Gold Standard for the Global Goals

TEMPLATE

KEY PROJECT INFORMATION & VPA DESIGN DOCUMENT (PDD)

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VERSION **v. 1.1**

RELATED SUPPORT

- **TEMPLATE GUIDE Key Project Information & VPA Design Document v.1.1**

This document contains the following Sections

KEY PROJECT INFORMATION

GS ID of Project	GS11327
Title of Project	Congo (DRC) Improved Cook Stoves VPA 003 – Ngaliema
Time of First Submission Date	30/11/2021
Date of Design Certification	-
Version number of the VPA-DD	1.1
Completion date of version	22/04/2022
Coordinating/managing entity	Vitol SA
VPA Implementer (s)	Vitol SA, WESD Capital Sprl
Project Participants and any communities involved	Vitol SA
Host Country (ies)	Democratic Republic of the Congo (DRC)
GS ID and Title of applicable Design Certified VPA	N/A
GS ID and Title of applicable Performance Certified VPA	N/A
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	Technologies and Practices to Displace

	Decentralized Thermal Energy Consumption, Version 4.0
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
Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all	Number of the efficient cookstoves disseminated	14,400	-
Goal 8 Decent work and economic growth	Number of employees (male / female) in the project under administrative, sales, production and management positions.	24	-
Goal 13 Climate Action	Emissions Reductions	50,199	VERs

SECTION A. DESCRIPTION OF PROJECT

A.1. Purpose and general description of project

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The goal of Congo (DRC) Improved Cook Stoves Programme is to distribute improved cookstoves ("ICS") in the households throughout Democratic Republic of the Congo (DRC). The proposed "Congo (DRC) Improved Cook Stoves VPA 003– Ngaliema", hereafter referred to as "VPA 003" will be carried out in the neighborhoods of Ngaliema, a commune of Kinshasa. From April to June 2021, about 14,400 stoves have been distributed to the end uses. The VPA Implementer, with the help of the church, distributed the ICS, and the discounted price of the ICS is very low, below the cost of ICS, to encourage the removal of the old cookstove.

Compared to the currently used three-stone fires or other traditional stoves, the efficient stoves that will be marketed under this VPA are cooking equipment allowing quicker heating-up, longer cooking and heat retaining with less woody biomass fuel as well as lower combustion fumes. It results in significant savings of charcoal and associated expenses, thanks to, inter alia, advanced-material combustion chamber, overconsumption-restricting design, etc.

The project boundary is the physical, geographical site of the efficient devices that burn biomass, which is located in the north-central of Kinshasa, the capital of Congo (DRC). The coordinates of the four typical locations are (4°20'41"S 15°12'19"E), (4°26'3"S 15°15'26"E), (4°21'44"S 15°16'48"E) and (4°18'54"S 15°15'39"E).

In Ngaliema commune, the three-stone fires or other traditional stoves have been used in most households in the boundary of the project since a very long time ago, and in the absence of the proposed project, the inefficient traditional stove would have been used for cooking, and this is the baseline scenario.

The project ICS combust biomass fuels more efficiently, reducing the greenhouse gas (GHG) emissions and Particulate Matter (PM) emissions, thus improving the indoor air quality in project households. Due to the higher thermal efficiency of the ICS relative to the traditional/baseline stoves, the ICS reduce the amount of non-renewable biomass fuel required for meeting similar thermal energy needs.

In addition to curbing deforestation and generating real and measurable reductions in carbon dioxide emissions, the VPA003 will cut carbon monoxide and other harmful particles related to incomplete and/or indoor solid fuels combustion. The social and environmental benefits of improved cooking stoves are multiple by reducing indoor air pollution, they can reduce the risk of respiratory diseases, especially for women and children. They also reduce expenses from woody biomass purchase, which can represent a substantial amount of the revenue of the majority of the population in DRC whereby the poverty phenomenon impacts most of the population.

Thus, it will improve users' financial capacity to better provide to other basic needs. Moreover, the VPA003 will foster employment for local communities (marketing campaigns, sales network) throughout its lifecycle. They will also contribute to the sustainable development of the country through transfer of clean technology and know-how. Last, the PoA and VPA003 objective is to set an example and GS reference for local stakeholders who expect to implement similar technologies on the territory and in the sub-region vicinities, by offering an operational framework to join. The project relies on the sales of the Improved Cook Stoves and the sale of the carbon credits, which guarantees its financial sustainability.

A.1.1. Eligibility of the project under approved PoA

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No.	Eligibility Criterion	Description/ Required condition	Means of Verification/Supporting evidence for inclusion

1	Geographic Boundary and target area	Each VPA shall involve installation of ICS within the geographical boundary of PoA.	all VPA units (ICS) installed within Congo (DRC).
2	No Double Counting	Each VPA shall be added to the monitoring database with a unique set of distribution data.	VPA has a sales/distribution database with the unique serial number to avoid the double counting.
3	Exclusiveness of VPA	The VPA shall not be previously: Registered as a project activity Included as a VPA in any other registered PoA, or deregistered as a VPA of a PoA	Confirmation by website search: 1. The VPA is not registered as an individual project activity. 2. The VPA is also not part of another registered PoA. Also, the proposed VPA is not a VPA that has been excluded from a registered PoA as a result of erroneous inclusion of VPAs.
4	Specifications of Technology /Measure	The VPA will promote dissemination of improved biomass ICS in PoA. The project ICS combust biomass fuels more efficiently. Due to the higher thermal efficiency of the ICS relative to the traditional/baseline stoves, the ICS reduce the amount of non-renewable biomass fuel required for meeting similar thermal energy needs. The rated thermal efficiency shall be at least 20%	Product specification of the stove can improve that the efficiency of the stove is higher than 20%.
5	Start Date	Date on which first ICS was installed under the VPA. The start date of the proposed VPA will be on or after the start date of the PoA, or the time of first submission to GS is within one year of the project start date.	The start date of the VPA is the start date of dissemination of the ICS listed in the database, 28/04/2021, and the time of first submission to GS is within one year of the project start date.
6	Applicability of the methodologies	VPA must follow TPDDTEC version 4.0, and the condition include:	All the condition of the applicability has been checked. a. The ICS Specification show that the rated

	a. The rated thermal efficiency shall be at least 20%. b. The technology shall have continuous useful energy output of less than 150kW per unit, etc. c. The individual households and institutions may be represented collectively by community organizations, etc., but do not individually act as project participants. d. The project developer must design incentive mechanism(s), which should be effective as fast as possible, for the elimination of inefficient baseline stoves that are replaced by the project cooking devices. e. To avoid double counting or double claiming. f. Indoor air pollution (IAP) levels are not worsened compared to the baseline, and greenhouse gases emitted by the project fuel/stove combination are estimated with adequate precision.	thermal efficiency is about 30%. b. The ICS Specification show that the energy output is 1.2kW per unit. c. The registration form from the individual households show they will not individually act as project participants d. The project developer has designed the incentive mechanism for the elimination of the replaced and inefficient baseline stoves. e. The project developer has communicated its ownership rights and intention of claiming the emission reductions resulting from the project activity with relevant party by contract or clear written assertions; and has informed and notified the end users that they cannot claim emission reductions from the project, and has excluded from the project activity, cooking devices included in any other voluntary market or CDM project activity/PoA, and strived not to displace the cooking devices of another CDM or voluntary project/PoA. f. Has the evidence including the protocols for comparative field tests, which credibly reflect the baseline and project scenarios in respect of indoor air pollution.

7	Additionality	According to COMMUNITY SERVICES ACTIVITY REQUIREMENTS, 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 of this document) (b) Projects located in LDC, SIDS, LLDC4 (c) Microscale projects	The geographic boundary and all VPA units (ICS) installed are within Congo (DRC). Congo(DRC) is in the List of Least Developed Countries, and the VPA is considered as deemed additional as long as it is in Congo (DRC).
8	LSC and EIA	The LSC is conducted at the PoA level and VPA level.	LSC report
9	Public Funding	Affirmation that funding from Annex I Parties, if any, does not result in a diversion of official development assistance	Declaration from CME that no funds for official development assistance will be used for program implementation
10	Target Group and Distribution Mechanism	Target Group: Households	The ICS by virtue of their size, output and design are usable only in households. The database and end user agreement will be used to confirm distribution to households.
11	Sampling	VPAs under the program will adhere to the requirements as mentioned in TPDDEC (version 4.0):as per the relevant requirements for sampling in the latest version of the CDM Standard of sampling and surveys for CDM project activities and programme of activities (Version 09.0, 27 May 2021)	VPAs will follow sampling plan described in PoA-DD/VPA-DD as applicable.
12	SSC Threshold	VPAs meet the small-scale thresholds and remain within those thresholds throughout the crediting period.	Monitor and calculation

13	Eligible technology	Technologies in VPAs are eligible (refer to A.3 above)	It is checked by the evidence including the database, the specification of the stove, certified test result, and literature survey, etc., provided in the specific VPA.
14	SDG outcomes	Conditions to be met by each VPA regarding SDG outcomes assessment	B.6. Sustainable Development Goals (SDG) outcomes will demonstrate that the VPA meets the required condition of SDG outcomes.
15	Safeguarding principles	Conditions to be met by each VPA regarding safeguarding principles	APPENDIX 1 - SAFEGUARDING PRINCIPLES ASSESSMENT will demonstrate that the VPA meets the required condition of safeguarding principles.
16	Retroactive VPA	The time of first submission is within one year of the VPA start date.	The time of first submission is Nov 2021, within one year of the VPA start date.

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

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For each ICS distributed under the VPA, the project beneficiaries sign the agreement and confirm that at the time of distribution of ICS that, in return for receiving an ICS, the ownership of emissions reductions and VERs transfer to CME.

Furthermore, during local stakeholder consultations，it has been demonstrated transparently that such ownership is transferred from project beneficiaries to CME.

A.2. Location of project

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The VPA 003 is carried out in the neighborhoods of Ngaliema, in the west of Kinshasa of Congo (DRC). Ngaliema has a population of more than 1,200,000 people. The

coordinates of the four typical locations are (4°20'41"S 15°12'19"E), (4°26'3"S 15°15'26"E), (4°21'44"S 15°16'48"E) and (4°18'54"S 15°15'39"E).

Fig 1: Map of Congo (DRC)

Fig 2: Map of the city of Kinshasa

A.3. Technologies and/or measures

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Compared to the currently used three-stone and other traditional stoves, the efficient stoves that will be marketed under this VPA are cooking equipment allowing quicker heating-up, longer cooking and heat retaining with less woody biomass fuel as well as lower combustion fumes. It results in significant savings of charcoal and associated expenses, thanks to, inter alia, advanced-material combustion chamber, overconsumption-restricting design, etc.

The project activity does however not consist in fuel switch, in so far as charcoal user will keep consuming charcoal, only more efficiently.

The technology will result in displacement of high GHG-emitting woody biomass as cooking fuel in the low-income households and commercial spaces. In absence of implementation of the proposed VPA, the households would have continued to use unimproved cookstoves consuming charcoal, for cooking purpose which is also the existing pre-project scenario.

The technology and know-how being applied by the project activity is environmentally safe and sound since it will positively curb deforestation currently endangering natural forests by promoting sane and sustainable practices in the targeted areas of DRC; indeed, the mass introduction of woody biomass fuel saving cookstoves will diminish the currently non-renewable collect and supply of the project population, thus slowing down forest degradation. It is made possible by highly efficient stoves technology transfer to the Host party under the benefits of carbon Mechanism, since the devices to be implemented are state-of-the art imported cookstoves to be locally assembled with a mid-term view of internalizing the manufacturing unit.

The detailed specification is as follows, and the improved cook stoves employed are some types including type A and B:

Fig 3: Picture of the example of proposed Jiko cookstoves

Table 2 Specification of the example of proposed Jiko cookstoves

Type	A: Jiko Mamu	B: Jiko Kitoko
Efficiency	29.7%	33.6%
Type of fuel	Charcoal	Charcoal
Biomass fuel savings	55-60%	55-60%
Capacity (kW)	1.2	1.2
Adoption	Traditional cooking style & posture	Traditional cooking style & posture

Durability	7 years	7 years

A.4. Scale of the project

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Chosen in compliance with the small-scale limit with regard to annual energy savings of the stoves, the ICSs disseminated by the VPA are expected to represent a total annual energy savings of less than 180GWh.

A.5. Funding sources of project

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No public funding is involved in the PoA.

DRC is place on the OECD Development Assistance Committee's ODA recipient list, and the ODA Declaration has been provided.

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

B.1. Reference of approved methodology (ies)

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The VPAs under the PoA will introduce energy-efficient, biomass fuel-based cookstoves (technology/measure) compatible with the requirements of the applied methodology "REDUCED EMISSIONS FROM COOKING AND HEATING: Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC)", Version 4.0 – Published Oct 2021.

The methodology refers to the tools and guidelines below:
CDM Tool 01 - Tool for the Demonstration and Assessment of Additionality
CDM Tool 10 - Tool to determine the remaining lifetime of equipment
CDM Tool 30 - Calculation of the fraction of non-renewable biomass
COMPLEMENTARY GUIDELINES FOR KITCHEN PERFORMANCE TESTING
General Guidelines for Sampling and Surveys for Small-Scale CDM Project Activities
Requirements and Guidelines: Usage Rate Monitoring

B.2. Applicability of methodology (ies)

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Applied methodology: Technologies and Practices to Displace Decentralized Thermal Energy Consumption, version 4.0, Oct 2021.

According to the TEMPLATE GUIDE of KEY PROJECT INFORMATION & VPA DESIGN DOCUMENT (PDD) –v. 1.1, the inclusion criteria are used to demonstrate methodology applicability, so make reference to section A.1.1.

B.3. Project boundary

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Emissions from fuels can occur during fuel production, transport and consumption. All project emissions from any of the gases marked below must be accounted for. And the project emissions from transportation of biomass are accounted.

	Source	GHGs	Included?	Justification/Explanation
Baseline scenario	Heat delivery, production of fuel, and transport of fuel	CO_2	Yes	Important source of emissions as CO_2 is emitted when biomass fuels are burned.
		CH_4	Yes	Important source of emissions released during partial or incomplete combustion of biomass during domestic cooking.
		N_2O	Yes	Important source of emissions released during partial or incomplete combustion of biomass during domestic cooking.
Project scenario	Heat delivery, production of fuel, and transport of fuel	CO_2	Yes	Important source of emissions as CO_2 is emitted when biomass fuels are burned.
		CH_4	Yes	Important source of emissions released during partial or incomplete combustion of biomass during domestic cooking.
		N_2O	Yes	Important source of emissions released during partial or incomplete combustion of biomass during domestic cooking.

B.4. Establishment and description of baseline scenario

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As per the applied methodology, the baseline scenario is the existing baseline technology/practice use and fuel consumption patterns for the type of service provided by the project technology in the population targeted for adopting the new project technology. In the absence of the project activity, the baseline scenario is the use of fuels for meeting similar thermal energy needs.

(Congo) DRC, primarily being a low-income country, historically has high dependence on biomass fuel for total energy use. Most of the total energy requirement is met by the biomass fuel. For household energy purpose, the dependency on biomass fuel is high.

As per the applied methodology, the selection and description of the baseline scenario must be informed by the Baseline Scenario Survey, and the Literature review and preliminary field survey have highlighted a strong prevailing practice of cooking with three-stone or traditional low efficiency open stoves supplied with non-renewable charcoal, resulting in severe deforestation and higher emissions than the proposed project activity.

These stoves are notoriously wasteful. Other drawbacks of traditional biomass stoves include the diffusion of heat during windy conditions, the difficulty of controlling the fire, users' exposure to heat and smoke as well as fire hazards.

CME gained following insights about the energy challenges for cooking in (Congo) DRC/Kinshasa households:

- Majority of the households are not able to afford the initial investment required for modern fuel appliances and hence low rate of penetration of modern clean fuel
- The unit-energy price of charcoal is significantly higher due to small bundle size but remains the mainstream fuel due to the convenient supply.

The study of the Use of Different Types of Stoves in Cooking in Kinshasa by the Global Alliance for Clean Cookstoves reported:74% of the stoves in use are "simple brasero", 12% of the stoves in use are three stones fire system thus, a conventional system with no improved combustion air supply or flue gas ventilation system, and 14% of the stoves are considered as other devices.

The concept of suppressed demand is not applied.

B.5. Demonstration of additionality

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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 per GS4GG Community services activity requirements, Version 1.2, Para 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 of this document) (b) Projects located in LDC, SIDS, LLDC (c) Microscale projects	
Describe how the proposed project meets the criteria for deemed additionality.	Congo (DRC) is in the List of Least Developed Countries (as of 11 February 2021), so the project is considered as deemed additional.	

B.5.1. Prior Consideration

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The time of first submission is Nov, 2021, within one year of the project start date.

B.5.2. Ongoing Financial Need

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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)

Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all	7.1 By 2030, ensure universal access to affordable, reliable and modern energy services	Relevance: The PoA/VPA involves dissemination of clean, modern technology for cooking, by using available energy sources more efficiently. Number of the efficient cookstoves disseminated
Goal 8 Decent work and economic growth	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.	Relevance: The VPA results in generating employment for marketing / sales and distribution / technical employees. the number of employees (male / female) in the project under administrative, sales, production and management positions.
Goal 13 Take urgent action to combat climate change and its impacts	N/A	Emissions Reductions

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

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SDG 7, Affordable and clean energy

Number of the efficient cookstoves disseminated

N_{ICS}, Number of the efficient cookstoves included in the project database for project scenario p.

SDG 8, Decent work and economic growth

Approach: Recording the number of employees (male / female) in the project under administrative, sales, production and management positions

Employment records, Net Benefit (SDG 8)： N_{em}, number of person (male and female) hired under Project

SDG 13, Climate Action

In the project activity, cookstoves are installed at the start of the project activity or installed progressively, the baseline is considered by-default fixed until the end of the cookstoves (introduced in the project activity) useful life or the registered crediting period, whichever occurs earlier. If the project cookstove is replaced with a cookstove of similar efficiency prior to the end of the crediting period, the original baseline shall be applicable till the end of the replaced cookstoves useful life or the registered crediting period, whichever occurs earlier. Only one project scenario is considered. The project scenario is the adoption of the efficient cookstove by end users in the target area. Some types of efficient cookstove will be installed, which is the efficient cookstove. The determination of quantity of fuel consumed in the baseline is at household level. The efficient cookstoves installed at a household can have different sizes according the cooking habit within the household.

Calculation of the emission reductions

Method 1. Baseline and project fuel(s) are identical and emission reductions are exclusively from improved efficiency

The baseline scenario corresponds to the use of fuels for meeting similar thermal energy needs, resulting in the baseline emissions calculated by multiplying the quantity of woody biomass fuel saved by the fraction of woody biomass fuel used in the absence of the project activity in year y that can be established as non-renewable,

the net calorific value of the non-renewable woody biomass that is substituted (default value) and the emission factor for the substitution of non-renewable woody biomass (default value).

The methodology directly provides equation for emission reductions (without separate baseline, projector leakage emission reduction equations). The emission reductions are calculated using the following equation:

$$ER_y = N_{b,p,y} * U_{p,y} * SFS_{p,b,y} * NCV_{b,fuel} * (f_{NRB,b,y} * EF_{b,f,CO_2} + EF_{b,f,non CO_2}) - LE_{p,y}$$

Where:

ER_y, Emission reduction for total project activity in year y (tCO_{2e}/yr)
$N_{b,p,y}$, Number of project technology-days included in the project database for baseline b/project p pair in year y (days)
$U_{p,y}$, Cumulative Usage rate for technologies in project scenario p in year y (fraction)
$SFS_{p,b,y}$, Specific fuel savings for an individual project technology of baseline b/project p pair in year y (mass or volume units/technology*day)
$f_{NRB,b,y}$, Fractional non-renewability status of woody biomass fuel during year y .

$NCV_{b,fuel}$, Net calorific value of the fuel(s) that is substituted or reduced in baseline b (TJ/ton)
$EF_{b,f,CO2}$, CO_2 emission factor from use of fuel f (tCO_2/TJ)
$EF_{b,f,nonCO2}$, Non-CO_2 emission factor arising from use of fuel f, when the baseline fuel f is biomass or charcoal (tCO_{2e}/TJ).
$LE_{p,y}$ Leakage for project scenario p in year y (tCO_{2e}/yr)

Average number of people per households will be monitored but for ex-ante estimation, an average value of 6.9 people per households will be used. The study of Stoves efficiency and biomass consumption by the Kitsika Khonde Renewable Energy Studies and Research Centre of Kinshasa in 2020 reported: 0.138ton charcoal per

year per capita or 0.95 ton charcoal per household is consumed, for households made up of 6.9 people, i.e, 0.00260 ton charcoal /household-day.

The study of the Use of Different Types of Stoves in Cooking in Kinshasa by the Global Alliance for Clean Cookstoves reported:74% of the stoves in use are "simple brasero", which are assigned a value of 15.5% efficiency as demonstrated by the study of Stoves efficiency and biomass consumption by the Kitsika Khonde Renewable Energy Studies and Research Centre of Kinshasa. 12% of the stoves in use are three stones fire system thus with a value of 10% efficiency, 14% of the stoves are considered as other devices with a value of 20% efficiency. The baseline efficiency will be calculated using weighted average. hence a weighted average baseline efficiency of 15.47% (0.74*0.155+0.12 *0.1+0.14*0.2) is applied.

B.6.2. Data and parameters fixed ex ante

SDG 7, 8, 13

Data/parameter ID	**ICS 1**
Data/parameter	Baseline scenario survey results
Unit	NA
Description	Report of the results of the baseline scenario survey
Source of data	The report presents the results of the Baseline Scenario Survey, relevant for the baseline scenario definition.
Value(s) applied	NA
Choice of data or Measurement methods and procedures	NA
Purpose of data	Evaluation of SDG outcomes
Additional comment	Undertake at the start of the first crediting period

Data/parameter ID	**ICS 2**
Data/parameter	Project technology description
Unit	NA
Description	The detailed description of the project technology: - Manufacturer name: BISO NA BINO SARL - product name：Jiko cookstoves - technology type：cooking equipment allowing quicker heating-up, longer cooking and heat retaining with less woody biomass fuel as well as lower combustion fumes. - capacity characteristics：1.2kw - rated thermal efficiency: about 30% - Any performance certifications from National Standards body or certification body recognised by national standards body also shall be provided.
Source of data	- Manufacturer specifications - Certifications - Technical reports from the installer
Value(s) applied	NA
Choice of data or Measurement methods and procedures	NA
Purpose of data	Evaluation of SDG outcomes
Additional comment	Project developer shall provide this information to verifying VVB before completion of verification report. No issuance shall be requested for project technologies for which the project technology details are not verified by the verifying VVB prior to completion of verification report.

Data/parameter ID	**ICS 3**
Data/parameter	Expected technical life of project technology
Unit	Years
Description	The expected technical life of an individual project technology shall be defined in the PDD.

Source of data	Fixed and recorded at the time of registration or distribution The source is used: - Manufacturer specifications
Value(s) applied	7
Choice of data or Measurement methods and procedures	NA
Purpose of data	Evaluation of SDG outcomes
Additional comment	The end users will be provided replacement technology of comparable or higher quality at the end of the technical life, by either - replacing with comparable or better technology, or - retrofitting essential parts with performance guarantee. Units are replaced or retrofitted at the end of their technical life within a crediting period to continue claiming emission reductions. However, a new project or programme will not be registered for replacement/retrofitted project devices.

Data/parameter ID	**ICS 5**
Data/parameter	Avoidance of double counting or double claiming among project participants
Unit	NA
Description	Evidence of avoidance of double counting or double Claiming with other parties directly involved with the project or programme.
Source of data	Written assertions with the project developer of the ownership rights and intention of selling the emission reductions resulting from the project activity directed at or signed with all the applicable parties of the following: - all other project participants; - project technology producers; and - retailers of the project technology or the renewable fuel.

Value(s) applied	NA
Choice of data or Measurement methods and procedures	NA
Purpose of data	Evaluation of SDG outcomes
Additional comment	Any written assertions not available at validation shall be included as a FAR and be provided and verified at the time of first verification.

Data/parameter ID	**ICS 6**
Data/parameter	Avoidance of double counting or double claiming with other mitigation actions
Unit	NA
Description	Review and analysis of mitigation actions in other voluntary market or UNFCCC/compliance mechanisms
Source of data	Using publicly available information from Gold Standard and other voluntary standards, at a minimum Verra and any recognized national or regional standards in the project location, and UNFCCC CDM project & PoA database.
Value(s) applied	NA
Choice of data or Measurement methods and procedures	NA
Purpose of data	Evaluation of SDG outcomes
Additional comment	Undertake at the time of project design review and VPA inclusion review.

Data/parameter ID	**ICS 7**
Data/parameter	Regulatory framework for provision of thermal energy services
Unit	NA
Description	Evidence that the project does not undermine or conflict with any national, sub-national or local regulations or

	guidance for thermal energy supply/devices or fuel supply or use
Source of data	List and provide a summary of any national, sub-national and local regulations or guidance for provision of thermal energy services/devices of the type the project provides in the project boundary, including any tariff requirements.
Value(s) applied	NA
Choice of data or Measurement methods and procedures	NA
Purpose of data	Evaluation of SDG outcomes
Additional comment	Undertake at the start of each crediting period.

Data/parameter ID	**ICS 8**
Data/parameter	$EF_{b,f,CO2}$
Unit	tCO_2/t_fuel
Description	CO_2 emission factor arising from use of fuels in baseline scenario
Source of data	Methodology cap
Value(s) applied	197.15 tCO_2/TJ (includes charcoal production emissions)
Choice of data or Measurement methods and procedures	NA
Purpose of data	Calculation of emission reductions
Additional comment	NA

Data/parameter ID	ICS 9
Data/parameter	$EF_{b,f,nonCO2}$
Unit	tCO_2/TJ
Description	Non-CO_2 emission factor arising from use of fuels in baseline scenario
Source of data	Methodology cap
Value(s) applied	92.29 tCO_2e/TJ (AR5 GWP) (Includes charcoal production emissions)
Choice of data or Measurement methods and procedures	NA
Purpose of data	Calculation of emission reductions
Additional comment	NA

Data/parameter ID	ICS 12
Data / Parameter	$NCV_{b,fuel}$
Unit	TJ/ton
Description	Net calorific value of the fuels used in the baseline
Source of data	Charcoal: Methodology default
Value(s) applied	Charcoal: Methodology default, 0.0295 TJ/ton
Choice of data or Measurement methods and procedures	NA
Purpose of data	Calculation of emission reductions
Additional comment	NA

Data/parameter ID	ICS 17
Data / Parameter	$f_{NRB,b,\ y}$
Unit	Fractional non-renewability
Description	Fractional non-renewability status of woody biomass fuel during year y, in case the baseline fuel is biomass or charcoal
Source of data	Determined by following the CDM TOOL30, Calculation of the fraction of non-renewable biomass
Value(s) applied	90%
Choice of data or Measurement methods and procedures	Requirements of the CDM TOOL30
Purpose of data	Calculation of emission reductions
Additional comment	Project developers applying for a renewal of the crediting period must reassess the NRB based on most recent information available.

Ex ante estimation of SDG Impact

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Ex-ante calculations related to the outcomes of SDG 7

Number of the efficient cookstoves disseminated = It is estimated that 14,400 households per VPA will have been included in the project and each household will have at least one efficient cookstoves, which makes 14,400 disseminated the efficient cookstoves per.

Ex-ante calculations related to the outcomes of SDG 8

Nem: Number of person (male and female) hired under Project = it is estimated that 24 persons will be hired for the project.

Ex-ante calculations related to the outcome for SDG 13

For data/parameters available at the time of design certification, values contained in section B.6.2 and for data/parameters only available after monitoring the estimates contained in section B.7.1 have been used.

$ERy = N_{b,p,y} * U_{p,y} * SFS_{p,b,y} * NCV_{b,fuel} * (f_{NRB,b,y} * EF_{b,f,CO_2} + EF_{b,f,nonCO_2}) - LE_{p,y} = 5,256,000 * 95\% * (0.00260-0.00127) * 0.0295 * (90\% * 197.15 + 92.29)(1-0.05) = 98,134-47,935 = 50,199$ ton

B.6.3. Summary of ex ante estimates of each SDG outcome

SDG 7

Indicator: Number of the efficient cookstoves disseminated

Year	Baseline estimate	Project estimate	Net benefit
Year 1	0	14,400	14,400
Year 2	0	14,400	14,400
Year 3	0	14,400	14,400
Year 4	0	14,400	14,400
Year 5	0	14,400	14,400
Year 6	0	14,400	14,400
Year 7	0	14,400	14,400
Year 8	0	14,400	14,400
Year 9	0	14,400	14,400
Year 10	0	14,400	14,400
Total	**0**	**144,000**	**144,000**
Total number of crediting years	10		
Annual average over the crediting period	0	14,400	14,400

SDG 8

Indicator: the number of employees (male / female) in the project under administrative, sales, production and management positions.

Year	Baseline estimate	Project estimate	Net benefit
Year 1	0	24	24
Year 2	0	24	24
Year 3	0	24	24
Year 4	0	24	24
Year 5	0	24	24
Year 6	0	24	24
Year 7	0	24	24
Year 8	0	24	24
Year 9	0	24	24
Year 10	0	24	24
Total	**0**	**240**	**240**
Total number of crediting years	10		
Annual average over the crediting period	0	24	24

SDG 13

Indicator: emission reductions of CO_2

Year	Baseline estimate	Project estimate	Net benefit
Year 1	98,134	47,935	50,199
Year 2	98,134	47,935	50,199

Year 3	98,134	47,935	50,199
Year 4	98,134	47,935	50,199
Year 5	98,134	47,935	50,199
Year 6	98,134	47,935	50,199
Year 7	98,134	47,935	50,199
Year 8	98,134	47,935	50,199
Year 9	98,134	47,935	50,199
Year 10	98,134	47,935	50,199
Total	**981,340**	**479,350**	**501,990**
Total number of crediting years	10		
Annual average over the crediting period	98,134	47,935	50,199

B.7. Monitoring plan

B.7.1. Data and parameters to be monitored

SDG 7, 8, 13

Data/parameter ID	**ICS 15**
Data / Parameter	Avoidance of double counting or double claiming among project technology end users
Unit	NA
Description	Evidence of avoidance of double counting or double claiming with project technology end users
Source of data	Evidence of informing / notification of end users, such as: - leaflets distributed with the warranty card of the product alerting end-users to the waiving of their carbon rights in exchange for discount pricing of the improved technology below its true cost, - carbon title waiver forms signed by end users, etc.
Value(s) applied	NA

Choice of data or Measurement methods and procedures	NA
Monitoring frequency	Monitored whenever project technology is sold or otherwise disseminated
QA/QC procedures	Cross check using general internet search and search of public records of Gold Standard and other voluntary market and UNFCCC mechanisms
Purpose of data	-
Additional comment	-

Data/parameter ID	**ICS 16**
Data / Parameter	Presence of stove stacking
Unit	NA
Description	Descriptive statistics of the presence and usage practices of baseline- and other non-project-technology by project technology end users
Source of data	Use one of the following methods: - Measurement campaigns shall be undertaken using data loggers such as stove utilization monitors (SUMs) which can log the operation of all devices in order to determine the average device utilization intensity, or - Usage Survey- use of other stoves, to capture cooking habits and stove usage of households in the region, including quantification of use of baseline devices, by formulating questions and/or collecting evidences to determine the frequency of usage of both the project devices and baseline devices, or monitoring surveys to capture the number of meals cooked. The surveys may be integrated with the usage survey.
Value(s) applied	-
Measurement methods and procedures	-

Monitoring frequency	Annual
QA/QC procedures	The calculation of $SFS_{p,b,y}$ and others shall be cross-checked with the observed presence of stove stacking. Ensure any stove stacking is considered so that emission reductions are calculated only from real reduction of, or replacement of, baseline fuel use. Cross-check results of this survey with independent studies that are specific to the project region (or to the project country, if regional studies are not available), including but not limited to National publications, peer reviewed literature, third party assessments (for example – WISDOM, FAO, UN and similar organizations) and/or official data or statistics about cooking technologies, not older than 5 years old.
Purpose of data	Used to calculate SFS under method 1
Additional comment	Whether or not the existing baseline technology is surrendered, when an old technology remains in use in parallel with the improved technology, or another technology is put in use in parallel, the corresponding emissions must be accounted for so that emission reductions are not overestimated.

SDG 7,13

Data / Parameter	N_{ICS}
Unit	Number
Description	Number of the efficient cookstoves included in the project database for project scenario p
Source of data	Project database
Value(s) applied	14,400
Measurement methods and procedures	The project database provides a list of end-users with number of the efficient cookstoves per end-user.
Monitoring frequency	Continuous

QA/QC procedures	The data will be analyzed in the monitoring report and Project database will be made available for review.
Purpose of data	Calculation of the parameter "Number of the efficient cookstoves disseminated"
Additional comment	NA

SDG 8

Data / Parameter	N_{em}
Unit	Number
Description	Number of employees in the project
Source of data	Employee list
Value(s) applied	24
Measurement methods and procedures	Recording the number of employees (male / female) in the project under administrative, sales, production and management positions
Monitoring frequency	Continuous
QA/QC procedures	The data will be analyzed in the monitoring report
Purpose of data	-
Additional comment	NA

SDG 13

Data/parameter ID	**ICS 18**
Data / Parameter	Pb,y
Unit	ton/household-day
Description	Quantity of fuel that is consumed in baseline scenario b during year y

Source of data	Baseline performance field tests
Value(s) applied	0.00260
Choice of data or Measurement methods and procedures	NA
Purpose of data	Used to calculate SFS under method 1,
Additional comment	NA

Data/parameter ID	**ICS 19**
Data / Parameter	Pp,y
Unit	ton/household-day
Description	Quantity of fuel that is consumed in project scenario p during year y
Source of data	Total sales record, Project FT, project FT updates, and any applicable adjustment factors
Value(s) applied	0.00127
Measurement methods and procedures	Performance field test (PFT) of fuel consumption
Monitoring frequency	Updated every two years, or more frequently
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Used to calculate SFS under method 1
Additional comment	-

Data/parameter ID	**ICS 20**
Data / Parameter	$SFS_{b,p,y}$
Unit	ton/household-day
Description	Specific fuel savings for an individual project technology of baseline b/project p pair in year y

Source of data	Calculated from Pb,y, Pp,y
Value(s) applied	0.00133
Measurement methods and procedures	Pb,y- Pp,y
Monitoring frequency	Updated every two years, or more frequently
QA/QC procedures	The calculation method, inputs and their sources shall be described in detail in the PDD and monitoring report. Cross-check with proportional efficiency of baseline and project technology.
Purpose of data	-
Additional comment	-

Data/parameter ID	**ICS 26**
Data / Parameter	$U_{p,y}$
Unit	Percentage
Description	Weighted average usage rate in project scenario p during year y
Source of data	The survey result must provide the statistically valid proportion of users actively using the project technology for each project technology age cohort. From the annual usage survey results, calculate the weighted average percent of users actively using the project technology, where the weighting is by the quantity of project technologies of each age cohort being credited in a given project scenario.
Value(s) applied	95%
Measurement methods and procedures	The measurement of the usage rate is based on qualitative information collected in the usage/monitoring survey. A question concerning the current use of the technology is asked to each end user of the sample and

	is validated by the observation of the surveyor in order to determine the usage rate of each technology age category.
Monitoring frequency	Annual or more frequently, in all cases on time for any request for issuance
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Calculation of emission reductions
Additional comment	NA

Data / Parameter	$LE_{p,y}$
Unit	t_CO_2e per year
Description	Leakage in project scenario p during year y
Source of data	Leakage assessment
Value(s) applied	default discount value of 0.95 applied to emission reductions
Measurement methods and procedures	Qualitative/quantitative assessment
Monitoring frequency	Every two years
QA/QC procedures	N.A.
Purpose of data	For leakage emissions
Additional comment	Applicable only if relevant

Data/parameter ID	**ICS 27**
Data / Parameter	$N_{b,p,y}$

Unit	days
Description	Number of project technology-days included in the project database for baseline b/project p pair in year y
Source of data	Calculated from the Project database as the sum of the number of project technology units times the calendar days during the year y that they were present at the end user locations
Value(s) applied	14400*365=5,256,000
Measurement methods and procedures	-
Monitoring frequency	Calculated annually
QA/QC procedures	Cross check the results of the usage survey with the contents of the project database to confirm whether the project technology units surveyed are present at end user locations as expected, or not. If there is discrepancy, this must be explained or corrected.
Purpose of data	-
Additional comment	-

B.7.2. Sampling plan

>>

The purpose of sampling is to obtain: (a) unbiased and (b) reliable estimates of the mean value of parameters used in the calculations of GHG emission reductions.

The VPA shall follow the following sampling plan:

Monitoring shall consist of checking the efficiency of all appliances or a representative sample thereof to ensure that they are still operating at the specified efficiency or

replaced by an equivalent in service appliance. Where replacements are made, monitoring shall also ensure that the efficiency of the new appliances is similar to the appliances being replaced.

For baseline and project scenario a monitoring survey and usage survey is conducted annually, and some data and parameters monitored in section B.7.1 above are to be determined by a sampling approach. The project proponent must maintain an accurate and complete sales record. The number of end user names and addresses (and phone numbers where possible) within sales record shall be large enough so that surveys and tests can be based on representative, purely randomly selected samples. In all cases this should not be less than 10 times the survey and field test sample sizes (including usage surveys for each age of product), in order to ensure an adequate end user pool to which random sampling can be applied.

End users from a given project scenario are selected using representative sampling techniques to ensure an adequate representation of users with technologies of different ages. Common sampling approaches such as clustered random sampling are allowed and geographic distribution should be factored into selection criteria. End users can be surveyed at any time throughout the year with care taken to collect information pertaining to seasonal variations in technology and fuel use patterns.

A usage parameter must be established to account for drop off rates as project technologies age and are replaced. Prior to a verification, a usage parameter is required that is weighted to be representative of the quantity of project technologies of each age being credited in a given project scenario. For example, if only technologies in the first year of use (age0-1) are being credited, a usage parameter must be established through a usage survey for technologies age0-1. If an equal number of technologies in the first year of use (age0-1) and second year of use (age1-2) are credited, a usage parameter is required that is weighted to be equally representative of drop off rates for technologies age0-1 and age1-2.

The minimum total sample size is 100, with at least 30 samples for project technologies of each age being credited. The majority of interviews in a usage survey must be conducted in person and include expert observation by the interviewer within the kitchen in question, while the remainder may be conducted via telephone by the same interviewers on condition that in-kitchen observational interviews are first concluded and analyzed such that typical circumstances are well understood by the telephone interviewers.

CME will use 90/10 confidence/precision as the criteria for the reliability of sampling efforts for small scale project activities. Where two or more project activities, VPAs are grouped for undertaking a common survey it shall be ensured that a confidence/precision of 95/10 is achieved for each of the project activity that is included in the group for the survey.

In all of the approaches, the samples are drawn in a manner that avoids any bias and that the data collection minimizes non-sampling (non-random, systematic) errors. In order to achieve these goals, the project participants or the coordinating/managing entity should observe sound practices in designing samples and administering surveys and field measurements as indicated in the latest version "Guideline: Sampling and surveys for CDM project activities and programmes of activities" (Version 09.0, 27 May 2021).

More ICS than what is required by the sample size calculation formulas will be selected for monitoring in order to ensure that reliability requirements are met even though some families cannot be reached. The number of additional stoves to be monitored (the buffer) will be driven by the required sample size. A small sample will lead to a relatively large buffer (30% or 40% of the sample size) and a large sample size will lead to a smaller buffer (less than 15%). Oversampling will be implemented in several steps with the goal of attaining the relevant confidence/precision levels specified in the methodology.

The specific procedure for oversampling related to any buffer size is:
1. Visit households accounting for one third of the buffer. If the number of responses collected is sufficient to meet confidence/precision need the oversampling stops here;
2. If step 1 is not sufficient to meet the confidence/precision level, then households accounting for another third of the buffed are visited. If this additional number of answers is sufficient, the oversampling stops here;
3. If step 2 is not sufficient, households accounting for the last third of the buffer are visited (the whole buffer is then used).

If after these 3 rounds of additional sampling the reliability is still not sufficient, the CME has the right to take as the value of the considered parameter the most conservative bound of the applicable confidence interval resulting from the monitoring campaign.

B.7.3. Other elements of monitoring plan

>>
The project proponent is responsible for accurate and transparent record keeping, monitoring and evaluation. All supporting documentation and records for the project must be easily accessible for spot checking and cross referencing by a third party. Contact information in the total sales record must allow a project auditor to easily contact and visit end users. An auditor must also be able to cross reference pertinent project documentation, which must include archives such as production records (e.g. materials purchases, internal logs), financial accounts and sales records, as well as wholesale customer invoices, observations of retailer activities and sales performance.

The monitoring team may continue to monitor appliances in the sample with respect to the remaining parameter(s) until again the required precision for these parameters is achieved. The design of the survey questionnaire will ensure that the questions are non-intrusive and easy to understand for both the interviewee and interviewer.

Training will ensure that all monitoring staff has the appropriate skills and experience to administer relevant surveys / tests and quality checks will ensure the integrity of information flow to the CME. The CME shall review the efficacy of information gathering techniques and information flow and assess enumerator and partner feedback to make improvements as deemed necessary.

Any third parties hired by the CME, if any, to carry out sampling should have requisite skills and appropriate experience with data entry and data management. The CME will ensure that contractors are adequately trained for the tasks they are contracted for. Training will also be provided on how to deal with non-responses, refusals and other problems should these occur.

SECTION C. DURATION AND CREDITING PERIOD

C.1. Duration of project

C.1.1. Start date of project

>>

As per GS4GG Principle 4, the project start date is the earliest date on which the project developer has committed to expenditures related to the implementation of the project. For distributed technology projects, the start date is the date of implementation of the first unit under the project.

For this VPA, the start date is 28/04/2021, the date registered in project database, on which the first efficient cookstove has been disseminated in the project activity.

As per GS4GG Principle, the VPA is retroactive projects, for which the stakeholder consultation (1st round) is conducted after the project start date.

C.1.2. Expected operational lifetime of project

>>

10 years 0 month

C.2. Crediting period of project

C.2.1. Start date of crediting period

>>

28/04/2021

C.2.2. Total length of crediting period

>>

10 years

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 summarized below.

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

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 takes into account gender roles and the abilities of women and men to participate in the decision/designs of the project activities. For example, the stakeholder consultation made in the project design phase will include both women and men participating in the consultation meeting. Moreover, for example, the future public awareness sessions and trainings for the construction of efficient cookstoves will be planned and organized in the way to avoid any discrimination of women or other marginalized groups. In fact, the

	women's participation will be essential for guaranteeing the success in the dissemination of the efficient cookstoves. In fact, the reduction of the woody biomass consumption will significantly reduce women's workload related to collection of fuel. It can be further expected that sexual harassment and violence happening during fuel collection may be reduced. Hence, largely women will benefit from the project activity.
Question 2 - Explain how the project aligns with existing country policies, strategies and best practices	The Constitution of country recognizes that the promotion of gender is a factor in achieving equality between men and women in DRC. The vision entails the construction of "a society free of all forms of inequality and inequities of gender, and which ensures, for all its citizens, the necessary safeguards for their social, cultural, political and economic development. It will be ensured that the project is committed to equal gender rights following the National Gender Policy.
Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?	No expert is required to assess the Gender Safeguarding Principles & Requirements as gender has been adequately assessed in the Safeguarding Principles Assessment.
Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?	No expert is required to assist with gender issues at the stakeholder consultation as gender has been adequately assessed in the Safeguarding Principles Assessment.

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

>>

For this retroactive project, the physical meeting was integrated with the stakeholder feedback round. The physical meeting conducted with the stakeholder feedback round followed all requirements listed in the document 'Stakeholder Consultation and Engagement Requirements'.

As for the stakeholder feedback round (SFR), documents regarding the project information and feedback tables were included in the three batches of emails to the stakeholders, since the time of one month before the stakeholder consultation meeting (in May, 2021), and the feedback had been requested. An example email is provided in the stakeholder consultation report. In this case, stakeholders had enough time to review the documents and thus were able to give their feedback during the meeting. This made up an integrated stakeholder feedback round with the physical meeting. On the other hand, stakeholders could raise their feedback by sending back the feedback table via email to the CME at any time before the submission for the prelimilary review (in August, 2021). During online SFR stakeholder feedback process lasting for more than three months, no comments or feedback had been received from the stakeholders.

As for the physical meeting, a local consultation meeting has been conducted in Salle Saint Dominique, 13ème rue, Commune de Ngaliema, quartier résidentiel, DRC on 18 May 2021. Several means were used to invite people. Individuals, who couldn't attend the local stakeholder consultation meeting, were able to comment on the non-technical summary of the program via mail, email or telephone. The stakeholders who didn't reply to the invitation were reminded on the meeting via telephone.

All the questions raised by the stakeholders during the consultation have been discussed with the participants and project developers and answered. As no major negative comment has been suggested, no stakeholder mitigation measures have been reported. The stakeholder's comments did not lead to major changes in the

project design; this is probably because the project has been designed in partnership with the local communities from the beginning.

Assessment of main questions from all consultations is as below:

Gender of Stakeholder	Stakeholder comment	Was comment taken into account (Yes/ No)?	Explanation (Why? How?)
Male & Female	What are the guarantees that these cookstoves actually have all of these qualities such as durability, saving charcoal, no smoke emission, etc.?	Yes	These cookstoves are certified by the CERERK in Kinshasa, and have undergone tests that meet international standards, including the durability test, the boiling test, etc. In addition, the manufactory is part of the ACFCA (Congolese Alliance for improved cookstoves and fuels).
Male & Female	How can we be sure that we are buying a cookstove from BISO NA BINO SARL and not another because we don't really see a difference with the cookstoves of the competition.	Yes	Our cookstoves are labeled with a unique serial number for each cookstove. This allows us to properly monitoring our cookstoves and possibly deal with complaints.

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)	Input and/or grievances are written on-site in an expression book, available at the office of WESD Capital Sprl DR Congo 4 avenue de la Justice, C/Gombe, Kinshasa
GS Contact (mandatory)	help@goldstandard.org
Other	0243 843 892 970
Internet/email access (optional)	georges@novoholding.net

The project developer declares the information above and the final methods were indicated for and agreed with stakeholders during the stakeholder consultation process.

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 below.

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	No	The project developer will work in full respect of human rights and follow the laws of the Republic of Congo (DRC). The Project will respect internationally proclaimed human rights and will not be complicit in violence or human rights abuses of any kind as defined in the Universal Declaration	N/A

2. The Project shall not discriminate with regards to participation and inclusion		of Human Rights. The Project will not discriminate with regards to participation and inclusion.	
Principle 2. Gender Equality			
1. The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women 2. Projects shall apply the principles of non-discrimination, 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	No	The hiring process is performed in equal conditions for both men and women. The project implementation in communities consist in providing the community improved cookstoves, which will allow to improve the livelihoods of the families of the participant households. The women of such families will be direct beneficiaries by means of the use of the improved cookstoves, nonetheless this does not represent social isolation for men.	N/A

4. (where required) Summary of opinions and recommendations of an Expert Stakeholder(s)		The project activities on the contrary diminish the work load of women due to the reduction of the cooking time that comes along with the ICS acquisition. The time that is saved in cooking can be invested in activities that generate an additional income for the families. The project is not involved in any activity that leads to slavery, imprisonment, physical and mental drudgery, punishment or coercion of women and girls. The project has a gender focus that aims towards guaranteeing the rights of women and socially-vulnerable groups. None of the project activities restrict women's rights to access	

		economic or material resources. The project does not limit the access to men neither women, on the contrary, it provides direct and indirect employment opportunities. The participation in the project is voluntary.	
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	No	The VPA will reduce exposure to indoor air pollutants and smoke levels, further reducing incidence of respiratory illness compared to cooking on traditional biomass stoves using solid biomass fuel.	N/A
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	No	The Project Area will not include sites, structures, or objects with historical, cultural, artistic, traditional or	N/A

values or intangible forms of culture? >>		religious values or intangible forms of culture.	
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 Project will not cause the physical or economic relocation of peoples.	N/A
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,	No	Don't involve land tenure.	N/A

usage rights or land ownership?			
>>			
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?	No	No indigenous peoples.	N/A
>>			
Principle 5. Corruption			
1. The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects	No	Project activities will be run under the laws of Congo (DRC). Project Developer employees follow a very strict code of conduct which discourage corrupt acts. The Project does not involve, be complicit in or inadvertently contribute to or reinforce	N/A

		corruption or corrupt Projects. The CME does not promote / or is complicit in direct or indirect 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 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	No	The VPA will not involve any forced labour and the CME/VPA Implementer ensures that all employment is in compliance with local labour regulations and laws. The CME puts no constraints / limitation on employees to form a union. The CME's policies and employment contracts are compliant with the requirement. The CME will not promote / or is complicit in child labour. All the works will be made by using appropriate equipment,	N/A

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		training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures.	

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	No	The use of the efficient cookstoves is accessible to everybody and therefore the	N/A

and after project implementation? >>		project benefits can be considered socially-inclusive. Project Developer complies with the national policies and labour laws and the normativity regarding the fundamental treaties of the international labour organization and the Congo (DRC)'s labour law. The project activities do not imply the direct or indirect labour connection with underage children, therefore, there is no risk associated to child labour during the project's lifespan. The project activities provide training to its employees before undertaking a task. The project relies on the sales of the Improved Cook Stoves and the sale of the carbon	

		credits, which guarantees its financial sustainability. No negative impacts have been identified over the economy and the communities/families linked to the project, on the contrary, the linked families will have additional financial savings related to the reduction of the biomass consumption. Hence, the project causes no negative economic consequences.	
Principle 7.1 Emissions			
Will the Project increase greenhouse gas emissions over the Baseline Scenario?	No	The VPA will reduce GHG emissions relative to baseline scenario.	N/A
>>			
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 woody biomass) that provides for other local users? >>	No	Due to the higher thermal efficiency of the ICS relative to the traditional/baseline stoves, the ICS reduce the amount of non-renewable biomass fuel required for meeting similar thermal energy needs. In the absence of the proposed PoA, inefficient traditional would have been used for cooking. Thus, replacement of the baseline inefficient stoves with project ICS shall reduce non-renewable biomass fuel consumption. The Project will not affect the availability and reliability of energy supply to other users.	N/A
Principle 8.1 Impact on Natural Water Patterns/Flows			
Will the Project affect the natural or pre-existing pattern	No		N/A

of watercourses, ground-water and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity? >>		The project will have no negative impact on natural water patterns or flows. The installation of cookstoves cannot affect watercourses, ground-water and/or the watershed(s). In addition, the preservation forest areas due to the reduced demand on woody biomass-based combustible could even have a positive impact on the quality of surface water	
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	No	The project has nothing to do with erosion and/or water body instability.	N/A

excessive erosion and/or water body instability?			
>>			
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	Will not involve the use of land and soil.	N/A
>>			
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	The project will not be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions	N/A
>>			
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	The Project will not be negatively impacted by or involve genetically modified organisms or GMOs	N/A
>>			
Principle 9.4 Release of pollutants			
Could the Project potentially result in the release of pollutants to the environment?	No	The project ICS combust biomass fuels more efficiently, reducing Particulate Matter (PM) emissions, thus improving the indoor air quality in project households. No result in the release of pollutants.	N/A
>>			
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	This project produces ceramics and aluminum and other metallic waste, which is identified, collected and sent to recycling. The ICS's that are broken or no longer are in a favorable state due their lifespan is collected by the after-distribution team, ensuring that such devices are returned to the provider in order to promote their recycling or final disposition (metals for scrapyards, or ceramics for construction). The recycling and final disposal procedures shall be addressed carefully, guaranteeing that the old stoves and scraps are properly stored, considering the safety protocols for their handling and disposition.	N/A

Principle 9.6 Pesticides & Fertilisers			
Will the Project involve the application of pesticides and/or fertilisers? >>	No	Will not involve.	N/A
Principle 9.7 Harvesting of Forests			
Will the Project involve the harvesting of forests? >>	No	The VPA shall result in reduction in demand of biomass fuel in the region putting less pressure of forests for deforestation and will hence indirectly avoid erosion associated with tree cutting/ felling.	N/A
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 quality of the food could increase with the use of the ICS, because the emitted particulate matter generated by the charcoal consumption in the kitchen is reduced,	N/A

>>		therefore the number of ashes and other particles from inefficient combustion have a less likely to enter in contact with the food, and consequently be inhaled and/or ingested.	
Principle 9.9 Animal husbandry			
Will the Project involve animal husbandry?	No	Will not involve.	N/A
>>			
Principle 9.10 High Conservation Value Areas and Critical Habitats			
Does the Project physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified?	No	Will not involve.	N/A
>>			
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	Will not involve.	N/A
>>			

APPENDIX 2- CONTACT INFORMATION OF VPA IMPLEMENTER

Organization name	Vitol SA
Registration number with relevant authority	-
Street/P.O. Box	Place des Bergues 3, 1201,
Building	-
City	Geneva
State/Region	-
Postcode	-
Country	Switzerland
Telephone	+41 22 322 1111
E-mail	MXI@Vitol.com
Website	www.vitol.com
Contact person	Michael Ivanovitch
Title	-
Salutation	-
Last name	Ivanovitch
Middle name	-
First name	Michael
Department	-
Mobile	-
Direct tel.	-
Personal e-mail	-

Organization name	WESD Capital Sprl
Registration number with relevant authority	-
Street/P.O. Box	4 avenue de la Justice, C/Gombe,
Building	-
City	Kinshasa
State/Region	-
Postcode	-
Country	Democratic Republic of the Congo
Telephone	00243 843 892 970
E-mail	
Website	
Contact person	Georges Bakaly
Title	-
Salutation	-
Last name	Bakaly
Middle name	-
First name	Georges
Department	-
Mobile	-
Direct tel.	-
Personal e-mail	-

Revision History

Version	Date	Remarks
1.1	7 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
1.0	10 July 2017	Initial adoption