



**Verified Carbon
Standard**

SMG - COOKSTOVE PROGRAM 3



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CONTENTS

1	PROJECT DETAILS.....	4
1.1	Summary Description of the Project	4
1.2	Sectoral Scope and Project Type	5
1.3	Project Eligibility	5
1.4	Project Design	6
1.5	Project Proponent	11
1.6	Other Entities Involved in the Project	11
1.7	Ownership.....	11
1.8	Project Start Date	12
1.9	Project Crediting Period	12
1.10	Project Scale and Estimated GHG Emission Reductions or Removals	12
1.11	Description of the Project Activity	13
1.12	Project Location	17
1.13	Conditions Prior to Project Initiation	18
1.14	Compliance with Laws, Statutes and Other Regulatory Frameworks	21
1.15	Participation under Other GHG Programs	22
1.16	Other Forms of Credit.....	22
1.17	Sustainable Development Contributions	23
1.18	Additional Information Relevant to the Project	28
2	SAFEGUARDS	28
2.1	No Net Harm	28
2.2	Local Stakeholder Consultation	28
2.3	Environmental Impact	30
2.4	Public Comments	31
2.5	AFOLU-Specific Safeguards	31
3	APPLICATION OF METHODOLOGY.....	31
3.1	Title and Reference of Methodology	31
3.2	Applicability of Methodology	31
3.3	Project Boundary	37
3.4	Baseline Scenario	38

3.5	Additionality	40
3.6	Methodology Deviations	40
4	IMPLEMENTATION STATUS	41
4.1	Implementation Status of the Project Activity	41
5	ESTIMATED GHG EMISSION REDUCTIONS AND REMOVALS.....	41
5.1	Baseline Emissions	41
5.2	Project Emissions	41
5.3	Leakage.....	41
5.4	Estimated Net GHG Emission Reductions and Removals.....	41
6	MONITORING	52
6.1	Data and Parameters Available at Validation	52
6.2	Data and Parameters Monitored.....	56
6.3	Monitoring Plan.....	63
7	QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS	69
7.1	Data and Parameters Monitored.....	69
7.2	Baseline Emissions	70
7.3	Project Emissions	70
7.4	Leakage.....	70
7.5	Net GHG Emission Reductions and Removals	70
	APPENDIX.....	74

1 PROJECT DETAILS

1.1 Summary Description of the Project

The main goal of the project is to enhance the livelihoods of the rural community in the project area by providing them with improved cook stoves, awareness about the GHG emission reduction and employment opportunities. The project aims to substitute conventional, less efficient stoves currently in use within the project regions with improved stoves, known as ICS, that offer higher thermal efficiency and produce reduced air pollution. Through this community engagement project, we plan to introduce clean cooking practices, reduce indoor air pollution (IAP) and thereby reduce health risks associated with inefficient cooking practices among households.

The project not only aims to reduce greenhouse gas emissions but also creates a domino effect in the community by:

- providing employment opportunities through stove maintenance,
- reducing firewood collection time,
- reduce the risk of assault experienced by women while collecting firewood,
- and improve the overall health of families affected by Indoor air pollution due to the use of old and traditional stoves

The project proponent comes from the project area and aspires to restore and improve the cooking practices of livelihoods in of the community project boundary. The proponent is also registered with the Government of India under the Companies Act. The project proponent will also facilitate and coordinate the distribution of the improved stoves. The project device will be manufactured by accredited ICS manufacturers that meet the criteria for project eligibility and target efficiency.

The location of project is Madhya Pradesh, India. Further location details are provided below in Section 1.10. Through this project, project device (Shri Stove) will replace traditional stoves. These project devices burn more efficiently and improve heat transfer to the pot, thereby saving fuel and reducing greenhouse gas (GHG) emissions. The baseline for the project is for the targeted people to continue using firewood in the project area to meet their thermal energy needs provided by our innovative stoves (ICS) when the project is inactive.

Currently, one instance of the Project activity is scheduled to include the delivery of 30,000 ICS. This number is subject to change during implementation and will be updated. Average estimated annual GHG emission reduction is 88,940 tCO₂e and total estimated annual GHG emission reduction of project activity 622,580tCO₂e respectively.

Audit type	Period	Program	Validation/verification body name	Number of years
Validation	01-December-2022 – 30-November-2029	VCS	LGAI Technological Center, S.A (Applus+ Certification).	7
Verification	01- December -2022- 30-June-2023) (including both the days)	VCS	LGAI Technological Center, S.A (Applus+ Certification).	7 Months (Monitoring period)
Total (Validation)	01-December-2022 – 30-November-2029	VCS	LGAI Technological Center, S.A (Applus+ Certification).	7
Total (Verification)	01- December -2022- 30-June -2023) (including both the days)	VCS	LGAI Technological Center, S.A (Applus+ Certification).	7 Months (Monitoring period)

1.2 Sectoral Scope and Project Type

This project involves the distribution of energy efficient cookstoves which fall under the category of efficiency improvements in thermal applications. The project devices which will be distributed under this project has a thermal efficiency of 35.4% or 0.354. The thermal efficiency is better than the traditional stoves and thus results in energy efficiency improvement and does not exceed the equivalent of 60 giga watt hour thermal (GWhth) per year of energy savings. Hence the project activity is eligible in Sectoral scope 3 i.e., energy demand under the scope of the VCS Program. The project activity is a grouped project where in multiple project instances will be added on the near future. The details are specified under section 1.4 of the Joint PD&MR.

Sectoral scope	3. Energy Demand
Project activity type	Type II – Energy Efficiency Improvement Project

1.3 Project Eligibility

The project activity aims at distribution of 30,000 improved cookstoves to those households which were using less efficient stoves in the pre-project scenario. The project activity applies latest version of approved VCS methodology VMR0006 (v1.2) and its applicable tools. The project activity does not come under the category of those projects that can reasonably be assumed to have generated GHG emissions primarily for the purpose of their subsequent reduction, removal, or destruction. Also, the project activity does not come under the excluded type of projects listed in the Table 1 of section 2.1.3 of VCS standard v4.5. The scope of the VCS Program includes the seven Kyoto Protocol greenhouse gases emission and also Project activity supported by a methodology approved under the VCS Program mentioned in section 3.1 of Joint PD&MR. The project activity falls under Sectoral Scope 3, specifically in the realm of energy demand. Hence, aligns with the eligibility criteria within the VCS Program's scope.

As per the applied methodology, the aggregate energy savings of the project activity does not exceed the equivalent of 60 GWh per year or 180 GWh thermal per year in fuel input. Thus, the project is eligible under the VCS program. As per Registration and Issuance Process of Verra the project activity meets requirements under pipeline listing which includes complete project description, proof of contracting of the joint validation and verification, and listing representation. Project proponent had a meeting with validation/verification body representing the beginning of the joint validation and verification process. The project applies latest version VCS approved meth VMR0006 v1.2 and associated CDM methodology AMs II G v13.0

1.4 Project Design

- ☐ The project includes a single location or installation only
- ☐ The project includes multiple locations or project activity instances, but is not being developed as a grouped project
- ☒ The project is a grouped project

Eligibility Criteria

For the inclusion of new project activity instances:

No.	Criterion	How the new project activity instances to comply
1.	Meet the applicability conditions set out in the methodology applied to the project	New project activity instances (Energy Efficient Cook Stoves) will meet the applicability conditions set out in Section 3.2 of the joint PD&MR where the target of the end-user is household and the project device deployed is at least 25% of thermal efficiency.

2.	Use the technologies or measures specified in the project description.	The technology used for project activity is energy efficient improved cook stoves. Only energy efficient cook stoves will be adopted in the project which will replace traditional cook stoves. Project stove is more efficiently work with wood instead of charcoal.
3.	Apply the technologies or measures in the same manner as specified in the project description.	Only energy efficient cook stoves to be adopted in the project by replacing traditional cook stoves in household.
4.	Are subject to the baseline scenario determined in the project description for the specified project activity and geographic area.	The new project activity instances will be installed within Madhya Pradesh, India and subject to the same baseline scenario determined in Section 3.4.
5.	Have characteristics with respect to additionality that are consistent with the initial instances for the specified project activity and geographic area.	All new project activity instances will use the activity method for demonstration of additionality. Step 1: Regulatory Surplus There is no mandated government programme or policy in host country of this project ensuring the distribution/installation of new energy efficient cook stoves for each project activity instances. Step 2: Positive List The inclusion of new project activity instances will comply with positive list as it satisfies criterion 1 where it meets all the applicability conditions of the methodology. Project activity installs or distributes stoves at zero cost to the end-user and has no other source of revenue other than the sale of GHG credits, the project activity shall be deemed additional. Project activity is not implemented as part of government schemes or supported by any multilateral funds; the project activity shall be deemed additional.
6.	Where a capacity limit applies to a project activity included in the project, no project activity instance shall	No project activity instance shall exceed the applicable limit, which is 180 GWh _{th} /y.

	exceed such limit. Further, no single cluster of project activity instances shall exceed the capacity limit, determined as follows: Each project activity instance that exceeds one percent of the capacity limit shall be identified. Such instances shall be divided into clusters, whereby each cluster is comprised of any system of instances such that each instance is within one kilometer of at least one other instance in the cluster. Instances that are not within one kilometer of any other instance shall not be assigned to clusters. None of the clusters shall exceed the capacity limit and no further project activity instances shall be added to the project that would cause any of the clusters to exceed the capacity limit.	Since the project activity instance has the same model, hence expected annual energy saving for each instance is 0.0064 GWh per year. As per section 2.2 para 4, AMS-II.G, the aggregate energy savings of a single project activity shall not exceed the equivalent of 60 GWh per year in fuel input, which satisfies the condition. Each project activity instance is within the capacity limit of thermal energy saving of 180GWh_{th}/y and does not exceed the capacity limit. Also, each project activity instance is not within 1 Km, thus cluster of project activity instances is not applicable.
7.	Not be or have been enrolled in another VCS project.	The project proponent provides a self-declaration stating that the respective project is not enrolled in any other GHG programs. Hence, the respective project is not enrolled in another VCS project.
8.	Adhere to the clustering and capacity limit requirements for multiple project activity instances as follows: 1) The project proponent shall include in a singular project all project activity instances within ten kilometres of another instance of the same project activity and with the same project proponent 2) Where a capacity limit applies to a project activity included in the	1) The project proponent has implemented the first instance of the grouped project activity in the respective project location described in section 1.12. PP has not implemented any additional project activity instance in the project location of the first instance, Hence the condition is satisfied. 2) The conditions are satisfied as per the information provided in Row 6 of this table

	project, no project activity instance shall exceed such limit. Further, no single cluster of project activity instances shall exceed the capacity limit, determined as follows: - Each project activity instance that exceeds one percent of the capacity limit shall be identified. - Such instances shall be divided into clusters, whereby each cluster is comprised any system of such instances such that each instance is within one kilometer of at least one other instance in the cluster. Instances that are not within one kilometer of any other instance shall not be assigned to clusters. - None of the clusters shall exceed the capacity limit and no further project activity instances shall be added to the project that would cause any of the clusters to exceed the capacity limit.	where each project activity instance is within the capacity limit of thermal energy saving of 180GWh_{th}/y and does not exceed the capacity limit. - No project activity instance is identified that exceeding the capacity limit specified in row 6 of this table. Each project activity instance is within the capacity limit of thermal energy saving of 180GWh_{th}/y and does not exceed the capacity limit. - No such instances are identified that can be divided into clusters. Moreover, each project activity instance is within the capacity limit of thermal energy saving of 180GWh_{th}/y and does not exceed the capacity limit. - No clusters are identified in the project activity that will exceed the capacity limit of thermal energy saving of 180GWh_{th}/y.
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Along with above points, the Inclusion of New Project Activity Instances follows below criteria

Grouped project complies for the inclusion of new instances follows below mentioned criteria.

No.	Criterion	How the new project activity instances to comply
1.	Occur within one of the designated geographic areas specified in the project description	New project activity instances (Energy Efficient Cook Stoves) will be occurring in the designated geographic areas specified in the project description.
2.	Comply with at least one complete set of eligibility criteria for the inclusion of new project activity instances. Partial compliance with	New project activity instances will comply with the complete set of eligibility criteria as mentioned above for the inclusion of new project activity instances.

	multiple sets of eligibility criteria is insufficient.	
3.	Be included in the monitoring report with sufficient technical, financial, geographic, and other relevant information to demonstrate compliance with the applicable set of eligibility criteria and enable sampling by the validation/verification body.	New project activity instances information will be included in the monitoring report with sufficient technical, financial, geographic, and other relevant information to demonstrate compliance with the applicable set of eligibility criteria and enable sampling by the validation/verification body
4.	Be validated at the time of verification against the applicable set of eligibility criteria	New project activity instances should be included by validating eligibility criteria as mentioned in this document
5.	Have evidence of project ownership, in respect of each project activity instance, held by the project proponent from the respective start date of each project activity instance (i.e., the date upon which the project activity instance began reducing or removing GHG emissions)	New project activity instances ownership needs to be evidenced from the start date of respective project activity instance.
6.	Have a start date that is the same as or later than the grouped project start date	New project activity instances start date should be after the start date of grouped project activity
7.	Be eligible for crediting from the start date of the instance through to the end of the project crediting period (only). Note that where a new project activity instance starts in a previous verification period, no credit may be sought for GHG emission reductions or removals generated during a previous verification period (as set out in Section 3.4.4 of VCS standard version 4.1) and new instances are eligible for crediting from the start of the next verification period	New project activity instances are eligible to claim credits from crediting period start date to the end of the project crediting period. Double counting of ICS is avoided between one project instance and another, as each beneficiary is assigned a unique code issued by the government along with an identity card. There are similar projects being undertaken by same PP within the same project boundary. However, the double counting issue is avoided across all projects via the Unique Serial no. embedded on the metal plate on each project stove. The project proponent will also share the project database with the VVB containing the unique serial numbers. Hence,

		despite having overlapping boundaries no double counting occurs across different projects
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1.5 Project Proponent

Organization name	Shri Maa Marketing Private limited.
Contact person	Mr. Deep Ram Gupta
Title	Vice President – Green Projects
Address	Plot 1, Sector C, Govindpura Industrial Area, Bhopal, India – 462023
Telephone	+91- 989 375 8888
Email	deep.gupta@shrimaagroup.in

1.6 Other Entities Involved in the Project

No other entities involved.

Organization name	Not Applicable
Role in the project	
Contact person	
Title	
Address	
Telephone	
Email	

1.7 Ownership

The project proponent, Shri Maa Marketing Private limited has funded the entire project and has its full ownership and has VCU's ownership.

During the registration of Shri Stove, the participating household (end user or stove owner) signs a declaration highlighting that they agree to transfer ownership rights of carbon assets generated by the installation and use of Shri Stove to Shri Maa Marketing Private limited. The project stove

is completely manufactured by Shri Maa Marketing private limited. So, there is no such funder details/debt/equity.

1.8 Project Start Date

Distribution of the first batch of project activity to the beneficiary took place on 01-December-2022 as per distribution database i.e, the actual usage of the stove started, hence considered as a start date of the project activity.

1.9 Project Crediting Period

Crediting period	☒ Seven years, Twice Renewable
Start and end date of first or fixed crediting period	01-December-2022 to 30-November-2029 (1 st crediting period)

1.10 Project Scale and Estimated GHG Emission Reductions or Removals

The project activity falls under project category since the annual average GHG emission reductions are less than 300,000 tCO₂e

Project Scale	
Project	✗
Large project	

Year	Estimated GHG emission reductions or removals (tCO ₂ e)
Year 1 (01-December-2022 to 31-December-2022)	11,394
Year 2 (01-January-2023 to 31-December-2023)	135,216
Year 3 (01-January-2024 to 31-December-2024)	117,143

Year 4 (01-January-2025 to 31-December-2025)	1,00,484
Year 5 (01-January-2026 to 31-December-2026)	85,198
Year 6 (01-January-2027 to 31-December-2027)	71,189
Year 7 (01-January-2028 to 31-December-2028)	58,368
Year 8 (01-January-2029 to 30-November-2029)	43,587
Total estimated ERRs during the first or fixed crediting period	622,580
Total number of years	7 (as per crediting period)
Average annual ERs	88,940

1.11 Description of the Project Activity

The project involves distribution of fuel-efficient improved cookstoves (ICS) which are Environmental management systems (ISO 14001:2015), and BIS (Bureau of Indian Standard) approved state of art and of environmentally sound technology. These stoves will replace the standard cookstoves used in the project area household. The project device will have an average lifespan of 7 years and an efficiency of 35.40%.

In line with the applicability condition in sub para 7 of the applied methodology AMS.II.G v13.1, The zero – cost stove distribution is done in a phased manner starting on 1st December 2022.

The exact dates and period of stove distribution is demonstrated in Ex – post ER calculations. Each individual stove carries a unique identification number, which is recorded at the time of distribution as well as mentioned in the User Agreement signed with the beneficiaries.

The project device to be deployed through the project is a single pot, portable stove which improves the efficiency of combustion and the thermal transfer to the pot compared to the traditional mud stoves. This is made possible by incorporating energy efficient technology which provides a conductive environment for clean and efficient combustion of biomass. This technology also helps in substantially reducing the biomass fuel consumption compared to the traditional mud stove.

As per the results of baseline survey, the average family size is 5 people per household with one baseline stove in each household. The project activity aims to replace the existing baseline technology with the project technology. Hence, only one project stove is provided per household

which is deemed sufficient to meet the energy demands of end users. Also, the monitoring surveys conducted validate the same as all meals of the day are cooked on one project device.

Technical specifications of the project device for all project activity instance from manufacturer Shri Maa Marketing Private Limited.

Technical details			
A	Cook Stove type/Category	Shri Stove Natural Draft	
B	Shri Stove Components	Utensil Stand	Utensil stands are designed to keep in mind the different vessel sizes that communities may use on a daily basis. It goes through a surface chemical treatment process post manufacturing, including 6-tank dips and a hot galvanizing dip to enhance its life and prevent corrosion.
		Covering Body	Outer covering body is designed for higher durability, keeping in mind more-than-average wear and tear of the stove. It is made up of aluminium, which prevents corrosion and lasts longer. A set of heat insulating bake-lite handles is attached to the body to manoeuvre stove easily
		Insulating Skirt	Insulating skirt is designed using the aerodynamics principle to ensure oxygen-rich air reaches the top of stove to provide maximum heat at the surface of the utensil for faster and more efficient cooking. It is also designed to maximize the insulation of heat and prevent from corrosion.
		Heat Chamber	Heating chamber is made up of stainless steel to maximize durability and minimize corrosion. The outer chamber has diamond-cut holes to control the flow of air. It also has a layer of our proprietary geo-thermal coating which is approved by an accredited institute to further insulate heat and enhance life.

		Stove Base	Sturdy stove stands are placed at the base of the stove that has precision holes for primary flow of air. It goes through a surface chemical treatment process post manufacturing, including 6- tank dips and a hot galvanizing dip to enhance its life and prevent corrosion.
		Glass Wool	For extra insulation of heat, we give an option to add a layer of high-quality glass wool surrounding the conical skirt. It prevents heat leakages throughout the surface and enables communities to cook more efficiently.
		Wood Stand	A heavy-duty stand that is built using steel wires is included with the stove for users to be able to have the flexibility to use longer wood sticks, without having to chop them
C	Operational Life	7 Years	
D	Parameters	Unit	Shri Stove
	Weight	g	3500+
	Top Diameter	cm	26
	Bottom Diameter	cm	26
	Stove top thickness	cm	0.1
	Combustion chamber diameter	cm	12
	Combustion chamber height	cm	22.3
	Length of primary air inlet	cm	15.5
	Height of primary air inlet	cm	12.9
	Area of primary air inlet	sq.cm	200

	Number of primary air holes	cm	21
	Pot rest height	cm	2
	Pot rest length	cm	8
	Distance of handles from stove body	cm	6.5
	Stove height above ground	cm	4
	Length/Diameter of the Grate	cm	12
	Number of Holes on the Grate	nos.	56 holes
	Length of Wood Rest	cm	30
	Skirt Height	cm	21.2
	Skirt Thickness	cm	0.1
	Skirt Diameter – Top	cm	13
	Skirt Diameter – Bottom	cm	19
E	Energy efficiency	35.4 %	

Data collection of the project device end-user:

Each project device will be given a unique serial number which will be stored in a mobile application developed by the project proponent. During the distribution and installation of the project device, the team will have a mobile application, which will be used to take picture of installation along with beneficiary and will include the following basic information for tracking and monitoring mechanism:

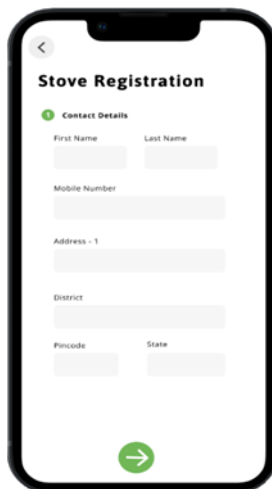
- Name of the project device User/ Head of the household
- Address of the project device User
- Contact Number of project device User
- The serial number of project device, wherever applicable along with pictures
- Date of installation

- Installer's name and number

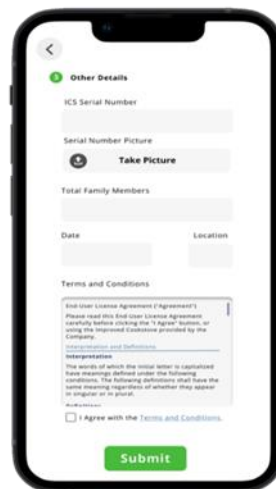
Here are some screenshots of the app, we will be using to register user and monitor project device usage:



People helping us distribute ICS will be able to log-in to our app



App will help people register ICS users with along with their details



Stove serial number, its picture and terms & conditions for the ICS

Measures undertaken:

The project proponent will work with local non-profits, head of tribes, and head of villages to identify families living in villages of project area. We will set following parameters to select households: Type and condition of house, Availability of regular usable clothes, Protection of food or food security, Availability of drinking water, Heights /Level of literacy, Source of livelihood goods, and households not covered under any government schemes.

The household filtered by these parameters will be provided with an improved cook stove system. These household considered as end users of cook stoves are poor enough to not being able to afford cook stoves and are also least interested towards investment as plenty of firewood is available for free. So, in absence of the improved cook stove the household would have continued with traditional cooking practice using mud stove.

1.12 Project Location

The project will initially undertake within the boundary of India and specifically in the underserved and untapped tribal communities of the Madhya Pradesh, India.

The geographical boundary for the current project activity located in Madhya Pradesh, India are in the form of extreme geographic coordinates as follows:

Latitude and longitude coordinates are: 23° 30' N, 80° 00' E¹



1.13 Conditions Prior to Project Initiation

The conditions prior to the project initiation are the continued use of non-renewable biomass (firewood) to meet their cooking requirements. It is estimated that 90% of the rural India's population uses non-renewable biomass as cooking fuel². The women spend over 6-7 hours every week collecting firewood for cooking³.

Through this project we aim to reduce the use of non - renewable biomass needed to cook food.

The objective of this project is to decrease the reliance on non-renewable biomass for cooking purposes. Initially, the project will be implemented in the state of Madhya Pradesh which is the fourth poorest state in India⁴, with Alirajpur being the country's poorest district. Despite welfare schemes and reservations in education or employment, a significant portion of the population remains impoverished. After conducting surveys among communities in our project area, it was evident that a substantial proportion of the population relies on traditional stoves for cooking.

Selection of beneficiaries:

Selection of beneficiaries for project activity entails identifying households that heavily rely on traditional cookstoves and are in dire need of cleaner alternatives. The questions asked

¹ https://www.mapsofindia.com/lat_long/madhyapradesh/

² <https://researchmatters.in/news/promoting-improved-cookstoves-can-benefit-rural-households>

³ Baseline survey conducted by project proponent

⁴ <https://timesofindia.indiatimes.com/city/bhopal/madhya-pradesh-is-4th-poorest-state-in-country-global-study/articleshow/66014164.cms>

include details of the household, cooking patterns, problems associated with the baseline device etc. This involves collaborating with local entities to pinpoint households, factoring in aspects such as income, fuel availability, and willingness to adopt cleaner cookstoves, time saving. The goal is to guarantee that the neediest households gain access to clean cookstoves, resulting in enhanced health and livelihoods.

The sample size is determined, and a single survey is undertaken to collect data including details of household, types of baseline device used, usage of fuel, and awareness about emissions and its effect in their health and well-being. To ensure the survey result is representative of the entire population, samples is drawn by using the random number generator. Sample size is calculated as per guidelines of “Sampling and surveys for CDM project activities and programmes of activities” version 04.0.

In the absence of project activity there will be continued use of less efficient cooking practices. As a result, rural households cannot afford or choose not to opt for improved cookstoves due to the aforementioned reasons, unless project device is made accessible to them at a substantial subsidy or even free of charge.

The baseline scenario in the project areas of project location involves the predominant use of traditional cookstoves. These stoves have been in use for generations and are primarily utilized for cooking, heating, and boiling water. Baseline surveys were conducted to assess the current practices in each specific region.

The survey was conducted across Bhopal, Khargone, Mandsaur, Chhindwara and Jabalpur, district of Madhya Pradesh, between 03-November-2022, and 16-December-2022. The survey provided information on respondent family details, stove usage practices, fuel collection and consumption patterns, current issues faced, and perceptions of adopting an Improved Cookstove (project device). Trained local field teams (SMG Buddies) conducted the surveys. The firewood is obtained directly from forests, with some cases involving occasional purchases from other community members.



Figure 1 Images highlight daily cooking practices in our project areas

Baseline Survey:

To understand the Baseline scenario, the project proponent conducted the Baseline Survey of the representative population. A formal questionnaire was prepared containing questions related to:

- A) Characteristic of household including family size, user details etc.
- B) Type of fuel
- C) Type of baseline device, socio-economic, financial and health problems associated with the device
- D) Cooking pattern
- E) Improved Cookstove perception of the beneficiaries

As per AMS II.G methodology, paragraph 44, Data/Parameter table 9, Efficiency of the project device may be established based on a representative sample survey of the pre-project devices and fixed ex ante. The test conducted of the representative samples to figure out the thermal efficiency of baseline device.

On the basis of the type of stove found, their efficient test is conducted and noted in the survey results.

Average is taken of the arrived efficiency value and assigned to the parameter $n_{old,i,j}$.

The survey are conducted in the applicable geographical area in line with the “Standard for sampling and surveys for CDM project activities and programmes of activities”. The detailed calculation of the value is reflected in the Baseline Survey Excel Sheet as shown below:

Sample size calculations using simple random sampling scheme	
This spreadsheet presents calculation of sample sizes for Baseline included in the MP Cookstove Program. The parameters in question are:	
The sample size estimations follow Appendix 2 of Guideline for Sampling and surveys for CDM project activities and programmes of activities, version 04.0	
Equations	
a) Baseline Sample Size Calculation	
The following equation is applied:	
where:	
n = Sample size	
N = Population size (Total number of households/ICS)	
p = Expected proportion	
1.645 = Represents the 90% confidence required (In the case of 95% confidence, 1.96 shall be used)	
0.1 = Represents the 10% relative precision	
	$n \geq \frac{1.645^2 N \times p(1-p)}{(N-1) \times 0.1^2 \times p^2 + 1.645^2 p(1-p)}$

Calculation of Sample Size:

Calculation of Sample Sizes		
Calculation of Sample Sizes in Simple Random Sampling for Baseline Sample Calculation		
Definition	Value	Justification
The population size N is	30,000	Number of stoves registered in database
The expected proportion p for n_{yz} is	0.9	A conservative assumption of 90% is applied for sample size calculation.
Sample size	30.04	
Sample size (rounded up)	31	
As per the calculations presented above 90% confidence is taken and 10% relative precision. As per the project database size and the applied sampling calculation, the sample size is 31.		

The sample size comes out to be 31

The baseline stove efficiency is determined through the conduction of Water Boiling Test (WBT) in accordance with guidance prescribed in AMS II.G. v13.0 Table 9 which states that the survey is conducted in the applicable geographical area in line with the “Standard for sampling and surveys for CDM project activities and programmes of activities”.

Baseline thermal efficiency is determined as per version 4.2.3 of the WBT Protocol⁵ mentioned in AMS II.G. of representative sample in applicable geographical area. The baseline stove efficiency result comes out to be 9.26%.

Baseline Survey Outcomes:

Initial surveys found that mostly all the respondents were unhappy with their baseline stoves and were interested in receiving project devices. Common issues included encounters with wildlife, injuries from wood-cutting tools, health problems due to smoke, and physical strain from collecting firewood. Challenges included localized smoke, time-consuming tasks, and high firewood consumption. Reasons for sticking with traditional stoves included lack of awareness about alternatives, cost concerns, the abundance of firewood, and perceived ease of use and maintenance. Overall, the baseline surveys provide valuable insights into the prevailing conditions and challenges associated with traditional cookstove usage in the project areas.

1.14 Compliance with Laws, Statutes and Other Regulatory Frameworks

The project is a voluntary effort by project proponent. There are no mandatory laws or regulations in the host country (India) requiring the introduction of cookstove in India, the project includes

⁵ <https://cleancooking.org/research-evidence-learning/standards-testing/protocols>

the distribution of cookstoves and is completely voluntary. The ongoing project does not violate any laws, statutes or other regulatory frameworks in India.

1.15 Participation under Other GHG Programs

1.15.1 Projects Registered (or seeking registration) under Other GHG Program(s)

The project is neither registered nor seeking registration under any of the current GHG programs. The project has also not participated under any other GHG programme.

1.15.2 Projects Rejected by Other GHG Programs

The project participant hereby declares that it has not been rejected by any other GHG programme

1.16 Other Forms of Credit

1.16.1 Emissions Trading Programs and Other Binding Limits

Does the project reduce GHG emissions from activities that are included in an emissions trading program or any other mechanism that includes GHG allowance trading?

☐ Yes

☒ No

The project is not included in any trading program or any other mechanism that includes GHG allowance trading. The GHG emission reductions and removals generated by the project have not and will not be used for compliance under any programs or mechanisms, the same can be justified through documents shared with VVB.

1.16.2 Other Forms of Environmental Credit

The project activity has not sought or received another form of GHG-related credit, including renewable energy certificates. The project activity is eligible to participate under Gold standard ACR and CDM but not seeking any forms of credits

1.16.3 Supply Chain (Scope 3) Emissions

As per the owner(s) or retailer(s) of the project device posted a public statement saying, "VCUs is issued for the greenhouse gas emission reductions and removals associated with [Shri Maa Marketing Private Limited] for [Shri Stove]" since the project's start date?

☐ Yes

☒ No

Justification: Not applicable for the distribution of ICS in the project area.

Has the project proponent posted a public statement saying, “VCUs may be issued for the greenhouse gas emission reductions and removals associated with Shri Stove in Madhya Pradesh, India by Shri Maa Marketing Private Limited

☐ Yes

☒ No

Justification: Nothing has been posted as it does not affect project activities.

Have the producer(s) or retailer(s) of the impacted good or service been notified of the project and the potential risk of Scope 3 emissions double claiming via email?

☐ Yes

☒ No

1.17 Sustainable Development Contributions

1.17.1 Sustainable Development Contributions Activity Description

The project contributes in various ways toward the social, environmental, economic, and technological benefits for continuous development of not only the environment but also the country:

Social Benefits:

- Improves overall health of the women and children by reducing household air pollution (HAP), which in turn decreases health hazards
- Faster cooking time - the materials used in making ICS transmit the heat effectively cooking the food faster
- The cooking environment is better due to less smoke and carbon residue in the kitchen
- Reduces drudgery to women (due to reduced fuelwood use) who spend long hours and travel long distances to collect fuelwood
- Better quality of life – the rural communities get more family time as the whole family can sit and eat together

Environmental benefits:

- Improves the local environment by reducing the rate of degradation of forests and deforestation in the project location
- Reduces global and local environmental pollution and environmental degradation by less usage of non-renewable biomass thus leading to a reduction in GHG emissions

- Reduces the indoor pollution – the ICS emits very less smoke when compared to the traditional three-stone stoves used in most of the project area. This lower smoke helps in reducing respiratory diseases and other health hazards, as well as medical expenditure.
- Requires less water and effort to clean vessels and kitchen since less smoke is generated

Economic benefits:

- Employment will be generated in the project area through the maintenance of the improved cookstoves in the project area
- Reduce the cost of purchase of fuelwood, if any and/or increases wage equivalent time as it reduces firewood collection time

Technological Benefits:

- Helps introduce newer technologies to the rural communities.
- Transfers knowledge to users, trainers and technicians for usage and maintenance of ICSs
- Influences other communities in different states to adopt to better and more efficient practices

1.17.2 Sustainable Development Contributions Activity Monitoring

The project brings about positive impacts in social, environmental, economic, and technological aspects. Socially, it improves health and family time, reducing women's drudgery. Environmentally, it combats deforestation, lowers pollution, and improves indoor air quality. Economically, it creates jobs, lowers fuelwood costs, and increases wage time. Technologically, it introduces modern methods, transfers knowledge, and inspires other communities to adopt efficient practices. Overall, the project contributes significantly to holistic development

Table 1: Sustainable Development Contributions

Row number	SDG Target	SDG Indicator	Net Impact on SDG Indicator	Current Project Contributions	Contributions Over Project Lifetime
1)	1.4	1.4.1 Proportion of population below the international poverty line	Implemented activities to decrease	No further changes during this monitoring period was recorded. The implemented activity help beneficiary reducing fuelwood monthly expense.	30,000 households who got high-energy efficient project improved cookstoves saved fuelwood and cooking time, thereby reducing fuelwood monthly expenses, and providing extra time for alternate jobs.
2)	3.9	3.9.1 Mortality rate from air pollution	Implemented activities to decrease	Implemented activities to improve indoor air quality. The distribution of the project device reduced the emission of fine particulate matter during cooking, resulting in better health as mentioned by the beneficiary during the monitoring survey conducted by PP.	Around 60,000 individuals, with an average of two people per household, were able to enjoy improved indoor air quality due to the use of improved cookstoves. These cookstoves reduced the emission of fine particulate matter during cooking, resulting in better health and wellbeing for the people using them.

3)	5.4	5.4.1 Time spent on unpaid domestic and care work, by sex, age & location	Implemented activities to decrease	Distributed ICS to reduce drudgery, and time spent by women/girls in 30,000 households on cooking or care work. We considered at an average of 1hr/day default factor, per household was reduced in rural areas based on the monitoring survey conducted by PP of sample household.	The provision of improved cookstoves through the project has enabled women and girls in the households to spend less time cooking food. This is because the cookstoves have faster cooking times, giving them more time to engage in other activities such as employment.
4)	7.1	7.1.2-Proportion of population with primary reliance on clean fuels and technology	Implemented activity to increase the proportion of population with primary reliance on clean technology (fuel efficient ICS)	Distribution of 30,000 number of ICS thereby replacing the use of baseline inefficient cookstoves has resulted in increase in population with reliance on clean technology	The project has resulted in increased reliance on clean technology through distribution of 30,000 improved cookstoves.
5)	8.3	8.3.1 Proportion of informal employment in non-agriculture employment, by sex	Implemented activities to increase	This project has employed 150 SMG Buddies to distribute and manage project activity in the rural areas. By providing meaningful employment opportunities, PP contribute to the broader objective of fostering entrepreneurship, creativity, and innovation, as outlined in SDG 8.3.	The project provides training to 150 individuals who are employed to manage project activities. This initiative not only increases employment opportunities in rural areas but also equips these individuals with the skills to secure jobs in the future.

6)	13.2.1	Quantity of emission reductions achieved from the project activity	Emission reductions	The project activity involves distribution of energy efficient cookstove to the rural population. The ICS distributed will burn wood more efficiently thereby improving thermal transfer to pots, hence saving fuel wood. The average annual GHG emission reduction is 88,940 tCO ₂ e. The emission reduction for current monitoring period is 67,652 tCO ₂ e.	The average annual GHG emission reduction is 88,940 tCO ₂ e and total 622,580 tCO ₂ e for the group project activity over the entire crediting period.
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1.18 Additional Information Relevant to the Project

Leakage Management

Leakage is accounted in line with the requirements of the latest version of AMSII.G Version 13.0. According to section 5.1 of Tool12 (Project and leakage emissions from transportation of freight version 01.1.0), the leakage emissions produced due to transportation are considered negligible in comparison to the project emission reduction, which is negligible by below mentioned equation. The detailed calculation is mentioned in section 5.4 of the document.

$$\frac{PE_{TR,m}}{LE_{TR,m}} = \sum_f D_{f,m} \times FR_{f,m} \times EF_{CO2,f} \times 10^{-6}$$

Commercially Sensitive Information

No commercially sensitive information has been hidden from this public version of the project description

Further Information

No further information.

2 SAFEGUARDS

2.1 No Net Harm

No potential negative environmental or socio-economic impact have been identified for the project, according Ministry of Environment, Forest and climate change (MoEF&CC), Government of India, under the Environment Impact Assessment Notification vide S.O. 1533, dated 14-September-2006⁶. Instead, the project will bring positive impacts on the environmental and socio-economic aspects to the project area as mentioned in section 1.14.

2.2 Local Stakeholder Consultation

The Efficient Cookstove (Shri Stove) Distribution Program aims to promote the use of clean and efficient cookstoves in households, which has the potential to improve the health and livelihoods

⁶ https://environmentclearance.nic.in/writereaddata/EIA_Notifications/1_SO1533E_14092006.pdf

of thousands of people, reduce carbon emissions, and support sustainable development. To ensure the program's success, it is crucial to engage with stakeholders, and understand their needs, concerns, and suggestions.

Time and Mode of invitation:

A stakeholder consultation meeting was organized to raise awareness about the program, which took place on 22-November-2022 in Khargone, Madhya Pradesh. The local stakeholder meeting was conducted in various District of Madhya Pradesh⁷, India. Local stakeholders and attendees were invited through invitation note before 30 days.

Brief summary of meeting:

During the meeting, our representatives discussed the program's details and benefits, including the positive outcomes for the entitled community and village households. They provided feedback forms to the attendees at the end of the meeting to collect their response. As per the conclusion drawn from the collected feedback forms, no projects updates were required. The stakeholder consultation report summarizes the findings of the consultations and provides feedback for the program. Identification of the Stakeholders is by including the local communities, government agencies, non-profit organizations, businesses, research institutions, and more in the project area. In the Local Stakeholder Consultation Meeting, the SMG buddies explained them about the benefits of the project device. They also highlighted the disadvantages of the traditional cook stoves, and how they are harmful for the environment. Additionally, they've emphasized the method of usage. LSC meetings were conducted in different locations during project activity to ensure proper communication with beneficiaries. LSC meetings were conducted in different districts during project activity.

The SMG Buddies explained the advantages of the project device. They've highlighted the points that how the project device is better than the traditional cookstoves. Overall, the outcome of the consultation was, that the stakeholders showed keen interest in adopting the project device, after understanding its environmental and health benefits

Documentation of outcomes:

SMG buddies gathered the feedback and recommendations from the local stakeholder after the consultation process via feedback forms provided to the attendees. The feedback form includes questionnaire related to traditional stove, social and environmental impact. At the end attendees are informed about the ongoing communication, grievance channels and project activity information where they can reach out with their queries. Multiple channels for resolving any issues were available, including field team members, local stakeholder, and a contact number on the box cover.

⁷ Details of meeting conducted in various locations attached in appendix of this report

Following documents are prepared during stakeholder consultations to maintain record:

1. Attendance sheets
2. Feedback forms (physical and online)
3. Grievance registration & redressal
4. Training on stove usage

Key Feedback and Inputs:

All input received during the consultation, including feedback from field team meetings, was given due consideration. A thorough review of the documented meetings was conducted to extract valuable insights and suggestions. The project design was updated in response to relevant feedback, ensuring that stakeholder concerns and recommendations were integrated effectively.

During the meeting, questions were raised about the benefits, affordability, training, environmental impact, employment opportunities, and issue resolution related to the improved cook stoves. It was confirmed that the stoves offered numerous advantages, including economic savings, health improvements, environmental sustainability, and empowerment for households and communities. The stoves were to be provided free of cost, ensuring accessibility for all income levels. Comprehensive training and support were available to ensure proper use, maintenance, and to maximize benefits such as reduced fuel consumption and improved indoor air quality

Ongoing communication:

The ongoing monitoring mechanism includes regular spot checks by the field team to ensure proper device usage, along with frequent visits by field representatives and the technical team to assess cookstove usage rates. During these visits, any queries or grievances from beneficiaries are recorded. A website and a contact number on the device box cover are available for users to raise issues, ensuring accessible support. Beneficiaries also have the contact details of the field coordinator and local stakeholders for direct assistance. Additionally, the project proponent conducts random calls to check on usage and address any concerns. All reported issues are promptly resolved by the project team, ensuring effective support and engagement with the beneficiaries

2.3 Environmental Impact

No negative environmental impacts have been identified from the project and environmental impact assessment (EIA) is not required as Environmental Impact assessment (EIA) is the assessment of the environmental consequences of a plan, policy, program, or actual projects prior to the decision to move forward with the proposed action.

2.4 Public Comments

The project was open for public comment from 05-September-2023 to 05-October-2023, no comments received during this period.

2.5 AFOLU-Specific Safeguards

This section is not applicable as the project is a non-AFOLU project.

3 APPLICATION OF METHODOLOGY

3.1 Title and Reference of Methodology

Type (methodology, tool or module).	Reference ID, if applicable	Title	Version
Methodology	VMR0006	Energy efficiency and fuel switch measures in thermal application	1.2
Sectoral Scope	Scope 03	Efficiency Improvement	
Methodology	AMS II.G	Energy efficiency measures in thermal applications of non-renewable biomass	13
Tool	TOOL30	Calculation of the fraction of non-renewable biomass”	4
Guideline	CDM-EB67-A06-GUID	Sampling and Surveys for CDM Project Activities and Programme of Activities	4
Tool	TOOL 12	Project and leakage emissions from transportation of freight	01.1.0
Standard	CDM-EB50-A30-STAN	Sampling and surveys for CDM project activities and programme of activities,	09

3.2 Applicability of Methodology

Methodology ID	Applicability condition	Justification of compliance
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VMR0006 Energy Efficiency And Fuel Switch Measures In Thermal Applications Version - 1.2	1. Increase thermal efficiency to reduce the consumption of non-renewable biomass 2. Switch from fossil fuel (coal or kerosene) to renewable biomass in new or existing improved thermal energy generation units The methodology is applicable to both 'Projects' and 'Large Projects' under the following conditions: 1) All applicability conditions of the latest version of AMS II.G. must be met. 2) The project activities must be implemented in households, community-based kitchens, institutions (e.g., schools), or small and medium-sized enterprises (SMEs) 3. For fuel switch activities, the following	1. Complies, as the project device (Shri Stove) having thermal efficiency of 34.5%(0.345) which will reduce the consumption of non-renewable biomass 2. Not Applicable, as project activity involves only wood for thermal energy generation. 1.Complies, and explained below. 2.The project activity is implemented in households 3. Not applicable, as project activity doesn't involve any fuel switch(wood is
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	additional conditions must be met: Projects must exclusively use renewable biomass, and meet the following additional conditions: (a) If biomass residues are used, they have been left for decay or burned without energy recovery before the implementation of the project activity. (b) If biomass residues from a production process are used, the implementation of the project does not result in an increase of the processing capacity of raw input or any other substantial changes (e.g., product change) in this process. (c) If biomass from dedicated plantations is used, the applicability conditions of TOOL16 “Project and leakage emissions from biomass” must be satisfied (d) The renewable biomass sources must be documented in the project description and monitoring periods, including origin, quantities, and pre-project conditions. If the biomass is sourced from a third-party, proof of purchase must be provided (e.g., contractual agreements or purchase receipts). (e) More than one type of biomass may be used (e.g., briquettes and wood chips).	used as fuel both in project and pre project scenario) ,
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AMS II G Energy efficiency measures in thermal applications of non-renewable biomass Version - 13.0	Applicable to the introduction of single pot or multi pot portable or in-situ cookstoves with rated efficiency of at least 25 per cent.	The single pot improved cookstoves that are deployed in the project boundary have a thermal efficiency of 35.40% as per the manufacturer's specifications and hence the project activity complies to the applicability requirement of the methodology.
	The aggregate energy savings of a single project activity shall not exceed the equivalent of 60 GWh per year or 180 GWh thermal per year in fuel input.	Since the project activity instance has the same model, hence expected annual energy saving for each instance is 0.0064 GWh per year. As per section 2.2 para 4, AMS-II. G, the aggregate energy savings of a single project activity shall not exceed the equivalent of 60 GWh per year in fuel input, which satisfies the condition.
	Non-renewable biomass has been used in the project region since 31 December 1989, using survey methods or referring to published literature, official reports, or statistics.	The proof that the use of biomass has been popular since 31st December 1989 is available through widespread documentations, one of reports by National Sample Survey Organization (NSSO) ⁸ shows that 79% of the Indian population were dependent on firewood and chips in the year 1987-88. This clearly shows that the project region, the rural part of India, has been dependent on firewood and other non-renewable biomass as a source of thermal energy before and after 1989.
	For the specific case of biomass residues processed as a fuel (e.g., briquettes, wood chips), it shall be demonstrated that: (a) It is produced using exclusively renewable biomass (more than one type of biomass may be used).	Not applicable, no biomass residue processed as a fuel is used in project activity. The ICS is being introduced as an energy efficient replacement to the traditional stoves and to also reduce the use of non-renewable biomass.

⁸ https://www.mospi.gov.in/download-reports?main_cat=Nzly&cat=All&sub_category=All

	(b) The consumption of the fuel should be monitored during the crediting period and (c) Energy use for renewable biomass processing (e.g., shredding and compacting in the case of briquetting) may be considered as equivalent to the upstream emissions associated with the processing of the displaced fossil fuel and hence disregarded.	
	The CDM-PDD or CDM-PoA-DD/CPA-DD shall explain the proposed method for distribution of project devices including the method to avoid double counting of emission reductions such as unique identifications of product and end-user locations (e.g. programme logo).	Every improved cookstove that is distributed with unique serial number. During the distribution, the serial number and the exact location of ICS distributed is recorded in our app. No double counting of emission reductions occurred due to unique identifications of product and end-user location.
	The CDM-PDD or CDM-PoA-DD/CPA-DD shall also explain how the proposed procedures prevent double counting of emission reductions, for example to avoid that project stove manufacturers, wholesale providers or others claim credit for emission reductions from the project devices.	The project proponent make sure that no double counting for carbon emission takes place in specified period. All the credit generated from the project is owned by the project proponent, i.e., Shri Maa Marketing Private Limited.

Tool	Applicability condition	Justification of compliance
Tool 12 “Project and leakage emissions from transportation of freight”, version 01.1.0	1. This tool is applicable to project activities which involve freight transportation by road and	1. Complies, this applicability condition ensures that transport-related emissions are small relative to the expected

	where transportation is not the main project activity. 2. The tool is applicable for the determination of project or leakage emissions From freight transportation by rail in project activities where transportation is not the main project activity	total emission reductions and, for this reason, enables to use a simplified approach to estimate project or leakage emissions from transportation of truck 2. Applicable as transportation is not the main project activity.
Tool 30 version 4.0 Calculation of the fraction of non-renewable biomass Version 04.0	DNAs to submit region- or country-specific default f_{NRB} values, following the procedures for development, revision, clarification and update of standardized baselines (SB procedures) Project participants to calculate project- or PoA-specific f_{NRB} values	Not complies Complies, Calculate f_{NRB} by determining the share of renewable and non-renewable woody biomass in the total quantity of woody biomass consumption for the project area and compare the calculated values against the values for f_{NRB} reported in relevant scientific literature as mentioned in monitored parameter. Justification: Detailed calculation of f_{NRB} with reference data is mentioned in section 5.4 in accordance with TOOL30, v.04.0, utilizing the latest data sourced from the "Socio-Economic Contribution of Forests: Production and Consumption of Forest Resources in India" and the "Indian Forest Report 2021. As per Tool 30, Version 4, there is a difference in the values of calculated

		FNrb and the values mentioned in Bailis, R.; Drigo, R.; Ghilardi, A. & Masera, O. (2015) due to the latest data from India. The value of FNrb in Bailis, R.; Drigo, R.; Ghilardi, A. & Masera, O. (2015) is calculated based on data available until 2015, while the recently updated IPCC and India Forest Survey for 2021 provide revised and more current information. The PP used the most recent available data to calculate the F_{Nrb} for Madhya Pradesh, India.
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3.3 Project Boundary

Source	Gas	Included	Justification/Explanation
Baseline	CO ₂	YES	Major Source
	CH ₄	YES	Major Source
	N ₂ O	YES	Major Source
Project	CO ₂	YES	Major Source
	CH ₄	YES	Major Source
	N ₂ O	YES	Major Source

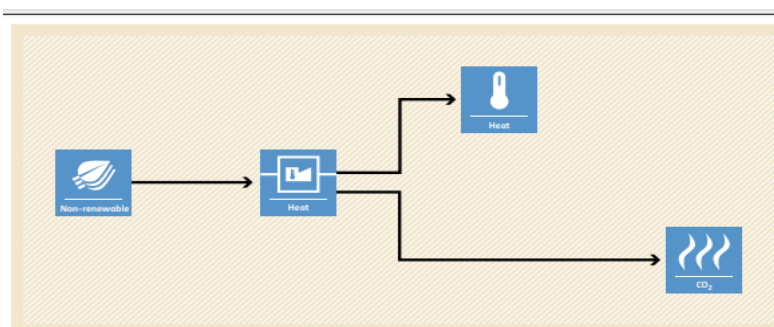


Figure 2: Baseline Scenario Diagram

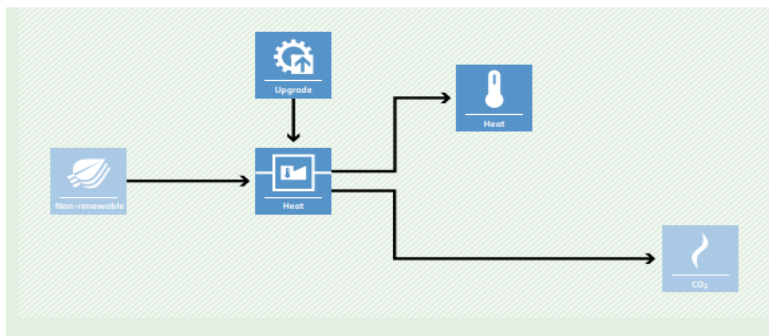


Figure 3: Project Boundary Diagram

3.4 Baseline Scenario

The baseline scenario for the project is the continued use of non-renewable biofuel in the project area by the targeted people to meet their thermal energy needs as provided by our project device in absence of the project activity. In the absence of project activity there will be continued use of less efficient cooking practices. As a result, rural households cannot afford or choose not to opt for improved cookstoves due to the aforementioned reasons, unless project device is made accessible to them free of cost .

The baseline scenario in the project areas of project location involves the predominant use of traditional cookstoves. These stoves have been in use for generations and are primarily utilized for cooking, heating, and boiling water. Baseline surveys were conducted to assess the current practices in each specific region. The baseline scenario sample size, identification and outcomes are explained in a detailed report shared with VVB.

Baseline Survey:

As per AMS II.G methodology, paragraph 44, Data/Parameter table 9, Efficiency of the project device may be established based on a representative sample survey of the pre-project devices and fixed ex ante.

Average is taken of the arrived efficiency value and assigned to the parameter n_{old} .

The survey is conducted in the applicable geographical area in line with the “Standard for sampling and surveys for CDM project activities and programmes of activities”. The detailed calculation of the value is reflected in the Baseline Survey Excel Sheet.

The baseline stove efficiency result was: 9.26%

Sample Size: as per guidelines of “Sampling and surveys for CDM project activities and

programmes of activities” version 04.0⁹. In order to calculate the required sample size estimates for baseline survey, values for the proportions, mean values, and standard deviations are required. As per Guideline for Sampling and surveys for CDM project activities and programmes of activities, version 04.0, there are different ways available to obtain the estimates of the parameter of interest: Project proponent referred to option preliminary sample

- (a) Refer to the result of previous studies and use these results.
- (b) In a situation where information from previous studies is not available, a preliminary sample as a pilot could be conducted and use that sample is used to provide the estimates.
- (c) Use best guesses based on the researcher’s own experiences.

Proportion Parameter

To estimate the sample size for proportion parameters, the following equation is used:

Sample size calculations using simple random sampling scheme	
This spreadsheet presents calculation of sample sizes for Baseline included in the MP Cookstove Program. The parameters in question are:	
The sample size estimations follow Appendix 2 of Guideline for Sampling and surveys for CDM project activities and programmes of activities, version 04.0	
Equations	
a) Baseline Sample Size Calculation	
The following equation is applied:	
where:	$n \geq \frac{1.645^2 N \times p(1-p)}{(N-1) \times 0.1^2 \times p^2 + 1.645^2 p(1-p)}$
n = Sample size	
N = Population size (Total number of households/ICS)	
p = Expected proportion	
1.645 = Represents the 90% confidence required (In the case of 95% confidence, 1.96 shall be used)	
0.1 = Represents the 10% relative precision	

Based on this sampling method, appropriate sample size for baseline survey was calculated as per CDM guideline Sampling and surveys for CDM project activities and programmes of activities Version 04.0. The sample size as per the above-mentioned equation came out to be 31 Samples.

The survey was conducted across Bhopal, Khargone, Mandsaur, Chhindwara and Jabalpur, district of Madhya Pradesh, between 03-November-2022, and 16-December-2022. The survey provided information on respondent family details, stove usage practices, fuel collection and consumption patterns, current issues faced, and perceptions of adopting an Improved Cookstove (project device). Trained local field teams (SMG Buddies) conducted the surveys. The firewood is

⁹ https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20151023152925068/Meth_GC48_%28ver04.0%29.pdf

obtained directly from forests, with some cases involving occasional purchases from other community members.

The baseline scenario sample size, identification and outcomes are explained in a detailed report shared with VVB.

3.5 Additionality

The methodology uses activity method for the demonstration of additionality

Activity Method:

Step 1: Regulatory Surplus

There is no mandated government program or policy in host country of this project ensuring the installation of domestic fuel-efficient cookstoves. The project is not mandated by any law, statute, or other regulatory framework, or for UNFCCC non-Annex I countries, any systematically enforced law, statute or other regulatory framework.

Households may only participate voluntarily in this project. It is hereby confirmed that the proposed project is a voluntary coordinated action by Shri Maa Marketing Private Limited.

Step 2: Positive List

As per the section 3.2, this project meets the applicability conditions of the methodology which represents the positive list.

The project is not implemented as part of any government scheme or supported by any multilateral funds. In these communities to promote the usage of improved cookstoves, they are distributed at no cost and hence the project proponent relies on carbon revenues to cover their cost, as explained in section 1.4, eligibility criteria.

1. Project activity installs or distributes stoves at zero cost to the end-user and has no other source of revenue other than the sale of GHG credits, the project activity shall be deemed additional.
2. Project activity is not implemented as part of government schemes or supported by any multilateral funds,

Conclusion: As the project fulfils the conditions above, it is deemed additional.

3.6 Methodology Deviations

Not applicable as no methodology deviations took place.

4 IMPLEMENTATION STATUS

4.1 Implementation Status of the Project Activity

Throughout the project, total of 30,000 devices were distributed as part of the project initiative, commencing on 01-December-2022, and concluding the distribution within a span of 6 months from the project's commencement. Upon receiving the Shri Stove, the reduced consumption of fuel wood and other associated advantages have influenced the reduction of greenhouse gas (GHG) emissions in the project areas. Detailed information and data is shared with VVB.

5 ESTIMATED GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

The methodology does not account for baseline emissions separately, but instead quantifies net emission reductions achieved by the project based on the reduced consumption of non-renewable biomass, as per Methodology “Energy Efficiency And Fuel Switch measures In Thermal Applications” VMR0006 v1.2 and the approach of “Energy efficiency measures in thermal applications of non-renewable biomass” AMS-II.G.

5.2 Project Emissions

The methodology does not account for project emissions separately, but instead quantifies net emission reductions achieved by the project based on the reduced consumption of non-renewable biomass, as per methodology “Methodology for Installation of High Efficiency Firewood Cookstoves” VMR0006 v1.2 and the approach of Energy efficiency measures in thermal applications of non-renewable biomass AMS-II.G.

5.3 Leakage

Leakage shall be considered as per latest version of tool 12 “Project and leakage emissions from transportation of freight”, version 01.1.0 and AMS II G version 13 in accordance with the methodology and detailed calculation in explained in section 5.4 of the joint PD&MR.

5.4 Estimated Net GHG Emission Reductions and Removals

Project activities that are replacing baseline devices using non-renewable biomass must apply the equations of AMS-II.G. (except Equations 1, 2 and 3) to determine net GHG emission reductions. The following equation replaces Equations 1 and 2 of AMS-II.G.

$$ER_y = \sum_i \sum_j B_{y,savings,i,j} \times N_{0,i,j} \times n_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times (EF_{wf,CO2} + EF_{wf,non\ CO2}) \times Adj_{LE} \times (1 - u_d)$$

Where:

ER_y =	Emission reductions in year y (tCO ₂ e)
$B_{y,savings,i,j}$ =	Quantity of woody biomass that is saved per project device i and batch j in year y (tonnes)
$N_{0,i,j}$ =	Number of project devices of type i and batch j commissioned (number)
$n_{y,i,j}$ =	Proportion of commissioned project devices of type i and batch j ($N_{0,i,j}$) that remain operating in year y (fraction)
μ_y =	Adjustment to account for any continued use of pre-project devices during the year y
$f_{NRB,y}$ =	Fraction of woody biomass that can be established as non-renewable biomass (%)
$NCV_{biomass}$ =	Net calorific value of the non-renewable woody biomass that is substituted or reduced (TJ/tonne)
u_d =	Uncertainty deduction for fnrb (%)
Adj_{LE} =	Adjustment factor to account for leakage related to the non-renewable woody biomass saved by the project activity (fraction)
$EF_{wf,CO2}$ =	CO ₂ emission factor for non-renewable woody biomass (tCO ₂ /TJ)
$EF_{wf,non\ CO2}$ =	Non-CO ₂ emission factor for non-renewable woody biomass (tCO ₂ e/TJ)

$$ER_y = \sum_i \sum_j ER_{y,i,j} - LE_y$$

Equation (1)

Where:

i	Indices for the situation where more than one type of project device is introduced to replace the pre-project devices
j	Indices for the situation where there is more than one batch of project device
ER_y	Emission reductions during year y in t CO ₂ e
$ER_{y,i,j}$	Emission reductions by improved cook stove of type i and batch j during year y in t CO ₂ e
LE_y	Leakage emissions in the year y (tCO ₂ e)

The quantify of woody biomass saved $B_{y,savings,i,j}$ due to implementation of improved cook stoves can be estimated by the following equation:

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

Where:

$\eta_{old,i,j}$	Efficiency of the old devices being replaced by project devices of type i and batch j (fraction)
$\eta_{new,y,i,j}$	Efficiency of the project device i and batch j (fraction)
$B_{y=1,new,i,j,survey}$	Quantity of woody biomass used by project devices in tonnes per device of type i and batch j (tonnes)

For the scope our project area, following points are considered:

- The project activity distributed 30,000 project devices in the first instance.
- Life span of Improved Cook Stoves is 7 years, as provided by the project device specifications.

Calculation 1: Yearly new stove efficiency

- As per applied AMS II G v 13.0 “Energy efficiency measures in thermal applications of non-renewable biomass” para 37 (a), A default schedule of linear decrease in efficiency up to the terminal efficiency assumed as 20 per cent shall be applied through the life span of the project device. The thermal efficiency is 35.40 %, after linear decrease of 20 percent it will be 34.30 %.

Output:

Year	$\eta_{new,i,y}$ In %
1	34.30%
2	32.10%
3	29.90%
4	27.70%
5	25.50%

6	23.30%
7	21.10%

Calculation 2: Yearly number of operational stoves

$N_{0ij} \times N_{yij}$ = Number of stoves in scope $\times$ (1-loss rate %)

Loss Rate: Annual stove loss rate is estimated at 5%. This is assumed as conservative as compared with survey results. This value will vary during actual verification based on survey results.

Example of calculation

If $y = 1$, for Project Stove

Stove operational = 30000 (All stoves are operational)

$Y=2$

$N_{y,i,j} = 30000 \times [1-0.05]$

=28,500

Outputs:

STOVE OPERATIONAL (($N_{0ij} \times n_{yij}$))	
Year(y)	($N_{0ij} \times n_{yij}$) Number
1	30,000
2	28,500
3	27,075
4	25,721
5	24,435
6	23,213
7	22,053

Calculation 3: Yearly woody biomass saved in tonne per Shri Stove per year

Assumptions:

- Upon initial survey with the households in our project region, it is concluded that Estimated wood biomass consumption in households is ~4.02kg, resulting into $B_{y=1,new}$ to be 1.47/ tonne/stove/ year; assuming stove being operational 365 days
- Efficiency of traditional stoves being replaced – 9.26%

(parameter detail is mentioned in section 6.1)

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

Outputs:

Year (y)	$B_{y=1,new,i,survey}$	$\eta_{new,i,y}$	η_{old}	$B_{y,savings,i,j}$
1	1.47	34.30%	9.26%	3.97
2	1.47	32.10%	9.26%	3.62
3	1.47	29.90%	9.26%	3.27
4	1.47	27.70%	9.26%	2.92
5	1.47	25.50%	9.26%	2.57
6	1.47	23.30%	9.26%	2.22
7	1.47	21.10%	9.26%	1.88

Calculation 4: Yearly emission reductions by SHRI STOVE

$$ER_y = \sum_i \sum_j B_{y,savings,i,j} \times N_{0,i,j} \times n_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times (EF_{wf,CO2} + EF_{wf,non\ CO2}) \times Adj_{LE} \times (1 - u_d) \quad (1)$$

Where:

$$f_{NRB,} = 0.8628$$

NCV_{wood} is 0.0156 TJ/ tonne, as per default value indicated in the (IPCC default value for wood fuel, 0.0156 TJ/tonne

$EF_{wf,2}$ to be 112 tCO₂/TJ and $EF_{wf,non\ CO2}$ to be 9.46 tCO₂/TJ, as per default value indicated in the equation 2, methodology above

Calculation of the fraction of non-renewable biomass

As per equation 3, Tool 30 ver4,

$$H = HW \times N + CE + NE$$

Equation (3)

Where:

- HW** = Average consumption of wood fuel per household, including fuelwood and charcoal, in the applicable area in the relevant period (tonnes//household)
- CE** = Commercial woody biomass consumption for energy applications (e.g. commercial, industrial or institutional uses of woody biomass in ovens, boilers etc.) that are extracted from forests or other land areas in the applicable area in the relevant period (tonnes)
- NE** = Commercial woody biomass consumption for non-energy applications (e.g. construction, furniture) that are extracted from forests or other land areas in the applicable area in the relevant period (tonnes)
- N** = Number of households consuming wood fuel within the applicable area in the relevant period (number)

Parameter	Description	Data Unit	Value used	Source/Remark(s)
H	Total consumption of woody biomass	M tonnes	30.54	Estimated value
HW	Average consumption of wood fuel per household, including fuelwood and Charcoal	tonnes/household	1.23	Estimated value
N	No. of households	Million	11.09	Estimated value
CE	Commercial woody biomass consumption for energy applications	M tonnes	0.00	In absence of a reliable data source (e.g. national studies, government data, official statistics etc) it is difficult to procure & clearly demonstrate a figure for the consumption of fuelwood and charcoal or woody biomass for energy applications in the commercial sector. Therefore, as a conservative approach the value of this parameter is being taken as zero.
NE	Commercial woody biomass consumption for non-energy applications (e.g. construction, furniture)	M tonnes	16.87	Estimated value

MAI_{forest, i} and MAI_{other, i} is calculated as per recent report of IPCC, Forest Land, Volume 4,

$$RB = \sum (MAI_{forest,i} \times (F_{forest,i} - P_{forest,i})) + \sum (MAI_{other,i} \times (F_{other,i} - P_{other,i})) \quad \text{Equation (4)}$$

Where:

- MAI_{forest, i} = Mean Annual Increment of woody biomass growth per hectare in sub-category *i* of forest areas in the relevant period (tonnes/ha/yr)
- MAI_{other, i} = Mean Annual Increment of woody biomass growth per hectare in sub-category *i* of other land areas in the relevant period (tonnes/ha/yr)
- F_{forest, i} = Extent of forest in sub-category *i* in the relevant period (ha)
- F_{other, i} = Extent of other land in sub-category *i* in the relevant period (ha)
- P_{forest, i} = Extent of non-accessible area (e.g. protected area where extraction of wood is prohibited, geographically remote area) within forest areas (in sub-category *i*) in the relevant period (ha)
- P_{other, i} = Extent of non-accessible area (e.g. protected area where extraction of wood is prohibited, geographically remote area) within other land areas (in sub-category *i*) in the relevant period (ha)
- i* = Sub-category *i* of forest areas and other land areas³

Table-4.9 and Extent of forest is calculated as per Chapter-13 India state of forest report-2021.¹⁰

$$f_{NRB} = \frac{NRB}{NRB + RB} \quad \text{Equation (1)}$$

Where:

- f_{NRB} = Fraction of non-renewable biomass in the applicable area in the relevant period (fraction or %)
- NRB = Quantity of non-renewable biomass consumed in the applicable area in the relevant period (tonnes)
- RB = Quantity of renewable biomass that is available on a sustainable basis in the applicable area in the relevant period (tonnes)

Parameters	Symbol	Description	Value	Unit
Total consumption of woody biomass in the applicable area in the relevant period (tonnes)	H	Calculated	30.539	million tonne
Quantity of renewable biomass that is available on a sustainable basis in the applicable area in the relevant period (tonnes)	RB	Calculated	4.190	million tonne

¹⁰ <https://fsi.nic.in/forest-report-2021-details>

Quantity of non-renewable biomass consumed in the applicable area in the relevant period	NRB	Calculated	26.348	million tonne
	F _{NRB}		86.28% Or 0.8628	Percentage or Fraction

EMISSION CALCULATIONS							
Year	Biomass Savings Tonn/year	Wood NCV TJ/tonne	Non-renew Biomass Fraction	EF_CO2 + EF_nonCO2 tCO2/TJ	(1 - ud) Fraction	Operational Stoves (NOij × nyij)	ER
1	3.97	0.0156	0.8628	121.46	0.74	30,000	136,800
2	3.62	0.0156	0.8628	121.46	0.74	28,500	118,541
3	3.27	0.0156	0.8628	121.46	0.74	27,075	101,767
4	2.92	0.0156	0.8628	121.46	0.74	25,721	86,374
5	2.57	0.0156	0.8628	121.46	0.74	24,435	72,265
6	2.22	0.0156	0.8628	121.46	0.74	23,213	59,352
7	1.88	0.0156	0.8628	121.46	0.74	22,053	47,549

Calculation 5: Leakage Emission due to transportation of project stove

As per tool 12 v 01.1.0 “Project and leakage emissions from transportation of freight”

Project emissions from transportation as per tool 12 equation (1) is

$$\left. \begin{matrix} PE_{TR,m} \\ LE_{TR,m} \end{matrix} \right\} = \sum_f D_{f,m} \times FR_{f,m} \times EF_{CO2,f} \times 10^{-6}$$

PE_{TR,n} = Project emissions from transportation of freight monitoring period m (t CO₂)

LE_{TR,n} = Leakage emissions from transportation of freight monitoring period m (t CO₂)

D_{f,n} = Return trip distance between the origin and destination of freight transportation activity f in monitoring period m (km)

FR_{f,n} = Total mass of freight transported in freight transportation activity f in monitoring period m (t)

EF_{CO2,f} = Default CO₂ emission factor for freight transportation activity f

(g CO₂/t km) or

f = Freight transportation activities conducted in the project activity in monitoring period m

District	Number of devices that can be accommodated in a single vehicle.	Distance between manufacturing unit and the distribution unit(in km)	LE _{TR,n}	LE _{TR,n} per Cookstove
Jabalpur	2300	313	5.37	0.00233
Chhindwara	2300	314.1	5.39	0.00234
Khargone	2300	318.4	5.46	0.00237
Betul	2300	178.2	3.06	0.00133
Mandsaur	2300	346.7	5.95	0.00259
Bhopal	2300	0	0.00	0.00000
Hoshangabad	2300	77.2	1.32	0.00058
Seoni	2300	378.8	6.50	0.00282
Rewa	2300	538.8	9.24	0.00402
Dewas	2300	152	2.61	0.00113
Dhar	2300	263	4.51	0.00196
Sagar	2300	169.1	2.90	0.00126
Sehore	2300	38.4	0.66	0.00029
Ratlam	2300	294.1	5.04	0.00219
Morena	2300	467.4	8.02	0.00349
Balaghat	2300	463.5	7.95	0.00346
Jhabua	2300	348.8	5.98	0.00260
Indore	2300	194.1	3.33	0.00145
Vidisha	2300	53	0.91	0.00040
Khandwa	2300	257.3	4.41	0.00192
Raisen	2300	47.2	0.81	0.00035
Satna	2300	453.2	7.77	0.00338
Gwalior	2300	432	7.41	0.00322
Harda	2300	148	2.54	0.00110
Guna	2300	210	3.60	0.00157
Alirajpur	2300	402.7	6.91	0.00300
Bhind	2300	517	8.87	0.00386
Neemuch	2300	401	6.88	0.00299
Ujjain	2300	191.5	3.28	0.00143
Mandla	2300	405	6.95	0.00302

Datia	2300	408	7.00	0.00304
Shahdol	2300	494.7	8.48	0.00369
Anuppur	2300	506	8.68	0.00377
Singrauli	2300	714.9	12.26	0.00533
Burhanpur	2300	351	6.02	0.00262
Panna	2300	373	6.40	0.00278
Damoh	2300	243	4.17	0.00181
Ashoknagar	2300	154	2.64	0.00115
Sidhi	2300	608	10.43	0.00453
Shajapur	2300	151	2.59	0.00113
Katni	2300	402	6.89	0.00300
Sheopur	2300	427	7.32305	0.003183935
Dindori	2300	456.6	7.83069	0.003404648
Shivpuri	2300	225	3.85875	0.001677717
Narsinghpur	2300	188	3.2242	0.001401826
Chhatarpur	2300	300	5.145	0.002236957
Narmadapuram	2300	73	1.25195	0.000544326
Agar Malwa	2300	183	3.13845	0.001364543
Tikamgarh	2300	283	4.85345	0.002110196
Barwani	2300	348	5.9682	0.00259487
Niwari	2300	356	6.1054	0.002654522
Rajgarh	2300	53	0.90895	0.000395196
Total Expected Leakage for project activity			67.42	0.00225

Year	Estimated baseline emissions or removals (tCO ₂ e)	Estimated project emissions or removals (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Estimated net GHG emission reductions or removals (tCO ₂ e)
Year 1 (01-December-2022 to 30-November-2023)	136,800	0	67.42	136,732

Year 2 (01-December-2023 to 30-November-2024)	118,541	0	0	118,541
Year 3 (01-December-2024 to 30-November-2025)	101,767	0	0	101,767
Year 4 (01-December-2025 to 30-November-2026)	86,374	0	0	86,374
Year 5 (01-December-2026 to 30-November-2027)	72,265	0	0	72,265
Year 6 (01-December-2027 to 30-November-2028)	59,352	0	0	59,352
Year 7 (01-December-2028 to 30-November-2029)	47,549	0	0	47,549
Total	622,648	0	0	622,580

6 MONITORING

6.1 Data and Parameters Available at Validation

Data / Parameter	NCV _{wood fuel}
Data unit	TJ/Tonne
Description	Net calorific value of the non-renewable woody biomass that is substituted or reduced
Source of data	Default as per applied approved methodology VMR0006 v1.2
Value applied	0.0156
Justification of choice of data or description of measurement methods and procedures applied	Default value as per applied approved methodology
Purpose of Data	Calculation of emission reduction
Comments	-

Data / Parameter	f _{NRB}
Data unit	Fraction
Description	Fraction of non-renewable biomass in the applicable area in the relevant period (fraction or %)
Source of data	As per CDM TOOL30 v4
Value applied	0.8628
Justification of choice of data or description of measurement methods and procedures applied	This parameter is determined ex-ante. As per Tool 30 Version 4, Detailed calculation is shared with VVB. $H = (HW \times N) + CE + NE$
Purpose of Data	Calculation of baseline emissions

Comments	$f_{NRB} = \frac{NRB}{NRB + RB}$ Equation (1) Where: f_{NRB} = Fraction of non-renewable biomass in the applicable area in the relevant period (fraction or %) NRB = Quantity of non-renewable biomass consumed in the applicable area in the relevant period (tonnes) RB = Quantity of renewable biomass that is available on a sustainable basis in the applicable area in the relevant period (tonnes)
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Data / Parameter	EF _{WF, CO2}
Data unit	tCO ₂ /TJ
Description	CO ₂ emission factor for the use of wood fuel in baseline scenario
Source of data	Default as per applied approved methodology VMR0006
Value applied	112
Justification of choice of data or description of measurement methods and procedures applied	Default value from IPCC
Purpose of Data	Calculation of emission reductions.
Comments	-

Data / Parameter	EF _{WF, non-CO2}
Data unit	tCO ₂ /TJ
Description	Non- CO ₂ emission factor for the use of wood fuel in baseline scenario
Source of data	Default value from IPCC
Value applied	9.46
Justification of choice of data or description of measurement	Default value as per applied approved methodology

methods and procedures applied	
Purpose of Data	Calculation of emission reductions
Comments	-

Data / Parameter	$\eta_{old,i,j}$
Data unit	Fraction
Description	Efficiency of baseline cookstove
Source of data	Baseline survey
Value applied	0.0926
Justification of choice of data or description of measurement methods and procedures applied	As per AMS II.G methodology, paragraph 44, Data/Parameter table 9 - Efficiency of the project device may be established based on a representative sample survey of the pre-project devices and fixed ex ante.
Purpose of Data	Calculation of emission reductions
Comments	Efficiency of baseline cookstove in percentage: 9.26 %

Data / Parameter	U_d
Data unit	%
Description	Uncertainty deduction for f_{NRB}
Source of data	As per VMR0006 v 1.2 “Energy Efficiency And Fuel Switch Measures In Thermal Applications”, Conservative discount factor based on uncertainty for f_{nrB} . The value of f_{nrB} estimated from Tool 30 v 4.
Equations	Used in equation (1) of VMR0006 v 1.2 “Energy Efficiency And Fuel Switch Measures In Thermal Applications”,
Value applied	0.26
Justification of choice of data or description of measurement methods and procedures applied	The following uncertainty deduction must be applied, depending on the procedure for f_{nrB} used from AMS-II.G.: f_{nrB} is calculated as per TOOL30 then, $U_d = 26\%$ (As per VMR0006 ver 1.2)
Purpose of Data	Calculation of emission reductions
Comments	-

Data / Parameter	$\eta_{p\ i,j}$ or η_{pJ}
Data unit	Fraction
Description	Efficiency of the project device i and batch j (fraction)
Source of data	Manufacturer specification
Value applied	0.354
Justification of choice of data or description of measurement methods and procedures applied	Test results from accredited laboratories(Maulana Azad National Institute of Technology (MANIT)) following national or international standards
Purpose of Data	Calculation of emission reductions
Comments	The efficiency of project stove is determined through Water Boiling Test conducted by Maulana Azad National Institute of

	Technology (MANIT), Bhopal in accordance with guidance prescribed in Table 2: Data/parameter $\eta_{PJ,BL}$ in Section 9.2 of VMR0006 Energy efficiency and fuel switch measures in Thermal applications v1.2 by the manufacturer.
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Data / Parameter	Adj_{LE}
Data unit	Fraction
Description	Adjustment factor to account for leakage related to the non-renewable woody biomass saved by the project activity
Source of data	The procedures from the latest version of AMS-II.G. must be applied.
Equations	As per section 5.4 of AMS-II.G v13
Value applied	0.95
Justification of choice of data or description of measurement methods and procedures applied	Procedure of underlying methodology AMS-II.G.
Purpose of Data	Calculation of emission reductions
Comments	-

6.2 Data and Parameters Monitored

Data / Parameter	$N_{y,i,j}$
	Fraction

Data unit	
Description	Proportion of commissioned project devices of type i and batch j (NO,i,j) that remain operating in year y (fraction)
Source of data	Monitoring
Description of measurement methods and procedures to be applied	Measured directly or based on a representative sample. Sampling standard shall be used for determining the sample size to achieve 90/10 confidence precision according to the latest version of Standard for sampling and surveys for CDM project activities and program of activities version 9.0.
Frequency of monitoring/recording	At least once every two years
Value applied	0.95 or 95%
Monitoring equipment	Monitoring Survey
QA/QC procedures to be applied	Measured directly based on a representative sample. Sampling standard is used for determining the sample size to achieve 90/10 confidence precision according to the latest version of Standard for sampling and surveys for CDM project activities and program of activities version 9.0.
Purpose of data	Calculation of emission reductions
Calculation method	-

Data / Parameter	NO,i,j
Data unit	Number
Description	Number of commissioned project devices of type i and batch j
Source of data	Monitoring
Description of measurement methods and procedures to be applied	Measured directly or based on a representative sample. Sampling standard shall be used for determining the sample size to achieve 90/10 confidence precision according to the latest version of Standard for sampling and surveys for CDM project activities and program of activities.
Frequency of monitoring/recording	-
Value applied	Fixed and recorded at the time of distribution of project device 30,000
Monitoring equipment	-
QA/QC procedures to be applied	-

Purpose of data	Calculation of emission reductions
Calculation method	-

Data / Parameter	$\eta_{new,i,j}$		
Data unit	Fraction		
Description	Efficiency of the device of each type i and batch j implemented as part of the project activity		
Source of data	Manufacturer specification or Certification by a national standards body or an appropriate certifying agent recognized by that body		
Description of measurement methods and procedures to be applied	As per AMS II G v 13.0 “Energy efficiency measures in thermal applications of non-renewable biomass” To adopt Option V given in the methodology: “Efficiency of the improved cookstoves to be estimated using equation 5 of applied approved methodology where loss in efficiency per year is calculated, and therefore this parameter does not need to be monitored”		
Frequency of monitoring/recording	Annual		
Value applied	0.354 at start of operations		
	Year (y)	Description	$\eta_{new,i,j}$
	$\eta_{new,y,i,j}$ vintage 1	Efficiency of the system being deployed as part of the project activity (Vintage 1)	0.3430
	$\eta_{new,y,i,j}$ vintage 2	Efficiency of the system being deployed as part of the project activity (Vintage 2)	0.3210
Monitoring equipment	Not Applicable		
QA/QC procedures to be applied	Not Applicable		

Purpose of data	Calculation of emission reductions
Calculation method	As per equation para 37 of AMS II G: A default schedule of linear decrease in efficiency up to the terminal efficiency assumed as 20 per cent shall be applied through the life span of the project device
Comments	2.2 % of linear decrease in efficiency is applied

Data / Parameter	Life Span
Data unit	Number of years
Description	The operating lifetime of the project device. The life span should be reported if the methodology equation 5 is adopted to determine the project stove efficiency
Source of data	Manufacturer specification
Description of measurement methods and procedures to be applied	The data source as per manufacturer specification
Frequency of monitoring/recording	Once at the time of installation of batch of type of stove
Value Applied	7
Monitoring equipment	Not Applicable
QA/QC procedures to be applied	Not Applicable
Purpose of data	Calculation of emission reductions
Calculation method	Not Applicable
Comments	The cookstoves will be replaced with new ones at the end of technical lifespan of the cookstove. However, in case of any

	damages, the stoves will be checked and repaired/ replaced based on the severity of the damage.
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Data / Parameter	μ_y
Data unit	Fraction
Description	Adjustment to account for any continued use of pre-project devices during the year y
Source of data	Monitoring survey
Description of measurement methods and procedures to be applied	This parameter is monitored using following methods: If the baseline cookstoves are decommissioned and no longer used, as determined by the monitoring survey its value is 1. If both the improved cookstove and baseline cookstoves are used together then surveys shall be conducted to record the average continued operation of baseline cookstoves in a sample of households. The surveys should be designed to capture the cooking habits and stove usage of households in the region, including quantification of use of baseline cookstoves, by formulating questions and/or collecting evidences to determine the frequency of usage of both the improved cookstoves and baseline cookstoves.
Frequency of monitoring/recording	At least once in 2 years
Value Applied	1
Monitoring equipment	Monitoring survey
QA/QC procedures to be applied	A 95 /10 confidence / margin of error shall be achieved for the sampling parameter irrespective of annual / biennial monitoring frequency as per para 22 of Standard: Sampling and surveys for CDM project activities and programme of activities, Version 09.0. In the case the desired precision is not met, lower bound values shall be used against repeating the survey to determine the operational fraction of stoves.
Purpose of data	Calculation of emission reductions
Calculation method	Not Applicable

Comments	The baseline stoves are decommissioned during the distribution of the project devices. However, regular monitoring will be conducted by the field team to check the regular usage and the grievances related to the project devices.

Data / Parameter	Date of commissioning of batch j
Data unit	Date
Description	To establish the date of commissioning, the Project Participant may opt to group the devices in “batches” and the latest date of commissioning of a device within the batch shall be used as the date of commissioning for the entire batch.
Source of data	Project Database
Description of measurement methods and procedures to be applied	Fixed and recorded at the time of commissioning/distribution of the last project device in the batch
Frequency of monitoring/recording	Fixed and recorded at the time of commissioning/distribution of the last project device in the batch
Value Applied	Start Date 01-December-2022
Monitoring equipment	Not Applicable
QA/QC procedures to be applied	Not Applicable
Purpose of data	Calculation of emission reductions
Calculation method	Not Applicable
Comments	-

Data / Parameter	$B_{y=1,new,i,j,survey}$
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Data unit	Tonnes
Description	Quantity of woody biomass used by project devices in tonnes per device of type i and batch j (tonnes)
Source of data	Monitoring Data
Description of measurement methods and procedures to be applied	Minimum sample size of each type i and batch j should be in line with the latest version of Standard for sampling and surveys for CDM project activities and programme of activities or guidelines provided in methodology Section 8.4 option (b). Determined in the first year of the introduction of the devices (e.g. during the first year of the crediting period, y=1) through measurement campaigns at representative households and/or sample survey. Sample surveys to estimate this parameter, that are solely based on questionnaires or interviews (i.e. that do not implement measurement campaigns) may only be used if the following conditions are satisfied. (i) Baseline cookstoves have been completely decommissioned and only improved cookstoves are exclusively used in the project households; (ii) If multiple devices are used in the project, it is possible from the results of the survey questions to clearly differentiate the quantity of firewood being used by each device. In other words, if more than one device, or another device that consumes firewood, are in use in project households, then the sample survey needs to distinguish the quantity of firewood used by the project device and the other devices that use firewood.
Frequency of monitoring/recording	Determined in the first year of project implementation
Value Applied	1.600 tonnes/device/year.
Monitoring equipment	Monitoring Survey
QA/QC procedures to be applied	Not Applicable
Purpose of data	Calculation of emission reductions
Calculation method	Not Applicable
Comments	-

6.3 Monitoring Plan

The main purpose of this monitoring plan is to ensure a successful monitoring of carbon emission reduction in the above-mentioned project area. The overall monitoring will be conducted by project participant: Shri Maa Marketing private limited, India.

The monitoring will involve data collection during distribution of ICSs as well as its usage information post distribution. Project participant has developed its proprietary cloud-based mobile application that will be used to gather end-user data, including customer contact details along with identification number, wherever applicable and photographs of customers receiving ICS. Following details stored on the app will be available real-time for any analysis:

- Name of the customer
- Address of the customer
- Phone Number of the customer
- Customer's government identification
- Total number of family members
- Date of Distribution

After distribution monitoring will involve choosing a sample of ICS customers from several districts/ villages where ICS has been distributed and these locations will be visited for verification. Other methods that will be used for monitoring will involve calls to random customers to get updates about ICS and its performance. All the data collection and handling will be done in a transparent way on the mobile application and will be available on the cloud server to be accessed anytime. If any uncertainty occurs, it will be rectified, and a revised monitoring plan will be implemented.

The Monitoring Plan applied in this project involves several key elements that ensure that the PP and/or project Implementer have high-quality, unbiased, and reliable information regarding the performance of the project in terms of implementation and outcomes, and for the purposes of calculating Verified Carbon Units (VCUs) following VMR 0006 version 1.2 on the basis of the amount of fuel saved by the ICS in the project activity. The key elements are the following: -

1. Data collection procedures
2. Distribution and Monitoring Database
3. Spot Checking of ICS (ongoing)
4. Sample Plan for the Monitoring Survey
5. Data Quality, Consistency and Duplication Checks

6. Monitoring Reporting

User Registration:

- Project implementers collect necessary information during the registration process.
- Information may be collected through physical cards, filled by project staff, or Application.
- Accuracy is verified, and additional clarifications are sought if needed.

Data Logging:

- Trained staff input data into the database manually and automatically (application).
- Information is double-checked, and duplicates are investigated and corrected or excluded.

Spot-Checking (Ongoing):

- Field staff randomly check units in the database against factual evidence in the field.
- Inconsistencies are updated; unused stoves are marked and excluded from emission calculations.

Monitoring:

- Project implementers follow PD requirements to collect necessary information for monitoring reports.

Monitoring Report Preparation:

- The project implementers or PP prepare the final monitoring report for VVB verification.
- A copy of the report is retained by the PP.

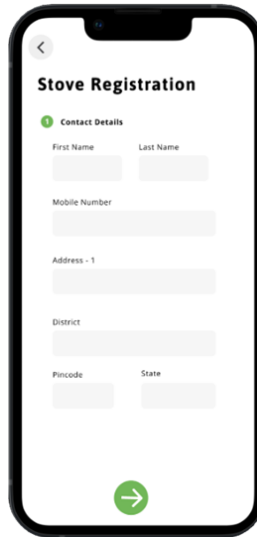
Overall Coordination:

- The PP coordinates and manages each project implementer, ensuring adherence to the monitoring plan.
- Regular audits throughout the project lifespan ensure stove functionality and determine their lifespan.
- Training is provided to the field team prior to the monitoring
- Regular campaigns and trainings provided for the optimum uses of project device.

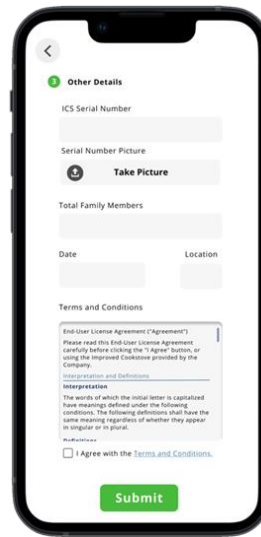
Attaching below the screenshots of mobile application that will be used to store, analyze, and monitor customer and ICSs:



People helping us distribute ICS will be able to log-in to our



App will help people register ICS users with along with their details



Governemnt ID, customer picture, and stove details will be uploaded

As per the Guideline for Sampling and Surveys for CDM Project Activities and Programme of Activities, version 04, the sampling plan is the following:

(a) Sampling Design:

Due to the large number of ICS envisioned to be distributed as part of the project activity, it is not economically feasible to monitor each individual ICS unit distributed. Therefore, representative sampling will be undertaken as part of a project instance-wide Sampling Plan (by grouping and sampling across project activities) that is designed in line with the requirements of the standard “Sampling and surveys for CDM project activities and programme of activities”, version 09.0

○ **Objective and Reliability Requirements:**

The objective is to obtain an unbiased and reliable estimate of the proportion or mean value of the following key variables over the course of the crediting period. As per CDM Methodology AMS- II.G, 90/10 confidence/precision shall be applied for annual sampling requirement and 95/10 for biennial sampling inspection. As per Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities, 90/10 confidence/precision to be adopted for small-scale project and 95/10 for large-scale project. Given that the size of the project is under the category of small projects, hence 90/10 confidence/precision shall be adopted for all parameters unless the average annual emission reductions of the project below the threshold

Monitored Parameters:

S. No.	Monitoring Parameters	Sampling Parameters	Parameter Type	Monitoring Frequency
1.	$N_{y,i,j}$	Proportion of ICS still in operation	Proportion	Biennially
2.	$B_{y=1,new,i,j,survey}$	Daily consumption of woody biomass per ICS	Mean Value	Determined in the first year of project implementation
3.	μ_y	Adjustment to account for any continued use of pre-project devices during the year y	Proportion	Biennially
4.	Date of commissioning of batch j	Once at the time of installation of batch of type of stove	Distribution database	Once at the time of installation of batch of type of stove
5.	$N_{0,i,j}$	Fixed and recorded at the time of distribution of project device	Distribution database	Fixed and recorded at the time of distribution of project device
6.	$\eta_{new,i,j}$	Efficiency of the device of each type i and batch j implemented as part of the project activity	Manufacturer specification	Annually
7.	Life Span	Operating lifetime of the project device	Manufacturer specification	Fixed and recorded at the time of distribution of project device

Target Population:

The target population will be set of ICS deployed under the project.

Sampling Method:

The project involves distribution of project devices throughout the project area where it will replace the traditional cookstoves and the traditional cooking practices. The population is heterogeneous in nature i.e., common technology with similar operating characteristics but dispersed i.e., distribution of ICS is spread across different districts within Madhya Pradesh. The survey of sample of representative population was conducted after the installation of project device during the month of January- 2023 to June -2023. The population are homogeneous. The characteristics of population (for example quantity of biomass consumed) are more similar (ICS of same type, vintage and zone in which they are operating) across Madhya Pradesh. Therefore, Simple random technique is used to conduct sampling survey among ICS batches.

The populations of each batch will be combined together, the sample size is determined, and a single survey will be undertaken to collect data. To ensure the survey result is representative of the entire population, the dissimilarity (such as ICS type, vintage and zone in which they are operating) within the included CPAs will be taken into account in the sample size calculation. The ICS of same type, vintage and zone in which they are operating will be grouped in the same strata. Samples will be drawn by using the random number generator.

To determine the parameters, sampling will involve the following approaches (outcome in brackets):

$N_{o,i,j}$	Visual inspection of the premises to see if ICS is operational and in use. Interview with end user if required to verify that ICS is still in use (Yes/No)
$B_{y=1,new,i,j,survey}$	Interview with end user and estimate the daily consumption of woody biomass of ICS (Daily consumption of woody biomass) This parameter is monitored as per the measurement procedures of data/ parameter table 18 of AMS II G v13.0. The wood consumption is measured through a calibrated weighing balance for the sample households.

Sample Size:

The procedure to determine the sample of households will ensure that they adequately represent the broader project population, minimizing sampling error. Using, a 90 per cent

confidence level, and a 10 per cent margin of error, a random sample will be selected from entire population.

In order to calculate the required sample size estimates, values for the proportions, mean values, and standard deviations are required. As per Guideline for Sampling and surveys for CDM project activities and programmes of activities, version 09.0, there are different ways available to obtain the estimates of the parameter of interest: Project proponent referred to option preliminary sample

- (a) Refer to the result of previous studies and use these results.
- (b) In a situation where information from previous studies is not available, a preliminary sample as a pilot could be conducted and use that sample is used to provide the estimates.
- (c) Use best guesses based on the researcher's own experiences.

Proportion Parameter

Sample size calculations using simple random sampling scheme	
This spreadsheet presents calculation of sample sizes for Baseline included in the MP Cookstove Program. The parameters in question are:	
The sample size estimations follow Appendix 2 of Guideline for Sampling and surveys for CDM project activities and programmes of activities, version 04.0	
Equations	
a) Baseline Sample Size Calculation	
The following equation is applied:	
where:	$n \geq \frac{1.645^2 N \times p(1-p)}{(N-1) \times 0.1^2 \times p^2 + 1.645^2 p(1-p)}$
n = Sample size	
N = Population size (Total number of households/ICS)	
p = Expected proportion	
1.645 = Represents the 90% confidence required (In the case of 95% confidence, 1.96 shall be used)	
0.1 = Represents the 10% relative precision	

PP planned to collect more samples than the required/ calculated sample size from the above method.

The representatives will check the identified sample stoves. These details will include name, number, address, government ID, etc. The data collection will take after 3-month of distributing the project devices.

7 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

7.1 Data and Parameters Monitored

Data / Parameter	$N_{y,i,j}$		
Data unit	Fraction		
Description	Proportion of commissioned project devices of type i and batch j ($N_{o,i,j}$) that remain operating in year y (fraction)		
Value applied:	Number of ICS distributed	Proportion of ICS operational (based on sample survey)	Number of ICS operational during the monitoring period
	30,000	95%	28,500
	The ICS operational status based on survey results will be considered for second year of operation.		
Comments	Proportion of operational stoves obtained from the survey is multiplied by the total commissioned stoves to arrive at this value. The survey will be conducted at least once every years basis after implementation of project activity instance.		

Data / Parameter	$\eta_{\text{new},y,i,j}$		
Data unit	Fraction		
Description	Efficiency of the improved cookstove type i and batch j determined using equation 5 of applied methodology during year y		
Value applied:	0.354 at start of operations		
	Year (y)	Description	$\eta_{\text{new},y,i,j}$
	$\eta_{\text{new},y,i,j}$ vintage 1	Efficiency of the system being deployed as part of the project activity (Vintage 1)	0.3430
	$\eta_{\text{new},y,i,j}$ vintage 2	Efficiency of the system being deployed as part of the project activity (Vintage 2)	0.3210

Comments	No comments
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Data / Parameter	<i>By=1,new,i,j,survey</i>
Data unit	Tonnes
Description	Annual quantity of woody biomass used by improved cookstoves in tonnes per device of type i and batch j, determined in the first year of the implementation of the project through a sample survey using weighing balance calibrated from National Institute of Technology, Bhopal.
Value applied:	1.600 tonnes /device/year Estimated based on survey result.
Comments	The survey is conducted in Determined in the first year of project implementation.

7.2 Baseline Emissions

The methodology does not account for baseline emissions separately, but instead quantifies net emission reductions achieved by the project based on the reduced consumption of non-renewable biomass, as per methodology VMR0006 v1.2 and the approach of AMS-II.G.

7.3 Project Emissions

The methodology does not account for project emissions separately, but instead quantifies net emission reductions achieved by the project based on the reduced consumption of non-renewable biomass, as per methodology VMR0006 v1.2 and the approach of AMS-II.G.

7.4 Leakage

Leakage shall be considered as per latest version of AMS II G version 13 in accordance with the methodology.

7.5 Net GHG Emission Reductions and Removals

Project participant has calculated the emission reduction by each ICS installed in the project area under the project activity. In this section, we are giving an example on the ICS serial number AA**** remove the number tCO₂e:

For year 2022

Date of installation: 01-December-2022

For year 2022, Vintage for the stove: Vintage 1

No. of the days for vintage 1: 31 (from 01- December -2022 to 31- December -2022)

Year fraction: 31/365= 0.0849

$B_{y=1,new,i,survey} = 1.600$

$\eta_{new,y,,i,j} = 0.3430$

$B_{y,savings,i,j} = 4.3276$ tonnes

$$ER_y = \sum_i \sum_j B_{y,savings,i,j} \times N_{0,i,j} \times n_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times (EF_{wf,CO2} + EF_{wf,non\ CO2}) \times Adj_{LE} \times (1 - u_d) \quad (1)$$

$$ER_{y,i,j} = 4.3276 \times 0.8628 \times 0.0156 \times (112+9.46) \times 1 \times 0.3430 \times 1 \times (1-0.26)$$

$$= 1.796 \text{ tCO}_2\text{e}$$

For all the stoves installed till the year 2022 i.e., 30000 stoves total VCU's calculated 3525

same can be further cross checked in the Actual ER sheet under worksheet "ER_year_2022"

Leakage Emission is calculated as per Tool 12, section 5.1 of CDM,

The leakage of each district is calculated by below mentioned equation and subtracted from the emission generated during the period.

Leakage emission of individual cookstove is calculated and mentioned in respective column of excel sheet "ER_year_2022"

Activity	Freight type	Weight (t)	Origin	Destination	Road distance (km)	Vehicle class
1	Shri Stove	70	Bhopal, India	District(Example: Jabalpur)	313	Light

$FR_{f,n}$

70

Where:

$PE_{TR,n}$

=

Project emissions from transportation of freight monitoring period m (t CO₂)

$LE_{TR,n}$	=	Leakage emissions from transportation of freight monitoring period m (t CO ₂)
$D_{f,n}$	=	Return trip distance between the origin and destination of freight transportation activity f in monitoring period m (km)
$FR_{f,n}$	=	Total mass of freight transported in freight transportation activity f in monitoring period m (t)
$EF_{CO_2,f}$	=	Default CO ₂ emission factor for freight transportation activity f (g CO ₂ /t km)
f	=	Freight transportation activities conducted in the project activity in monitoring period m

$$\left. \begin{matrix} PE_{TR,m} \\ LE_{TR,m} \end{matrix} \right\} = \sum_f D_{f,m} \times FR_{f,m} \times EF_{CO_2,f} \times 10^{-6}$$

District	Number of cookstove distributed	Distance in km from manufacturing unit	$LE_{TR,n}$	$LE_{TR,n}$ per Cookstove
Jabalpur	4,735	313	5.37	0.00113

Similarly

For 2023

Date of installation: 01-January-2023

For year 2023, Vintage for the stove: Vintage 2

No. of the days for vintage 2: 181 (from 01- January -2023 to 30-June-2023)

Year fraction: 181/365= 0.4959

$B_{y=1,new,i,survey} = 1.600$

$\eta_{new,i,j} = 0.3430$

$B_{y,saving,i,j} = 4.3276$ tonnes

$ER_{y,i,j} = 4.3276 \times 0.0156 \times 0.8628 \times (112+9.46) \times 1 \times 0.3430 \times 1 \times (1-0.26)$

=1.795 tCO₂e

Due to linear decrease in project device efficiency per year, ER will change vintage wise.

For non-AFOLU projects:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
01-December-2022 to 31-December-2022	3,349	0	357	2,992
01-Januray-2023 to 30-June-2023	64,759	0	99	64,660
Total	68,107	0	456	67,652

<u>Vintage period</u>	<u>Ex-ante emissions reductions/removals</u>	<u>Achieved emissions reductions/removals</u>	<u>Percent difference</u>	<u>Justification for the difference</u>
01-December-2022 to 31-December-2022	11,562	2,992	-74%	There is a decrease in ER due to staggered commissioning dates and change in monitored value
01-Januray-2023 to 30-June-2023	69,372	64,660	-7%	There is a decrease in ER due to staggered commissioning dates and change in monitored value
Total	80,934	67,652	-16%	

APPENDIX

List of Field team employees



SMG Buddy List			
	Buddy name	Employee ID	Identification Num
1	Amit Singh	462	202800895818
2	Kanhiya Vishwakarma	461	572012758314
3	Anwar Khan	457	694978954158
4	Ajit Kumar	458	606442129041
5	Manish Rathore	456	529844738939
6	Vishwas Tiwari	453	594243872605
7	Hemant Devda	452	456052778793
8	Shahid Qureshi	451	630583919980
9	Vinay Awadhiya	450	399450218496
10	Sanjay Patil	447	292206668364
11	Ashish Agrawal	449	949590393271
12	Vinod Patel	443	813326554735
13	Roshan Sing	445	772377854549
14	Anshul Katare	446	301660676883
15	Yogendra Singh	439	645173402828
16	Sanwilya Meghwal	441	539168864748
17	Ubaid Khan	442	367998476891
18	Hannan Bahna	438	751717078540
19	Manish Maheshwari	436	867549715920
20	Vinod Ahirwar	435	357874385274
21	Jitendra Erpache	434	561384827608
22	GYANENDRA BURAGOHAIN	432	254750370000
23	Prabhat Singh	431	361104280508
24	Parth Nagar	427	557256983576
25	sri deep jyoti Deepjyoti	429	218971255269
26	Prem Kumar	425	544098658756
27	Dinesh Bamniya	423	465004903120
28	Prateeb Choudhary	424	918908504813

29	Vidit Nagar	419	472442286895
30	Vishwas Nagar	418	454462445464
31	Mukesh Goswami	416	898421478445
32	Narendra Sagitra	414	842908407544
33	Rituraj Mandawaliya	410	459227154721
34	Neelu Yogi	413	370037218644
35	Rajkumar Rathor	409	645600107034
36	Pranab Kalita	412	641792232844
37	Vijay Solanki	411	421832005686
38	Firajuddin Khan	408	714638819539
39	Uma Shankar	407	369241856547
40	Santosh Evane	403	629622648475
41	DhimuSinh Tekam	401	481539801915
42	Shyam Belvanshi	398	734600648116
43	Krishna Kumre	400	865182065491
44	Wishwajit Mandloi	395	00MTD4691218
45	Mohan Babu	394	310856845121
46	madan lal gupta	390	628781059330
47	Deepak Jain	392	406273097033
48	Kiran Jain	389	747289325130
49	SHARAD ARORA	385	650336311775
50	Vishvajeet Mandloi	381	802716090490
51	Vivek Kumar	380	583358643727
52	Kailash Sarokhiya	378	309598262154
53	Dharmendra Ahirwar	379	666982234781
54	SARAN AGRICULTURE	377	650213066293
55	Nirbhay Singh	376	771413859440
56	Umesh Wankhede	372	776192763008
57	Arpit Namdeo	369	488144044912
58	Harsh Shrivastava	370	693911850971
59	Abhishek Pandey	367	281004998809
60	Rajesh Shrivastava	368	957876060817
61	Sureshkumar bijewar	365	505097901984
62	Yogesh Vishwakarma	363	602396303502
63	Arvind Raizada	362	707264115039
64	Mohammad Majid	361	433697379430
65	Arshad Ahamed Sheikh	360	391697076377
66	Bhupendra Kachchhara	359	584102002209
67	Mohammad Hashim	358	652471065098
68	Sandesh Mishra	354	701027399775
69	Darshil Soni	353	519661256218
70	Abdul Rauf	352	341566971171
71	Lakhan Bairagi	348	417239749156

72	Ismail Lightwala	349	895480695964
73	Anil Sahu	347	764398278626
74	Prabhat dubey	343	456704783093
75	Pramod Sanodiya	344	800869038784
76	Tarandeep Gandhi	345	503116810801
77	Abhilasha Toriya	341	232140265791
78	Ankit Sharma	342	803176226711
79	AAMIR Shekh	339	237298761259
80	Pavan Sharma	337	652131126056
81	Anil Soni	338	202234486124
82	Rahul Soni	336	569505252020
83	Vishal Sahu	335	434720728346
84	Gafur Khan	334	444621654538
85	Deepak Tamrakar	333	603246521170
86	Birjes Pateriya	332	527725216553
87	Nsresh Pateriya	382	666108344921
88	Heera Shreevas	330	873161985748
89	Manoj Gaur	325	551637604399
90	Jaharsingh Kushwah	329	869866108986
91	Aman Pandoliya	324	714835673906
92	Ravi Dangi	326	601079461335
93	Nk Sahu	323	723659922604
94	Surybhan Raghuwanshi	322	402877120895
95	Arihant Jaij	320	605045692518
96	Faizan Khan	321	639622016939
97	Pramit Vasnik	319	452320659206
98	Satyendra Yadav	318	776884574904
99	Mukesh Patel	316	461430387581
100	Arun Bhatiya	315	506125175606
101	Nishar Qureshi	312	920846821392
102	Yash Chandel	311	854698489802
103	Ashish Gupta	306	414272165896
104	Ankita Sharam	302	353075106075
105	Shivani Pawak	301	340063436503
106	Shivani Kasar	304	574334016012
107	Rakesh Baghel	299	329882289058
108	Vijay Singh	300	482205762579
109	Brazesh Pathak	297	792067601902
110	Jitendra Yadav	294	820436984026
111	Ankit Rai	293	334025219592
112	Rajdeep Sahu	288	861384391579
113	Deepak Patel	289	963630516068
114	Ashish Solanki	290	420335894212

115	Aditya tamrakar	291	931266101767
116	MohammadNadeem Khan	284	957599363290
117	Bhaiyalaal Deshmukh	283	537535550391
118	Durgesh Karmele	282	449518108768
119	Arun Mourya	279	254983925114
120	NAVIN KASAR	280	797892992198
121	Krishna Singh Bamaniya	276	501360693490
122	Dilip Rajput	272	425423327452
123	Pushpendra Gaur	271	873490067476
124	SHARAD ARORA	385	650336311775
125	Pramod Boriwal	267	657702930932
126	Laik Khan	268	344783369975
127	Amit Parmar	264	356576642994
128	Mangesh Jat	265	895862644282
129	Alok Raiad	266	707973658978
130	Indra Kumar Vishwakarma	261	294374451397
131	Rishi Gohe	260	451365519700
132	Mohseen Khan	262	379715778499
133	Yogesh Mehta	259	980701666058
134	Mohammad Sabir	257	990807451140
135	Subhash Chandra	253	783173255461
136	Rohan Meena	251	785971524361
137	Satish Jonwal	256	232927597447
138	Mohammad Hafeez	250	618823277105
139	Rajdeep Sahu	288	861384391579
140	vikas sahu	246	854239236466
141	Deepak Shrivasta	245	309542642979
142	Jitendra Parmar	243	767475442805
143	Takchand Shendre	240	825956731486
144	Kamleshkumar Bhavsar	236	228941253496
145	Mahesh Bhawsar	242	628425469370
146	Ashokkumar Sharma	239	373267350012
147	Pavan Sahu	241	943969507179
148	Muhammad Ahmad	238	464840221901
149	Sanju Yadav	235	507469701283
150	Mukesh Rathore	232	243929503784

Manufacturing Employee list		
S.No	Employee Name	Employee ID
1	Saccham Billey	DW0003

2	Sameer Khan	DW0012
3	Saif Khan	DW0004
4	Ravi	DW0014
5	Shivam	DW0015
6	Farhan	DW0005
7	Naseem	DW0006
8	Manish Sonane	DW0013
9	Akash	DW0021
10	Sonu Kumar	DW0022
11	Lucky Chouhan	DW0023
12	Sagar Kumar	DW0009
13	Manoj Uike	DW0024
14	Tahir	DW0033
15	Lalit	DW0035
16	Pinki Ahirwar	DW0016
17	Pramila	DW0028
18	Rajkumari	DW0017
19	Meena Devi	DW0010
20	Geeta Puri	DW0029
21	Shilpa	DW0030
22	Shivam Rajput	DW0020
23	Putal Devi	DW0032
24	Aslam Kidwai	100167
25	Shabbir Ansari	100168
26	Hasib Qureshi	100169

Baseline Survey of sample beneficiaries

OYU GREEN PRIVATE LIMITED
Plot No. 1 (P), Sector C, Industrial Area, Gurgaon
Bhopal MP 462023 IN, Ph. +9155-4202755

SMO Cookstove Program 3

संसाधन सूची

क्र.	प्रश्न	उत्तर
1.	सूची की तिथि	
2.	परिचालन प्रतिष्ठान का पते/पता	
3.	संस्था का नाम	
4.	समाज की संख्या (उपयोग के लिए)	
5.	उपकरण का नाम	
6.	उपकरण का पते/पता	
7.	समाज	
8.	समाज का नाम	
9.	उपकरण का नाम	
10.	समाज का नाम	
11.	समाज का नाम	
12.	समाज का नाम	
13.	समाज का नाम	
14.	समाज का नाम	
15.	समाज का नाम	

SMO Cookstove Program 3

संसाधन सूची

16.	पारंपरिक स्रोत के लिए अन्य एक दिन में उपयोग की जाने वाली जलवायु सफाई का औसत समय	कितना/दिन
17.	पारंपरिक स्रोत से जलवायु सफाई के लिए औसत समय	कितना/दिन
18.	जलवायु सफाई का स्रोत	☐ जलवायु सफाई ☐ जल ☐ जलवायु ☐ जल
19.	जलवायु सफाई की उपयोग करने का विवरण	कितना/दिन
20.	पारंपरिक स्रोत से जलवायु सफाई का स्रोत	☐ जल ☐ जलवायु ☐ जलवायु
21.	जलवायु सफाई से एक दिन में कितनी जलवायु सफाई हो जाती है?	कितना/दिन
22.	एक दिन में जलवायु सफाई से कितना जलवायु सफाई हो जाता है?	कितना/दिन
23.	जलवायु सफाई का स्रोत	☐ जल ☐ जलवायु ☐ जलवायु
24.	जलवायु सफाई का स्रोत	☐ जल ☐ जलवायु ☐ जलवायु
25.	जलवायु सफाई का स्रोत	☐ जल ☐ जलवायु ☐ जलवायु
26.	जलवायु सफाई का स्रोत	☐ जल ☐ जलवायु ☐ जलवायु
27.	जलवायु सफाई का स्रोत	☐ जल ☐ जलवायु ☐ जलवायु

SMO Cookstove Program 3

संसाधन सूची

क्र.	प्रश्न	उत्तर
1.	सूची की तिथि	
2.	परिचालन प्रतिष्ठान का पते/पता	
3.	संस्था का नाम	
4.	समाज की संख्या (उपयोग के लिए)	
5.	उपकरण का नाम	
6.	उपकरण का पते/पता	
7.	समाज	
8.	समाज का नाम	
9.	उपकरण का नाम	
10.	समाज का नाम	
11.	समाज का नाम	
12.	समाज का नाम	
13.	समाज का नाम	
14.	समाज का नाम	
15.	समाज का नाम	

Date of survey	Name of Beneficiary	Address of Beneficiary	Household income source?	Household monthly income of the respondent (in Rupees.)	Number of family members in the household?	For what purpose do you use your stove?	How many times in a day do you cook food on the stove?	What was the last stove used?	How many days in a week do you use a stove?	Average weight of food used in a day for a baseline stove?	The average time taken to cook food with a baseline stove?	Source of fuelwood?	Who takes care of arranging fuelwood?	many hours a week do respondent spend gathering fuel?	Who mainly cooks food at home?	What is the fuel used for the stove?	What is the amount of fuel used for stove in a day?	amount of fuel required for a day's use of stove in a day?	respondents think that the use of stove will be	How much smoke is produced by a purchase stove?	Do you purchase fuelwood?	
11/20/2022	SURAJ KUMAR	RABIABAD	Farming	7000	5	Household	4	Mud Stove	7	6-8 kg	5-6 hours	Collect from Forest	Daughter, Wife, Father	3-4 hours	Woman	Wood Biofuel	6-8 hours	Yes	ries store in advance	Yes	More smoke	No
11/18/2022	Metap	Mehapura Khargone	Farming	6000	5	Household	04-Jan	Mud Stove	7	6-8 kg	5-6 hours	Collect from Forest	Brother	21	Woman	Wood Biofuel	6-8 kgs	Yes	ries store in advance	Yes	More smoke	No
11/16/2022	Dhayan Singh	Mehapura Khargone	Farming	7000	6	Household		Mud Stove	7	6-8 kg	5-6 hours	Own Farm, Collect from Forest	Brother, Son, Father	20	Woman	Wood Biofuel	6-8 kgs	Yes	Beneficia ries store the wood in advance for the rainy season	Yes	More smoke	No
11/17/2022	Durga Singh	Khakheda Mandasaur	Farming	7500	7	Household	4	Mud Stove	7	6-8 kgs	5-6 hours	Collect from Forest	Brother, Sister, Son	20	Woman	Wood Biofuel	6-8kgs	Yes	Beneficia ries store the wood in advance for the rainy season	Yes	More smoke	No
11/18/2022	Mohammad Faizaan	Parasiya	Farming	7000	6	Household	4	Mud Stove	7	6-8 kgs	5-6 hours	Own Farm	Brother, Son, Daughter	20	Woman	Wood Biofuel	6-8 kgs	Yes	Beneficia ries store the wood in advance for the rainy season	Yes	More smoke	No
11/20/2022	TAHIRA BEGAM	SUKH SEWANIYA	Farming	4,500	7	Household	5	Mud Stove	7	6-8 kg	6 hours	Own Farm, Collect from Forest	Brother, Sister, Daughter	5	Woman	Wood Biofuel	6-8 kg	Yes	ries store the wood in advance for the rainy season	Yes	More smoke	No
11/18/2022	Karuna Dahiya	Lohar basti	Farming	5000	2	Household	4	Mud Stove	7	6 kg	5 hours	Own Farm, Collect from Forest	Wife	20	Woman	Wood Biofuel	6 kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/19/2022	Hasena Bano	Parasiya Chhindwara	Farming	5000	4	Household	4	Mud Stove	7	6-8 kg	5-6 hours	Own Farm, Collect from Forest	Brother, Son	20	Woman	Wood Biofuel	8 kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/21/2022	SHAFIK KHAN	SUKH SEWANIYA	Farming	6000	4	Household	5	Mud Stove	7	6-8kg	5-6hr	Collect from Forest	Brother	20	Woman	Wood Biofuel	6-8kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/17/2022	Omkar Sahu	Parasiya	Farming	5000	4	Household	4	Mud Stove	7	6-8 kg	5-6 hours	Collect from Forest	Son	18-20 hrs	Woman	Wood Biofuel	6-8 kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/17/2022	Savita Bawekar	Chhindwara	Farming	5000	5	Household	4	Mud Stove	7	6-8 kg	5-6 hr	Own Farm	Brother, Daughter	20	Woman	Wood Biofuel	6-8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/21/2022	MUSHTAK KHAN	SUKH SEWANIYA	Farming	6000	5	Household	4	Mud Stove	7	6-8kg	5-6 hr	Collect from Forest	Son	20	Woman	Wood Biofuel	6-8 kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/19/2022	Rajesh	Tirmahu post Indore	Farming	7000	5	Household	5	Mud Stove	7	6-8kg	5-6 hr	Collect from Forest	Son, Sister, brother, Son	18-20 hrs	Woman	Wood Biofuel	6-8 kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/21/2022	NARISA BI	SUKH SEWANIYA	Farming	7000	7	Household	5	Mud Stove	7	6-8 kg	5-6 hrs	Collect from Forest	Oven Farm, Collect from Forest	18-20	Woman	Wood Biofuel	6-8 kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/21/2022	MO RAFIK	SEWANIYA	Farming	8000	7	Household	5	Mud Stove	7	6-8 kg	5-6 hr	Collect from Forest	Other...	20	Woman	Wood Biofuel	6-8kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/23/2022	SURAH	LUKA BINEKA	Farming	7000	3	Household	4	Mud Stove	7	6-8 kg	5-6 hr	Collect from Forest	Brother, Sister	20	Woman	Wood Biofuel	6-8 kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/22/2022	JANKI UKHEY	LUKA RAISEN	Farming	7000	5	Household	4	Mud Stove	7	6-8kg	5-6 hrs	Own Farm, Collect from Forest	Brother, Son	20	Woman	Wood Biofuel	6-8kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/18/2022	Kalpna Mahiya	Tirmahu / Indore	Farming	6000	5	Household	4	Mud Stove	7	6-8kg	5-6hrs	Own Farm, Collect from Forest	Brother, Father	21	Woman	Wood Biofuel	8kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/22/2022	KASHI BAI	LUKA,RAISEN	Farming	7000	6	Household	4	Mud Stove	7	8kg	5hrs	Own Farm, Collect from Forest	Son	20	Woman	Wood Biofuel	6-8kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/22/2022	LALITA BARKARE	LUKA,RAISEN	Farming	7000	7	Household	5	Mud Stove	7	6kg	6hrs	Own Farm, Collect from Forest	Brother, Sister, Son	20	Woman	Wood Biofuel	6-8 kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/20/2022	Ramrat Ukhey	Deepamandayi	Farming	7500	5	Household	4	Mud Stove	7	6-8kg	5-6hrs	Own Farm, Collect from Forest	Daughter, Wife, Father	21	Woman	Wood Biofuel	6-8kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/22/2022	KALAWATI EMNE	LUKA,RAISEN	Farming	6000	5	Household	5	Mud Stove	7	6-8kgs	5-6hrs	Own Farm, Collect from Forest	Wife	21	Woman	Wood Biofuel	8kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/20/2022	Saroj Nandwanshi	Luka Bineka Raisen	Farming	6500	5	Household	4	Mud Stove	7	8kg	5-6hrs	Collect from Forest	Sister, Son	21	Woman	Wood Biofuel	6-8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/20/2022	Chagen Nandwanshi	Luka Bineka Raisen	Farming	7000	3	Household	4	Mud Stove	7	6-8kg	5-6hrs	Own Farm, Collect from Forest	Brother, Son	18	Woman	Wood Biofuel	6-8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/22/2022	MAMTA BAI	LUKA,RAISEN	Farming	7000	4	Household	5	Mud Stove	7	6-8kg	5-6hrs	Own Farm	Son, Daughter, Wife	20	Woman	Wood Biofuel	6-8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/16/2022	Asha Bee	Sukhi Sevaniya	Farming	7000	6	Household	5	Mud Stove	7	6-8kg	5-6hrs	Own Farm	Son, Daughter, Brother, Son	21	Woman	Wood Biofuel	8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/22/2022	PHOOLWATI	LUKA,BINEKA	Farming	6500	5	Household	5	Mud Stove	7	8kgs	5-6hrs	Own Farm	Brother, Son, Daughter, Wife	20	Woman	Wood Biofuel	6-8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/17/2022	Mubarik Bee	Sukhi Sevaniya	Farming	6000	4	Household	4	Mud Stove	7	6-8kgs	5-6hrs	Own Farm, Collect from Forest	Son	20	Woman	Wood Biofuel	8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/19/2022	Hari Om	Sukhi Sevaniya	Farming	6000	4	Household	5	Mud Stove	7	8kg	5-6hrs	Own Farm	Brother, Son, Father	20	Woman	Wood Biofuel	6-8kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/18/2022	Rani Bai	Sukhi Sevaniya	Farming	6500	4	Household	4	Mud Stove	7	6-8kgs	5-6hrs	Own Farm, Collect from Forest	Brother, Son, Daughter	20	Woman	Wood Biofuel	6-8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/22/2022	SUKHYA BAI	LUKA,BINEKA	Farming	6000	4	Household	5	Mud Stove	7	6-8kgs	5-6hrs	Own Farm, Collect from Forest	Son, Daughter	10 hrs	Woman	Wood Biofuel	8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/20/2022	Dhoom Singh	Khukadmal	Farming	6000	5	Household	5	Mud Stove	7	6-8kgs	5-6hrs	Own Farm	Son, Daughter	20	Woman	Wood Biofuel	6-8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/22/2022	CHANDRAKALA BAI	LUKA,BINEKA	Farming	6000	4	Household	4	Mud Stove	7	6-8kgs	5-6hrs	Own Farm	Brother, Son	20	Woman	Wood Biofuel	6-8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/22/2022	KASHI BAI	LUKA,BINEKA	Farming	7000	6	Household	5	Mud Stove	7	8kg	6hr	Own Farm	Brother, Son	21	Woman	Wood Biofuel	6-8 kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/22/2022	ANITA BAI	LUKA,BINEKA	Farming	6000	5	Household	4	Mud Stove	7	8kg	6hrs	Collect from Forest	Brother, Son	20	Woman	Wood Biofuel	6-8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/20/2022	Idia Vagle	Khukadmal	Farming	6000	5	Household	4	Mud Stove	7	6-8kg	5-6hrs	Own Farm, Collect from Forest	Son	20	Woman	Wood Biofuel	8kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/18/2022	Bahadar Singh	Mehapura Khargone	Farming	6500	5	Household	5	Mud Stove	7	8kg	5-6hrs	Own Farm, Collect from Forest	Brother, Son	20	Woman	Wood Biofuel	6-8kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/19/2022	Raveen	Bagdihara	Farming	7000	5	Household	4	Mud Stove	7	6-8kgs	5-6hrs	Own Farm	Brother, Son, Daughter	20	Woman	Wood Biofuel	6-8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/20/2022	Hegariya	Bagdihara	Farming	6000	6	Household	4	Mud Stove	7	6-8kg	5-6hrs	Own Farm	Brother, Son	21	Woman	Wood Biofuel	8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/21/2022	Lalu	Bagdihara	Farming	7000	7	Household	5	Mud Stove	7	6-8kg	5-6hrs	Collect from Forest	Brother, Sister, Son	20	Woman	Wood Biofuel	6-8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/19/2022	Soram bai	Emdi Mandasaur	Farming	6000	4	Household	5	Mud Stove	7	6-8kg	5-6hrs	Own Farm, Collect from Forest	Brother, Sister, Son, Daughter	5-6 hrs	Woman	Wood Biofuel	6-8kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/14/2022	Lalithu Bai	Emdi Mandasaur	Farming	6000	4	Household	4	Mud Stove	7	6-8kg	5-6hrs	Collect from Forest	Sister, Son	20	Woman	Wood Biofuel	6-8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/20/2022	Radha Bai	Emdi mandasaur	Farming	7000	5	Household	4	Mud Stove	7	6-8kg	5-6hrs	Collect from Forest	Other...	20	Woman	Wood Biofuel	6-8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/21/2022	Shiv Narayan	Emdi Mandasaur	Farming	7000	5	Household	4	Mud Stove	7	6-8kgs	5-6hrs	Own Farm, Collect from Forest	Brother, Sister, Daughter	20	Woman	Wood Biofuel	8kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/22/2022	Bhawari Singh	Emdi Mandasaur	Farming	6000	6	Household	4	Mud Stove	7	6-8kgs	5-6hrs	Collect from Forest	Brother, Son	20	Woman	Wood Biofuel	8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/23/2022	Genda Bai	Khakheda Mandasaur	Farming	6000	5	Household	4	Mud Stove	7	8kgs	5-6hrs	Own Farm, Collect from Forest	Brother, Sister, Son	20	Woman	Wood Biofuel	8kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/24/2022	Mohan Bai	Khai Kheda Mandasaur	Farming	6000	5	Household	4	Mud Stove	7	8kg	5-6hrs	Own Farm, Collect from Forest	Brother, Sister, Son	20	Woman	Wood Biofuel	6-8kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/23/2022	Vishnu Bai	Khakheda Mandasaur	Farming	7000	6	Household	4	Mud Stove	7	6-8kg	5-6hrs	Own Farm, Collect from Forest	Brother, Sister, Son, Daughter	20	Woman	Wood Biofuel	6-8kg	Yes	ries store the wood in advance	Yes	More smoke	No
11/22/2022	Guddi Bai	Khai Kheda Mandasaur	Farming	7000	5	Household	4	Mud Stove	7	6-7kgs	5-6hrs	Collect from Forest	Brother, Daughter	20	Woman	Wood Biofuel	6-8kgs	Yes	ries store the wood in advance	Yes	More smoke	No
11/23/2022	Vinod Bai	Khai Kheda Mandasaur	Farming		7	Household	4	Mud Stove	7	8kgs	6hrs	Collect from Forest	Daughter	20	Woman	Wood Biofuel	6-7kgs	Yes	ries store the wood in advance	Yes	More smoke	No

Monitoring Survey results

तामारी का पूरा नाम	जिला	आईसीएस स्थित नंबर	आईसीएस परिवारान स्थिति	वेस्टमैन क्वार्टर-परिवारान स्थिति	तकड़ी ईधन की बढत	तकड़ी ईधन सॉल्यू सम्म की बढत	परिवार में लोगों की संख्या	बढतसय या घर का आय	आपके बूले की निर्धारित जॉन किने अंतरात पर की जाती है	श्री बूला से मिट्टी के बूले के प्रकाश किने धुप उतख होती है?	क्या आपने बेहतर बूले का उपयोग करने के बाद त्साथ्य में कोई सुधार महसूस किया?	बहते पारंपरिक बूला क्या था? दिन किच बात है?	श्री बूले का प्रयोग सज्जल में किने अंदर का वायु है?	क्या श्री बूले से धुआं या घर के अंदर का वायु है?	क्या श्री बूले ने जताऊ तकड़ी की खपत कम कर दी है?	क्या श्री बूले ने खाना पकाने का समय कम कर दिया है?	महिलाओं की जीवनशैली में कोई सुधार? (वर्दि घर में खाना बनाने की विम्वेदारी महिलाओं की है)
Laya Warade	Jabalpur	BA6865	Yes	No	5	6-7 Hrs	5	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Baka Dewar	Khargone	AG1333	Yes	No	5.5	6-7 Hrs	4	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Ramu Chotu	Khargone	AG1395	Yes	No	4	6-7 Hrs	2	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Laxmi	Jabalpur	AH0124	Yes	No	4.5	6-7 Hrs	3	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Sanjy Kumar Ahirwar	Sagar	AE8678	Yes	No	4.5	6-7 Hrs	4	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Anarkali Bai	Jabalpur	AH0151	Yes	No	4	6-7 Hrs	5	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Annu Panday	Rewa	AF5173	Yes	No	5	6-7 Hrs	6	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Mahli Bai	Sagar	BA4744	Yes	No	4.5	6-7 Hrs	3	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Genda Bai	Mandsaur	AF7816	Yes	No	3	6-7 Hrs	2	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Kamla Bai	Mandsaur	AF7114	Yes	No	4	6-7 Hrs	5	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Sant Gupta	Satna	AF5365	Yes	No	4	6-7 Hrs	4	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Anita Bai	Khargone	AG1301	Yes	No	4	6-7 Hrs	5	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Tofan Singh	Mandsaur	AF7839	Yes	No	6	6-7 Hrs	3	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Bhayan Mangilal	Khargone	AG1321	Yes	No	4	6-7 Hrs	2	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Bodhal Vishwakarma	Rewa	AF5097	No	No	6.5	6-7 Hrs	6	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Mohan Bai	Mandsaur	AF8309	Yes	No	5.5	6-7 Hrs	7	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Pyar Singh	Khargone	AG1306	No	No	4	6-7 Hrs	4	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Kabhu Bai	Mandsaur	AF7893	Yes	No	3.5	6-7 Hrs	5	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Dhuthra Narala	Khargone	AG1370	Yes	No	3.5	6-7 Hrs	4	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Prem Singh Hemanta	Khargone	AG1397	Yes	No	4	6-7 Hrs	6	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Radha Bai	Mandsaur	AF8301	Yes	No	4.5	6-7 Hrs	2	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Madan Thakur	Dewas	AE8248	Yes	No	3.5	6-7 Hrs	3	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Manendra Singh	Satna	AF1388	Yes	No	5.5	6-7 Hrs	4	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Gurjan Adwasi	Rewa	AD8712	Yes	No	4	6-7 Hrs	5	खेती	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Vishnu Bai	Mandsaur	AF7109	Yes	No	6	6-7 Hrs	6	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Kamla Bai	Khargone	AG1366	Yes	No	4	6-7 Hrs	7	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Hardeh Chhagan	Khargone	AG1353	Yes	No	3.5	6-7 Hrs	4	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Mastaram Badiya	Khargone	AG1355	Yes	No	3	6-7 Hrs	3	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Ajma Ajma	Betul	AE826	Yes	No	4	6-7 Hrs	3	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Shivnarayan Singh	Mandsaur	AF7826	Yes	No	5	6-7 Hrs	5	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Tula Vishwakarma	Satna	AF5337	Yes	No	3.5	6-7 Hrs	2	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Raju Vishwakarma	Chhindwara	AF8442	Yes	No	6	6-7 Hrs	5	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Bhotu Mangilal	Khargone	AG1303	Yes	No	4	6-7 Hrs	4	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Rajpal Namdeo	Rewa	AE8039	Yes	No	4	6-7 Hrs	4	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Shanti Bai	Jabalpur	AH0260	Yes	No	5	6-7 Hrs	4	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Arvind Singh	Satna	AF5182	Yes	No	4	6-7 Hrs	5	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Mamta Bai	Jabalpur	AH0134	Yes	No	4	6-7 Hrs	6	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Siyabai Bai	Jabalpur	AH0102	Yes	No	3	6-7 Hrs	5	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां
Nirangan Sherekar	Betul	AF5274	Yes	No	5.5	6-7 Hrs	5	मजदूरी	6महीने में एक बार	कम	हां	मिट्टी का बूला	7दिन	हां	हां	हां	हां

Invitation letter shared with Local Stakeholders

OYU GREEN PRIVATE LIMITED
Plot No. 1 (F), Sector C, Industrial Area, Gopabandpur,
Bhopal MP 462023 (IN, P.N. – 0755-4202755)



प्रिय हितधारकों,

हम आपको आगामी हितधारक परामर्श कार्यक्रम में शामिल होने के लिए आमंत्रित करना चाहते हैं, जो **16 दिसंबर 2022** को **समय प्रदेश के मंदसौर जिले में स्थित ओखोड़ा गांव में दोपहर 3:30 बजे** आयोजित किया जाएगा।

विस्मयकारी उद्देश्य हमारे आने वाले काल को बेहतर बनाने वाली परियोजना - **श्री बूला** के संबंध में हितधारकों से प्रतिक्रिया और सुझाव लेना है। आपको भगीदारी समुदाय के हित में निर्णय लेने के लिए महत्वपूर्ण है।

परामर्श के दौरान, हम परियोजना से जुड़े हुए सातवर्षीय और सामाजिक जैसे पहलुओं पर चर्चा करेंगे, और आपकी राय, सुझाव और चिंताओं का संग्रह करेंगे जो परियोजना को बेहतर बनाने में मदद करेंगे। हम आपके विचारों पर ध्यान देकर समुदाय की सेवा कैसे बेहतर बना सकते हैं और परियोजना से जुड़े हुए निर्णय जो आपकी आवश्यकताओं और अपेक्षाओं से मेल खाते हैं, उस पर ध्यान देना चाहते हैं।

आपका अनुभव और देख-रेख हमारे लिए अनमोल है, और हम आपसे इस महत्वपूर्ण सुझावों और विचारों की प्राप्ति करते हैं।

आपके समय और विचारों के लिए धन्यवाद, हम आपसे परामर्श के दौरान मिलने की उम्मीद करते हैं।

आपका,

OYU GREEN PRIVATE LIMITED



OYU GREEN PRIVATE LIMITED
Plot No. 1 (F), Sector C, Industrial Area, Goyindwara
Bhopal MP 462023 IN, Ph. -- 0755-4202755
CIN- U74999MP2022PTC062953



Date:17/11/2022

Dear Local Stakeholders,

We would like to invite you to participate in the upcoming local stakeholder consultation, which will be held on **16 December 2022** at **3:30PM** in **Khaikheda village**, located in the **Mandsore** district of Madhya Pradesh.

The purpose of this consultation is to gather input and feedback from local stakeholders regarding our project "**SMG - Cookstove Program 3**". Your participation is crucial as we strive to make informed decisions that will benefit the community as a whole.

During the consultation, we will discuss various aspects as like environmental and social of the project, and seek your opinions, suggestions, and concerns. We are interested in hearing your thoughts on how we can better serve the community and ensure that the decisions align with your needs and expectations.

Your expertise and insights are invaluable to us, and we would be honored if you could join us for this important event. We will make every effort to ensure that the consultation is as productive and informative as possible.

Thank you for your time and consideration, and we look forward to seeing you at the consultation.

Sincerely,

OYU GREEN PRIVATE LIMITED

Local stakeholder meeting conducted at various locations:

S. No	Location	Meeting Date
1.	Khaikheda, Mandsaur, Madhya Pradesh, India	16/12/2022
2.	Jabalpur, Madhya Pradesh, India	27/11/2022
3.	Khargone, Madhya Pradesh, India	22/11/2022
4.	Chhindwara, Madhya Pradesh, India	24/11/2022
5.	Mandsaur, Madhya Pradesh, India	25/11/2022

Invitation letter sent to local stakeholder and attendees

S. No	Location	Invitation sent on
1.	Khaikheda, Mandsaur, Madhya Pradesh, India	17/11/2022
2.	Jabalpur, Madhya Pradesh, India	27/10/2022
3.	Khargone, Madhya Pradesh, India	22/10/2022
4.	Chhindwara, Madhya Pradesh, India	23/10/2022
5.	Mandsaur, Madhya Pradesh, India	24/10/2022