 2050. The project contributes to this transition by offering a scalable, near-term solution that complements long-term infrastructure and fuel-switching plans.
- At the global level, the project is consistent with the long-term temperature goal of the Paris Agreement, as it supports emission reductions in a sector with high mitigation potential and co-benefits for sustainable development. It also aligns with the broader goal of promoting low-emissions development pathways and enhancing climate resilience, especially in vulnerable communities.

A.4. Project location

Host Party	Kenya
Region(s)/State(s)/Province(s)	Kisii county
Cities/towns/communities	Across the county
Geographic coordinates	>> The approximate central coordinates of Kisii County are: • **Latitude**: -0.6817° • **Longitude**: 34.7667° These coordinates correspond to Kisii Town, the county's capital and main urban center.
Map of project location	
>>	

A.5. Technology/measures

A.5.1. Existing technologies/measures prior to project implementation

>> Prior to the implementation of the proposed project, the households in the project area rely on traditional methods for cooking, primarily using three-stone fires or rudimentary cookstoves made from locally available materials. These cookstoves are typically constructed on-site or purchased from informal roadside vendors, with no standardized manufacturing process or quality control.

The main energy sources are firewood, collected manually from surrounding forests. Households consume an estimated 8 kilograms of firewood per day. These fuels are burned inefficiently, with traditional cookstoves achieving thermal efficiencies of only 10–15% for firewood. As a result, a significant portion of the energy is lost, leading to high fuel consumption and elevated climate-forcing emissions, including carbon dioxide (CO_2), methane (CH_4), carbon monoxide (CO), and black carbon.

The baseline scenario for the proposed project has been established in accordance with the requirements of the CLEAR Methodology for Cooking Energy Transitions (Version 1.0) and the activity standard. Assumptions are made conservatively, drawing on credible data sources and cross-checks, to ensure a robust and transparent baseline definition. In the absence of the proposed project, rural households in Kisii County would continue to rely primarily on traditional, three-stone fires or inefficient cookstoves for cooking, using non-renewable biomass such as firewood. Information on baseline practices is typically gathered through baseline surveys and direct observations.

The traditional cookstoves in use have no clear technical specifications or expected service life but generally function for 2 to 3 years before requiring replacement due to wear from frequent use and exposure to heat and weather.

This prevailing situation represents a typical baseline scenario in rural Kenya, characterized by high fuel demand, inefficient energy use, adverse health impacts, and unsustainable pressure on local biomass resources. The proposed project seeks to address these issues by introducing ICS that offer better combustion efficiency, reduced fuel use, and lower emissions.

A.5.2. Technologies/measures implemented/deployed by the project

>> The proposed project will introduce 15,000 improved biomass cookstoves across rural communities in Kisii County, Kenya, replacing traditional three-stone fires and inefficient metal or clay cookstoves. These ICS are designed to significantly enhance combustion efficiency, reduce harmful smoke emissions, and cut down on household fuel consumption. The cookstoves will be distributed directly to households, supported by trained local technicians and distribution agents to ensure effective installation and use.

The core technology involves improved firewood cookstoves made from durable materials such as ceramic liners, metal cladding, and heat-retaining chambers. These cookstoves are designed with optimized insulation, airflow control, and combustion chambers to minimize energy losses. The project promotes the use of ICS models that have been tested in compliance with the International Organization for Standardization (ISO) Standard 19867-1:2018, demonstrating thermal efficiencies of 25% or higher. As the project expands, several models of firewood cookstoves produced by ICS manufacturers may be used. Inclusion of such cookstoves would be subject to compliance with requirements of the methodology and the eligibility criteria of the project.

Stoves will be delivered to households for use in their cooking spaces, with local communities trained on proper use and maintenance. Additionally, mobile servicing points or distribution hubs will be established in select communities for ongoing support and follow-up.

Each cookstove has an expected operational lifetime of 5 to 7 years, in line with manufacturer specifications and other comparable ICS projects in East Africa. The cookstove's lifetime can be extended with proper use and regular maintenance, which will be facilitated through user education and periodic follow-up activities.

Thermal efficiency for the ICS ranges from 30% to 40%, depending on the specific model and fuel type. This represents a significant improvement compared to the 10–15% efficiency of traditional cookstoves. The cookstoves are optimized for small- to medium-sized cooking pots (2–10 liters), providing stable heat output with minimal fuel wastage.

Monitoring of cookstove usage and performance will be conducted using digital tools and field verification methods. This includes the deployment of Stove Use Monitors (SUMs) in a representative sample of households to measure temperature and usage patterns. Additional monitoring will involve periodic household surveys and Kitchen Performance Tests (KPTs). All monitoring equipment will be installed at the household level, and data will be aggregated at the community and project level for reporting and verification.

A.5.3. Declaration related to the existence of a former project in the same geographical location

>>There are no registered Article 6.4 projects, component projects under an Article 6.4 Programme of Activities (PoA), or activities under any other international, regional, national, or subnational GHG mitigation crediting scheme within the geographical boundaries of the proposed project. As such, the requirements outlined in this section are not applicable.

A.6. Parties and activity participants

Type of Party	Name of the Party	Activity participant(s)
Host Party	Kenya	FourSea LTD
Other participating Party	Norway	Government of Norway
Choose a type of Party.	Choose a Party.	

SECTION B. Application of methodologies and standardized baselines

B.1. References to methodologies and standardized baselines

>> For the proposed activity, the selected methodology is the Comprehensive Lowered Emission Assessment and Reporting (CLEAR) Methodology for Cooking Energy Transitions, Version 1.0.

In addition to the core methodology, the project applies several methodological regulatory documents in accordance with the relevant requirements. These include:

- Controlled Cooking Test (CCT) Protocol
- Gold Standard Safeguarding Principles & Requirements
- IPCC Guidelines for GHG National Inventories
- ISO Standard 19867-1
- KPT Protocol
- Modeling Fuelwood Savings Scenarios (MoFuSS)

No standardized baseline has been selected for the proposed project. Furthermore, no additional baseline approaches or methodological requirements have been specified by the Host Party, Kenya, in accordance with paragraph 27(a) of the Rules, Modalities and Procedures (RMPs) at this time.

B.2. Applicability of methodologies and standardized baselines

>>

Applicability condition of methodological regulatory document or methodological requirement specified by the host Party	Compliance of the project with the applicability condition of methodological regulatory document or methodological requirement specified by the host Party
Project cookstoves shall be identified with a unique identifier affixed to the cookstove in order to avoid double counting of emission reductions by other mitigation actions.	Each cookstove distributed under the project will be affixed with a unique, tamper-proof identifier (e.g., QR code or alphanumeric label) linked to a centralized monitoring database.
All projects must identify and replace or retrofit malfunctioning cookstoves with a technology of comparable or better quality and thermal efficiency, or not claim emission reductions for households when such failures occur. Projects must include a documented plan for this process at the project design phase	The project includes a repair and replacement plan. Households with malfunctioning cookstoves will be eligible for replacement units meeting the same or higher thermal efficiency standards. Emission reductions will only be claimed for functioning units verified during monitoring.
All biomass-burning project cookstove models must be tested for thermal efficiency using the ISO Standard 19867-1:2018. For wood-burning project technologies that use a griddle surface (e.g., plancha cookstoves for making tortillas), the thermal efficiency requirement is 20% or higher. Project cookstoves burning charcoal must achieve 30% or higher. All other biomass-burning project cookstoves must achieve 25% or higher	The improved wood-burning cookstove models selected for the project have been tested in recognized laboratories according to ISO 19867-1:2018 and demonstrated thermal efficiencies of 30% or higher.
Projects must follow any relevant carbon-crediting program requirements for avoiding long-term lock-in of fossil fuels for cooking.	The project promotes biomass-based ICS that reduce biomass consumption without transitioning to other fossil fuel use, thereby avoiding fossil fuel lock-in. The technology pathway is consistent with sustainable

	development objectives and mitigation priorities of the host Party.
For artisanal cookstoves, at least three randomly selected samples of each cookstove model must be used when testing for ISO thermal efficiency, and when undertaking CCTs.	The project does not distribute artisanal cookstoves
For biogas projects, this methodology is only applicable to those using a continuously tracked energy consumption (CTEC) approach. It calculates emission reductions only from cooking fuel consumption, not the use of generated slurry	The project does not include biogas as a project fuel
For CTEC projects, fuel sale records can be used to track consumption of pellets, LPG and ethanol where LPG and ethanol fuel delivery systems are designed exclusively for use in a specific project technology. Projects should implement safeguards to prevent fuel diversion for non-project activities.	The project uses the non-continuously tracked energy consumption (non-CTEC) approach
This methodology is not applicable for households who use electricity as their primary baseline fuel.	Project households use biomass as their primary fuel

B.3. Project boundary, sources, sinks and greenhouse gases

>> The project boundary is geographically defined as the administrative area of Kisii County, located in the southwestern region of Kenya. The boundary encompasses all households within Kisii County that will receive and use ICS distributed under the project activity.

Kisii County lies approximately between latitudes 0.5636°S and 0.9480°S, and longitudes 34.4781°E and 35.1663°E. The project will not extend beyond this delineated area, and all monitoring, cookstove distribution, and emission reduction accounting will be limited to this defined boundary.

B.3.1. Baseline emissions/removals

Source/reservoir/pool	GHG		Justification/Explanation
Thermal energy generation (burning of fuel)	CO_2	☒ Included ☐ Not included	Included per methodology requirement
	CH_4	☒ Included ☐ Not included	Included per methodology requirement
	N_2O	☒ Included ☐ Not included	Included per methodology requirement
Fuel production and transport	CO_2	☒ Included ☐ Not included	Included per methodology requirement
	CH_4	☒ Included ☐ Not included	Included per methodology requirement
	N_2O	☒ Included ☐ Not included	Included per methodology requirement

B.3.2. Project emissions/removals

Source/reservoir/pool	GHG		Justification/Explanation
Thermal energy generation (burning of fuel)	CO_2	☒ Included ☐ Not included	Included per methodology requirement
	CH_4	☒ Included ☐ Not included	Included per methodology requirement

	N_2O	☒ Included ☐ Not included	Included per methodology requirement
Fuel production and transport	CO_2	☒ Included ☐ Not included	Included per methodology requirement
	CH_4	☒ Included ☐ Not included	Included per methodology requirement
	N_2O	☒ Included ☐ Not included	Included per methodology requirement

B.4. Establishment and description of the baseline scenario

B.4.1. Identification of the baseline scenario

>> The baseline scenario for the proposed project has been established in accordance with the requirements of the CLEAR Methodology for Cooking Energy Transitions (Version 1.0) and the activity standard. Assumptions are made conservatively, drawing on credible data sources and cross-checks, to ensure a robust and transparent baseline definition.

In the absence of the proposed project, rural households in Kisii County would continue to rely primarily on traditional, three-stone fires or inefficient cookstoves for cooking, using non-renewable biomass such as firewood.

The project is categorized as a non-CTEC activity under the CLEAR methodology. Accordingly, the baseline fuel consumption is determined through ex-ante KPTs, assessing household-level fuel use. Baseline emissions are calculated based on the amount of fuel that would have been consumed by traditional cookstoves, adjusted by the fraction of non-renewable biomass (fNRB). The upstream emissions for firewood are considered to be zero.

The baseline scenario is determined through the following procedural steps:

1. Conduct a baseline survey among the target population to identify primary cooking technologies, fuel types, stacking practices, seasonal variations, and average household size. Survey findings are cross-validated with national and regional datasets and published literature.
2. Review identified baseline technologies and fuel usage for consistency with national regulations and relevant government policies, and appropriateness of the cooking solution for the needs of the target population.

fNRB for the project region using the Modeling Fuelwood Savings Scenarios (MoFuSS) tool. In terms of equipment, the baseline scenario is characterized by traditional three-stone fires and inefficient locally manufactured cookstoves. Under the project scenario, improved biomass cookstoves tested for thermal efficiency in compliance with ISO Standard 19867-1 (and achieving a minimum of 25% for biomass cookstoves) will be distributed to replace the baseline technologies.

No standardized baseline has been selected for the proposed project. Furthermore, no additional baseline approaches or methodological requirements have been specified by the Host Party (Kenya) in accordance with paragraph 27(a) of the RMPs at this time.

With regard to future emissions and suppressed demand, no adjustment for suppressed demand has been made. Current levels of fuel consumption are considered to accurately reflect realistic and sustainable energy use patterns among rural households in Kisii County.

B.4.2. Identification of the BAU scenario or reference benchmark

>The CLEAR methodology considers the business-as-usual (BAU) scenario to be the continuation of the prevailing cooking technologies and fuel consumption patterns in the absence of the project

activity. The methodology uses a robust, conservative approach to define baselines through direct measurement, including KPTs. During the first usage survey, project households are asked retrospective questions to assess alignment with the originally defined baseline scenario. If material discrepancies are found—defined as more than a 10% difference in fuel mix or household size—conservative adjustments are required, either by excluding non-conforming households or adjusting baseline estimates downward. The BAU scenario is therefore equivalent to the baseline scenario, with adjustments for changes periodically, if applicable. The process used to identify the BAU scenario follows the same steps as for the baseline scenario.

B.5. Demonstration of additionality

B.5.1. Regulatory analysis

>> Kenya has no mandated law or regulatory requirement related to transitioning to higher efficiency biomass cookstoves. Therefore, the proposed project represents mitigation that exceeds any legal or regulatory requirement. If a legal mandate comes into effect during the crediting period, the activity will only claim credits until the day the legal requirements become effective.

B.5.2. Avoidance of lock-in

>> Each project cookstove has an expected operational lifetime of 5 to 7 years. Accordingly, and in line with the CLEAR methodology, no lock-in risks are assumed for this project.

B.5.3. Financial additionality or performance-based approach

☒ Financial additionality ☐ Performance-based approach

(Select one option)

>> As per the CLEAR methodology, an investment analysis is not required due to the nature of clean cooking projects, which are typically implemented at the household level and lack centralized cash flows or traditional investment structures. This is consistent with paragraph 54 of the UNFCCC Draft Standard: *Demonstration of Additionality in Mechanism Methodologies*, which allows the use of barrier analysis in such contexts.

The project applies a barrier analysis, justified as follows:

- Financial and institutional barriers: ICS projects in Kenya face limited access to upfront capital and lack viable business models without carbon finance. The revenue generated through carbon credits is essential to reduce cookstove prices for end users, support awareness campaigns, and fund distribution and maintenance networks. Without these revenues, project implementation would not be financially sustainable.

- Lack of enabling infrastructure: There is insufficient market infrastructure for large-scale dissemination of ICS in rural Kenya. The project addresses these gaps by supporting local distribution agents, training technicians, and providing user education, which are not feasible without carbon finance.

- First-of-its-kind and practice barriers: Despite national policies supporting clean cooking, improved biomass cookstove penetration in the target region remains low. The project technology is not yet widely adopted, particularly in the rural areas targeted, due to affordability constraints, lack of consumer awareness, and supply chain limitations.

B.5.4. Common practice analysis

>> Through independent surveys and government records, the project proponent has determined that the prevalence of ICS in the project region is below 10% and thereby is not common practice.

B.6. Addressing non-permanence and risk of reversals

B.6.1. Identification of risk of reversal

>> Although cookstove projects reduce demand for biomass, they do not involve removals or the creation of a carbon pool subject to reversal. While indirect reversal risks may theoretically exist, the CLEAR methodology already accounts for them through conservative quantification (via fNRB) and a robust emissions reduction framework. No risks of reversals are therefore applicable to this project.

B.6.2. Reversals risk assessment

>> Not Applicable

B.6.3. Reversals risk mitigation plan

>> Not Applicable

B.6.4. Remediation of reversals

>> Not Applicable

B.7. Calculation of emission reductions or net removals

B.7.1. Calculation of BAU emissions/removals and baseline emissions/removals

B.7.1.1. Calculation of BAU emissions/removals

>> As per the CLEAR methodology, BAU emissions are calculated according to the same approach as the baseline emissions estimation.

BAU emissions for this project (a non-CTEC project) are calculated using Equation (14) of the CLEAR methodology.

$$BE_y = \sum_i \left(EC_{base,i,y} \times \left(fNRB_i \times EF_{base,i,CO2} + EF_{base,i,nonCO2}\right)\right) + \sum_i UE_{base,i,y} \quad (14)$$

Where:

Parameter	Description	Unit
BE_y	Baseline emissions during year *y*	tCO_2e
$EC_{base,i,y}$	Consumption of fuel *i* in baseline scenario in year *y.* Where fuels such as pellets and briquettes are made from a mix of renewable and non-renewable sources (e.g., renewable agricultural waste and non-renewable wood), each source should be considered its own fuel. (See example following Equation (2))	TJ
$fNRB_i$	Fraction of non-renewable woody biomass fuel *i* consumed. This parameter varies between zero and 100% for fuelwood, charcoal, and other solid biomass fuels that are not fully renewable. When renewable biomass fuels are used (defined above), this parameter is equal to zero. When fossil fuels are used, it is equal to 100%.	%
$EF_{base,i,CO2}$	CO_2 emission factor for baseline fuel *i*	tCO_2e/TJ
$EF_{base,i,nonCO2}$	Non-CO_2 emission factor for baseline fuel *i*	tCO_2e/TJ
$UE_{base,i,y}$	Upstream emissions for baseline fuel *i* in year *y*	tCO_2e

For this project, upstream emissions are assumed to be zero as firewood is collected locally with no significant transportation involved. Any potential forest degradation is accounted for through the fNRB value.

Fuel Consumption Calculation:

The fuel consumption is calculated as follows:

$$EC_{base,i,y} = H_s \times ntEC_{base,i} \times \frac{PTD_{h,\Psi,y}}{CD} \quad (15)$$

$$PTD_{h,\Psi,y} = \Psi_{Survey,y} \times \sum_h Days_{y,h} \quad (16)$$

Where:

Parameter	Description	Unit
$EC_{base,i,y}$	Consumption of fuel *i* in baseline scenario in year *y*	TJ
H_s	Average household size (persons per household, regardless of age or gender)	Number
$ntEC_{base,i}$	Energy consumption of baseline fuel *i* for non-CTEC projects taken from global default baseline energy consumption value, or results from baseline KPT	TJ/(person*year)
$PTD_{h,\Psi,y}$	Project Technology Days of the monitoring period during year *y*	Number
$\Psi_{Survey,y}$	Percent of project households with cookstoves present, where project cookstove is used at least once per week, determined via survey and visual observation in year *y*. Capped at 90% for projects that undertake customer support actions as described below and 75% for those that do not.	%
$Days_{y,h}$	Number of total possible project-technology days during the year *y* in household *h*	Number
CD	Days in a calendar year *y*. Use 366 for leap years, 365 for other years.	Number

Emissions are calculated on an energy basis, for which the conversions from mass are to energy are conducted as follows:

$$EC_x = FC_x \times NCV_x \quad (1)$$

Where:

Parameter	Description	Unit
EC_x	Energy consumption for the respective fuel and scenario *x*	TJ
FC_x	Fuel consumption for the respective fuel and scenario *x*	tonnes
NCV_x	Net calorific value for fuel *x* (see Appendix 5)	TJ/tonnes

Key Assumptions and Justifications:

The calculation of baseline emissions follows the methodology prescribed by the CLEAR methodology (Version 1.0) with the following key assumptions and justifications:

1. **Average household size**: The average household size for the project area, Kisii County in rural Kenya, is assumed to be 5 persons per household. This figure is derived from

baseline survey data and cross-checked with demographic data from the Kenya National Bureau of Statistics. It reflects typical rural household structures in the region.

2. **Percent of households with cookstoves in use**: The percentage of households with cookstoves in use at least once per week is assumed to be 75%. This is based on experience from similar projects in rural areas. Although the proposed project expects 85% of households to have cookstoves in use, the value is capped at 75% due to the absence of all customer support actions required by the CLEAR methodology.

3. **Number of total possible project technology days (PTDs)**: For the calculation of baseline emissions, the average number of total possible project-technology days is estimated at 300 days in the first project year. This estimate accounts for the deployment timeline of the project cookstoves, with installations primarily occurring during the first quarter of the project. For subsequent years, the number of total possible project-technology days is expected to align with the total number of days in the calendar year (365 days for a non-leap year, 366 days for leap years). This assumption ensures that the project emissions estimates reflect the full operational potential of the cookstoves after their initial deployment.

4. **Days in a calendar year**: For emissions calculations, 365 days are assumed for a non-leap year. Since the project is scheduled to start in 2025, which is not a leap year, 365 days is used to calculate the emissions for the baseline year.

5. **Fuel consumption estimate**: Based on the results of the baseline KPT and aligned with published literature on firewood consumption in rural Kenya, the fuel consumption for firewood per household is estimated at 3.65 tonnes per year (approximately 10 kg per day). This is considered a conservative estimate and is consistent with values observed in similar rural areas in Kenya.

6. **Net calorific value for firewood**: The net calorific value for firewood is assumed to be 0.0156 TJ/tonne, as required by the CLEAR methodology.

7. **fNRB**: The fNRB in Kisii County is estimated at 20%. This value was derived from the Modeling Fuelwood Savings Scenarios (MoFuSS) for Kisii County, which takes into account local biomass characteristics and is a conservative estimate of the non-renewable fraction of the firewood consumed in the region.

8. **CO_2 and non-CO_2 emission factors**: The CO_2 emission factor for firewood is assumed to be 112 tCO_2e/TJ, as specified in the CLEAR methodology for wood. Similarly, the non-CO_2 emission factors for firewood are taken from the default values provided in the methodology and is estimated at approximately 11 tCO2e/TJ.

9. **Upstream emissions**: The assumption for upstream emissions is that they are zero for this project. This is based on the fact that firewood is sourced locally with minimal transportation involved, a typical scenario for rural areas in Kenya where firewood collection is often done on foot or with local transport options. Therefore, no significant upstream emissions from transportation or other related activities are expected.

Sampling:

A statistically robust sampling plan will be implemented in line with the CLEAR methodology and the Article 6.4 mechanism standards. Simple random sampling will be used across the 15,000 targeted households, ensuring representative data collection. Sampling will be designed to achieve 95/10 precision for all monitored parameters, with minimum sample sizes ranging from 50 to 200 households depending on the parameter type. Oversampling will be incorporated to account for potential non-responses, and precision will be verified post-survey, applying conservative adjustments if necessary. Full details of the sampling approach, parameters, and sample size requirements are provided in section B8.2.

B.7.1.2. Calculation of baseline emissions/removals

>> As per the CLEAR methodology, baseline emissions are calculated according to the same approach as the BAU emissions estimation.

The baseline is measured through the following steps:

1. Establish baseline fuel consumption per household using a KPT or apply a global default.
2. Review identified baseline technologies and fuel usage for consistency with national regulations and relevant government policies.
3. Calculate total baseline emissions using the equations and methodological caps specified in the CLEAR methodology. Since the project cannot demonstrate the full set of customer support actions required for an uncapped approach, a conservative cap of 75% of the maximum PTDs is applied to the baseline scenario.

Baseline emissions for this project (a non-CTEC project) are calculated using Equation (14) of the CLEAR methodology.

$$BE_y = \sum_i \left(EC_{base,i,y} \times \left(fNRB_i \times EF_{base,i,CO2} + EF_{base,i,nonCO2}\right)\right) + \sum_i UE_{base,i,y} \qquad (14)$$

Where:

Parameter	Description	Unit
BE_y	Baseline emissions during year *y*	tCO_2e
$EC_{base,i,y}$	Consumption of fuel *i* in baseline scenario in year *y*. Where fuels such as pellets and briquettes are made from a mix of renewable and non-renewable sources (e.g., renewable agricultural waste and non-renewable wood), each source should be considered its own fuel. (See example following Equation (2))	TJ
$fNRB_i$	Fraction of non-renewable woody biomass fuel *i* consumed. This parameter varies between zero and 100% for fuelwood, charcoal, and other solid biomass fuels that are not fully renewable. When renewable biomass fuels are used (defined above), this parameter is equal to zero. When fossil fuels are used, it is equal to 100%.	%
$EF_{base,i,CO2}$	CO_2 emission factor for baseline fuel *i*	tCO_2e/TJ
$EF_{base,i,nonCO2}$	Non-CO_2 emission factor for baseline fuel *i*	tCO_2e/TJ
$UE_{base,i,y}$	Upstream emissions for baseline fuel *i* in year *y* **Error! Reference source not found.Error! Reference source not found.**	tCO_2e

For this project, upstream emissions are assumed to be zero as firewood is collected locally with no significant transportation involved. Any potential forest degradation is accounted for through the fNRB value.

Fuel Consumption Calculation:

The fuel consumption is calculated as follows:

$$EC_{base,i,y} = H_s \times ntEC_{base,i} \times \frac{PTD_{h,\Psi,y}}{CD} \qquad (15)$$

$$PTD_{h,\Psi,y} = \Psi_{Survey,y} \times \sum_{h} Days_{y,h} \quad (16)$$

Where:

Parameter	Description	Unit
$EC_{base,i,y}$	Consumption of fuel *i* in baseline scenario in year *y*	TJ
H_s	Average household size (persons per household, regardless of age or gender)	Number
$ntEC_{base,i}$	Energy consumption of baseline fuel *i* for non-CTEC projects taken from global default baseline energy consumption value, or results from baseline KPT	TJ/(person*year)
$PTD_{h,\Psi,y}$	Project Technology Days of the monitoring period during year *y*	Number
$\Psi_{Survey,y}$	Percent of project households with cookstoves present, where project cookstove is used at least once per week, determined via survey and visual observation in year *y*. Capped at 90% for projects that undertake customer support actions as described below and 75% for those that do not.	%
$Days_{y,h}$	Number of total possible project-technology days during the year y in household *h*	Number
CD	Days in a calendar year *y*. Use 366 for leap years, 365 for other years.	Number

Emissions are calculated on an energy basis, for which the conversions from mass are to energy are conducted as follows:

$$EC_x = FC_x \times NCV_x \quad (1)$$

Where:

Parameter	Description	Unit
EC_x	Energy consumption for the respective fuel and scenario *x*	TJ
FC_x	Fuel consumption for the respective fuel and scenario *x*	tonnes
NCV_x	Net calorific value for fuel *x* (see Appendix 5)	TJ/tonnes

Key Assumptions and Justifications:

The calculation of baseline emissions follows the methodology prescribed by the CLEAR methodology (Version 1.0) with the following key assumptions and justifications:

1. **Average household size**: The average household size for the project area, Kisii County in rural Kenya, is assumed to be 5 persons per household. This figure is derived from baseline survey data and cross-checked with demographic data from the Kenya National Bureau of Statistics. It reflects typical rural household structures in the region.

2. **Percent of households with cookstoves in use**: The percentage of households with cookstoves in use at least once per week is assumed to be 75%. This is based on experience from similar projects in rural areas. Although the proposed project expects 85% of households to have cookstoves in use, the value is capped at 75% due to the absence of all customer support actions required by the CLEAR methodology.

3. **Number of total possible PTDs**: For the calculation of baseline emissions, the average number of total possible project-technology days is estimated at 300 days in the first project

year. This estimate accounts for the deployment timeline of the project cookstoves, with installations primarily occurring during the first quarter of the project. For subsequent years, the number of total possible project-technology days is expected to align with the total number of days in the calendar year (365 days for a non-leap year, 366 days for leap years). This assumption ensures that the project emissions estimates reflect the full operational potential of the cookstoves after their initial deployment.

4. **Days in a calendar year**: For emissions calculations, 365 days are assumed for a non-leap year. Since the project is scheduled to start in 2025, which is not a leap year, 365 days is used to calculate the emissions for the baseline year.

5. **Fuel consumption estimate**: Based on the results of the baseline KPT and aligned with published literature on firewood consumption in rural Kenya, the fuel consumption for firewood per household is estimated at 3.65 tonnes per year (approximately 10 kg per day). This is considered a conservative estimate and is consistent with values observed in similar rural areas in Kenya.

6. **Net calorific value for Firewood**: The net calorific value for firewood is assumed to be 0.0156 TJ/tonne, as required by the CLEAR methodology.

7. **fNRB:** The fNRB value in Kisii County is estimated at 20%. This value was derived from the Modeling Fuelwood Savings Scenarios (MoFuSS) for Kisii County, which takes into account local biomass characteristics and is a conservative estimate of the non-renewable fraction of the firewood consumed in the region.

8. **CO_2 and non-CO_2 emission factors**: The CO_2 emission factor for firewood is assumed to be 112 tCO_2e/TJ, as specified in the CLEAR methodology for wood. Similarly, the non-CO_2 emission factors for firewood are taken from the default values provided in the methodology and is estimated at approximately 11 tCO2e/TJ.

9. **Upstream emissions**: The assumption for upstream emissions is that they are zero for this project. This is based on the fact that firewood is sourced locally with minimal transportation involved, a typical scenario for rural areas in Kenya where firewood collection is often done on foot or with local transport options. Therefore, no significant upstream emissions from transportation or other related activities are expected.

Sampling:

A statistically robust sampling plan will be implemented in line with the CLEAR methodology and the Article 6.4 mechanism standards. Simple random sampling will be used across the 15,000 targeted households, ensuring representative and efficient data collection. Sampling will be designed to achieve 95/10 precision for all monitored parameters, with minimum sample sizes ranging from 50 to 200 households depending on the parameter type. Oversampling will be incorporated to account for potential non-responses, and precision will be verified post-survey, applying conservative adjustments if necessary. Full details of the sampling approach, parameters, and sample size requirements are provided in section B8.2.

B.7.1.3. Calculation of the annual difference between baseline and BAU emissions/removals

>> The CLEAR methodology defines the Business-As-Usual (BAU) scenario as the continuation of prevailing cooking technologies and fuel consumption patterns in the absence of the project activity. Baselines are conservatively and robustly established through direct measurement, including KPTs. During the first usage survey, retrospective questions are used to verify that project households remain aligned with the originally defined baseline scenario. If material discrepancies greater than 10% in fuel mix or household size are identified, the methodology requires conservative adjustments, such as excluding non-conforming households or adjusting baseline estimates downward. As a result, the BAU scenario is equivalent to the baseline scenario, with periodic

adjustments applied if necessary. Therefore, the difference between BAU emissions and baseline emissions is zero, and this equivalence will remain fixed throughout the crediting period.

B.7.1.4. Factors or qualitative methods for downward adjustment of baseline

>> The project will apply a 25% downward adjustment to the total number of PTDs claimed when calculating both baseline and project emissions.

In addition, an adjustment for the Hawthorne Effect will be applied. This adjustment will be calculated by dividing the average number of project technology cooking events per day over one month, as measured by SUMs, by the average number of cooking events per day recorded during the project's KPT, also measured by SUMs. Based on initial assumptions, this adjustment is expected to result in a 10% downward adjustment to the project's emission reductions. The final adjustment will be determined once sufficient monitoring data is available.

In the first monitoring period, the project will assess baseline measurements for three possible over-crediting risks: a mismatch between the baseline and project household sizes; a mismatch between the baseline and project fuel use patterns; and monitored fuel consumption values that do not meet the 95/10 rule. Each of these conditions requires a downward adjustment if found.

This assessment shall be carried out using retrospective questions of project households during the first usage survey in any given household. Where a material discrepancy between the baseline scenario households and project households occurs, the project will adjust the baseline toward lower baseline emissions.

A material discrepancy is defined as more than a 10% absolute difference between the baseline and project scenarios for the primary fuel type used, and/or any household size (Hs) estimate measured during a project usage scenario that is greater than the baseline scenario estimate. When calculating the difference, the absolute difference will be relative to the project estimate. For example, if the proportion of use events with wood is 85% in the baseline and 80% in the project, the difference is estimated as (0.85-0.80)/0.80 = 6.2% (within the 10% threshold). Specific requirements for baseline and project scenario comparisons from CLEAR that will be followed in this project are provided below.

The number of people per household in the project is greater than in the baseline scenario.	The number of people per household (Hs) estimated from project usage surveys must be lowered to the baseline.
The number of people per household in the project is less than in the baseline scenario.	No change
The primary fuel used for cooking events identified through the baseline scenario survey is more than 10% different from that determined retrospectively through the first project usage survey, and the difference results in baseline emissions that are lower than they would be if the proportion of primary fuel from the baseline and project scenarios matched. For example, if the baseline (from before the project technology was introduced) scenario indicates 85% wood use, and 15% charcoal use; and the first project usage survey indicates a baseline of 75% wood use and 25% charcoal use, then the emissions in the	No change

baseline scenario would be considered conservative, as charcoal has higher CO2e emissions than wood per unit of useful energy delivered. If more than two fuels are used, the same process must be applied for all.	
The primary fuel used for cooking events identified through the baseline scenario survey is more than 10% different from that determined retrospectively through the first project usage survey and the difference results in baseline emissions that are higher than they would be if the proportion of primary fuel in baseline and project scenarios matched. For example, if the baseline scenario indicates 75% primary wood use, and 25% charcoal use; and the first project usage survey indicates a baseline of 85% wood use and 15% charcoal use (from before the project technology was introduced), then the emissions in the baseline scenario would be considered non-conservative, as charcoal has higher CO2e emissions than wood per TJ of useful energy delivered. If more than two fuels are used, the same process must be applied for all.	The project must exclude the baseline energy consumption from non-primary fuels in the estimation of baseline emissions, or proportionately reduce the energy consumption of the primary fuel by the percent difference in primary fuel use between the baseline scenario and project-estimated baseline from the first project usage survey, whichever results in a lower baseline CO2e emissions estimate.

B.7.2. Calculation of project emissions/removals

>> The project scenario is determined through the following steps:

1. Establish project fuel consumption per household using a KPT.
2. Determine the percentage of project households with cookstoves present, where the project cookstove is used at least once per week. This is determined via surveys and visual observation.
3. Calculate total project emissions using the equations and methodological caps specified in the CLEAR methodology. Since the project cannot demonstrate the full set of customer support actions required for an uncapped approach, a conservative cap of 75% of the maximum PTDs is applied to the project scenario.

Project Emissions Estimation:

The calculation of project emissions follows the specifications provided by the CLEAR methodology for non-CTEC projects. Project emissions for the proposed activity are calculated using the equation provided below:

$$PE_y = \sum_j \left(ntEC_{proj,j,y} \times \left(fNRB_i \times EF_{proj,j,CO2} + EF_{proj,j,nonCO2}\right)\right) + \sum_j UE_{proj,j,y} + PE_{elec,y} \quad (17)$$

Where:

Parameter	Description	Unit
PE_y	Project emissions during year *y*	tCO_2e
$ntEC_{proj,j,y}$	Consumption of fuel *j* in project scenario in year *y*. Where fuels such as pellets and briquettes are made from a mix of renewable and non-renewable sources (e.g., renewable	TJ

	agricultural waste and non-renewable wood), each source should be considered its own fuel. (See example following Equation (2))	
$fNRB_i$	Fraction of non-renewable woody biomass fuel *i* consumed. This parameter varies between zero and 100% for fuelwood, charcoal, and other solid biomass fuels that are not fully renewable. When renewable biomass fuels are used (defined above), this parameter is equal to zero. When fossil fuels are used, it is equal to 100%.	%
$EF_{proj,j,CO2}$	CO_2 emission factor for project fuel *j*	tCO_2e/TJ
$EF_{proj,j,nonCO2}$	Non-CO_2 emission factor for project fuel *j*	tCO_2e/TJ
$UE_{proj,j,y}$	Upstream emissions for project fuel *j* in year *y*	tCO_2e
$PE_{elec,y}$	Emissions from electric energy consumption in year *y* (See Equation (19))	tCO_2e

For this project, upstream emissions are assumed to be zero as firewood is collected locally with no significant transportation involved. Any potential forest degradation is accounted for through the fNRB value. Similarly, emissions from electric energy consumption are zero, as the ICS do not rely on electricity for operation.

Fuel Consumption Calculation:

The fuel consumption is calculated as follows:

$$ntEC_{proj,j,y} = H_s \times ntEC_{proj,j} \times \frac{PTD_{h,\Psi,y}}{CD} \quad (18)$$

Where:

Parameter	Description	Unit
$ntEC_{proj,j,y}$	Consumption of fuel *j* in project scenario in year *y*	TJ
H_s	Average household size (persons per household, regardless of age or gender)	Number
$ntEC_{proj,j}$	Energy consumption of project fuel *j* for non-CTEC projects as measured by the project KPT during year *y*	TJ/(person*year)
$PTD_{h,\Psi,y}$	PTDs of the monitoring period during year *y* (See Equation (16))	Number
CD	Days in a calendar year y. Use 366 for leap years.	Number

Emissions are calculated on an energy basis, for which the conversions from mass are to energy are conducted as follows:

$$EC_x = FC_x \times NCV_x \quad (1)$$

Where:

Parameter	Description	Unit
EC_x	Energy consumption for the respective fuel and scenario *x*	TJ
FC_x	Fuel consumption for the respective fuel and scenario *x*	tonnes
NCV_x	Net calorific value for fuel *x* (see Appendix 5)	TJ/tonnes

Key Assumptions and Justifications:

- **Average household size**: The average household size for the project area, Kisii County in rural Kenya, is derived from baseline survey data and cross-checked with demographic data from the Kenya National Bureau of Statistics. It reflects typical rural household structures in the region, set at 5 persons per household.

- **Percent of households with cookstoves in use**: Based on experience from similar projects in rural areas, the proposed project expects 85% of households to have cookstoves present and in use at least once per week. However, due to the absence of full customer support actions as prescribed by the CLEAR methodology, the percentage is capped at 75%. This conservative estimate aligns with methodology caps for projects without full customer support.

- **Total possible PTDs**: For the first year, the average number of total possible project-technology days is estimated at 300, accounting for the deployment timeline of the cookstoves. For subsequent years, the number of total possible project-technology days is assumed to be equal to the days in the calendar year (365 for a non-leap year, 366 for a leap year).

- **Fuel consumption estimate**: Based on the results of the project's KPT and aligned with published literature on firewood consumption in rural Kenya, the average firewood consumption per household is estimated at 1.2 tonnes per year. This value is considered a conservative estimate, reflecting the expected fuel use for the project's cookstoves under typical conditions in the region.

- **Net calorific value**: The project uses the default value for wood of 0.0156 TJ/tonne, as required by the CLEAR methodology.

- **fNRB**: The fNRB value for Kisii County is set at 20%, derived using MoFuSS. This reflects the non-renewable nature of local firewood sources, incorporating potential forest degradation and ensuring conservative estimates in the emissions calculation.

- **CO_2 emission factor**: The CO_2 emission factor for firewood is set at 112 tCO_2e/TJ, based on default emission factors from the CLEAR methodology.

- **Non-CO_2 emission factor**: The non-CO_2 emission factor for firewood is estimated at approximately 11 tCO_2e/TJ. This value is based on the default emission factors provided in the CLEAR methodology, which are used as a conservative estimate for non-CO_2 emissions associated with firewood.

- **Upstream Emissions (UE_i)**: The upstream emissions for project fuel are assumed to be zero, as firewood is locally sourced with minimal transportation involved. This reflects typical conditions in rural areas of Kenya, where firewood is gathered locally with no significant emissions from external transportation.

Sampling:

A statistically robust sampling plan will be implemented in line with the CLEAR methodology and the Article 6.4 mechanism standards. Simple random sampling will be used across the 15,000 targeted households, ensuring representative and efficient data collection. Sampling will be designed to achieve 95/10 precision for all monitored parameters, with minimum sample sizes ranging from 50 to 200 households depending on the parameter type. Oversampling will be incorporated to account for potential non-responses, and precision will be verified post-survey, applying conservative adjustments if necessary. Full details of the sampling approach, parameters, and sample size requirements are provided in sections B8.2.

B.7.3. Addressing of leakage

B.7.3.1. Sources of leakage

>> The CLEAR methodology lists the following potential sources for leakage:

Source	Scenario description	Impact on ERs	Evidence base	Notes	Required action

Baseline equipment transfer	When a household primarily reliant on fuelwood or charcoal at baseline receives a more efficient biomass cookstove, they may sell or gift their baseline cookstove to a household outside the project boundary.	None	Sector expertise	In the LMIC context, projects promoting more efficient biomass cookstoves are almost always replacing three cookstove fires or very rudimentary traditional cookstoves. As these types of cookstoves are ubiquitous, there is no incentive to move them to a household outside the project boundary.	No leakage adjustment needed
Baseline equipment transfer	When a household using an efficient biomass cookstove at baseline benefits from a fuel-switch program, they may sell or gift their existing biomass cookstove to a household outside the project boundary.	Likely positive	Sector expertise	A household with a higher quality improved biomass cookstove that they no longer needed might sell or gift it to a household outside the project boundary. Experience suggests the receiving household would only adopt such a cookstove if their baseline cookstove was a three stone fire or low performing biomass cookstove. This would create a positive impact on ERs.	No leakage adjustment needed
Baseline equipment transfer	When a household using biogas, ethanol, electricity or LPG at baseline benefits from a program promoting a different one of these clean fuels, they may sell or gift their existing clean cooking system to a household outside the	Likely positive	Sector expertise	In the LMIC context where biomass cooking remains such a significant source of climate pollution relative to other cooking fuels, it would be extremely unlikely for a project proponent to propose this activity. It is further very likely that this case would result in a positive ER impact, as the relocated cookstove would likely reduce emissions in its new location given the prevalence of biomass	No leakage adjustment needed

	project boundary.			across the LMIC context.	
Competition for resources	When woodfuel use is reduced due to project activity, it may result in a decrease in wood harvesting outside the project boundary. The woody biomass left intact due to the project activity may be harvested by households outside the project boundary to increase their use of biomass for cooking beyond subsistence levels. It may also be harvested by fuel producers or other industrial actors.	Negative	Gill-Wiehl et al., in publication, 2025	The existing evidence (which only covers the rural context) suggests that leakage from an increase in household cooking outside the project boundary is less than 1%. Commonly in the LMIC context, the household cooking volume is limited by the availability of food and water as well as access to refrigeration in addition to the availability of fuel. In many cases, it is unnecessarily burdensome to require a project proponent to determine the magnitude of this leakage. It may be measurable if the baseline fuel source is a well-defined area. However, in the urban context, chain of custody data is almost never available for charcoal, which is frequently produced illegally and commonly transported farther than fuelwood.	Projects reducing biomass use or replacing biomass used in the baseline shall measure leakage from affected biomass sources where feasible. Where this is not feasible, projects may opt to apply a 2% discount.
Competition for resources	A project produces pellets or briquettes for cooking fuel from agricultural waste, which reduces the natural fertilizer on agricultural land and results in an increase in synthetic fertilizer	Likely negative	Sector expertise	We have not found any evidence of this situation. For it to occur, the profit gained from selling agricultural waste as fuel feedstock would have to exceed the cost of synthetic fertilizer, which is highly unlikely in the LMIC context.	No leakage adjustment needed

Competition for resources	If a project facilitates the electrification of multiple large institutional kitchens in the same community, it could cause the affected utility to adopt load-shedding measures among residential customers cooking with electricity, causing them to substitute more polluting fuels, such as biomass, for cooking.	Likely negative	Sector expertise	For material leakage to occur, a significant portion of households would need to already be cooking with electricity. This is not common in the current LMIC context.	No leakage adjustment needed.

B.7.3.2. Description of how leakages is avoided, minimized or addressed

>> The proposed project has assessed potential sources of leakage as outlined in the CLEAR methodology (see section B.7.3.1) and determined them to be low. The project includes monitoring provisions to verify cookstove usage and detect whether baseline cookstoves are retained or used in parallel. To address the most significant identified risk—*competition for resources*, as described in the CLEAR methodology—a conservative 2% discount is applied to the calculated emission reductions.

B.7.3.3. Calculation of leakage emissions

>> The CLEAR methodology allows for the usage of a 2% deduction of the emission reductions. This approach is followed in this project.

B.7.4. Calculation of emission reductions or net removals

>> The emission reductions are calculated following equation 22 of the CLEAR methodology:

$$ER_y = \left(BE_y - PE_y\right) \times HE_{ind} \times \left(1 - LE_y\right) \quad (22)$$

Where:

Parameter	Description	Unit
ER_y	Emission reductions for the project during year *y*	tCO_2e
BE_y	Baseline emissions during year *y*	tCO_2e
PE_y	Project emissions during year *y*	tCO_2e

HE_{ind}	Adjustment to calculated emission reductions for the Hawthorne Effect, either: 75% when usage surveys are used alone, or Result of Equation (23) where usage surveys are complemented by SUMs measurements	%
LE_y	Percentage deduction to account for leakage emissions during year *y*	%

The proposed project complements KPTs and surveys with SUMs measurements. As per the CLEAR methodology, the adjustments to account for the Hawthorne Effect is therefore calculated as follows:

$$HE_{ind} = \min(1, \frac{PTC_m}{PTC_{KPT}}) \quad (23)$$

Where:

Parameter	Description	Unit
HE_{ind}	Adjustment to calculated emission reductions for the Hawthorne Effect	%
PTC_m	Average project technology cooking events per day over 1 month from SUMs measurements	Number
PTC_{KPT}	Average project technology cooking events per day over the project KPT from SUMs measurements	Number

Methodological Choices:

The emission reductions (ER) are calculated as the difference between the baseline emissions and project emissions for each year, with conservative adjustments to account for potential behavioral changes (Hawthorne effect) and leakage.

- **Baseline emissions:** For the first year of the proposed project, with an estimated maximum of 300 PTDs per household, baseline emissions are projected to be 1.17 tCO_2e per household. For subsequent years, baseline emissions are estimated at 1.43 tCO_2e per household. The project aims to impact 15,000 households, resulting in estimated baseline emissions of approximately 17,602 tCO_2e in year 1, and 21,416 tCO_2e in the following years.

- **Project emissions:** For the first year of the proposed project, with an estimated maximum of 300 PTDs per household, project emissions are projected to be 0.39 tCO_2e per household. For subsequent years, project emissions are estimated at 0.47 tCO_2e per household. The project aims to impact 15,000 households, resulting in estimated project emissions of approximately 5,787 tCO_2e in year 1, and 7,041 tCO_2e in the following years.

- **Hawthorne effect adjustment:** The adjustment for the Hawthorne Effect will be calculated by dividing the average number of project technology cooking events per day over one month, as measured by SUMs, by the average number of cooking events per day recorded during the project's KPT, also measured by SUMs. The result of this calculation is expected to be approximately 0.9, based on initial assumptions. The final adjustment will be determined once sufficient monitoring data are available.

- **Leakage emissions:** To address the most significant identified risk—competition for resources, as described in the CLEAR methodology—a conservative 2% discount is applied to the calculated emission reductions.

Sample Calculations:

Emissions Reductions are estimated at:

For year 1:

$$ER_{year\ 1} = (17{,}602 - 5{,}787) \times 0.9 \times (1 - 0.02)$$

$$ER_{year\ 1} = 10{,}421\ \text{tCO2e}$$

For subsequent years:

$$ER_{subs\ years} = (21{,}416 - 7{,}041) \times 0.9 \times (1 - 0.02)$$

$$ER_{subs\ years} = 12{,}679\ \text{tCO2e}$$

B.7.5. Data and parameters fixed ex ante

Data/parameter	CD		
Description	Days in a calendar year *y*. Use 366 for leap years		
Data unit	Number		
Equations referred	Eq. 15 and 18		
Purpose of data	☒ Baseline emissions / removals	☒ Project emissions / removals	☐ Leakage emissions
Value(s) applied	365 (non-leap year) or 366 (leap year)		
Source of data	☐ Measured N/A	☒ Other sources	
Choice of data or measurement methods and procedures	N/A		
Additional comments	-------		

Data/parameter	$EF_{base,i,CO2}$		
Description	CO2 emission factor for baseline fuel *i*		
Data unit	tCO2e/TJ		
Equations referred	Eq. 2, 10, 14		
Purpose of data	☒ Baseline emissions / removals	☐ Project emissions / removals	☐ Leakage emissions
Value(s) applied	112		
Source of data	☐ Measured	☒ Other sources	

Choice of data or measurement methods and procedures	Default values from the latest version of the IPCC Guidelines for National GHG Inventories are provided for most fuels; other fuels shall use data from peer reviewed sources (see the notes and references listed in Appendix 5 of the CLEAR methodology). If a fuel is not included in Appendix 5, then use literature-based values or project level tests using ISO 19867.
Additional comments	

Data/parameter	$EF_{base,i,nonCO2}$
Description	Non-CO2 emission factor for baseline fuel *i*
Data unit	tCO2e/TJ
Equations referred	Eq. 2, 10, and 14
Purpose of data	☒ Baseline emissions / removals ☐ Project emissions / removals ☐ Leakage emissions
Value(s) applied	11.03
Source of data	☐ Measured ☒ Other sources
Choice of data or measurement methods and procedures	Default values from the latest version of the IPCC Guidelines for National GHG Inventories are provided for most fuels; other fuels shall use data from peer reviewed sources (see the notes and references listed in Appendix 5 of the CLEAR methodology). If a fuel is not included in Appendix 5, then use literature-based values or project level tests using ISO 19867.
Additional comments	

Data/parameter	$EF_{proj,j,CO2}$
Description	CO2 emission factor for project fuel *j*
Data unit	tCO2e/TJ
Equations referred	Eq. 4, 12, and 17
Purpose of data	☐ Baseline emissions / removals ☒ Project emissions / removals ☐ Leakage emissions
Value(s) applied	112
Source of data	☐ Measured ☒ Other sources
Choice of data or measurement methods and procedures	Default values from the latest version of the IPCC Guidelines for National GHG Inventories are provided for most fuels; other fuels shall use data from peer reviewed sources (see the notes and references listed in Appendix 5 of the CLEAR methodology). If a fuel is not included in Appendix 5, then use literature-based values or project level tests using ISO 19867.
Additional comments	

Data/parameter	$EF_{proj,j,nonCO2}$
Description	Non-CO2 emission factor for project fuel *j*
Data unit	tCO2e/TJ

Equations referred	Eq. 4, 12, and 17
Purpose of data	☐ Baseline emissions / removals ☒ Project emissions / removals ☐ Leakage emissions
Value(s) applied	11.03
Source of data	☐ Measured ☒ Other sources
Choice of data or measurement methods and procedures	Default values from the latest version of the IPCC Guidelines for National GHG Inventories are provided for most fuels; other fuels shall use data from peer reviewed sources (see the notes and references listed in Appendix 5 of the CLEAR methodology). If a fuel is not included in Appendix 5, then use literature-based values or project level tests using ISO 19867.
Additional comments	

Data/parameter	$fNRB_{\ i}$
Description	Fraction of non-renewable woody biomass fuel *i* during year *y*
Data unit	Fraction
Equations referred	Eq. 2, 4, 10, 12, 14, and 17
Purpose of data	☒ Baseline emissions / removals ☒ Project emissions / removals ☐ Leakage emissions
Value(s) applied	0.2
Source of data	☐ Measured ☒ Other sources
Choice of data or measurement methods and procedures	Sub-national default values from the MoFuSS model https://www.mofuss.unam.mx/mofuss-ds/
Additional comments	Frequency of monitoring: Determined once ex-ante. This parameter is only considered when woody biomass is used in either baseline or project scenario. This parameter varies between 0 and 1 for fuelwood, charcoal, and other solid biomass fuels that are not fully renewable. When renewable biomass fuels are used, this parameter is equal to zero. When fossil fuels are used, it is equal to 1. Updated at crediting period renewal.

Data/parameter	H_s
Description	Average household size
Data unit	Persons per household, regardless of age or gender (number)
Equations referred	Eq. 15, 18, and 21
Purpose of data	☒ Baseline emissions / removals ☒ Project emissions / removals ☐ Leakage emissions
Value(s) applied	5

Source of data	☒ Measured ☐ Other sources
Choice of data or measurement methods and procedures	Baseline survey and annual usage surveys, adjusting to the lower value when a decrease in persons per household is observed. QA/QC procedures: The parameter estimate from the survey must meet the minimum confidence and precision of 95/10 to use the mean value. If the target precision is not met, the project proponent shall apply the conservative bound of the confidence interval as the parameter value. The conservative bound is that which produces a lower CO2e emissions reduction estimate.
Additional comments	

Data/parameter	LE_y
Description	Percentage deduction to account for leakage emissions during year *y*
Data unit	Percentage
Equations referred	Eq. 13 and 22
Purpose of data	☐ Baseline emissions / removals ☐ Project emissions / removals ☒ Leakage emissions
Value(s) applied	2%
Source of data	☐ Measured ☒ Other sources
Choice of data or measurement methods and procedures	Project proponents shall either apply a default adjustment factor of 2% to the emission reductions to approximate leakage emissions or evaluate the relevant potential sources of leakage and provide an evidence-based description and estimated quantification of each potential source and its relevance for the project.
Additional comments	

Data/parameter	$NCV_x\ (also\ NCV_j)$
Description	Net calorific value of fuel *x* (or *j*)
Data unit	TJ/tonnes
Equations referred	Eq. 1
Purpose of data	☒ Baseline emissions / removals ☒ Project emissions / removals ☐ Leakage emissions
Value(s) applied	0.0156
Source of data	☐ Measured ☒ Other sources
Choice of data or measurement methods and procedures	Default values from the latest version of the IPCC Guidelines for National GHG Inventories are provided for most fuels in Appendix 5 of the CLEAR methodology). Use of these values for wood and charcoal are required.
Additional comments	

B.7.6. Summary of ex ante estimates of emission reductions/net removals

Year	Baseline emissions/removals (tCO_2e)	Project emissions/removals (tCO_2e)	Leakage emissions (tCO_2e)	Emission reductions/Net removals (tCO_2e)
Year 1	17,602	5,787	236	10,421
Year 2	21,416	7,041	287	12,679
Year 3	21,416	7,041	287	12,679
Year 4	21,416	7,041	287	12,679
Year 5	21,416	7,041	287	12,679
Total	103,265	33,950	1386	61,136
Total number of years in the crediting period	5			
Annual average over the crediting period	20,653	6,790	277	12,227

B.8. Monitoring Plan

B.8.1. Data and parameters to be monitored

Data/parameter	$Days_{y,h}$	
Description	Number of maximum possible project-technology days during the year *y* in household *h*	
Data unit	Number	
Equations referred	Eq. 16	
Purpose of data	☒ Baseline emissions / removals ☒ Project emissions / removals ☐ Leakage emissions	
Measurement methods and procedures	For each project household this is determined using the date the project-technology was obtained by the household, and the dates of the monitoring period.	
Entity/person responsible for the measurement	Project proponent	
Measuring instrument(s)	*Type of instrument*	N/A
	Accuracy class	Exact number of dates
	Calibration requirements	N/A
	Location	Project household
Measurement intervals	Frequency of monitoring: Annually	
QA/QC procedures	-	
Additional comment	-	

<table>
<tr><th>Data/parameter</th><th colspan="2">$FC_x\ (FC_{i,h,y}\ or\ FC_{j,h,y})$</th></tr>
<tr><td>Description</td><td colspan="2">Fuel consumption for the respective fuel and scenario x (also Fuel consumption for fuel j or i in household h in year y)</td></tr>
<tr><td>Data unit</td><td colspan="2">Tonnes</td></tr>
<tr><td>Equations referred</td><td colspan="2">Eq. 1</td></tr>
<tr><td>Purpose of data</td><td colspan="2">☒ Baseline emissions / removals ☒ Project emissions / removals ☐ Leakage emissions</td></tr>
<tr><td>Measurement methods and procedures</td><td colspan="2">KPT</td></tr>
<tr><td>Entity/person responsible for the measurement</td><td colspan="2">Project proponent</td></tr>
<tr><td rowspan="4">Measuring instrument(s)</td><td>Type of instrument</td><td>Weighing scale</td></tr>
<tr><td>Accuracy class</td><td>Scales will have the capacity to weigh the respective solid fuels encountered during KPT. They will have a minimum resolution of 10g or 2% of the expected difference between daily weightings for the primary fuel type.

Scales remain stable at a zero reading after taring. Check that scales are within 1% of a certified calibration weight. The calibration weight should be within +/- 50% of typical weights for the primary fuel type. For example, if bundles of wood are typically 10kg, then the calibration weight should be between 5 and 15 kg. If a scale indicates it is out of compliance, measurements from the that scale should be discarded until the previous, valid check.</td></tr>
<tr><td>Calibration requirements</td><td>Scales will be checked during every day of use that they are within 1% of a certified calibration weight. The calibration weight will be within +/- 50% of typical weights for the primary fuel type. For example, if bundles of wood are typically 10kg, then the calibration weight will be between 5 and 15 kg. If a scale indicates it is out of compliance, measurements from the that scale will be discarded until the previous, valid check.</td></tr>
<tr><td>Location</td><td>Baseline and project households</td></tr>
<tr><td>Measurement intervals</td><td colspan="2">Frequency of monitoring: at baseline and every two years for project KPTs</td></tr>
<tr><td>QA/QC procedures</td><td colspan="2">Scales must remain stable at a zero reading after taring. Scales will be checked during every day of use that they are within 1% of a certified calibration weight. The calibration weight will be within +/- 50% of typical weights for the primary fuel type. For example, if bundles of wood are typically 10kg, then the calibration weight will be between 5 and 15 kg. If a scale indicates it is out of compliance, measurements from the that scale will be discarded until the previous, valid check.</td></tr>
<tr><td>Additional comment</td><td colspan="2">-</td></tr>
</table>

<table>
<tr><th>Data/parameter</th><th>$FC_x\ (or\ FC_{i,h,y}\ or\ FC_{j,h,y})$</th></tr>
<tr><td>Description</td><td>Fuel consumption for the respective fuel and scenario x (also Fuel consumption for fuel j or i in household h in year y)</td></tr>
<tr><td>Data unit</td><td>Tonnes</td></tr>
</table>

Equations referred	Eq. 1	
Purpose of data	☒ Baseline emissions / removals ☒ Project emissions / removals ☐ Leakage emissions	
Measurement methods and procedures	KPT	
Entity/person responsible for the measurement	Project proponent	
Measuring instrument(s)	*Type of instrument*	Weighing scale
	Accuracy class	Scales will have the capacity to weigh the respective solid fuels encountered during KPT. They will have a minimum resolution of 10g or 2% of the expected difference between daily weightings for the primary fuel type. Scales remain stable at a zero reading after taring. Check that scales are within 1% of a certified calibration weight. The calibration weight should be within +/- 50% of typical weights for the primary fuel type. For example, if bundles of wood are typically 10kg, then the calibration weight should be between 5 and 15 kg. If a scale indicates it is out of compliance, measurements from the that scale should be discarded until the previous, valid check.
	Calibration requirements	Scales will be checked during every day of use that they are within 1% of a certified calibration weight. The calibration weight will be within +/- 50% of typical weights for the primary fuel type. For example, if bundles of wood are typically 10kg, then the calibration weight will be between 5 and 15 kg. If a scale indicates it is out of compliance, measurements from the that scale will be discarded until the previous, valid check.
	Location	Baseline and project households
Measurement intervals	Frequency of monitoring: at baseline and every two years for project KPTs	
QA/QC procedures	Scales must remain stable at a zero reading after taring. Scales will be checked during every day of use that they are within 1% of a certified calibration weight. The calibration weight will be within +/- 50% of typical weights for the primary fuel type. For example, if bundles of wood are typically 10kg, then the calibration weight will be between 5 and 15 kg. If a scale indicates it is out of compliance, measurements from the that scale will be discarded until the previous, valid check.	
Additional comment	-	

Data/parameter	PTC_m
Description	Average project technology cooking events per day over 1 month from SUMs measurements
Data unit	Cooking events/day (Number)
Equations referred	Eq. 23
Purpose of data	☐ Baseline emissions / removals ☒ Project emissions / removals ☐ Leakage emissions

Measurement methods and procedures	Installation of SUMs on a representative sample of project technology cookstoves. SUMs sampling protocols (installation, placement, downloading) and algorithms used to convert raw data into cooking events must not change between sampling during KPTs and sampling during ongoing project operation.	
Entity/person responsible for the measurement	Project proponent	
Measuring instrument(s)	*Type of instrument*	SUMs
	Accuracy class	See QA/QC procedures
	Calibration requirements	-
	Location	Project households
Measurement intervals	Frequency of monitoring: Once for a one-month duration during the first monitoring period of the crediting period	
QA/QC procedures	The study must meet the minimum confidence and precision of 95/10 for the target parameter of average cooking events per day per project technology cookstoves. If the target precision is not met, the project proponent shall take the conservative bound of the confidence interval as the parameter value. The conservative bound is that which tends to underestimate project technology cooking events.	
Additional comment	Users in the SUMs sample shall not receive any support different or additional to those not in the sample.	

Data/parameter	PTC_{KPT}		
Description	Average project technology cooking events per day over the project KPT from SUMs measurements		
Data unit	Cooking events/day (Number)		
Equations referred	Eq. 23		
Purpose of data	☐ Baseline emissions / removals	☒ Project emissions / removals	☐ Leakage emissions
Measurement methods and procedures	Installation of SUMs on the project technology cookstoves during the project KPT. SUMs sampling protocols (installation, placement, downloading) and algorithms used to convert raw data into cooking events must not change between sampling during KPTs and sampling during ongoing project operation.		
Entity/person responsible for the measurement	Project proponent		
Measuring instrument(s)	*Type of instrument*	SUMs	
	Accuracy class	See QA/QC procedures	

	Calibration requirements	-
	Location	Project households
Measurement intervals	Frequency of monitoring: Once during the project KPT	
QA/QC procedures	The study must meet the minimum confidence and precision of 95/10 for the target parameter of average cooking events per day per project technology cookstoves. If the target precision is not met, the project proponent shall take the conservative bound of the confidence interval as the parameter value. The conservative bound is that which tends to underestimate project technology cooking events.	
Additional comment	-	

Data/parameter	$\Psi_{Survey,y}$
Description	Percent of project households with cookstoves present, where project cookstove is used at least once per week, determined via survey and visual observation in year *y*.
Data unit	Percentage
Equations referred	Eq. 16
Purpose of data	☒ Baseline emissions / removals ☒ Project emissions / removals ☐ Leakage emissions
Measurement methods and procedures	Household surveys of project households with cookstoves present for which participants are asked if they use the cookstove more than once per week on average. The cookstove must also be visually observed and indicate signs of consistent intended use: • Cookstove is unpacked • Present in an easily accessible area • Not being used for a non-cooking purpose • Appears in working condition • Does not have signs of disuse such as being covered in dust or filled with spider webs Capped at 90% for projects that undertake customer support actions as described below and 75% for those that do not. **Customer support actions:** To be eligible to claim up to 90% of maximum PTDs, project proponents must take the following customer support actions and provide details of how each condition has or will be met on the Project Information Cover Sheet during the design phase of the project. • Demonstrate that the project has selected technologies and fuels that meet the cooking needs of the target population, either by citing robust research or conducting an investigation of cooking practices and attitudes during the project design phase. • Provide evidence of project participant support activities. These may include such things as providing materials (print, in-person, or video) on how to operate the cookstove to prepare common local foods, how to troubleshoot common operational issues, and how to make minor repairs (including how to access any necessary parts). All project participant communications and materials shall be provided in local language(s) commonly used in the project area. • Project participants must be able to contact the project proponent to access support (e.g., maintenance and repair services) through a commonly used, toll-free communications channel.

	Project proponents who do not undertake all three of these customer support actions may claim up to 75% of maximum PTDs.	
Entity/person responsible for the measurement	Project proponent	
Measuring instrument(s)	*Type of instrument*	Household surveys
	Accuracy class	See QA/QC procedures
	Calibration requirements	-
	Location	Project households
Measurement intervals	Frequency of monitoring: Annual	
QA/QC procedures	Sampling must be conducted to meet the 95/10 precision guideline on the target parameter of the percentage of project households with cookstoves present in which project cookstove is used at least once per week.	
Additional comment	-	

B.8.2. Sampling plan

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The sampling plan for the project is developed in accordance with the CLEAR methodology's Appendix 10 and the standard for sampling and surveys under the Article 6.4 mechanism. The objective is to ensure that all monitored parameters meet the 95/10 precision guideline: a 95% confidence interval with a relative precision of ±10% of the mean estimate. Oversampling will be incorporated to account for potential data loss or non-response.

The target population consists of 15,000 households expected to adopt the ICS under the project activity.

Sampling Approach:
Baseline: Simple random sampling will be used, which provides the most representative approach. To conduct a simple random sample for the baseline without a pre-existing roster, the project team will use a map-based enumeration approach. Satellite imagery and publicly available mapping platforms (such as OpenStreetMap) will be used to identify and digitally mark all residential structures within the project area. Each potential household will be assigned a unique identification number.

From this list, a random sample of households will be selected using a random number generator. Households corresponding to the selected numbers will then be visited for participation in the survey or monitoring activity. If any selected household is found to be ineligible or declines participation, a replacement will be randomly selected from the remaining eligible households. This approach will ensure that every eligible household in the area has an equal and known probability of selection.

Project: To conduct a simple random sample using the customer roster, the project team will begin using a random number generator and will draw a random sample of customers from the roster, ensuring that each individual has an equal and known probability of selection.

Selected customers will be contacted for participation in the survey or monitoring activity. If a selected customer is unreachable, declines participation, or is found to be ineligible, a replacement will be randomly selected from the remaining eligible customers on the list. This approach will ensure statistical rigor while leveraging the existing customer database for efficient implementation.

Sample Size Determination:

- For continuous variables (e.g., total energy consumption), sample sizes will be estimated based on the expected coefficient of variation (CoV) from prior data or a pilot study.
- For proportional variables (e.g., proportion of primary fuel use), expected prevalence values will guide sample size determination.
- In case no prior data are available, a small pilot study will be conducted.

Precision Verification:
Upon completion of surveys:

- For simple random samples, precision will be verified by calculating the achieved CoV and confidence intervals.
- If the required precision is not achieved, additional sampling will be performed, or conservative lower-bound emission reductions will be applied, per CLEAR methodology requirements.

Oversampling:
An oversampling margin of 20% will be added to account for expected non-responses, incomplete data, or technical device issues (e.g., SUMs failures).

Parameters Requiring Sampling:

This table summarizes the sampling approach for each monitored parameter, including the estimated variability, calculated sample size for 95/10 precision, CLEAR minimum sample size requirements, oversampling buffer, and the final target size. Sample sizes were estimated using the sample size calculator designed for CLEAR, which assumes skew-normal distributions for normal concentrations. The calculator and underlying mathematical equations can be found here: https://samplesizecalculatorforsknormalandproportion.streamlit.app/. Sampling will follow guidance and ensure conservative adjustments if statistical precision is not met.

Parameter	Estimated CoV / Proportion	Sample (95/10)	Minimum Sample (CLEAR)	Oversample (20%)	Final Target Sample	Sampling instrument and approach	If precision not met
(∑ECbase,i) Total energy consumption of baseline fuels (j) non-CTEC projects (summed over all fuels used in households)	CoV ≈ 0.40	100	50	20	120	Simple random sample of baseline households during baseline KPT	Use lower 95% CI bound
(∑ECproj,j) Total energy consumption of project fuels (i) non-CTEC projects (summed over all fuels used in households)	CoV ≈ 0.40	100	50	20	120	Simple random sample of project households during project KPT	Use upper 95% CI bound

(Ψsurvey,y) Percent of project households with cookstoves present and used at least once per week	Proportion ≈ 85%	50	200	40	240	Survey + visual inspection; randomly sampled during project usage surveys	Use lower 95% CI bound; cap at 90% (or 75% if no support)
(Hs) Average household size	CoV ≈ 0.25	40	200	40	240	Simple random sample during project usage survey	Use lower 95% CI bound
Stove usage frequency (PTCm) Average project technology cooking events per day over 1 month from SUMs measurements	CoV ≈ 0.40	100	50	20	120	SUMs on simple random sample of project cookstoves in KPT sample, ≥30 days adjacent to KPT	Use lower 95% CI bound
Stove usage frequency (PTCkpt) Average project technology cooking events per day over the project KPT from SUMs measurements	CoV ≈ 0.40	100	50	20	120	SUMs on simple random sample of project cookstoves in KPT sample. Days sampled during KPT	Use upper 95% CI bound
(PCb,i) Proportion of cooking events conducted using baseline fuel i.	~80% wood / 20% other	61	200	40	240	Simple random sample of baseline households from baseline scenario survey	If precision rule is not met for primary baseline fuel, then use 95% bound for primary baseline fuel that results in lower CO_2e emissions

B.8.3. Monitoring management system

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The project proponent, through the contracted Distribution Organization (DO), ensures the collection of all necessary end-user data for ex-post monitoring. The project proponent provides training to the DO to ensure that the cookstove distribution database is completed correctly. The information contained in the cookstove distribution database enables tracking of each ICS back to the end-user level for ex-post monitoring purposes.

The project proponent manages the cookstove distribution and monitoring database, from which a representative sample will be drawn for monitoring of parameters after the distribution of ICS has taken place.

The project proponent will oversee all ex-post monitoring activities and will provide guidance and training, as required, to the independent organizations responsible for carrying out the sampling and monitoring. These parties are referred to as the "Monitoring Organization." This structure ensures that all monitoring activities are conducted according to the required procedures.

The project proponent will provide the Monitoring Organization with all necessary resources, including standardized monitoring templates and instructions. The monitoring agents will record the results of the surveys and tests using the provided Monitoring Record templates.

The Monitoring Organization is responsible for ensuring that all monitoring data collected are submitted to the project proponent. Original records, scanned copies, or electronic forms will be provided to verify the authenticity of the data collected. The project proponent will maintain secure archives of all monitoring records and make these available for verification as required.

The project proponent will cross-check the ex-post monitoring information received from the Monitoring Organization for consistency and completeness. All data obtained during ex-post monitoring will be stored securely in the cookstove distribution and monitoring database, alongside the initial distribution data, and will be used for calculating emissions reductions. The database and supporting documentation will be made available during independent verification processes.

B.8.4. Post-crediting period monitoring plan

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Not Applicable

SECTION C. Start date, crediting period type and duration

C.1. Project start date

>>

01/02/2026

C.2. Expected operational lifetime of the project

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5-7 years. The expected operational lifetime of the cookstoves is based on manufacturer specifications and the average durability of similar cookstoves used in rural East Africa. Cookstoves are designed to last for at least 5–7 years under normal usage conditions, with regular maintenance and proper care extending their lifespan. User education and ongoing support from local technicians will help ensure the optimal performance and longevity of the cookstoves.

C.3. Project crediting period

C.3.1. Type of crediting period approved by the host Party

☐ Renewable ☒ Fixed

C.3.2. Start date of the crediting period

>>

01/04/2026

C.3.3. Duration of the crediting period

>>

5 years

THIS SECTION AND BEYOND INTENTIONALLY LEFT BLANK BASED ON FORM INSTRUCTIONS

SECTION D. Environmental impacts, social impacts and sustainable development impacts

D.1. Environmental and social impacts and sustainable development impacts as per the Article 6.4 sustainable development tool

D.1.1. Summary of the environmental and social risk assessment and applicable mitigation measures

>>

D.1.2. Summary of the sustainable development impacts assessment

>>

D.1.3. Monitoring plan of activity-level environmental and social indicators and activity-level SD indicators

>>

D.2. Environmental and social impacts as per the host Party regulations

D.2.1. Summary of host Party requirements

>>

D.2.2. Summary and conclusion of the assessment

>>

SECTION E. Local stakeholder consultation

E.1. Scope of the consultation

>>

E.2. Stakeholders invited

>>

E.3. Modalities for the consultation

>>

E.4. Summary of comments received

>>

E.5. Consideration of comments received

>>

SECTION F. Confirmation of avoidance of double or revived registration

A 6.4 mechanism	☐ **The proposed A6.4 project has not been already registered as an A6.4 project.**
	☐ **The proposed A6.4 project has not been already included as a component project (CP) in a registered Article 6.4 mechanism programme of activities (A6.4 PoA).**

	☐ **The proposed A6.4 project has not been previously deregistered from the Article 6.4 mechanism.** *Tick all the three boxes above as a confirmation of compliance with mandatory requirements.* ☐ **The proposed A6.4 project was a CP in a registered A6.4 PoA but has been previously excluded.** *Tick the box if applicable.* •
Other	☐ **The proposed A6.4 project is not currently registered or being pursued for registration, or covered by a programme, under any other international, regional, national, subnational or sector-wide GHG mitigation crediting scheme.** ☐ **The proposed A6.4 project was previously registered under or covered by a programme under any other international, regional, national, or subnational or sector-wide GHG mitigation crediting scheme but deregistered or excluded from the other crediting scheme before fully consuming the crediting period under the other crediting scheme.** ☐ **The proposed A6.4 project is currently registered or covered by other international, regional, national, subnational or sector-wide GHG mitigation crediting scheme.** *Tick only one applicable box.*

Appendix 1. Contact information of activity participants

(Copy this table for each activity participant)

Organization name	>>
Country	Choose an item.
Address	>>
Telephone	>>
Mobile	>>
E-mail	>>
Website	>>
Contact person	>>

Appendix 2. Applicability of methodologies and standardized baselines

>>

Appendix 3. Further background information on ex ante calculation of emission reductions or net removals

>>

Appendix 4. Summary of post-registration changes

>>

Appendix 5. Further background information on monitoring plan

>>

Appendix 6. A6.4 Environmental and Social Safeguards Risk Assessment Form (A6.4-FORM-AC-015)

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Appendix 7. A6.4 Environmental and Social Management Plan Form (A6.4-FORM-AC-016)

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Appendix 8. A6.4 Sustainable Development Impact Form (A6.4-FORM-AC-017)

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Document information

Version	*Date*	*Description*
01.0	11 December 2024	Initial publication of form template.

Decision Class: Regulatory
Document Type: Form
Business Function: A6.4 activity cycle
Keywords: A6.4 mechanism, A6.4 projects, project implementation, project design document