Gold Standard for the Global Goals

TEMPLATE

KEY PROJECT INFORMATION & PROJECT DESIGN DOCUMENT (PDD)

PUBLICATION DATE **14.10.2020**

VERSION **v. 1.2**

RELATED SUPPORT

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

This document contains the following Sections

Key Project Information

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This template has been revised to aid a consistent interpretation and to better support project developers submitting documentation for certification. Please read the accompanying guide to understand how to complete this template accurately.
TEMPLATE GUIDE Key Project Information & Project Design Document v.1.2

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KEY PROJECT INFORMATION

GS ID of Project	GS11187
Title of Project	West Guji improved cook stove distribution project (GS 11187)
Time of First Submission Date	16/8/2021
Date of Design Certification	N/A
Version number of the PDD	V.1.2
Completion date of version	13/8/2021
Project Developer	Horn of Africa Regional Environment Centre and Network
Project Representative	Oromia Coffee Farmer's Cooperative Union
Project Participants and any communities involved	Horn of Africa Regional Environment Centre and Network
Host Country (ies)	Ethiopia
Activity Requirements applied	☒ Community Services Activities ☐ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☐ N/A
Scale of the project activity	☐ Micro scale ☒ Small Scale ☐ Large Scale
Other Requirements applied	
Methodology (ies) applied and version number	Gold Standard Methodology: Technologies and Practices that Displace Decentralized Thermal Energy Consumption (TPDDTEC) v3.1.

Product Requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ N/A
Project Cycle:	☒ Regular ☐ Retroactive

Table 1 – Estimated Sustainable Development Contributions

Sustainable Development Goals Targeted	SDG Impact (defined in B.6.)	Estimated Annual Average	Units or Products
13 Climate Action (mandatory)	Emissions Reductions	38,256	Emissions Reductions
3 Good Health and Well-Being	Total reduction in household air pollution for project activity in year y (%)	70%	HAPRy
7 Affordable and Clean Energy	Number of project ICS active in year y	6,000	ICSa,y

SECTION A. DESCRIPTION OF PROJECT

A.1 Purpose and general description of project

West Guji improved cook stove distribution project is a small sale project designed to replace three stone/ open fire stoves using locally produced improved cooking stoves in households of coffee farmers of Nensebo, Gelana, Kercha, Abaya and Bule-hora districts of Oromia region. The will be implemented in a remote rural area and is characterized by low improved cooking technology penetration. Target households are coffee producer farmers and are using open fire cooking to meet their energy demand.

The project is implemented by Oromia Coffee Farmers' Cooperative Union.

The project will disseminate two improved cook stoves, one for cooking and the other for baking, in each project household (end users). The Cooking is a rocket stove that has been adopted to suit the cooking requirements of most Ethiopian households and designed for local production techniques. The second stove is baking stove used for baking purpose. Together, both technologies will displace traditional cooking stoves for all household cooking needs. The project will target 15,000 households in which

each household receiving two project stoves as package and the households can be reached through the OCFCU network (primary cooperatives).
The project will initiate local production of improved stove by establishing and capacitating small and micro enterprises (SMEs) in each district. These SMEs produce the stoves and sell to farmers in the target area. The improved stoves will be subsidized by loan from OCFCU which will be reimbursed from the carbon sales.

A.1.1. Eligibility of the project under Gold Standard

The project is automatically eligible for Gold Standard Certification. It meets all the eligibility criteria of PRINCIPLES AND REQUIREMENTS OF GOLD STANDARD FOR THE GLOBAL GOALS Version 1.2. (b) End use energy efficiency: efficient cooking.
The project contributes positively to Climate Security and Sustainable Development by reducing fuel consumption and emission from nonrenewable woody biomass. It is implemented and owned by Oromia Coffee Farmers' cooperative union (OCFCU) in the Federal Democratic Republic of Ethiopia in Nensebo, Gelana, Kercha, Abaya and Bule-hora districts of Oromia region as a small scale project. The project targeted rural households (farmers) who are using three stone stove for cooking by replacing using improved cooking stove and each household is registered and given coded stoves with specific identification number to monitor double counting. The project shall not receive any public funding for implementation which will result in a diversion of Official developmental Assistance. It is initiated by a loan finance obtained from OCFCU that will be reimbursed from the sales of carbon credits.

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

OCFCU is the project proponent delegated by primary farmer cooperatives in a written contract agreement. Members of the primary cooperatives/ end users transfer their carbon right to OCFCU by signing carbon waiver. Primary farmer cooperatives (established by end users) facilitate the purchase and dissemination of stoves. The Horn of Africa Regional Environment Center and Network (HoAREC&N) is project facilitator assisting the proper implementation of the project (train stove producers, follou up quality of stoves, conduct KPT and monitoring survey). A contract agreement is also signed between the project proponent and project facilitator.

A.2 Location of project

The project is implemented in five districts namely Nensebo, Gelana, Kercha, Abaya and Bule-hora districts of Oromia region, Ethiopia. The locations are indicated in map bellow.

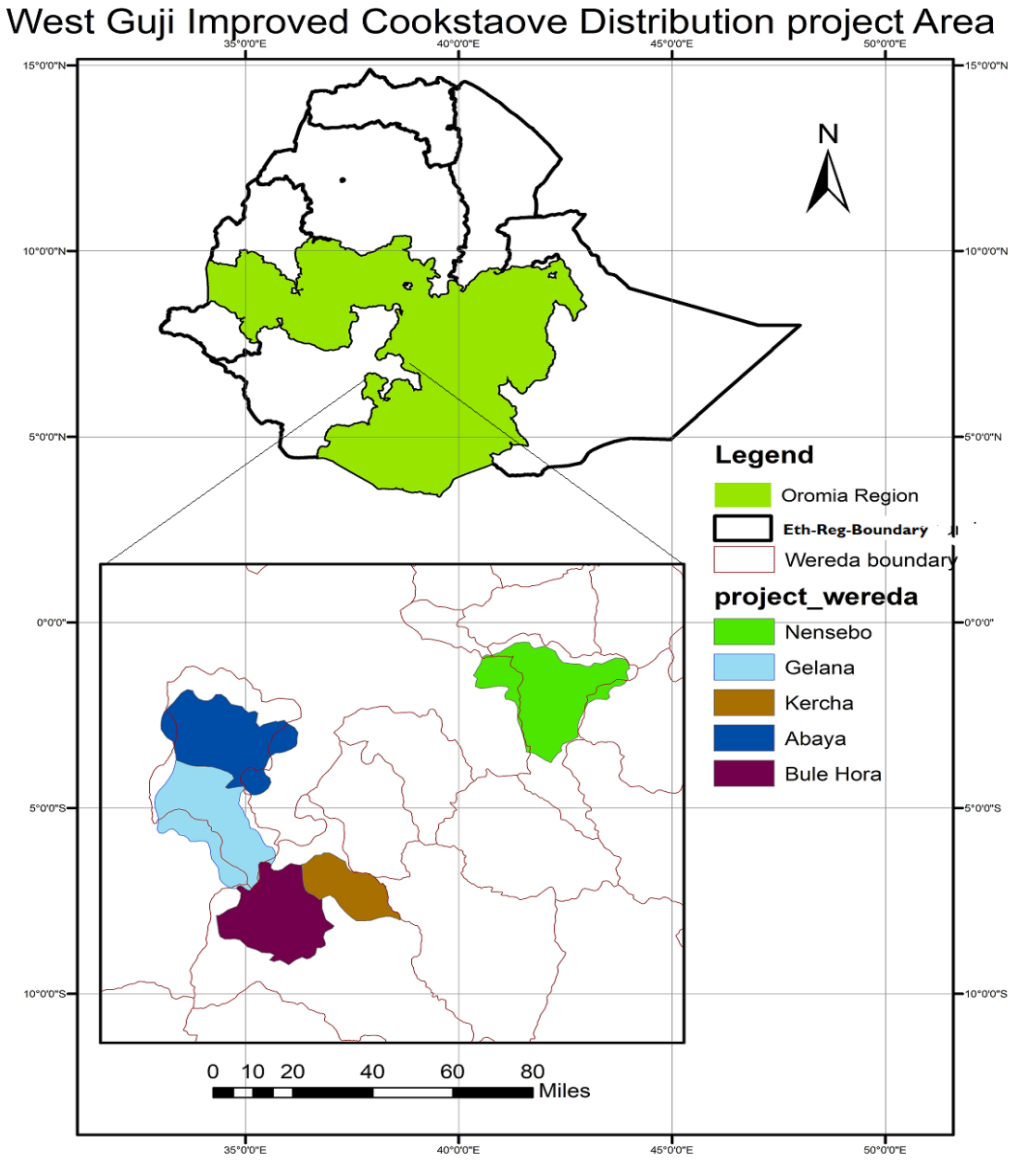

Figure 1. Project Boundary

A.3 Technologies and/or measures

The project disseminates two types of stove, one for baking and the other for cooking. The backing stove called Mirt stove and the cooking stove is called rocket stove. Mirt stove is used for baking Injera. Injera is a pan cake like thin bread made of teff flour native to Ethiopia. With Mirt stove it is also possible to cook or boil food while baking

injera with no additional fuel. Mirt with thermal efficiency of 22% is produced with mortar- a mixture of scoria (red ash) or pumice or river sand with cement. The stove has six parts that are joined together. Four parts fit to make a cylindrically shaped enclosure (about 66cm in diameter and 24cm high) where the firewood is burned under a baking plate. Two other parts joined one atop the other and are fitted with the cylindrical enclosure from behind. These last two parts regulate the flow of smoke in the stove and provide a rest for the cooking pot. Mirt, produced using a standard mould, has already become a commodity in many places, thus market forces regulate the quality of the stoves. The stove has average lifespan of five years and therefore will be renewed every five year.

Rocket stove is a cooking stove with thermal efficiency of 40%. It uses firewood as fuel which is continuously fed into the combustion chamber. The stove has a cylindrical inner clay/cement liner as an insulator.
The above listed cook stoves will replace the baseline scenario, which is a continuation of the current practice of using biomass (wood fuel) to provide thermal energy for cooking in the household using low efficiency cook stoves. The project scenario will reduce the quantities of non-renewable biomass consumed by introducing high efficiency cook stoves. The technologies reduce fuel wood consumption by half. There is an incentive for households. They will pay half of the cost of the stoves and the remaining will be covered by covered by the project/ OCFCU.

Mirt stove

Roket stove

A.4 Scale of the project

The project is a small scale Gold Standard project implemented in the above listed districts.

A.5 Funding sources of project

Pre project activates such as baseline surveys and stakeholder consultation and technology production center construction and input supply are financed by OCFCU.

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

B.1. Reference of approved methodology (ies)

Gold Standard Methodology: Technologies and Practices that Displace Decentralized Thermal Energy Consumption (TPDDTEC) v3.1. Was applied

B.2. Applicability of methodology (ies)

The methodology is applicable under the following conditions:

a. Project shall choose a technology design that has predictable performance in that it is proven to be efficient and durable under field conditions; for cook stoves, the rated thermal efficiency shall be at least 20%.	The project will disseminate improved cooking stoves that have thermal efficiency above 20%. The Mirt and Rocket stove have (22%) and (30%) thermal efficiency respectively. Both technologies have life span of five years.
b. The technology shall have continuous useful energy output of less than 150kW per unit, where "continuous useful energy output" is defined as the total useful energy delivered from start to end of operation of a unit divided by time of operation	Useful energy output of ICS distributed in the project activity is 0,20 kW for the rocket and 0,19 kW for the mirt for a total of 0,39 kW per household which is less than 150 kW. Therefore the delivered energy output is well below the threshold.
c. The project activity is implemented by a project developer and can include additional project participants. However, the individual households and institutions do not act as project participants.	OCFCU is the project proponent delegated by primary cooperatives and HoAREC is project participant. End users transfer their carbon right to OCFCU.

d. The project developer must design incentives for the elimination of inefficient baseline stoves, which should be effective as fast as possible, and describe the incentives design in the PDD.	The project covers half of the stove cost and transportation expenses to the village. End users will cover half of the stove cost.
e. To avoid double counting or double claiming, the project developer must: i. clearly communicate its ownership rights and intention of claiming the emission reductions resulting from the project activity to the following parties by contract or clear written assertions in the transaction paperwork: all other project participants; project technology manufacturers; and retailers of the project technology or the renewable fuel in use; and ii. inform and notify the end users that they cannot claim emission reductions from the project, and iii. ensure the technologies counted in the project shall neither be included in any other voluntary market or CDM project activity/PoA, nor displace the technologies of another CDM or voluntary project/PoA.	OCFCU is a project proponent. All project participants, technology producers will sign contract agreements stating that they do not claim carbon from th project. Each end user will sign carbon waiver. Each end user transfers their carbon right to the project proponent through signing carbon waiver agreement and documented. To avoid double counting, each technology disseminated by the project will be gives specific code/identification number and recorded in the database. The project will be implemented in an area where there is no other such project. This can be confirmed by DNA letter of intent/approval.

B.3. Project boundary

Source		GHGs	Included?	Justification/Explanation
Baseline scenario	Combustion of fire wood	CO_2	**Yes**	**Important source of emission**
		CH_4	**Yes**	**Important source of emission**
		N_2O	**Yes**	**Can be significant for some fuels**
Project scenario	Combustion of fire wood	CO_2	**Yes**	**Important source of emission**
		CH_4	**Yes**	**Important source of emission**
		N_2O	**Yes**	**Can be significant for some fuels**

B.4. Establishment and description of baseline scenario

TPDDTEC v3.1 defines the baseline scenario as "fuel consumption patterns in a population that is targeted for adopting the new project technology". In the absence of the project activity, the baseline households are rural communities entirely dependent on traditional biomass stove for cooking. There is no fossil fuel use for cooking.

The current practice which the improved cook stoves deployed in the project scenario will displace the use of low thermal efficiency stoves which use non-renewable biomass in the baseline scenario.
According to the methodology, for nonindustrial applications, the baseline is considered by-default fixed in time during the considered crediting period. It therefore does not require continuous monitoring.
A separate baseline report has been availed as supporting evidence to justify the baselines stoves described in this PDD as well as the fact that non-renewable biomass consumption has been used in the country since December 31st 1989.

The baseline scenario will be studied in accordance with GS4GG *Principles & Requirements* and the TPDDTEC v3.1 methodology. Baseline survey will be conducted in 105 households who are using the baseline stoves to determine baseline fuel consumption and submitted to GS before first monitoring. Cross sectional study will be conducted on the same (baseline) households to determine fuel saving of the new/project technology. Kitchen Performance Tests will be conducted to make the data more representative. Households are living in the same geographical

area/landscape and have similar characteristics. Hence sample size has insignificant change on the test result.

B.5. Demonstration of additionality

Specify the methodology, activity requirement or product requirement that establishes deemed additionality for the proposed project (including the version number and the specific paragraph, if applicable).	As demonstrated in the Gold Standard for the Global Goals Community Services Activity Requirements section 4.1.9 - Projects that meet any of the following criteria are considered as deemed additional and therefore are not required to prove Financial Additionality at the time of Design Certification: (a) Positive list (Annex B) (b) Projects located in LDC, SIDS, LDC (c) Micro-scale projects
Describe how the proposed project meets the criteria for deemed additionality.	The project meets criterion 1. Positive list, Annex B of the Community Services Activity Requirements. Section 1.1.3 of Annex B states. "Project activities solely composed of isolated units where the users of the technology/measure are households or communities or institutions and where each unit results in <= 600 MWh of energy savings per year or <=600 tonnes of emission reductions per year".

B.5.1 Prior Consideration

N/A

B.5.2 Ongoing Financial Need

N/A

B.6. Sustainable Development Goals (SDG) outcomes

Relevant Target/Indicator for each of the three SDGs

Sustainable Development Goals Targeted	Most relevant SDG Target	SDG Impact Indicator (Proposed or SDG Indicator)
13 Climate Action (mandatory)	13.B.1: Number of least developed countries and small island developing States with nationally determined contributions, long-term strategies, national adaptation plans, strategies as reported in adaptation communications and national communications	Emission reductions
SDG 3. – Good Health and Well Being	3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	HAPRy: total reduction in household air pollution for project activity in year y (%)
SDG 7. – Affordable and Clean Energy	7.2: By 2030, increase substantially the share of renewable energy in the global energy mix	$ICS_{a,y}$: number of project ICS active in year y

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

SDG 3 (Good Health and Wellbeing)

Switching from an unimproved stove to an improved cook stove reduces the volume of non-renewable biomass that needs to be burned for the household's daily cooking needs. Therefore, the reduction in non-renewable biomass burned can be taken as a proxy indicator of how these VPAs contribute towards the SDG 3 target of substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

The average difference in fuel use per technology per day in the project will be subtracted from the baseline figure which comes from the Kitchen Performance test and is fixed throughout the crediting period. This difference will then be used to calculate the % decrease in fuel use, which is the figure used to calculate the VPAs' contribution to the SDG target.

The overall reduction in HAP by the project activity is calculated as follows:

$$HAPR_y = ((P_{b,y} - P_{p,y}) / P_{b,y}) * U_{p,y}$$

Where:

HAPRy: Total reduction in Household Air Pollution for project activity in year y (%)

Pb,y: Quantity of fuel that is consumed in the baseline scenario b during year y (kg/household-day)

Pp,y: Quantity of fuel that is consumed in the project scenario p during year y (kg/household-day)

Up,y: Usage rate in project scenario p during year y

SDG 7 (Affordable and Clean Energy)

The project disseminates locally produced improved cook stoves (ICS) and creates access for affordable energy technologies to end users. The stoves save 50% of the fuel consumption compared to the baseline three stone stove.

To measure 7.1 (universal access to affordable, reliable and modern energy services), indicator 7.1.2 provides for the measurement of the 'proportion of the population with primary reliance on clean fuels and technology'. The outcome for SDG 7 is quantified as the additional number of persons having access to efficient cook stove technology in the project activity and is calculated using parameters from the project scenario.

$$ICS_{a,y} = ICS_{t,y} * U_{p,y}$$

Where:

ICSa,y Project ICS active in year y

ICSt,y Project ICS distributed in year y

Up,y Usage rate

SDG 13 (Climate Action)

The contribution to SDG 13 will be measured through carbon credits issued following the Gold Standard TPDDTEC v3.1 methodology.

The statistical analysis is performed on a single data set obtained from performance field tests in the project scenario, and the baseline emission calculations are conducted as follows:

Baseline Emissions

$$BE_{b,y} = B_{b,y} * ((f_{NRB} * EF_{b,fuel,\ CO2}) + EF_{b,fuel,\ nonCO2}) * NCV_{\ b,\ fuel}$$

Where:

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

Bb,y Quantity of fuel consumed in baseline scenario b during year y, in tons, as per by-default factors (cases with project performance field test only)

fNRB Fraction of biomass used during year y for the considered scenario that can be established as non-renewable biomass

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

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

$EF_{b,fuel,nonCO2}$ Non-CO2 emission factor of the fuel that is substituted or reduced

$$Bb,y = Np,y * Pb,y$$

Where:

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

$N_{p,y}$ Project technology-days in the project database for project scenario p through year y

$P_{b,y}$ Specific fuel consumption for an individual technology in baseline scenario b during year y converted to tons/day

Project Emissions

$$PE_{p,y} = B_{p,y} * ((fNRB,y * EF_{p,fuel,\ CO2}) + EF_{p,fuel,\ nonCO2}) * NCV_{p,fuel}$$

Where:

$PE_{p,y}$ Emissions for project scenario p during year y in tCO2e

$B_{p,y}$ Quantity of fuel consumed in project scenario p during year y, in tons

fNRB Fraction of biomass used during year y that can be established as non-renewable biomass

$NCV_{p,fuel}$ Net calorific value of the project fuel (IPCC default for wood fuel, 0.015

TJ/ton). This is equal to the baseline fuel NCV in projects which use the same fuel.

The overall GHG reductions achieved by the project activity are then calculated as follows:

$$ERy = \Sigma BEb,y - \Sigma PEp,y - \Sigma LEp,y$$

Where:

ERy Emission reduction for total project actity

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

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

B.6.2 Data and parameters fixed ex ante

SDG13

Data/parameter	$EF_{b,fuel,CO2}$
Unit	tCO_2/TJ
Description	CO_2 emission factor arising from use of wood-fuel in baseline scenario (includes production, transport and use)
Source of data	Calculated from IPCC defaults Volume 2: 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2, Table 2.5
Value(s) applied	112
Choice of data or Measurement methods and procedures	Deemed valid by Methodology.
Purpose of data	Calculation of baseline emissions.
Additional comment	

Data/parameter	$EF_{b,non\ CO2}$
Unit	tCO_2e/TJ
Description	Non-CO_2 (CH_4 and N_2O) emission factor arising from use of wood fuel in baseline scenario
Source of data	IPCC Default emissions factor
Value(s) applied	9.460
Choice of data or Measurement methods and procedures	Deemed valid by Methodology.
Purpose of data	Calculation of emission reductions.
Additional comment	-

Data/parameter	$EF_{p,CO2}$
Unit	tCO_2/TJ
Description	CO_2 emission factor arising from use of wood fuel in project scenario
Source of data	Volume 2: 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2, Table 2.5
Value(s) applied	112
Choice of data or Measurement methods and procedures	Deemed valid by Methodology.
Purpose of data	Calculation of baseline emissions.
Additional comment	

Data/parameter	$EF_{p,non\ CO2}$
Unit	tCO_{2e}/TJ

Description	Non-CO2 (CH4 and N2O) emission factor arising from use of wood fuel in project scenario
Source of data	Volume 2: 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2, Table 2.5
Value(s) applied	9.460
Choice of data or Measurement methods and procedures	Deemed valid by Methodology
Purpose of data	Calculation of baseline emissions.
Additional comment	

Data/parameter	NCVfuel
Unit	TJ/ton
Description	Net calorific value of the wood fuel used in the baseline
Source of data	IPCC Default emissions factor
Value(s) applied	0.0156
Choice of data or Measurement methods and procedures	Deemed valid by Methodology.
Purpose of data	Calculation of baseline emissions.
Additional comment	

B.6.3 Ex ante estimation of SDG Impact

SDG 3: Good Health and Well Being	Description	HARPy = ((Pb,y - Pp,y)/Pb,y)*Up,y	Unit
HARPy	Total reduction in Household Air Pollution for project activity in year y	70%	%
Pb,y	Quantity of fuel that is consumed in the baseline scenario b during year y	17.1 (Data from Oromia cook stove project)	kg/hh/day
Pp,y	Quantity of fuel that is consumed in the project scenario p during year y	10.38 (Data from Oromia cook stove project)	kg/hh/day
Up,y	Usage rate in project scenario p during year y	90%	%

SDG 7: Affordable and clean energy	Description	Np,y * Up,y	Unit
Active ICS disseminated by project	The number of active ICS disseminated by the project, during year y	5000	Number
Np,y	Number of stoves distributed, during year y	6500	Number
Up,y	Usage rate in project scenario during year y	90%	%

SDG 13: Climate action	Description	Amount	Unit
Er,y	CO_2 emission reductions for the current/first monitoring period	9,631.6	VER

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

SDG 3

Year	Baseline estimate	Project estimate	Net benefit
Year 1	0% reduction in exposure to Household Air Pollution	70% reduction in exposure to Household Air Pollution	70% reduction in exposure to Household Air Pollution
Year 2	0%	70%	70%
Year 2	0%	70%	70%
Year 4	0%	70%	70%
Year 5	0%	70%	70%
Year 6	0%	70%	70%

Year 7	0%	70%	70%
Total			
Total number of crediting years	**7**		

SDG 7

Year	Baseline estimate	Project estimate	Net benefit
Year 1	0	3000	3000
Year 2	0	6000	6000
Year 2	0	3000	3000
Year 4	0	3000	3000
Year 5	0	-	-
Year 6	0	3000 (replacement)	3000
Year 7	0	6000 (replacement)	6000
Total	0	15,000	15,000
Total number of crediting years	**7**		

SDG13

Year	Baseline estimate (tCO2e)	Project estimate (tCO2 e)	Net benefit (tCO2e)
Year 1	30,123.6	20,492.0	9,631.6
Year 2	90,370.0	61,476.0	28,894.0
Year 2	120,494.0	81,968.0	38,526.0
Year 4	150,618.0	102,460.0	48,158.0
Year 5	150,618.0	102,460.0	48,158.0
Year 6	150,618.0	102,460.0	48,158.0
Year 7	150,618.0	102,460.0	48,158.0
Total	843,459.6	573,776.0	269,683.6
Total number of crediting years	**7**		

Annual average over the crediting period	120,494.23	81,968.00	38,526.2

B.7. Monitoring plan

B.7.1 Data and parameters to be monitored

SDG 13

Data/parameter	Nb,y
Unit	Project Technology Days
Description	Number of days using technologies supplied by project scenario p through year y
Source of data	Cook stove Database
Value(s) applied	To be monitored
Measurement methods and procedures	Sum of the total number of cook stoves distributed multiplied by the number of days crediting each technology earns in a given monitoring period
Monitoring frequency	Continuous recording
QA/QC procedures	Signing of carbon waiver date and Sales records are analysed prior to calculation of parameter
Purpose of data	Calculation of emission reductions
Additional comment	

Data/parameter	Up,y
Unit	Percentage
Description	Usage rate in project scenario p through year y
Source of data	Usage Survey
Value(s) applied	To be monitored Estimated at 90% for this calculation
Measurement methods and procedures	Usage Survey
Monitoring frequency	Measured annually
QA/QC procedures	The usage survey will be carried out by trained local staff to meet the specific requirements of the methodology. All data presented in excel is subject to checking and cross

	referencing of a sample of the raw data
Purpose of data	Calculation of usage
Additional comment	

Data/parameter	fNRB,i,y
Unit	Fractional non-renewability
Description	Non-renewability status of woody biomass fuel in scenario i during year y
Source of data	Calculated in line with CDM Tool 30 EB 108 Annex 11 v3.0 2020
Value(s) applied	0.88
Measurement methods and procedures	CDM Tool 30 EB 108 Annex 11 v3.0 2020
Monitoring frequency	Measured annually
QA/QC procedures	
Purpose of data	Calculation of emission reductions
Additional comment	

Data/parameter	LEp,y
Unit	tCO2e per year
Description	Leakage in project scenario p during year y
Source of data	Monitoring Kitchen Surveys supported by desk-based research (leakage assessment)
Value(s) applied	Estimated at 0. To be monitored
Measurement methods and procedures	Leakage assessment
Monitoring frequency	Leakage factors are re-assessed annually
Purpose of data	Calculating quantity of fuel used in the baseline scenario
QA/QC procedures	Research and surveys checked by senior project staff

Additional comment	

Data/parameter	Pb,y
Unit	Kg/household
Description	Quantity of fuel that is consumed in the project scenario p during year y (kg/household-day)
Source of data	Baseline Kitchen Performance Test
Value(s) applied	To be monitored
Measurement methods and procedures	Calculating quantity of fuel used in the project scenario using the KPT survey
Monitoring frequency	Measured annually
Purpose of data	Calculation of SDG 3
Additional comment	-

Data/parameter	Pp,y
Unit	Kg/household
Description	Quantity of fuel that is consumed in the project scenario p during year y (kg/household-day)
Source of data	Kitchen Performance Test
Value(s) applied	To be monitored
Measurement methods and procedures	Calculating quantity of fuel used in the project scenario using the KPT survey
Monitoring frequency	Monitored annually.
QA/QC procedures	
Purpose of data	Calculation of SDG 3
Additional comment	

SDG 3

Data/parameter	HARP,y

Unit	%
Description	Total reduction in Household Air Pollution for project activity in year y (%)
Source of data	Project kitchen Survey and baseline kitchen survey
Value(s) applied	To be monitored
Measurement methods and procedures	The average difference in fuel use per technology per day in the project will be subtracted from the baseline figure. This difference will then be used to calculate the % decrease in fuel use, which is the figure used to calculate the VPAs' contribution to the SDG target
Monitoring frequency	Monitored annually.
QA/QC procedures	
Purpose of data	To calculate the overall reduction in household air pollution from the project activity compared to the baseline scenario
Additional comment	

SDG 7

Data/parameter	Np,y
Unit	Number of stoves
Description	Number of stoves distributed during year y
Source of data	Sales Record
Value(s) applied	To be monitored
Measurement methods and procedures	The Sales Record of the Project will be updated at least annually.
Monitoring frequency	Monitored annually.
QA/QC procedures	HoAREC&N will compile supporting documents
Purpose of data	To determine number of Active ICS disseminated by project
Additional comment	

B.7.2 Sampling plan

Cross sampling of devices will be applied across all homogenous VPAs in the project area. Homogenous VPAs are defined as those that are sharing a common baseline. The number of districts in the project area that will need to be sampled for a 90/30 confidence/precision will be determined. From the determined number of districts, a village from each district will be randomly selected and project households will be randomly sampled, complying with the minimum sample size for the particular survey/test.
Individual participants will be randomly selected from the cook stove electronic database. Sample sizes will be in line with the Gold Standard requirements. The random sample group is reselected for every monitoring period to ensure the selection remains random.
The surveys below will be monitored under the cross-sampling approach:

- Project Surveys- Completed annually
- Usage Surveys- Completed annually
- Kitchen Performance Test- Completed biennially

The surveys will be conducted so as to ensure that they are within the end date of the respective monitoring periods for each VPA.

B.7.3 Other elements of monitoring plan

The data of each household will be recorded electronically in an excel sheet and carbon waiver will be signed by each household and documented centrally.

The carbon waiver will include:

- Household information (Name, district, village and contact information i.e address and telephone number of end user)
- Date of sale
- Stove ID No. and type
- Quantity of project technologies sold

Carbon Transfer Form

The vendee will be informed about the transfer of carbon rights at the point of sale. Each vendee receives a warranty receipt which again states the terms of the transfer of carbon rights.

The details will be added to the electronic database which will provide the value for PTDs and be used to randomly select the monitoring samples.

Ongoing Monitoring Studies

All monitoring studies will be recorded on a hard copy which the monitoring team will transfer into digital format for analysis documentation and reporting.

SECTION C. DURATION AND CREDITING PERIOD

C.1. Duration of project

C.1.1 Start date of project

1/10/2021

C.1.2 Expected operational lifetime of project

Seven years with three round renewal

C.2. Crediting period of project

C.2.1 Start date of crediting period

1/10/2021

C.2.2 Total length of crediting period

Seven years with three round renewal

SECTION D. SUMMARY OF SAFEGUARDING PRINCIPLES AND GENDER SENSITIVE ASSESSMENT

D.1 Safeguarding Principles that will be monitored

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

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

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

Question 1 - Explain how the project reflects the key issues and requirements of Gender Sensitive design and implementation as outlined in the Gender Policy?	The project will reduce the amount of fire wood for cooking. The project will reduce the burden of women and children for collecting fuel wood. Women and men will have more time to engage in activities due to the reduced time required to be spent gathering firewood. The project will decrease the workload of women in collecting firewood and time spent cooking, thereby allowing more

	time to engage in other activities. The project aims to benefit the whole community equally and women's equal participation in the LSC is encouraged. The Project will increase natural protection.
Question 2 - Explain how the project aligns with existing country policies, strategies and best practices	The country developed a strategic plan that focus on green growth. The project will contribute to achieve the target of the national plan.
Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?	No
Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?	No

SECTION E. SUMMARY OF LOCAL STAKEHOLDER CONSULTATION

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

E.1 Summary of stakeholder mitigation measures

>>

E.2 Final continuous input / grievance mechanism

Method	Include all details of Chosen Method (s) so that they may be understood and, where relevant, used by readers.
Continuous Input / Grievance Expression Process Book (mandatory)	Grievance book was placed in Zone cooperative promotion office
GS Contact (mandatory)	help@goldstandard.org
Other	Email (negusut@hoarec.org or dagnguta@gmail.com
	Phone: +251 911775595 or +251911730275 P.O.Box 1394 code 1110

APPENDIX 1 - SAFEGUARDING PRINCIPLES ASSESSMENT

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

Assessment Questions/ Requirements	Justification of Relevance (Yes/potentially/no)	How Project will achieve Requirements through design, management or risk mitigation.	Mitigation Measures added to the Monitoring Plan (if required)
Principle 1. Human Rights			
1. The Project Developer and the Project shall respect internationally proclaimed human rights and shall not be complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights 2. The Project shall not discriminate with regards to participation and inclusion	No	The project will adhere to all human rights requirements including respecting internationally proclaimed human rights and Universal Declaration of Human Rights and will not discriminate in any way.	
Principle 2. Gender Equality			
1. The Project shall not directly or indirectly lead	No	Both women and men will benefit from the project	

to/contribute to adverse impacts on gender equality and/or the situation of women 2. Projects shall apply the principles of nondiscrimination, equal treatment, and equal pay for equal work 3. The Project shall refer to the country's national gender strategy or equivalent national commitment to aid in assessing gender risks 4. (where required) Summary of opinions and recommendations of an Expert Stakeholder(s)	No No No	The project decreases the workload of women in collecting firewood and cooking, thereby allowing more time to engage in other activities. No further risks or hazards for women and girls have been identified.	
Principle 3. Community Health, Safety and Working Conditions			
1. The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community	Yes	The project will reduce the community exposure to illnesses associated with household air pollution through the distribution of improved cook stoves	

Principle 4.1 Sites of Cultural and Historical Heritage			
Does the Project Area include sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture?	**No**	The project area does not include cultural and historic sites. The focus of the project is distributing improved cook stoves only.	
>>			
Principle 4.2 Forced Eviction and Displacement			
Does the Project require or cause the physical or economic relocation of peoples (temporary or permanent, full or partial)?	**No**	The focus of the project is distributing improved cook stoves only.	
>>			
Principle 4.3 Land Tenure and Other Rights			
a. Does the Project require any change, or have any uncertainties related to land tenure arrangements and/or access rights, usage rights or land ownership? b. For Projects involving land use tenure, are there any uncertainties with regards to land tenure, access rights, usage rights or land ownership?	**No**	No changes to land tenure arrangements and/or rights are required.	

>>			
Principle 4.4 - Indigenous people			
Are indigenous peoples present in or within the area of influence of the Project and/or is the Project located on land/territory claimed by indigenous peoples?			
>>			
Principle 5. Corruption			
1. The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects	Yes	The project shall ensure that all forms of corruption are avoided. Project beneficiaries are able to contact the project developer and implementer through the continuous grievance mechanism to report any form of corruption.	
Principle 6.1 Labour Rights			
1. The Project Developer shall ensure that all employment is in compliance with national labour occupational health and safety laws and with the principles	No	The project adheres to all labour laws and requirements	

and standards embodied in the ILO fundamental conventions 2. Workers shall be able to establish and join labour organisations 3. Working agreements with all individual workers shall be documented and implemented and include: a) Working hours (must not exceed 48 hours per week on a regular basis), AND b) Duties and tasks, AND c) Remuneration (must include provision for payment of overtime), AND d) Modalities on health insurance, AND e) Modalities on termination of the contract with provision for voluntary resignation by employee, AND			

f) Provision for annual leave of not less than 10 days per year, not including sick and casual leave. 4. No child labour is allowed (Exceptions for children working on their families' property requires an Expert Stakeholder opinion) 5. The Project Developer shall ensure the use of appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures			
Principle 6.2 Negative Economic Consequences			
1. Does the project cause negative economic consequences during and after project implementation?	**No**	There are no negative economic impacts and potential risks to local economy.	
>>			

Principle 7.1 Emissions			
Will the Project increase greenhouse gas emissions over the Baseline Scenario?	No	GHG emissions will be reduced through replacing less efficient cooking methods with improved cook stoves.	
>>			
Principle 7.2 Energy Supply			
Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?	No	The project will reduce consumption of biomass.	
>>			
Principle 8.1 Impact on Natural Water Patterns/Flows			
Will the Project affect the natural or pre-existing pattern of watercourses, ground-water and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	No	There will be no significant change in the volume of water consumed by the households	
>>			
Principle 8.2 Erosion and/or Water Body Instability			

a. Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion? b. Is the Project's area of influence susceptible to excessive erosion and/or water body instability?	No	The focus of the project is distributing improved cook stoves only	
>>			
Principle 9.1 Landscape Modification and Soil			
Does the Project involve the use of land and soil for production of crops or other products?	No	No crops or other products are produced in the project.	
>>			
Principle 9.2 Vulnerability to Natural Disaster			
Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions?	No	There will be no impact by the project to natural disasters.	
>>			

Principle 9.3 Genetic Resources			
Could the Project be negatively impacted by or involve genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development, or take place in facilities or farms that include GMOs in their processes and production)?	No	No GMOs will be used in the project.	
>>			
Principle 9.4 Release of pollutants			
Could the Project potentially result in the release of pollutants to the environment?	No	The Project reduces the amount of pollutants released into the air.	
>>			
Principle 9.5 Hazardous and Non-hazardous Waste			
Will the Project involve the manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials?	No	The Project does not deal with hazardous or non-hazardous chemicals and/or materials	
>>			
Principle 9.6 Pesticides & Fertilisers			

Will the Project involve the application of pesticides and/or fertilisers? >>	No	No pesticides and/or fertilisers are to be used in the project	
Principle 9.7 Harvesting of Forests			
Will the Project involve the harvesting of forests? >>	No	The project reduces the consumption of firewood, therefore having a positive impact on forest conservation.	
Principle 9.8 Food			
Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives? >>	No	The project has no impact on modifying foods or altering crop regimes.	
Principle 9.9 Animal husbandry			
Will the Project involve animal husbandry? >>	No	The project does not involve animal husbandry.	
Principle 9.10 High Conservation Value Areas and Critical Habitats			
Does the Project physically affect or alter largely intact or High Conservation Value (HCV)	No	The project decreases the consumption of firewood having a positive impact on	

ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified?		conserving forest ecosystems.	
>>			
Principle 9.11 Endangered Species			
a. Are there any endangered species identified as potentially being present within the Project boundary (including those that may route through the area)? b. Does the Project potentially impact other areas where endangered species may be present through transboundary affects?	No	There are several endangered species in Kenya. The project is not envisaged to have any impact on their habitat as it only affects solar desalination plant infrastructure. The project does not impact other areas where endangered species are present.	
>>			

APPENDIX 2- CONTACT INFORMATION OF PROJECT PARTICIPANTS

Organization name	Oromia Coffee Farmer Cooperation (OCFCU)
Registration number with relevant authority	
Street/P.O. Box	Gelan towen
Building	
City	Gelan
State/Region	Oromia
Postcode	1394 Code 1110
Country	Ethiopia
Telephone	0114450488, 0114450489
E-mail	cofunion@gmail.com
Website	https://www.oromiacoffeeunion.org/
Contact person	Dagne Guta
Title	Project Manager
Salutation	Mr
Last name	Guta
Middle name	
First name	Dagne
Department	Projects
Mobile	+251911730275
Direct tel.	+251 114450274
Personal e-mail	dagnguta@gmail.com

APPENDIX 4-SUMMARY OF APPROVED DESIGN CHANGES

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

Revision History

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