

TEMPLATE

KEY PROJECT INFORMATION & VPA DESIGN DOCUMENT (VPA DD)

PUBLICATION DATE **29.06.2023**

VERSION **v.2.3**

RELATED SUPPORT

- [Programme of Activity requirements](#)

- [TEMPLATE GUIDE VPA Design Document](#)

This document contains the following sections

Section A – Description of project

Section B - Application of approved Gold Standard Methodology (ies) and/or demonstration of SDG Contributions

Section C – Duration and crediting period

Section D – Summary of Safeguarding Principles and Gender Sensitive Assessment

Section E – Summary of Local stakeholder consultation

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Appendix 1 – Safeguarding Principles Assessment (mandatory)

Appendix 2- Contact information of VPA Implementer (mandatory)

Appendix 3 – LUF Additional Information (VPA specific)

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KEY PROJECT INFORMATION

Type of VPA	☒ Real case VPA ☐ Regular VPA
Scale of VPA Note that a VPA can be of one scale. Please select applicable scale accordingly.	☐ Microscale ☐ Small scale ☒ Large scale
Title of corresponding real case VPA (if applicable)	NA
GS ID of real case VPA (if applicable)	NA
GS ID of VPA	GS13117
Title of VPA	GS13116 VPA-1 EcoLinks Clean Cooking Project in Rwanda
Time of First Submission Date	13/10/2024
Date of Design Certification	26/02/2025
Version number of the VPA-DD	2.2
Completion date of version	04/03/2025
Coordinating/managing entity	EcoLinks Co., Ltd
VPA Implementer (s)	EcoLinks Co., Ltd
Project Participants and any communities involved	NA
Host Country (ies)	Rwanda
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

Other Requirements applied	Programme of Activity requirements and procedures, version 3.0
Methodology (ies) applied and version number	Reduced emissions from cooking and heating – Technologies and Practices to displace Decentralised Thermal Energy Consumption (TPDDTEC), version 4.0
Product Requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ N/A
VPA 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)	Amount of GHGs emissions avoided or sequestered	227,487	GS-VERs
3 Good Health and Well Being	Number of households visited medical facilities/dispensary for treatment of respiratory issues etc. such as cough, shortness in breath, pneumonia and other respiratory issues	80%	% household visited
5 Gender Equality	Average time saving associated with cooking time and fuel collection	2	Hours saved/household/ week
7 Affordable and Clean Energy Target	Number of beneficiaries: Households	94,200	Number
8 Decent Work and Economic Growth	Total number of jobs	30	Number of jobs

SECTION A. DESCRIPTION OF PROJECT

A.1. Purpose and general description of project

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The purpose of the project is to distribute improved biomass cookstoves (firewood) to the households in rural Rwanda which were earlier dependent on conventional stoves for cooking. The project makes the end-users energy efficient and reduces greenhouse gas emissions otherwise resulting from the burning of non-renewable biomass for preparing meals.

The project boundary is the geographical boundary of Rwanda where improved firewood cookstoves (ICS) are proposed to be distributed to the households for domestic purposes. The improved cookstove technology will replace the existing conventional firewood stoves which are being used in the Rwandan households for preparing meals.

An estimated 3 billion people around the world, especially in low-income countries, cook indoors using polluting open fires or simple stoves fueled by kerosene, biomass, and coal, which produce indoor air pollution (IAP). Exposure to air pollutants is strongly correlated with increased mortality and morbidity caused by cardiovascular and respiratory diseases. According to the 2020 report of the Rwandan Ministry of Health, these noncommunicable diseases were the second cause of death in Rwanda, while respiratory diseases were the main cause of morbidity in Rwanda in 2019¹. The rural households in Rwanda obtain the firewood required for cooking from nearby forests which has increased deforestation at an alarming rate in Rwanda. As per the data released by the government of Rwanda, 99% of forest damage in the country is due to firewood required for cooking². The project aims to distribute ICS technology (Improved Cookstove) in rural regions of Rwanda which would reduce the firewood consumption of the households for cooking which would in-turn reduce the rate of deforestation in Rwanda.

The voluntary project activity is implemented by EcoLinks Co., Ltd (hereafter referred as EcoLinks) which is also the Coordinating and Managing Entity (CME) of the PoA.

The installation plan for the improved cookstove is as follows:

Year	Cumulative number of stoves
15/02/2025- 14/02/2026	100,000

¹ <https://dicf.unepgrid.ch/rwanda/pollution>

² <https://www.topafricanews.com/2020/11/29/380-hectares-of-forest-cover-cut-every-week-to-supply-charcoal-for-cooking-in-kigali-city-official/>

15/02/2026- 14/02/2027	100,000
15/02/2027- 14/02/2028	100,000
15/02/2028- 14/02/2029	100,000
15/02/2029- 14/02/2030	100,000

The project involves the distribution of 100,000 improved cookstove technologies (ICS) which is expected to generate an average annual emission reduction of 227,487tCO₂e/year.

A.1.1. Eligibility of the VPA under approved PoA

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The VPA involves the distribution of improved cookstoves hence the VPA has been assessed against the criteria defined for inclusion of real case VPA involving the distribution of improved cookstove technology under section B.3 of the PoA-DD.

Table 2 Eligibility for VPA inclusion as per PoA requirements

NO.	ELIGIBILITY CRITERION	DESCRIPTION/ REQUIRED CONDITION	DESCRIPTION OF THE VPA IN RELATION TO THE CRITERIA, MEANS OF VERIFICATION/SUPPORTING EVIDENCE FOR INCLUSION
1	Boundary and location of the VPA	The VPA must be located within the geographical boundary of Rwanda, details of which are included in the PoA.	The VPA will involve the distribution of improved cookstove technology (ICS) to the rural households which are situated within the PoA boundary of Rwanda. Supporting evidences: CME statement which confirms the geographical boundary of the VPA (Rwanda)
2	Project technology	The VPA must involve the distribution of improved cookstove technology (ICS) which will benefit the rural communities in Rwanda	The VPA will involve the distribution of improved cookstove technologies (ICS) which will benefit rural communities in Rwanda. The details of the technology is provided in section A.3 of the VPA-DD.

			Supporting evidences:
			Manufacturer Specification and Third party test report.
3	No Double counting of impacts within this PoA and across other registered or deregistered PoAs	Under the VPA, there must be a unique identification for each improved cookstove technology distributed. This shall ensure no double counting of stoves within the PoA and also ensure that ICS can be identified as belonging to this PoA and not to any other project/programme	A unique ID will be provided for each improved cookstove technology distributed under the VPA. A database will be maintained for the VPA which will help in tracing the beneficiary details (such as name, address, GPS coordinates) corresponding to the unique ID of each improved cookstove distributed under the programme.
			An end-user agreement will be signed between the beneficiaries and EcoLinks (which will transfer the carbon rights of the improved cookstove from the beneficiary to EcoLinks)
			A summary of projects registered with other standards-GS/VERRA/CDM and how they are not overlapping with this VPA has been submitted to VVB.
			Supporting evidences:
			a) Distribution database under the project b) End-user agreement c) Registry analysis excel
4	VER Ownership	Under the VPA, the end users benefitting from the improved cookstove technology shall contractually cede their rights to claim and own	Under the VPA, the emission reductions generated from distributed improved cookstove technology (ICS) shall be ceded to EcoLinks. An end-user

		emission reductions to the CME of the PoA.	agreement will be signed by the beneficiary of the improved cookstove technology which will establish that the beneficiaries have relinquished their carbon rights to EcoLinks after receiving the product.
			Supporting evidences: End user agreement signed between the beneficiaries and EcoLinks
5	No Double counting of VPA	The VPA must exclusively be included in the PoA. The VPA shall not be proposed as part of another offset program i.e. as an individual Gold Standard or CDM project and/or as part of any other CDM PoA and/or any other mechanism to avail climate change mitigation benefits. CME shall issue a statement included in the VPA-DD that the specific VPA will not be part of another Gold Standard or CDM project activity or VPA under another PoA.	For the VPA, a declaration from the CME on its letterhead would be provided that the specific VPA will not be part of another project activity or VPA under another PoA. A registry analysis will be conducted to cross-check whether a programme/project of similar nature has been registered/deregistered in the same location. Supporting evidences: a) Declaration provided by the CME b) Registry analysis excel
6.	Non-diversion of ODA in case of Public funding	Under the VPA, the CME confirms that there is no public funding and no diversion of Official Development Assistance involved in the project.	EcoLinks will provide an ODA Declaration for each VPA wherein it will be confirmed that the project will not receive any ODA funding Supporting evidences: ODA declaration signed by EcoLinks

7. Specification of the technology such as the level and type of service, as well as performance specification;	The improved cookstove technology (ICS) distributed under the VPA must be at least meet the tier-3 requirements and should be designed for domestic-users. The technology should be in-line with the host country's (Rwanda) national standard	The VPA will involve the distribution of Hisha Eco7 improved cookstove technology³ which will at least meet the tier-3 requirements and will be designed for domestic users in rural Rwanda. The technology will be certified by the Rwanda Board of Standards. Supporting evidences: Certification from Rwanda Board of Standards
8. Start date of the VPAs	The start dates of the VPA shall be mentioned in each VPA-DD and should be on or after the start date of the registered PoA. The start date of the VPA is defined as the date on which the first ICS is distributed under the VPA.	The start date of all the VPAs shall be on or after the start date of the registered PoA. The end-user agreement signed between EcoLinks and the beneficiaries will serve as the evidence of the start date under the VPA. Supporting evidences: End user agreement
9. VPA Crediting period	The crediting period of the VPA must not exceed the PoA end date and the start date of the crediting period of a VPA shall be on or after: (i) The date of registration of the PoA, if the	A statement shall be included in the VPA-DD specifying the crediting period start date and that the crediting period will not exceed the PoA end date (i.e. 20 years after the date of registration of

³ Depending on the availability, EcoLinks can also distribute a different cookstove model under the project as long as it has similar/better efficiency than the Hisha Eco7 model. The definition of similar technology is in-line with paragraph 3.7.3 of the "TPDDTEC, version 4.0" technology.

		corresponding VPA-DD is submitted together with the request for registration; (ii) The date when the VPA was included in the PoA.	the PoA) totaling to 15 years for a VPA. Supporting evidences: Please refer section C of the VPA-DD
10	Approval of VPA by CME	CME must approve each VPA to be included into its registered PoA.	A letter by EcoLinks giving approval for inclusion of the VPA into its registered PoA shall be submitted to VVB Supporting evidences: Approval letter from EcoLinks
11	Target groups of the programme	The VPA included in the PoA shall include the distribution of improved cookstove technology (ICS) to the rural households in Rwanda.	The VPA will involve the distribution of improved cookstove technology (ICS) to the rural households which are situated within the PoA boundary of Rwanda. Supporting evidence Distribution database under the project
12	Additionality of VPAs	All VPAs to be included under the PoA will comply with any one of the conditions prescribed in paragraph 4.1.9 of the 'Community Services Activity Requirements', version 1.2, the projects that meet any of the following criteria are considered additional: a) Positive list (Annex B) i.e. All projects will be solely composed of isolated units (ICS) where the users of the technology/ measure are households or communities	The VPA will be solely composed of isolated units (ICS) where the users of the technology will be rural households in Rwanda where each ICS unit shall results in ≤ 600 tonnes of emission reduction. Also, the project is located in Rwanda which is a LDC. Therefore, the criteria (a) and (b) of the 4.1.9 of the CSA requirements apply. Supporting evidence Refer section B.5 of the VPA-DD

		or institutions and where each unit results in ≤ 600 tonnes of emission reductions per year. (b) Projects located in LDC, SIDS, LLDC (c) Micro-scale projects .	
13	Sampling requirements for the PoA	The VPAs will follow the usage survey guidelines of the methodology and UNFCCC guidelines on sampling and survey for Programme of Activities version 4.0	The VPA-DD will incorporate the sampling procedure and sampled survey form/excel sheets shall be provided to VVB. Supporting evidences: Refer section B.7 of the VPA-DD
14	Application of Methodologies	The VPAs under the PoA will apply "Reduced emissions from cooking and heating – Technologies and Practices to displace Decentralised Thermal Energy Consumption (TPDDTEC), version 4.0"	The VPA will employ the "Reduced emissions from cooking and heating – Technologies and Practices to displace Decentralised Thermal Energy Consumption (TPDDTEC), version 4.0" impact quantification Supporting evidences: Refer section B.1 of the VPA-DD
15	Baseline parameters to be established at VPA level	Each VPA shall demonstrate how the baseline parameters that are to be calculated at the VPA level have been determined.	The VPA shall outline the approach for determining baseline and provide supporting documents including copies of any official government reports, statistics or literature sources used for determining parameters. Supporting evidences: Please refer section B.4 of the VPA-DD Baseline survey report

16	Scale of the VPAs	The VPAs included must be large-scale. The definition of scale must be in-line with type-2 project i.e. “activities that lead to a thermal energy saving of greater than 180 GWh _{thermal} ”	The VPAs included will be large-scale. Supporting evidence Threshold calculation in ex-ante ER calculation sheet
17	LSC	The grouped stakeholder consultation meeting conducted for the real case will be valid for all the regular cases included within 2 years from the date of the physical stakeholder consultation meeting.	The grouped stakeholder consultation meeting conducted for the real case will be valid for all the regular cases included within 2 years from the date of the physical stakeholder consultation meeting for future regular VPAs additional consultation meetings will be held. Supporting evidence Stakeholder consultation report
18	Conditions to confirm that technologies in VPAs are eligible	The improved cookstove technologies which fulfil all the applicability conditions as described under section 2.2.1 of the “TPDDTEC, version 4.0” methodology are eligible to be distributed under the VPAs.	The improved cookstove technologies which fulfil all the applicability conditions described under section 2.2.1 of the “TPDDTEC, version 4.0” will be distributed under the VPAs. Supporting evidence Refer section B.2 of the VPA-DD
19	Conditions to be met by each VPA regarding SDG outcomes assessment	The CME shall conduct the Sustainable Development Goals (SDGs) impact assessment as per Principles & Requirements, version 2.0	SDG outcome assessment shall be done at VPA level and the results will be included in section B.6 of the VPA-DDs. Supporting evidence

20 Conditions to be met by each VPA regarding safeguarding principles	The VPAs shall conduct a The Safeguarding Principles assessment and confirm to report shall be conducted Gold Standard Safeguarding done at VPA level Principles and Requirements, version 2.1. Supporting evidence Please refer section D and Appendix-1 of the VPA-DD.
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The table below lists “Global Goals Community Services Activity Requirements”, version 1.2 and how the VPA complies with the criteria:

S. No	Community Services Activity Requirements	Justification
1	Para 2.1.2: All CSA Projects shall lead to climate change mitigation and/or adaptation by providing or improving access to services/resources at the household or community or institution level. Eligible services include electricity and energy, water and sanitation, waste management, housing, etc.	This VPA involves distribution of improved cookstove technology (ICS) which will help in reducing greenhouse gas (GHG) emissions otherwise resulting from burning of non-renewable woody biomass for preparing meals in rural regions of Rwanda. The targeted end-users under the project will be “rural households” which were otherwise preparing meals on conventional stoves using non-renewable biomass (firewood). Therefore, the project falls under category of “End-Use Energy Efficiency” of pre-identified CSA project types.
2	Paragraph 3.1.1 (b): Project activities that reduce energy requirements as compared to baseline scenario without affecting the level and quality of services or products, where the end-user of the products and services are clearly identified and when the physical intervention is required at	The VPA involves the distribution of improved cookstove technology (ICS) to the rural households in Rwanda which will reduce the energy consumption of these households (for cooking) without affecting the cooking pattern of the household in any way.

	the user end. For example, efficient cooking, heating, lighting, etc.	
3	Para 3.1.2: Project Area and Boundary shall be defined in line with the applicable Impact Quantification Methodologies and Product Requirements The definition of scale is the same for all Projects, except Microscale which is defined as: (a) CSA Project issuing emission reductions less than or equal to 10,000 tCO₂eq per annum (b) CSA Project seeking any Gold Standard Certified Impact or Product other than emission reductions and meeting one of the following criteria: • Installed capacity less than equal to 2 MWel /6 MWth that employs renewable energy as the primary technology • Energy savings at a scale of no more than 20 GWh per year where energy efficiency is the primary activity • Achieve GHG emissions reductions at a scale of no more than 20,000 tCO₂eq per annum where project activity type is not included in the above two criteria.	The project area is the point location of the beneficiary household for clean cooking project in rural areas of Rwanda. The geographical project boundary of this VPA is defined as the rural region of Rwanda (also detailed in Section A.2 of this document). In-line with the product requirements, the “end-user energy efficiency projects” qualify as type-2 projects. The definition of small-scale under type-II projects is “activities that led to a maximum energy saving of 180 GWh(th) per year”. The VPA involves the distribution of 100,000 improved cookstove technologies (ICS) which will lead to an aggregate thermal energy saving of 950.57 GWh_{thermal} per year (i.e. greater than 180 GWh_{thermal}) therefore the project is large-scale.
4	Para 3.1.3: Certain Impact Quantification methodologies allow projects to account Suppressed Demand scenario when establishing a baseline. In such cases, the application of Suppressed Demand baseline is limited to Small Scale and Microscale Projects.	The scale of this VPA is large scale and therefore it is not eligible under the CSA requirements to account the suppressed demand scenario when establishing a baseline.
5	Para 3.1.4: Projects involving the distribution of a large number of devices for services such as heating, cooking, lighting, electricity generation, water treatment technology such as water filter, etc. shall provide a clear description of the ownership of the Products that are generated under Gold Standard Certification all along the investment chain. In line with the FPIC requirement, the proofs that end-users are aware of and willing to give up their	The improved cookstoves distributed under the VPA shall be owned by EcoLinks. EcoLinks will encourage the adoption of improved cookstoves by making it as simple as possible for end users to benefit from finance and incentives available via carbon market. EcoLinks will ensure that the end users are aware of the fact that it is claiming ownership rights from the

	rights on Products shall be provided. The transfer of Product ownership shall be discussed during local stakeholder consultations for projects.	product (here improved cookstove technology) and selling the emission reduction resulting from the project in order to obtain the necessary funding for the project. The information about the transfer of carbon rights will be communicated transparently with the end-users during the local stakeholder consultation meeting and at the time of improved cookstove distribution. All the beneficiaries under the project will sign an end-user agreement which will transfer the carbon rights of the improved cookstove from beneficiaries to EcoLinks. The signed end-user agreements will be submitted to the GS-VVB as proofs that the end-users are aware of and willing to give-up their rights on products.
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As per section 3.1.1 of GS4GG Principles & Requirements (version 2.0) compliance of the VPA with relevant Eligibility criteria has been demonstrated below:

Eligibility Criteria Category	Eligibility criterion - Required condition	Justification
1. Types of Project	Eligible projects shall include physical action/implementation on the ground. Pre-identified eligible project types are identified in the Eligibility Principles and Requirements section.	Project is already one of the pre identified types as per section 3.1.1 (b) of "GS4GG Community Services Activity Requirements, version 1.2" and automatically eligible for Gold Standard Certification as per section 4.1.3 of "GS4GG Principles & Requirements, version 2.0".
2. Location of Project	Projects may be located in any part of the world.	The location of the project is the country of Rwanda
3. Project Area, Project Boundary and Scale	The Project Area and Project Boundary shall be defined. Projects may be developed at any scale although certain rules, requirements and limitations may apply under specific Activity Requirements, Impact Quantification Methodologies and	The project area is the point location of the beneficiary household for clean cooking project in rural areas of Rwanda. The boundary for the VPA in terms of the geographical area is defined as the country of Rwanda.

	Products Requirements. In order to avoid double counting the Project shall not be included in any other voluntary or compliance standards programme unless approved by Gold Standard (for example through dual certification). Also, if the Project Area overlaps with that of another Gold Standard or other voluntary or compliance standard programme of a similar nature, the Project shall demonstrate that there is no double counting of impacts at design and performance certification (for example use of similar technology or practices through which the potential arises for double counting or misestimation of impacts amongst projects)	To avoid inclusion of any improved cookstoves (ICS) which is a part of another registered carbon project/ programme, all ICS distributed under this programme shall have a unique ID (which will be inscribed on the ICS) in order to uniquely identify the ICS thereby avoiding any double counting and helping in traceability of its end-user. A registry analysis will be conducted in order to cross-check that the project location does not overlap with any other carbon project/programme. The CME (EcoLinks) will sign a declaration stating that the project will not be included in any other voluntary or compliance programme.
4. Host Country Requirements	Projects shall be in compliance with applicable Host Country's legal, environmental, ecological and social regulations.	The VPA shall comply Rwanda's legal, environmental and ecological and social regulations.
5. Contact Details	As part of the Project Documentation the Project Developer shall provide (i) name and (ii) contact details of all Project Participants ; AND in case of an organisation (iii) the legal registration details and (iv) documentation by the governing jurisdiction that proves that the entity is in good standing (defined as being a legal or other appropriate entity registered in or allowed to operate within the required jurisdiction and with no evidence of insolvency or legal/criminal notices placed against it or any of its Directors). Gold Standard retains the right (at its own discretion) to refuse use of the Standard where reputational concerns are highlighted.	Name and contact details of EcoLinks which is sole project participant under the VPA has been given in Appendix 2 of this document.
6. Legal Ownership	Full and uncontested legal ownership of any Products that are generated under Gold Standard	Full and uncontested legal ownership of the improved cookstoves (ICS) distributed

	Certification, (for example carbon credits) shall be demonstrated. Where such ownership is transferred from project beneficiaries this must be demonstrated transparently and with full, prior and informed consent (FPIC). Note that for certain Project types there is a requirement for full and uncontested legal land title/tenure to be demonstrated. These are contained within specific Activity or Product Requirements. All projects shall immediately report to Gold Standard any land title/tenure disputes arising.	under the project shall be demonstrated by following the steps given below: • During the local stakeholder consultation meeting conducted for the project, the mechanism for the transfer of carbon ownership from beneficiaries to EcoLinks shall be transparently discussed with all the stakeholders. • During improved cookstove distribution, the end-users will be transparently informed about how upon receiving the improved cookstoves, the beneficiaries need to sign an "end-user agreement" transferring their carbon rights to EcoLinks. Only those end-users who agree to sign the agreement will become a part of the project.
7. Other Rights	As well as legal title and ownership, the Project Developer shall also demonstrate where required uncontested legal rights and/or permissions concerning changes in use of other resources required to service the Project (for example, access rights, water rights etc.). Any known disputes or contested rights must be declared immediately to Gold Standard by the Project Developer and resolved prior to further project implementation in affected areas.	Not applicable
8. Official Development Assistance (ODA) Declaration	All Project Developers applying for project activities located in a country named by the OECD Development Assistance Committee's ODA recipient list and seeking Gold Standard Certification for carbon credits shall declare the Official Development Assistance (ODA) support. The Project Developer	No ODA is being diverted for this project. The ODA declaration form has been submitted by EcoLinks.

	shall follow the GHG Emissions Reduction & Sequestration Product Requirements and submit the declaration at the time of Design Certification.	
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A.1.2. Legal ownership of products generated by the VPA and legal rights to alter use of resources required to service the project

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EcoLinks has the legal ownership of the Verified Emission Reductions (VERs) that will be generated through the Gold Standard Certification. The carbon title for the improved cookstoves (ICS) shall be signed off by end user directly to EcoLinks waiving any claim or rights on carbon credits generated under the project. Beneficiaries agree that EcoLinks will claim the CO₂ emissions reductions from the improved cookstoves (ICS).

Further, as per Annex A of GHG Emissions Reduction and Sequestration Product Requirements version 3.0 as of now there are no mandatory caps enforced in the host country, Rwanda for use of issued GS VERs.

In case any such scenario of double counting arises, the project developer is committed to retiring an equivalent amount of GS VERs in order to compensate for double counting.

A.2. Location of VPA

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Host Country: Rwanda

Region/Province: Country-wide (Kigali/Central, Southern, Western, Northern and Eastern)

Community: Rural communities of Rwanda

The beneficiaries under the improved cookstove project will include the rural households in Rwanda. The geocoordinates of Rwanda are as follows:

Latitude: 1°56' 06.4" S

Longitude: 30°04' 55.6" E



Figure 1: Map of host country (Rwanda)

A.3. Technologies and/or measures

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The VPA will involve the distribution of Hisha Eco7 stoves in rural regions of Rwanda. The improved cookstoves are manufactured by EcoGreen Solutions Ltd and they have been designed to improve combustion efficiency, thereby reducing the fuelwood combustion and GHG emissions generated during cooking. The technical specifications of the Hisha Eco7 stoves that EcoLinks plans to distribute under the VPA are as follows:

Stove	Hisha Eco7 stove 
Manufacturer	EcoGreen Solution Ltd

Thermal Efficiency of stove	43.4%
Fuel Type	Firewood
Cookstove Height (mm)	337
Cookstove Thickness for insulation (mm)	103
Cookstove Top Diameter (mm)	360
Cookstove Top inside diameter (mm)	110
Cookstove bottom diameter (mm)	308
Cookstove ash depth (mm)	25
Cookstove firebox depth (mm)	200
Application	Domestic Cooking
Lifespan of the cookstove	7 years ⁴
Warranty	1 year
Energy Output of cookstove	3.8 kW

EcoLinks intends to distribute Hisha Eco7 stove technology to the rural households in Rwanda, however, depending on the availability, EcoLinks can also distribute a different cookstove model under the project as long as it has similar⁵ characteristics as compared to the above-stated model.

A.4. Scale of the VPA

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The project is large in scale. The project which involves the distribution of 100,000 improved cookstove technology (ICS) will lead to an aggregate thermal energy saving of 950.57 GWh_{thermal} per year (please refer "SSC Threshold tab" in the ex-ante ER calculation).

Parameter	Unit	Value
NCV _{b,fuel}	TJ/tonne	0.0156
Conversion factor	kWh to TJ	0.0000036
NCV _{b,fuel}	kWh/tonne	4333.33
P _{b,y}	tonnes/HH*day	0.0078
P _{p,y}	tonnes/HH*day	0.0018

⁴ The lifetime of the technology depends on several factors such as household usage and maintenance, the technical life of the technology can exceed 7 years if maintained properly however, in order to continue claiming credits under the project beyond 7 years, the EcoLinks will ensure that end-users are provided replacement technology of comparable/better quality or retrofitting of the essential parts is done.

⁵ The definition of similar characteristics is in-line with paragraph 3.7.3 of the "TPDDTEC, version 4.0" methodology

SFS _{p,b,y}	tonnes/HH*day	0.0060
Conversion factor	Year to days	365
SFS _{p,b,y}	tonnes/HH*year	2.19
Number of stoves	Number	100,000
Energy saving per stove	kWh/stove*year	9505.73
Conversion factor	kWh to GWh	0.0000010
Energy saving per stove	GWh/stove*year	0.0095
Total Energy Saving	GWh(th)/year	950.57
Small-Scale threshold	GWh(th)/year	180.00

As per GHG Emissions reductions & Sequestration Product Requirements project falls under Type 2 category: "End-use energy efficiency project improvement" under which the definition of small-scale is "activities that led to a maximum energy saving of 180 GWh(th) per year". The thermal energy saving under the VPA is 950.57 GWh_{thermal} per year i.e. greater than 180 GWh(th) per year hence it qualifies as a "large-scale project".

A.5. Funding sources of VPA

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There is no public funding for the project activity. No ODA funding will be used, as confirmed by signed ODA Declaration submitted to GS for the project.

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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- Reduced emissions from cooking and heating – Technologies and Practices to displace Decentralised Thermal Energy Consumption (TPDDTEC), version 4.0
- CDM Methodological Tool 30 “Calculation of the fraction of non-renewable biomass’ version 4.0
- Guidelines for sampling and surveys for CDM project activities and programme of activities, version 4.0

B.2. Applicability of methodology (ies)

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The table below lists each of the methodology applicability requirements and how the project activity complies with each of the criteria:

S. No	Methodology applicability requirement	Justification
1	As per paragraph 2.1.1, the methodology is applicable to project activities that introduce technologies and/or practices that reduce or displace greenhouse gas (GHG) emissions from the thermal energy consumption of households and/or residential, institutional, industrial, or commercial facilities	This project involves the distribution of improved cookstove technology in rural households of Rwanda. The use of efficient cookstoves displaces the greenhouse gas (GHG) emissions from thermal energy consumption of the Rwandan households. Evidences: Project sales database
2	As per paragraph 2.1.2 of the methodology, where there is no installation of improved devices and project claims emission reductions from improved practices only, project shall provide a detailed discussion of the chosen monitoring approach to demonstrate that quantified emission reductions result exclusively from the practices introduced by the project activity.	The project involves the installation of improved cookstove technology hence this condition is not applicable for the project. Evidences: Project sales database

3.	As per paragraph 2.1.3 of the methodology, project may involve progressive distribution of technology where implementation of the technology may occur in a gradual manner and adoption can increase over the project's crediting period.	The project involves progressive distribution of 100,000 improved cookstoves to the households in rural Rwanda which were earlier dependent on traditional methods of cooking. Evidences: Project sales database
4.	As per paragraph 2.2.1 (a) of the methodology, the project shall choose a technology design that has predictable performance in that it is proven to be efficient and durable under field conditions; for cookstoves, the rated thermal efficiency shall be at least 20%.	EcoLinks intends to distribute Hisha Eco7 improved cookstove technology under the project which has a rated thermal efficiency of 43.4% however, depending on the availability, EcoLinks can also distribute a different cookstove model under the project as long as it has similar⁶/better efficiency than the Hisha Eco7 model. Evidences: Certification by national standard
5.	As per paragraph 2.2.1 (b) of the methodology, the technology shall have continuous useful energy output of less than 150kW per unit	The improved cookstove technology distributed under the VPA has a continuous useful energy output of 3.8 kW per unit (i.e. less than 150 kW per unit) Evidences: Certification by national standard
6.	As per paragraph 2.2.1 (c) of the methodology, the project activity is implemented by a project developer and can include additional project participants listed in Appendix 2 of the PDD template. The individual households and institutions may be	The project activity is being implemented by EcoLinks which is the sole participant under the project. The details of EcoLinks have been listed in Appendix-2 of the VPA-DD. The households under the project will not individually act as project

⁶ The definition of similar technology is in-line with paragraph 3.7.3 of the "TPDDTEC, version 4.0" methodology

	represented collectively by community organizations, etc., but do not individually act as project participants.	participant. Additionally, the households which will receive an improved cookstove technology (ICS) under the project will be signing an end-user agreement transferring their carbon rights to EcoLinks. Evidences: a) Project sales database b) End-user agreement c) Cover Letter
7.	As per paragraph 2.2.1 (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 and describe the incentive mechanism(s) in the PDD/VPA-DD at the time of validation.	Under the project, the end-users who eliminate the use of inefficient baseline stove will be given an extended warranty of 1 year for the project technology. This is an incentive based mechanism which will not be provided to those end-users who continue the use of the baseline technology⁷. This mechanism will thereby encourage the project households to eliminate the use of the inefficient baseline stoves after receiving the project technology. Evidences: a) Extended Warranty Certificate b) Project sales database
8.	As per paragraph 2.2.1 (e) of the methodology, 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	In order to avoid double counting under the project, EcoLinks will: i) Clearly communicate its ownership rights and intention of claiming the emission reductions resulting from the project activity through a contract to the manufacturer of the improved cookstove technology. EcoLinks is the

⁷ The end-users who continue to use the baseline technology will only be eligible for the 1 year product warranty and not for the 1 year extended warranty being provided by EcoLinks.

	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. exclude from the project activity, cooking devices included in any other voluntary market or CDM project activity/PoA, and strive not to displace the cooking devices of another CDM or voluntary project/PoA. See data and parameters not monitored, Avoidance of double counting or double claiming with other mitigation actions, for details on this demonstration.	sole participant in the project and it directly sources the technology from the manufacturer therefore, no retailers are involved. ii. The households which will receive the improved cookstove technology (ICS) under the project will be signing an end-user agreement waiving off their carbon rights to EcoLinks and thereby confirming that they cannot claim emission reductions from the project. iii. To avoid inclusion of any improved cookstoves (ICS) which is a part of another registered carbon project/programme, all ICS distributed under this programme shall have a unique ID (which will be inscribed on the ICS) in order to uniquely identify the ICS thereby avoiding any double counting and helping in traceability of its end-user. Evidences: a) Contract between EcoLinks and EcoGreen solutions (manufacturer of ICS technology) b) End-user agreement
8.	As per paragraph 2.2.1 (f) of the methodology, project activities making use of solid fossil fuel in the project scenario or other improved fossil fuel cookstoves meeting certain conditions described in the footnote to Table 1 (e.g. switch from three-stone fire biomass stoves to LPG stoves) may only claim emission reductions for energy efficiency improvement aspect and shall assume the same baseline and project fuel for emission reduction calculations	Not Applicable The project does not involve the use of solid or any other improved fossil fuels.
9.	As per paragraph 2.2.1 (g) of the methodology, project activities making use of solid fossil fuel in the project	Not Applicable

	scenario or other improved fossil fuel cookstoves meeting certain conditions (e.g. switch from three-stone fire biomass stoves to LPG stoves) may only claim emission reductions for energy efficiency improvement aspect and shall assume the same baseline and project fuel for emission reduction calculations.	The project does not involve the use of solid/any other improved fossil fuels.
10.	As per paragraph 2.2.1 (h) of the methodology, adequate evidence is supplied to demonstrate that 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. Furthermore, for projects where cooking will move from outdoor to indoor or where the project technology reduces ventilation (for example, changing from a stove with chimney to improved stove with no chimney), indoor air pollution (IAP) levels shall not worsen in the project compared to the baseline, including PM 2.5 and carbon monoxide (CO) emissions. This may be demonstrated before project Design Certification or during project operation using the certification resulting from of a manufacturer's test, report of field testing of the technology's PM 2.5 and carbon monoxide (CO) emissions, report of lab testing of the technology, or results of modelling of the technology's operation under field conditions. If none of these are available, reference from published	The Hisha Eco-7 stoves have been tested to demonstrate that they do not worsen the levels of IAP as compared to the baseline scenario⁸. As per a study by Energy by Sustainable Development⁹, concentration in open fire was found to be 1340 mg/MJ_d for PM2.5 and 9 g/MJ_d for CO among households using traditional stove. The project technology demonstrate that they do not worsen the level of IAP (211 mg/MJ_d for PM2.5 and 4.10 g/MJ_d for CO). The improved cookstove technology (ICS) distributed under the project will be portable in nature and will not lead to any change in cooking location (outdoor to indoor). The technology will not cause any reduction in ventilation. Evidence Certification by national standard

⁸ If any other model is distributed under the project, the test results of the stove technology will be provided to the GS-VVB during verification

⁹ <https://www.sciencedirect.com/science/article/pii/S097308262200165X>

	literature or report by independent agencies may be used as evidence, provided it is not more than 5 years old.	
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B.3. VPA boundary

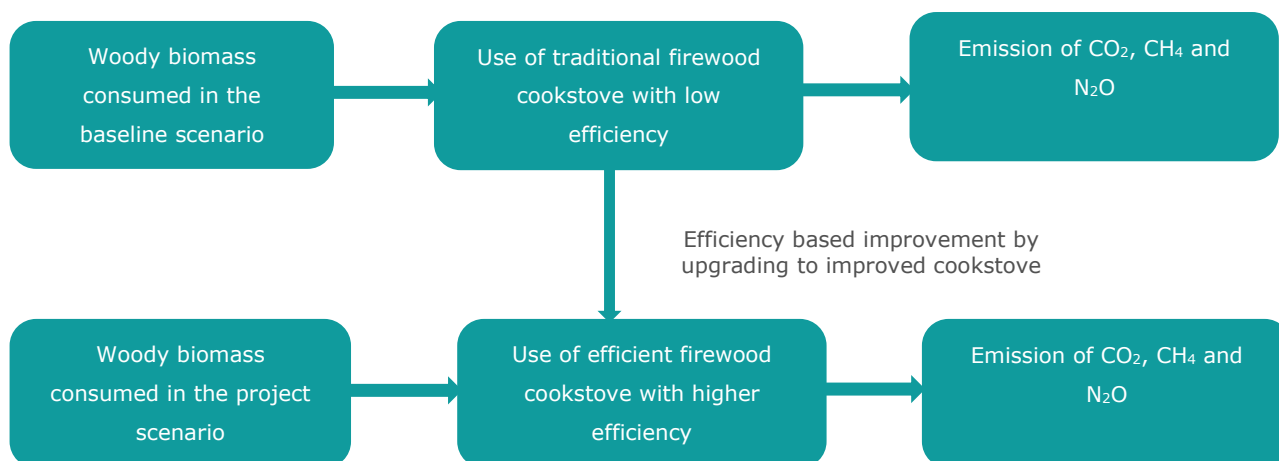
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In-line with paragraph 3.1.1 of the GS4GG 'TPDDTEC, version 4.0' methodology the project boundary includes the following:

- The physical and geographical sites in rural Rwanda within which the woody biomass (firewood) is grown and collected by the households for preparing meals.
- The households in rural Rwanda who uniformly depend on woody biomass (firewood) for preparing meals.

The assessment of sources and gases included in the project boundary is as follows:

Source	GHGs	Included?	Justification/Explanation
Baseline scenario	CO ₂	Yes	Major source of emissions
	CH ₄	Yes	Minor source of emission
	N ₂ O	Yes	Minor source of emission
	CO ₂	No	Not considered
	CH ₄	No	Not considered
	N ₂ O	No	Not considered
Project scenario	CO ₂	Yes	Major source of emissions
	CH ₄	Yes	Major source of emissions
	N ₂ O	Yes	Major source of emissions
	CO ₂	No	Not considered
	CH ₄	No	Not considered
	N ₂ O	No	Not considered



B.4. Establishment and description of baseline scenario

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A. Baseline Survey

In-line with section 3.4 of the TPDDTEC, version 4.0 methodology the baseline scenario under the project has been defined as “existing baseline technology and fuel consumption patterns being used by the households in rural Rwanda for preparing meals.”

In order to assess the baseline scenario under the project, a baseline study was conducted for the rural regions of Rwanda¹⁰. The baseline study involved conducting an in-depth literature review of the cooking habits across Rwanda and a baseline survey in the rural regions of Rwanda.

The in-depth literature review (summarized in a separate baseline survey report) indicated that the households in rural Rwanda are uniformly dependent on firewood for cooking. In order to assess the same a baseline survey was conducted under the project by following the procedure given below:

Baseline Survey Procedure

- The paragraph 4.3.3 of the methodology TPDDTEC v4.0 prescribes that a baseline survey should be conducted for each baseline scenario using representative and random sampling, following the below guidelines for sample size:

Group size	Minimum sample size
<300	30 or population size, whichever is smaller
300 to 1000	10% of group size

¹⁰ EcoLinks will be targeting rural regions of Rwanda under the project.

>1000	100
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- Based on the literature review, following points were identified:
 - The Rwandan diet is made up of a variety of food items including roots and tubers, fruits, legumes, vegetables, and oils.
 - Commonly used food items include: Bananas, Irish potatoes, cassava, vegetables, and meal. Other food items include: corn, peas and millets. High value food such as meat, dairy and other fruits are eaten less frequently (usually once or twice a week).
 - Typical meals in Rwanda include:

Meal type	Food items
1) Breakfast	Sweet potatoes and porridge
2) Snacks	Tropical fruits (Avocadoes, bananas, mangos, pineapple, and papaya)
3) Lunch and dinner*	Boiled beans, Umutima (a dish of cassava and corn), Isombe (cassava leaves, eggplants and spinach) and Mizuzu (fried plantains) are common

* Dinner is the heaviest meal for Rwandans

The cooking behaviour was found similar across the country however the income level and type of fuel for cooking vary across rural and urban residents. 93% of the rural households are dependent on firewood whereas 65% of the urban households are dependent on charcoal¹¹. Based on the above analysis and considering the project intervention, only one baseline scenario was looking feasible i.e. rural households primarily dependent on firewood.

The samples were selected through simple random sampling across Rwanda. As per the sample requirement, total sample size was 153 which can be checked in the table below. However, to account for outliers and non-responsive households, CME targeted close to 250 households and ended up getting results captured for 205 households.

¹¹ <https://www.hrp.org/download/20200930/EEE2-14517185.pdf>

Province	Rural Population¹²	HH size¹³	Number of rural households
Kigali/Central	2,28,387	3.49	65,441
Southern	25,58,593	3.70	691,512
Western	22,56,177	4.18	539,755
Eastern	16,84,782	3.84	667,585
Northern	28,17,210	4.22	438,745

Province	Number of rural households	Required Samples	Samples covered during baseline survey
Kigali/Central	65,441	5	19
Southern	691,512	44	65
Western	539,755	34	35
Eastern	667,585	42	48
Northern	438,745	28	38
Total		153	205

Though the minimum sample size required for the baseline survey was 153 however, EcoLinks conducted oversampling by surveying 250 households across all regions of rural Rwanda in order to account for outliers and non-responsive households. Total valid samples considered were 205.

- The survey employed “simple random sampling” approach to in order to select samples across the rural regions of Rwanda. The purpose behind conducting simple random sampling was to ensure that each rural household of Rwanda has an equal chance of being selected thereby avoiding any bias.
- As per paragraph 4.3.4 of the methodology, the following data was collected during the baseline survey (non-exhaustive list):

¹² https://www.statistics.gov.rw/publication/main_indicators_2022

¹³ <https://globaldatalab.org/areadata/table/hhsize/RWA/>

1. User follow-up details	i Address or location ii Mobile number (when possible)
2. End-user characteristics	iii. Number of people served by the baseline technology iv. Typical baseline technology usage patterns and tasks (commercial, institutional, domestic etc.)
3. Baseline technology and fuels	v. Types of baseline technologies used and estimated frequency vi. Types of fuels used and estimated quantities vii. Seasonal variations in baseline technology and fuel use viii. Sources of fuels; purchased, hand-collected etc., or prices paid or efforts made, eg. walking distances, persons collecting, opportunity costs.

- The survey was conducted by trained enumerators using KOBO Collect software¹⁴ between 6th September to 11th September, 2024.



¹⁴ <https://kf.kobotoolbox.org/accounts/login/>

Figure 3: Photographs captured during the baseline survey conducted for the project

Selection and justification of the baseline scenario

The baseline scenario established under the project is in-line with the requirements of the TPDDTEC, version 4.0 methodology. The detailed assessment of the baseline scenario against section 3.5 of the “TPDDTEC, version 4.0” methodology is as follows:

Applicability Condition	Justification
As per paragraph 3.5.1 of the TPDDTEC version 4.0 methodology, the selection of the baseline scenario must be adequately described, with all technologies that may be replaced by the project technology considered, such as the presence and usage of multiple baseline technologies by the target population (“stove stacking”). It is not legitimate to compare the project to only the most inefficient technology being used in the target population.	The selection of the baseline scenario has been adequately described which includes all stove types that the household is using for preparing meals. During the baseline survey some of the households in the target population were found using multiple stoves for preparing meals (stove stacking). In such cases, the improved cookstove technology (ICS) distributed under the project will only be replacing cooking tasks performed by the firewood dependent inefficient baseline technology (i.e three-stone fire stove/traditional stove).
As per paragraph 3.5.2 of the TPDDTEC, version 4.0 methodology, project developers must consider distinct baseline scenario when the project activity targets end-user populations that consume significantly different fuels. For example, end users cooking predominantly with wood are significantly different from end-users cooking predominantly with charcoal and would thus warrant a different baseline scenario	According to the results of the baseline study, the cooking habits across rural Rwanda were found to be homogeneous and the communities were predominantly dependent on firewood as fuel for cooking therefore, the project does not require distinct baseline scenarios.
As per paragraph 3.5.3 of the TPDDTEC, version 4.0 methodology, when the project includes different project technology types, the project developer must analyze whether multiple baseline scenarios are applicable in relation to different project technologies, depending on fuel-type and baseline technology use patterns. For example, one baseline scenario may represent rural end-	Under the project, multiple baseline scenarios are not required based on project technology because the project involves the distribution of non-renewable biomass (firewood) dependent improved cookstove technology which shall be

users predominantly using inefficient wood stoves, while a second baseline scenario may represent an urban target population predominantly using inefficient charcoal stoves.	same/similar ¹⁵ in their characteristics throughout the project boundary.
As per paragraph 3.5.4 of the TPDDTEC version 4.0 methodology, a different baseline scenario is not necessarily required for each different technology in the project activity. For example, different improved wood stove models in the project activity could be compared to the same wood stove in baseline scenario, and different charcoal models in the project activity could be compared to the same inefficient charcoal stove baseline scenario.	Under the project only non-renewable biomass (firewood) dependent improved cookstove technology will be distributed which shall be same/similar ¹⁰ in their characteristics throughout the project boundary therefore, even if EcoLinks distributes different models of stoves it will be ensured that a different baseline scenario is not established for each of the models.
As per paragraph 3.5.5 of the TPDDTEC version 4.0 of the methodology, in project activities where all units are installed at the start, or in a non-industrial project activity with gradual technology adoption, the baseline is considered fixed in time during the crediting period. It therefore does not require continuous monitoring or updating.	Under the project, improved cookstove technology will be distributed to domestic users ¹⁶ and the implementation of the technology will happen in a phased manner therefore the baseline under the project shall be fixed and will not require continuous monitoring or updating.
As per paragraph 3.5.7 of the TPDDTEC version 4.0 of the methodology, in project activities targeting multiple distributed technologies e.g. improved cookstoves and oven technologies, cross-effect between the baseline and project scenarios including potential leakage must be accounted for. The purpose and scope of each technology shall be defined in the PDD, the baseline scenario surveys should be carried out at the same time, and the baseline scenario shall	Under the project only improved cookstove technologies will be distributed to the rural households in Rwanda therefore, there are no cross-effects of technologies involved¹⁷. Evidence End-user database (capturing GPS coordinates/ detailed address of each end-user)

¹⁵ The definition of similar technology is in-line with paragraph 3.7.3 of the "TPDDTEC, version 4.0" methodology

¹⁶ The beneficiaries under the project activity shall be "household premise" the project activity will not include any kind of "industrial premise".

¹⁷ This real case VPA is being included under a programme which involves implementation of multiple technologies: namely CWT and ICS. The VPA implementer shall ensure that the ICS technology distributed under this project does not target any household located within 1 km radius of the CWT technology which shall be implemented under the programme thereby ensuring that there is no overlap amongst the households of both the technologies.

be defined such that baseline fuel use is divided appropriately between the technologies.	
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Result of the Survey

A summary of the results of the baseline survey is as follows:

a) End-User Characteristics

- All the households in the baseline survey were using the cookstove for domestic purposes only.
- The stoves were being used for preparing meals for the households. The stoves were not being used for any other purposes (such as heating).
- In most of the households of rural Rwanda, women were found to shouldering the responsibility of collecting fuel for cooking. The gender-wise split for the responsibility of collecting fuel for cooking is as follows:

Gender	Percentage of households
Males	14.1%
Females	70.7%
Children (below 18 years)	15.1%

b) Baseline technology and the fuels:

- Most of the households in rural Rwanda were found three-stone fire and traditional solid fuel stoves. A very small percentage of households were also dependent on LPG stoves for cooking. The distribution of baseline technology under the baseline scenario was found be as follows:

Baseline Technology	Percentage of households
Three-stone fire stoves (wood)	85.85%
Traditional solid fuel stoves (wood + charcoal)	18.54%
LPG stove	0.98%

Total percentage is more than 100% because few households had more than one type of stove.

- Some of the households in rural Rwanda were found using multiple baseline technologies for preparing meals (stove-stacking). The presence of stove-stacking under the baseline scenario was found to be as follows:

Number of Stove	Percentage of households
Only one stove	94.63%
Multiple Stoves	5.37%

Stacked Technology	Percentage of households
Three-stone fire stove and traditional solid fuel stove	4.88%
Traditional solid fuel stove and LPG stove	0.49%
Total Stove Stacking	5.37%

For the households which were found “stove-stacking” it was observed that these households were using alternate fuels (fuels other than firewood) for preparing not more than 2 meals in a week (i.e. around 15% of the total cooking tasks):

Number of meals being prepared weekly on alternate fuel	Total number of meals being prepared weekly	Percentage of cooking tasks being performed on alternate fuel
2 meals	14 meals ¹⁸	2/14 $\approx$ 15%

- Most of the households in rural Rwanda were using firewood as fuel for cooking. Some of the households were utilizing charcoal and LPG as fuel for cooking. The distribution of fuel type in the under the baseline scenario was found to be as follows:

Fuel Type	Percentage of households
Only firewood	91.22%
Only charcoal	4.39%
Only LPG	0.49%

¹⁸ On an average, Rwandans typically eat 2 meals daily i.e. 14 meals in week.

As described above (refer page 29 of this document) the Rwandan diet typically consists of breakfast, snacks, lunch and dinner however, [breakfast is often skipped](#) and snacks (which include consumption of tropical fruits) are eaten raw therefore only “2 meals” daily have been considered from cooking perspective.

Both charcoal and firewood	3.41%
Both charcoal and LPG	0.49%



Figure 4: Photograph of the three-stone fire stove being used in households of rural Rwanda



Figure 5: Photograph of the traditional solid fuel stove being used in households of rural Rwanda



Figure 6: Photograph of the LPG stove being used in households of rural Rwanda

- Most of the households reported cooking inside the household premise. The table below summarizes the cooking location of the households in rural Rwanda:

Cooking location	Percentage of households
Indoor cooking	78.0%

Outdoor cooking	17.1%
Both indoor and outdoor	4.9%

- Most of the households in rural Rwanda reported obtaining the fuel required for cooking from nearby forests. Some of the households also reported purchasing the fuel required for cooking. The table below summarizes the “source of fuel” for the households in rural Rwanda

Source of fuel	Percentage of households
Purchase fuel	35.1%
Obtain fuel from nearby forests	64.9%

c) Baseline for sustainable development:

- Most of the households reported experiencing high-levels of smoke from the inefficient baseline stove. The table below summarizes the responses of the households for “exposure to smoke” during the baseline survey in rural Rwanda

Smoke exposure	Percentage of households
Households experiencing smoke	99%
Households not experiencing smoke	1%

- On an average, the households were found spending 7.45 hours/HH/week in carrying out cooking (which included collecting fuelwood)

B. Compliance with applicable Host Country’s national/sub-national/local regulations, environmental, ecological, and social regulations

Applicable regulation	Provision in law	Project’s compliance
Nationally determined contribution (NDC)	As per Rwanda’s most recent Nationally Determined	The project which aims to distribute improved cookstove technology to the rural communities is therefore aligned with Rwanda’s latest NDC target of achieving “80% modern efficient cookstove

	Contribution¹⁹ (NDC) submitted to the UNFCCC it aims to reduce emissions by 38% by 2030, compared to the business-as-usual scenario. One of the areas targeted by the Rwandan government in order to fulfill its NDC commitment is “efficient cookstoves”. The Rwandan government aims to achieve the following target by 2030 for efficient cookstoves: <i>“Dissemination of modern efficient cookstoves to 80% in rural population and 50% of the urban population by 2030, achieving a more sustainable balance between supply and demand of biomass, and reducing firewood and fossil fuel energy consumption for cooking. (pg 37, Updated NDC document)”</i>	penetration in rural population of the country”. Energy efficient cookstove projects come under the “unconditional NDC target of Rwanda”. Rwanda therefore does not require international funding for reducing emissions from improved cookstoves however, it supports entities promoting cookstove project.
National Strategy for Climate Change and Low Carbon Development 2022	Rwanda’s 2050 vision (Long-term low emissions development strategy) has been clearly described in the “National Strategy for Climate Change and Low Carbon Development” released by the Ministry of Environment, Rwanda in 2022. One of the main sectors identified in the long-term strategy for programme of action has been described as follows:	The project which aims to distribute improved cookstove technology in Rwanda is therefore aligned with Rwanda’s latest LT-LEDs and will aid in the implementation of the Rwanda 2050 vision.

¹⁹ https://unfccc.int/sites/default/files/NDC/2022-06/Rwanda_Updated_NDC_May_2020.pdf

	<i>"Scale-up access to improved cookstoves, alternative cooking technologies, and improved cooking fuels (page 113, Revised Rwanda Green Growth and Climate Resilient Strategy)"</i>	
Rwanda Energy Policy 2015	The Ministry of Infrastructure, Rwanda has released the "Rwanda Energy Policy " in the year 2015 in order to ensure that Rwanda's energy resources are used in a transparent and sustainable manner. The National Energy Policy identifies "biomass" as one of the target sectors and defines the following objective for the "biomass sector". <i>"Facilitate fuel-switching from traditional biomass energy carriers toward modern biomass energy technologies and cleaner fuel alternatives in order to reduce non-renewable fuel wood consumption and related social, health and environmental costs (pg IV-14, Rwanda Energy Policy".</i> The project which aims to distribute improved cookstove technology in Rwanda is therefore aligned with the strategies of the Rwanda Energy Policy, 2015. <i>"To promote improved charcoal production and</i>	The project which aims to distribute improved cookstove technology in Rwanda is therefore aligned with the strategies of the Rwanda Energy Policy, 2015.

	<i>improved cookstoves (pg IV-14, Rwanda Energy Policy)"</i>	
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C. Baseline Kitchen Performance Test

EcoLinks plans to conduct the baseline kitchen performance test before the first verification in line with the KPT protocol laid out in Annex 2 of the applied methodology. For the ex-ante estimation, the value for baseline fuel consumption has been derived from a report on "National Survey on Cooking Fuel Energy and Technologies in Households, Commercial and Public Institutions in Rwanda" by Ministry of Infrastructure and Ministry of Finance, Rwanda published in Year 2020. In rural areas, 91% of the households are dependent on firewood for cooking. This amounts to 234.28 kg per household per month consumption of firewood which accounts to 0.0078 tonnes/household/day. With average household size of Rwanda being 4.3²⁰, the per capita consumption of wood in a year is 0.66 tonnes/capita/year.

The value will be calculated prior to the first verification through baseline KPTs and fixed for the entire crediting period.

D. Fraction of non-renewable biomass (f_{NRB})

The CDM Tool 30²¹, version 4.0 has been used to determine the fraction of non-renewable biomass for Rwanda under the VPA. The step-wise calculations based on the tool have been shared separately with the GS-VVB.

The fraction of woody biomass that can be established as non-renewable has been calculated as per the equation 1 under paragraph 7 of the tool:

$$f_{NRB} = \frac{NRB}{NRB + RB}$$

Where:

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

²⁰ <https://dhsprogram.com/pubs/pdf/FR370/FR370.pdf>

²¹ <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-30-v4.0.pdf>

NRB	RB	f_{NRB}
5,484,280	541,798	0.91

The resulting f_{NRB} value of 0.91 is different from the range of f_{NRB} values reported in peer-reviewed literature using the Woodfuel Integrated Supply/Demand Overview Mapping (WISDOM) method²², which reports values between 0.50 and 0.65, and 0.29 (SD = 0.26) obtained using the Modelling Fuelwood Savings Scenarios (MoFuSS) method²³. Although direct comparisons between the WISDOM, MoFuSS and CDM methodologies are not always appropriate due to differing approaches, certain factors still contribute to variations in the f_{NRB} estimates among these methods.

- The CDM method uses an administrative boundary where all wood production and consumption within the boundary are considered for a specific timeframe regardless of where harvesting and biomass growth occur. In contrast, the WISDOM and MoFuSS studies use spatial models at the pixel level and determine administrative-level f_{NRB} values applying statistical measures on the pixel-level f_{NRB} values within the boundary. These measures are expected to be influenced by the areas where harvesting and biomass growth occur, potentially biasing the average f_{NRB} within the boundary.
- This study uses 2023 population data from WB, indicating a population increase from the 2009 figures used in the WISDOM study. Larger population numbers lead to increased consumption of wood products, increasing the f_{NRB} . The MoFuSS study uses the World Health Organisation (WHO) Global Household Energy Model to estimate the number of wood and charcoal consumers.
- Updated 2022 FAO Forest Products statistics for production, import and export were used to calculate biomass consumption and per capita consumption rates in this study. For the WISDOM study, values from sources before 2013 were used including FAO Forest Products statistics, United Nations (UN) Energy Database or country specific reports. Outdated consumption statistics influence the f_{NRB} calculation. Moreover, a region-specific constant was applied for wood and charcoal consumption in the MoFuSS study, along with WHO estimates of fuelwood users. Using a default estimate for consumption overlooks the potential country-specific consumption patterns.

²² Bailis R, Drigo R, Ghilardi A, Masera O. 2015. The carbon footprint of traditional woodfuels. *Nature Climate Change*. 5, 266–272. Available at: <https://www.nature.com/articles/nclimate2491>

²³ Bailis R, Ghilardi A. 2024. Updated f_{NRB} values for Woodfuel Interventions. Available at: https://cdm.unfccc.int/Sunset_CMS_ControlledSlots/public_inputs/sunsetcms/storage/contents/stored-file-20240624161613578/Report_on_Updated_fNRB_Values_20%20June%202024.pdf. Accessed on 14 November 2024.

- The approach used in this study to determine the accessible areas for wood harvesting yields different estimates than the WISDOM and MoFuSS studies. As described in Section 4, protected areas with specific managements categories are excluded and a 2.5 km buffer around all roads identifies geographically remote areas where harvesting is not likely. This approach results in an f_{NRB} value describing the extent of unsustainable wood harvesting within the accessible harvesting areas. The WISDOM and MoFuSS studies apply an estimated friction factor at the pixel level — based on the terrain and land management — to determine accessible wood harvest amount in each pixel, resulting in greater estimates.
- The biomass growth calculation in this study includes only accessible wood harvesting areas and uses a weighted average MAI based on the ecological zone and forest area of three categories — primary forests and secondary forests above and below the age of 20 years. Data from the 2019 Refinement of the 2006 IPCC guidelines were used and forest gain extents observed between 2000 and 2012 were extrapolated to a future 20-year period to determine stand age. In the WISDOM study, MAI values were derived from field observations, followed by a modelled estimation of growth rates as a percentage of standing stock — with a relatively low R^2 of 0.45, indicating a measure of inaccuracy. This approach often yields increased MAIs and lead to larger estimations of biomass growth and, subsequently, reduced estimations of f_{NRB} . The MoFuSS study applies a general logarithmic growth function to determine biomass growth by using growth rate and maximum holding capacity parameters from the IPCC and National Aeronautics and Space Administration (NASA) aboveground biomass datasets, respectively. Maximum estimates are used for these parameters, which are expected to lead to overestimations of biomass growth. Since the WISDOM and MoFuSS models apply growth functions across the entire area — with a friction factor applied for accessibility — they yield larger areas of harvestable biomass and paired with the faster growth estimates, these models result in smaller f_{NRB} values compared to the CDM approach.

Despite of above cross check, EcoLinks has decided to use the f_{NRB} value provided in Bailis 2015 report for Rwanda i.e. 59% as a measure of conservativeness and to adhere to the principles of Gold Standard.

B.5. Demonstration of additionality

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Specify the methodology, activity requirement or product requirement that establishes deemed additionality for the	Community	Services	Activity
	Requirements (Version 1.2), paragraph 4.1.9: "Projects that meet any of the		

proposed project (including the version number and the specific paragraph, if applicable).

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) i.e. All projects will be solely composed of isolated units (CEPs) where the users of the technology/measure are households or communities or institutions and where each unit results in ≤ 600 tonnes of emission reductions per year.
- (b) Projects located in LDC, SIDS, LLDC
- (c) Micro-scale projects"

Describe how the proposed VPA meets the criteria for deemed additionality.

The project involves the distribution of improved cookstove technology (ICS). Each improved cookstove distributed under the project shall result in an emission reduction not exceeding 600 tonnes CO₂e in any of the crediting period. Additionally, the project is located in Rwanda which qualifies as an LDC²⁴.

The project activity therefore fulfils criteria (a) and (b) under paragraph 4.1.9 of the CSA requirements and is therefore deemed additional.

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B.5.1. Prior Consideration

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N/A

The VPA is "regular" in nature (i.e. the stakeholder consultation meeting of the VPA took place before the start date) therefore it does not need to demonstrate prior consideration.

²⁴ <https://unctad.org/topic/least-developed-countries/list>

B.5.2. Ongoing Financial Need

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N/A

This section will be filled at the time of design certification renewal

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)	13.2 Integrate climate change measures into national policies, strategies and planning	Amount of GHGs emissions avoided or sequestered
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	Number of household visited medical facilities/dispensary for treatment of respiratory issues etc. such as cough, shortness in breath, pneumonia and other respiratory issues
5 Gender Equality	5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibilities within the household and the family as nationally appropriate	Average time saving associated with cooking time and fuel collection
7 Affordable and Clean Energy Target	7.1 By 2030, ensure universal access to affordable, reliable and modern energy services	Number of beneficiaries: Households

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

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The VPA involves the distribution of improved cookstove technology (ICS). The aim of the project is to reduce dependence of the rural households in Rwanda on non-renewable biomass (firewood) for preparing their meals.

Approach to monitor SDG-13

The outcome of the SDG 13 (Climate Action) will be measured as reduced greenhouse gas emissions as tonnes of CO₂e applying the GS4GG "TPDDTEC, version 4.0" impact quantification methodology. The SDG 13 outcome will be certified as "SDG 13 Impact" allowing the generation of carbon credits (GS VERs). The overall GHG reductions achieved by the project activity in year y are calculated as follows:

Since the baseline and project fuel are the same, the emission reductions under the project are exclusively from improved efficiency therefore, in line with paragraph 3.10.1(a) of TPDDTEC v4.0 the project shall use Method 1 in calculating the emission reduction. The GHG emissions reduction achieved by the project activity in year y shall be calculated using equation 1.

$$ER_y = \sum_{b,p} (N_{b,p,y} \times U_{p,y} \times SFS_{p,b,y} \times NCV_{b,fuel} \times (f_{NRB,b,y} \times EF_{b,f,CO2} + EF_{b,f,nonCO2})) - \sum LE_{p,y}$$

Where:

ER _y	Emission reduction for total project activity in year y (tCO ₂ e/yr)
Σ _{b,p}	Sum over all relevant baseline b/project p pairs
N _{b,p,y}	Number of project technology-days included in the project database for baseline b/project p pair in year y (days)

$U_{p,y}$	Cumulative Usage rate for technologies in project scenario p in year y (fraction)
$SFS_{p,b,y}$	Specific fuel savings for an individual project technology of baseline b/project p pair in year y (mass or volume units/technology*day)
$NCV_{b,fuel}$	Net calorific value of the fuel(s) that is substituted or reduced in baseline b (TJ/mass or volume units)
$f_{NRB,b,y}$	Fractional non-renewability status of woody biomass fuel during year y (fraction). For biomass, it is the fraction of woody biomass that can be established as non-renewable. This parameter is omitted when f is a fossil fuel.
EF_{b,f,CO_2}	CO ₂ emission factor from use of fuel f (tCO ₂ /TJ)
$EF_{b,f,nonCO_2}$	Non-CO ₂ emission factor arising from use of fuel f, when the baseline fuel f is biomass or charcoal (tCO ₂ e/TJ). This parameter is omitted when f is a fossil fuel.
$LE_{p,y}$	Leakage for project scenario p in year y (tCO ₂ e/yr)

The leakage emissions, $LE_{p,y}$, for the project shall be determined using Option 1 provided under section 3.11 of the TPDDTEC, version 4.0 methodology, whereby a default adjustment factor of 0.95 will be applied to the emission reductions to approximate leakage emissions. The “-ΣLE” in equation-1 will change to “95%”

Approach to monitor SDG-3

The contribution of the project towards SDG-3 will be confirmed through a random sample survey (project survey). The households randomly selected for the survey will be asked to confirm whether they have reported any reduction in the number of medical visits due to respiratory ailments (such as cough, shortness of breath, pneumonia etc.). In case the household confirms that it has reported reduction in the number of medical visits due to the symptoms of respiratory ailments then those households can be used to confirm that the project positively contributes towards SDG-3.

Baseline scenario: In baseline situation, there is a risk of respiratory ailments because the households are exposed to high levels of indoor air pollution (IAP) which is being released from the inefficient baseline technology.

Project scenario: In project scenario due to the distribution of improved cookstove technology (ICS), the levels of indoor air pollution (IAP) will reduce thereby decreasing the number of medical visits of the households due to respiratory ailments.

SDG-3 contribution= Percentage of households reporting reduction in the number of medical visits due to respiratory ailments.

Approach to monitor SDG-5

The contribution of the project to SDG 5 will be confirmed through a random sample survey with a representative number of households. During the project survey, the households will be asked to confirm the amount of time that is being saved due to the implementation of the improved cookstove technology (ICS).

Baseline scenario: In baseline situation, the women of the household have to spend more time in collecting fuel and cooking due to the use of inefficient baseline technology.

Project situation: In project situation, the women of the household have to spend less time in collecting fuel and cooking due to the use of more efficient cookstove technology distributed by the VPA implementer

SDG5 contribution = Average time saving achieved by the households due to the improved cookstove technology (in hours/HH/week)

Approach to monitor SDG-7

The contribution of the project to SDG 7 will be calculated through the "Project sales database" and the "Usage Survey". The number of households which have received the improved cookstove technology under the project will be multiplied with the usage rate determined for the project in order to calculate the number of households which have access to operational improved cookstove technology (ICS) due to the project.

Baseline scenario: In the baseline situation, the households were dependent on inefficient baseline technology for cooking which was releasing high levels of GHG emissions.

Project scenario: In the project situation, the households have access to improved cookstove technology (ICS) which are more efficient and thereby reduce the cooking related GHG emissions of the households.

SDG 7 contribution= Number of households which have received improved cookstove technology (ICS) * Usage rate determined for the project

Approach to estimate SDG 8

The contribution of the project to SDG 8 will be confirmed by the number of jobs opportunities created due to the project.

B.6.2. Data and parameters fixed ex ante

SDG 13

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	The results have been summarized in section B.4 of the VPA-DD.
Choice of data or Measurement methods and procedures	A baseline study was conducted in order to determine the baseline scenario under the project. The study involved in-depth literature review of the cooking patterns in Rwanda and a baseline survey.
Purpose of data	Calculation of baseline emissions
Additional comment	-

Parameter ID	ICS 2
Data/parameter	Project Technology Description
Unit	NA
Description	The detailed description of the project technology shall include as a minimum: - Manufacturer name, - product name (if applicable), - technology type, - capacity characteristics, - continuous useful energy output demonstration, - rated thermal efficiency (for improved cookstove) - Any performance certifications from National Standards Body or certification body recognized by national standards body shall be provided
Source of data	Certification by National Standards Body (Rwanda Board of Standards)

Value(s) applied	The project will involve the distribution of Hisha Eco-7 improved cookstove technology which shall be manufactured by EcoGreen Solutions Ltd. The Hisha Eco-7 stoves are non-renewable wood-based single burner stoves that have a thermal efficiency of 43.4% and an energy output of 3.8 kW. The dimensions of the stove are as follows: <table border="1"> <thead> <tr> <th>Dimensions</th><th>Value (in mm)</th></tr> </thead> <tbody> <tr> <td>Height</td><td>337</td></tr> <tr> <td>Top diameter</td><td>360</td></tr> <tr> <td>Bottom diameter</td><td>308</td></tr> </tbody> </table> The lifespan of the stove is 7 years²⁵. Based on the "safety score" and "IAP levels (CO and PM 2.5)" the Hisha Eco-7 stove qualifies as a tier-3 category stove technology. The Hisha Eco-7 stove technology has been certified by the Rwanda Board of Standards.	Dimensions	Value (in mm)	Height	337	Top diameter	360	Bottom diameter	308
Dimensions	Value (in mm)								
Height	337								
Top diameter	360								
Bottom diameter	308								
Choice of data or Measurement methods and procedures	Certification by National Standards Body (Rwanda Board of Standards)								
Purpose of data	Calculation of baseline emissions								
Additional comment	EcoLinks intends to distribute Hisha Eco7 stove technology to the rural households in Rwanda, however, depending on the availability, EcoLinks can also distribute a different cookstove model under the project as long as it has similar ²⁶ characteristics as compared to the Hisha Eco7 stove technology.								

Parameter ID	ICS 3
Data/parameter	Expected Technical Life of project technology

²⁵ The lifetime of the technology depends on several factors such as household usage and maintenance, the technical life of the technology can exceed 7 years if maintained properly however, in order to continue claiming credits under the project beyond 7 years, the EcoLinks will ensure that end-users are provided replacement technology of comparable/better quality or retrofitting of the essential parts is done.

²⁶ The definition of similar characteristics is in-line with paragraph 3.7.3 of the "TPDDTEC, version 4.0" methodology

Unit	Years
Description	The expected technical life of an individual project technology shall be defined in the PDD.
Source of data	Commercial Guarantee
Value(s) applied	7 years
Choice of data or Measurement methods and procedures	Commercial Guarantee by manufacturer
Purpose of data	Calculation of baseline emissions
Additional comment	EcoLinks intends to distribute Hisha Eco7 stove technology to the rural households in Rwanda, however, depending on the availability, EcoLinks can also distribute a different cookstove model under the project, however it shall be ensured that all the models distributed under the project have an expected technical life of 7 years. The expected technical life of technology is 7 years. In order to continue claiming credits after the technology completes its technical life, the VPA implementer shall ensure that end-users are provided with a replacement technology of comparable/higher quality or retrofitting its essential parts.

Parameter ID	ICS 4
Data/parameter	Indoor Air Pollution (IAP) levels of project technology
Unit	NA
Description	For projects where cooking will move from outdoor to indoor or where the project technology reduces ventilation (for example, changing from a stove with chimney to improved stove with no chimney), demonstration that Indoor air pollution (IAP) levels are not worsened in the project scenario compared to the baseline, including PM 2.5 and carbon monoxide (CO) emissions.
Source of data	The source for project technology is: Certification resulting from manufacturer's test

	The source for baseline technology is: Recently published existing literature
Value(s) applied	In order to quantify the IAP levels from Hisha Eco-7 stove technology, the certificate provided by Rwanda Board of Standards indicates that the levels of PM2.5 and CO are 211 mg/MJ_d and 4.10 g/MJ_d respectively. In order to quantify the IAP levels from inefficient baseline technology, the study conducted by "Energy for Sustainable Development"²⁷ indicates that of PM2.5 and CO are 1340 mg/MJ_d and 9 g/MJ_d respectively.
Choice of data or Measurement methods and procedures	The comparison between the value indicates that the IAP levels due to the inefficient baseline technology are much higher than the efficient project technology.
Purpose of data	Calculation of baseline emissions
Additional comment	EcoLinks intends to distribute Hisha Eco7 stove technology to the rural households in Rwanda, however, depending on the availability, EcoLinks can also distribute a different cookstove model under the project, in that case the IAP levels of the new model will be described in the monitoring report.

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 assertion between the manufacturer of the improved cookstove technology (ICS) and the VPA implementer informing the manufacturer about:

²⁷ <https://www.sciencedirect.com/science/article/pii/S097308262200165X>

	a) VPA implementer's ownership over the emissions generated from the improved cookstove technology (ICS) b) VPA implementers intent to sell the emission reduction
Value(s) applied	A written assertion will be signed between the manufacturer of the improved cookstove technology (EcoGreen Solutions Ltd) and VPA implementer (EcoLinks) confirming the following: a) EcoLinks will own the emission reductions generated from the Hisha Eco-7 technology b) EcoLinks will be sell the emission reduction generated from the Hisha Eco-7 technology and obtain the necessary funding for sustaining the project.
Choice of data or Measurement methods and procedures	A written assertion will be signed between manufacturer of the technology and the VPA implementer. Under the project, EcoLinks is the sole project participant and there no retailers involved (EcoLinks directly sources the technology from the manufacturer)
Purpose of data	Calculation of baseline emissions
Additional comment	-

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. - Identify and list any mitigation actions of similar technology, i.e., that provide the same kind of output and use the same kind of equipment or conversion process, operating in overlapping spatial boundaries. If one or more are identified:

	- Describe the practices that will be implemented to ensure that the programme or project activity quantifies emission reductions only from technology it has implemented, - Describe the practices to avoid that the programme or project activity implementation displaces technology of other mitigation actions, and - Design a method to discount emission reductions in case the programme or project activity is found to displace or operate alongside another mitigation action.
Value(s) applied	Registry analysis
Choice of data or Measurement methods and procedures	A detailed registry analysis was conducted by EcoLinks in order cross-check if there is any other carbon project/programme (which uses similar technology) in the locations targeted by EcoLinks for improved cookstove distribution Based on registry analysis it was found that there are several improved cookstove projects underway in Rwanda, therefore in order to avoid double counting with other mitigation actions, the VPA implementer shall ensure: a) Each improved cookstove technology (ICS) distributed under the programme is inscribed with a unique identification number. The unique identification number will help in ensuring the traceability of the device and will thereby ensure that there are no instances of double counting with any other programme. b) EcoLinks will ensure that only those rural households in Rwanda which are not a part of any other carbon project are targeted under programme thereby ensuring that the project technology does not displace the technology distributed under any other mitigation action. c) At the time of monitoring, if any household is found using any other improved cookstove technology (besides the project device) then that household will be rendered a "non-user" of project technology therefore ensuring that EcoLinks does not claim emission reduction for such devices.
Purpose of data	Calculation of baseline emissions

Additional comment	-
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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	Rwanda Energy Policy, 2015 ²⁸
Value(s) applied	The Ministry of Infrastructure, Rwanda had released the "Rwanda Energy Policy" in the year 2015 in order to ensure that Rwanda's energy resources are used in a transparent and sustainable manner. The National Energy Policy identifies "biomass" as one of the target sectors and defines the following objective for the biomass sector: <i>"Facilitate fuel-switching from traditional biomass energy carriers toward modern biomass energy technologies and cleaner fuel alternatives in order to reduce non-renewable fuel wood consumption and related social, health and environmental costs (refer pg IV-14, Rwanda Energy Policy)"</i> In order to achieve the above mentioned objective, Rwanda plans "to promote improved charcoal production and improved cookstoves (refer pg IV-14, Rwanda Energy Policy)" The project which aims to distribute improved cookstove technology in Rwanda is therefore aligned with the strategies of the Rwanda Energy Policy, 2015 and it does not undermine any policies in Rwanda.

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https://rura.rw/fileadmin/Documents/Energy/RegulationsGuidelines/Rwanda_Energy_Policy.pdf

Choice of data or Measurement methods and procedures	The energy sector in Rwanda is regulated by the Rwanda Energy Policy, 2015 hence was important to assess that the project does not undermine this policy.
Purpose of data	Demonstrate compliance with the host country regulations
Additional comment	-

Parameter ID	ICS 8
Data/parameter	EF_{b,f,CO_2}
Unit	tCO ₂ /TJ
Description	CO ₂ emission factor arising from use of fuels in baseline Scenario
Source of data	IPCC defaults for wood is 112 tCO ₂ /TJ
Value(s) applied	Wood: 112 tCO ₂ /TJ
Choice of data or Measurement methods and procedures	IPCC Default values have been used
Purpose of data	To calculate baseline emissions
Additional comment	-

Parameter ID	ICS 9
Data/parameter	$EF_{b,f,non-CO_2}$
Unit	tCO ₂ /TJ
Description	Non-CO ₂ emission factor arising from use of fuels in baseline scenario
Source of data	IPCC defaults for Wood: 9.46 tCO ₂ /TJ (AR5 GWP)
Value(s) applied	Wood: 9.46 tCO ₂ /TJ

Choice of data or Measurement methods and procedures	IPCC Default values have been used
Purpose of data	To calculate baseline emissions
Additional comment	-

Parameter ID	ICS 12
Data/parameter	$NCV_{b,fuel}$
Unit	TJ/ton
Description	Net calorific value of the fuels used in baseline
Source of data	IPCC default value for wood, 0.0156 TJ/ton
Value(s) applied	0.0156
Choice of data or Measurement methods and procedures	IPCC Default values have been used
Purpose of data	To calculate baseline emissions
Additional comment	-

Parameter ID	ICS 17
Data/parameter	$f_{NRB,i,y}$
Unit	Percentage
Description	Fractional non-renewability status of woody biomass fuel during year y, in case the baseline fuel is biomass
Source of data	Assessment based on CDM Methodological tool 30: Calculation of the fraction of non-renewable biomass, Version 04.0
Value(s) applied	59%

Choice of data or Measurement methods and procedures	Assessment based on CDM Methodological tool 30: Calculation of the fraction of non-renewable biomass, Version 04.0
Purpose of data	To calculate baseline emissions
Additional comment	The f_{NRB} value will remain fixed during the crediting period. As per CDM Tool 30, f_{NRB} value came as 0.91 however in line with para 6 of CDM tool 30, this value was compared with Bailis 2015 report and conservative value between two has been used i.e. 59%.

Parameter ID	ICS 28
Data/parameter	$LE_{p,y}$
Unit	Percentage
Description	Leakage in project scenario p during year y
Source of data	Methodology default value
Value(s) applied	95%
Choice of data or Measurement methods and procedures	Methodology default value provided under option 1 (section 3.11.2) of the TPDDTEC, version 4.0 methodology
Purpose of data	To calculate leakage emissions
Additional comment	-

B.6.3. Ex ante estimation of SDG Impact

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Approach for SDG-3

Proposed approach	Equation/calculation
Number of households visited medical facilities/dispensary for treatment of respiratory issues etc. such as cough, shortness in breath, pneumonia and other respiratory	Net Benefit (SDG 3) = $BSA_{Project} - BSA_{Baseline}$ Where: $BSA_{Baseline}$ Percentage of households who were reporting reduction in

Approach: Monitor the percentage of households which report reduction in medical visits due to respiratory ailments (such as cough, shortness of breath, pneumonia etc.)	medical visits due to respiratory ailments (such as cough, shortness of breath, pneumonia etc.)= 0% $BSA_{Project}$ Percentage of households reporting reduction in medical visits due to respiratory ailments (such as cough, shortness of breath, pneumonia etc.)= 80% Net Benefit (SDG-3)= 80%-0% = 80%
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Approach for SDG-5

Applied methodology/approach	Equation/calculation
Average time saving associated with cooking time and fuel collection Approach: Monitor the average time saving associated with improved cookstove technology	Net Benefit (SDG 5) = $T_{project} - T_{baseline}$ Where: $T_{Baseline}$ Average time saving on collecting fuel and cooking in baseline = 0 hours/HH/week $T_{Project}$ Average time saving on collecting fuel and cooking in project = 2 hours/HH/week Net Benefit (SDG-5) = 2 – 0 = 2 hours/HH/week

Approach for SDG-7

Applied methodology/approach	Equation/calculation
Number of beneficiaries: Households Approach: Monitor the number of households with operational improved cookstove technology (ICS)	ICS Sales record Net Benefit (SDG 7) = $ACS_{Project} - ACS_{Baseline}$ Where: $ACS_{Baseline}$ Number of households with access to operational improved

	cookstove technology in the baseline scenario $ACS_{Project}$ Number of households with access to operational improved cookstove technology in the project scenario Net Benefit (SDG-7) = $(100,000 * 100\%) - 0 = 100,000$
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Approach for SDG-8

Applied methodology/approach	Equation/calculation
Total number of jobs Approach: Recording the number of employees hired under the project	Employment records Net Benefit (SDG 8) = $QE\ IG_{Project} - QE\ IG_{Baseline}$ Where: $QE\ IG_{Baseline}$ Quantitative Employment (Number of employees) hired under in baseline scenario = 0 $QE\ IG_{Project}$ Quantitative Employment (Number of employees) hired under project scenario = 30 Net Benefit (SDG 8)= $30-0 = 30$ Jobs

Approach for SDG-13

The detailed ex-ante calculations of estimated SDG Impacts are provided in a separate excel calculation sheet.

Estimating emission reduction:

Since the baseline and project fuel are the same, the emission reductions under the project are exclusively from improved efficiency therefore, in line with paragraph 3.10.1(a) of TPDDTEC v4.0 the project shall use Method 1 in calculating the emission reduction. The GHG emissions reduction achieved by the project activity in year y shall be calculated using equation 1.

$$ER_y = \sum_{b,p} (N_{b,p,y} \times U_{p,y} \times SFS_{p,b,y} \times NCV_{b,fuel} \times (f_{NRB,b,y} \times EF_{b,f,CO2} + EF_{b,f,nonCO2})) - \sum LE_{p,y}$$

Where:

ER_y	= Emission reduction for total project activity in year y (tCO ₂ e/yr)
$\sum_{b,p}$	= Sum over all relevant baseline b/project p pairs
$N_{b,p,y}$	= Number of project technology-days included in the project database for baseline b/project p pair in year y (days)
$U_{p,y}$	= Cumulative Usage rate for technologies in project scenario p in year y (fraction)
$SFS_{p,b,y}$	= Specific fuel savings for an individual project technology of baseline b/project p pair in year y (mass or volume units/technology*day)
$NCV_{b,fuel}$	= Net calorific value of the fuel(s) that is substituted or reduced in baseline b (TJ/mass or volume units)
$f_{NRB,b,y}$	= Fractional non-renewability status of woody biomass fuel during year y (fraction). For biomass, it is the fraction of woody biomass that can be established as non-renewable. This parameter is omitted when f is a fossil fuel.
$EF_{b,f,CO2}$	= 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 ₂ e/TJ). This parameter is omitted when f is a fossil fuel.
$LE_{p,y}$	= Leakage for project scenario p in year y (tCO ₂ e/yr)

Leakage emissions:

The leakage emissions, $LE_{p,y}$, for the project shall be determined using Option 1 provided under section 3.11 of the TPDDTEC, version 4.0 methodology, whereby a default adjustment factor of 0.95 will be applied to the emission reductions to approximate leakage emissions. The “-ΣLE” in equation-1 will change to “95%”

The summary of SDG 13 calculation (tCO₂e per stove/year) have been provided in below table and the detailed ex-ante calculations of estimated ex-ante emission reductions related to outcomes of SDG 13 are provided in a separate excel calculation sheet (please refer “Method-1” tab of the ex-ante ER calculation sheet)

Parameter	Description	Units	Value	Equations used
$f_{NRB,b,i,y}$	Fraction of biomass used in year y for baseline scenario b that can be established as non-renewable biomass	Fraction	59%	The value is calculated as per CDM Tool 30 ver 4.0 Refer cell G20 of "Method-1 tab" ex-ante ER calculation sheet
$EF_{b,f,CO2}$	CO2 emission factor of the fuel that is substituted or reduced	tCO2/TJ	112	Methodology default IPCC value for wood Refer cell G21 of "Method-1 tab" ex-ante ER calculation sheet
$EF_{b,f,non-CO2}$	Non-CO2 emission factor of the fuel that is reduced	tCO2/TJ	9.46	Methodology default IPCC value for wood Refer cell G22 of "Method-1 tab" ex-ante ER calculation sheet
$NCV_{b,fuel}$	Net calorific value of the fuel that is substituted or reduced in the baseline b	TJ/ton	0.0156	Methodology default IPCC value for wood Refer cell G19 of "Method-1 tab" ex-ante ER calculation sheet
$P_{b,y-Wood}$	Quantity of fuel that is consumed in baseline scenario in year y	tonnes/HH/day	0.0078	The value is based on bKPT (for ex-ante purposes the value is based on literature) Refer cell E51 of "Parameter tab" ex-ante ER calculation sheet
$P_{p,y-Wood}$	Quantity of fuel that is consumed in project scenario in year y	tonnes/HH/day	0.0018	The value is based on pKPT (for ex-ante purposes, the value has been calculated based efficiency of project, baseline stove and literature) Refer cell E54 of "Parameter tab" ex-ante ER calculation sheet
$SFS_{b,p,y-Wood}$	Specific fuel saving for an individual project technology of baseline b /project p pair in year y	tonnes/HH/day	0.0060	The value is calculated using formula: $SFS_{b,p,y} = P_{b,y(wood)} - P_{p,y(wood)}$ Refer cell E57 of "Parameter tab" ex-ante ER calculation sheet
$U_{p,y}$	Usage rate in project scenario p in year y	Percentage	100%	The value is assumed for ex-ante purposes Refer cell G17 of "Method-1 tab" ex-ante ER calculation sheet
$N_{b,p,y}$	Number of project technology days	days	1	The value is for 1 day Refer cell G16 of "Method-1 tab" ex-ante ER calculation sheet
ER_y	Net emission reduction for total project activity in year y	tCO2e/day	0.007082	The value has been calculated using equation 1 of the TPDDTEC, version 4.0 methodology

				Refer cell G14 of "Method-1 tab" ex-ante ER calculation sheet
$LE_{p,y}$	Leakage for project scenario p in year	tCO ₂ e/year	0.000354	Default adjustment factor of 0.95 Refer cell G23 of "Method-1 tab" ex-ante ER calculation sheet
ER_y	Net emission reduction for total project activity in year y after leakage	tCO ₂ e/month	0.204648	Refer cell G23 of "Method-1 tab" ex-ante ER calculation sheet
ER_y	Net emission reduction for total project activity in year y after leakage	tCO ₂ e/year	2.455776	Refer cell G11 of "Method-1 tab" ex-ante ER calculation sheet

Total Emission Reduction (5 years) for 100,000 stoves = 1,137,434 tCO₂e

Annual Average = 227,487 tCO₂e/year

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

SDG-13

YEAR	BASILINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
15/02/2025- 14/02/2026	225,113	0	225,113
15/02/2026- 14/02/2027	238,824	0	238,824
15/02/2027- 14/02/2028	231,457	0	231,457
15/02/2028- 14/02/2029	223,476	0	223,476
15/02/2029- 14/02/2030	218,564	0	218,564
Total	1,137,434	0	1,137,434
Total number of crediting years	5 years		
Annual average over the crediting period	227,487		

SDG-3

YEAR	BASILINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
15/02/2025- 14/02/2026	0%	80%	80%
15/02/2026- 14/02/2027	0%	80%	80%

15/02/2027- 14/02/2028	0%	80%	80%
15/02/2028- 14/02/2029	0%	80%	80%
15/02/2029- 14/02/2030	0%	80%	80%
Total	0%	80%	80%
Total number of crediting years	5 years		
Annual average over the crediting period	80%		

SDG-5

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
15/02/2025- 14/02/2026	0	2	2
15/02/2026- 14/02/2027	0	2	2
15/02/2027- 14/02/2028	0	2	2
15/02/2028- 14/02/2029	0	2	2
15/02/2029- 14/02/2030	0	2	2
Total	0	2	2
Total number of crediting years	5 years		
Annual average over the crediting period	2		

SDG-7

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
15/02/2025- 14/02/2026	0	100,000	100,000
15/02/2026- 14/02/2027	0	97,000	97,000
15/02/2027- 14/02/2028	0	94,000	94,000
15/02/2028- 14/02/2029	0	91,000	91,000
15/02/2029- 14/02/2030	0	89,000	89,000
Total	0	89,000	89,000
Total number of crediting years	5 years		

Annual average over the crediting period 94,200

SDG-8

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
15/02/2025- 14/02/2026	0	30	30
15/02/2026- 14/02/2027	0	30	30
15/02/2027- 14/02/2028	0	30	30
15/02/2028- 14/02/2029	0	30	30
15/02/2029- 14/02/2030	0	30	30
Total	0	30	30
Total number of crediting years	5 years		
Annual average over the crediting period	30		

B.7. Monitoring plan

B.7.1. Data and parameters to be monitored

SDG 13

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	Carbon title waiver forms signed by end-users transferring their rights to the CME.
Value(s) applied	No double counting amongst project technology end-users.

Measurement methods and procedures	The end users sign carbon title transfer agreement with EcoLinks surrendering the user's rights to any carbon offsets associated with the ICS.
Monitoring frequency	Monitored whenever project technology is distributed
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	Calculation of emission reduction
Additional comment	-

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	Usage surveys (use of other stoves) conducted under the project
Value(s) applied	No stove stacking observed under the project (considered for ex-ante purposes)
Measurement methods and procedures	Usage/Project Survey- use of other stoves, will be conducted 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 evidence to determine the frequency of usage of both the project devices and baseline devices, or monitoring surveys to capture the number of meals cooked. Based on the results of the baseline survey, it was found that 91.22% the households in rural Rwanda were using only firewood for cooking. This data was further cross-checked with the available literature which clearly states that 93% households in rural Rwanda utilize firewood for

	cooking purposes²⁹. The households which were found carrying out 'stove-stacking' were using alternate fuel (fuels other than firewood) for preparing not >2 meals in a week therefore, based on this observation, under the project scenario, if any household is found using the 'alternate fuel' for carrying out more than 15%³⁰ of the total cooking tasks in a week then such household will be rendered as a "non-user" of the stove technology and thereby discounted from the overall usage fraction. Additionally, in the project scenario if the households are found using the old technology/baseline stove along with the project technology then the project KPTs conducted along with the qualitative usage/project survey under the VPA will capture the amount of firewood consumed both by project technology and the old technology/baseline stove which would ensure that emission reductions are claimed only for the cooking that is being performed on the project technology.
Monitoring frequency	Annual
QA/QC procedures	The calculation of $SFS_{p,b,y}$ shall be cross-checked with the observed presence of stove stacking. Ensure any stove stacking is considered so that emission reductions are calculated only from real reduction of, or replacement of, baseline fuel use.
Purpose of data	Calculation of emission reduction
Additional comment	

Parameter ID	ICS 18
Data / Parameter	$P_{b,y}$
Unit	tonnes/hh-day

²⁹ <chrome-extension://efaidnbmninnibpcajpcglclefindmkaj/https://www.hrpublish.org/download/20200930/EEE2-14517185.pdf>

³⁰ The 15% value has been deduced based on the results of the baseline survey (please refer section B.4 for more details).

Description	Quantity of fuel that is consumed in baseline scenario b in year y
Source of data	Baseline performance field tests
Value(s) applied	0.0078 tonnes/hh-day (0.66 tonnes/person*year)
Measurement methods and procedures	For ex-ante purposes the value is based on literature in Rwanda³¹ For ex-post purposes baseline fuel consumption tests shall be conducted under the project following the latest KPT protocols³²
Monitoring frequency	At the start of crediting period (fixed for one crediting period)
QA/QC procedures	Calibrated weighing scales and moisture meters will be used for carrying out bKPTs. If the values resulting from the baseline KPTs are higher than the following threshold value (on equivalent terms), then the results shall be further substantiated by independent third-party studies that are specific to the project region, including but not limited to government publications, peer-reviewed literature, third party assessments (for example – WISDOM, FAO, UN and similar organizations) and/or official data or statistics about cooking technologies and fuel use. In any case, the value applied shall not be higher than the cap value (on equivalent terms). Threshold value: 0.75 tonnes/person*year of fuelwood Cap value: 0.95 tonnes/person*year of fuelwood
Purpose of data	Calculation of emission reduction
Additional comment	Used to calculate SFS under method-1
Parameter ID	ICS 19

³¹ National Survey on Cooking Fuel and Technologies in Households, Commercial and Public Institutions in Rwanda

³² <chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://cleancooking.org/binary-data/DOCUMENT/file/000/000/604-1.pdf>

Data / Parameter	$P_{p,y}$
Unit	tonnes/hh-day
Description	Quantity of fuel that is consumed in project scenario p in year y
Source of data	Project performance field tests
Value(s) applied	0.0018
Measurement methods and procedures	For ex-ante purposes the value has been estimated using literature, efficiency of project and baseline stoves. For ex-post purposes project fuel consumption tests shall be conducted under the project following the latest KPT protocols ³³
Monitoring frequency	Updated every 2 years
QA/QC procedures	Calibrated weighing scales and moisture meters will be used for carrying out pKPTs.
Purpose of data	Calculation of emission reduction
Additional comment	Used to calculate SFS under method-1

Parameter ID	ICS 20
Data / Parameter	$SFS_{p,b,y}$
Unit	tonnes/hh-day
Description	Specific fuel savings for an individual project technology of baseline b/project p pair in year y
Source of data	Calculated from $P_{b,y}$, $P_{p,y}$ and other information to obtain the savings in the required units
Value(s) applied	0.0060
Measurement methods and procedures	The formula used to calculate is $SFS_{p,y} = P_{b,y} - P_{p,y}$
Monitoring frequency	Updated every 2 years

³³ <https://cleancooking.org/binary-data/DOCUMENT/file/000/000/604-1.pdf>

QA/QC procedures	A cross-check with the proportional efficiency of baseline and project stove will be conducted. If the value based on KPTs is found to be more, then the value will be capped based on proportional efficiency
Purpose of data	Calculation of emission reduction
Additional comment	-

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	Usage Survey and other supporting evidences
Value(s) applied	100%
Measurement methods and procedures	For ex-post purposes sampling as per TPDDTEC, version 4.0 guidelines will be conducted. In order to quantify the usage value, the "Cookstove Usage Rate Guidelines, version 2.0" will be followed: The "Best Practices Monitoring Requirements" in line with the Cookstove Usage Rate Guidelines. For claiming usage rate of more than 90%, project developer will follow requirement of continuous use monitoring in addition to mandatory and good practices monitoring requirements. Mandatory Practices: a. Define use and nonuse - The use and non-use of project technology shall be defined, the project developer would use the following criteria to define: time when last used, frequency of use, extent to which the traditional technology is displaced etc. b. In person household usage survey- The records of the in-person household usage survey shall be submitted. The detailed observations found by visiting kitchen, interviewing the cook shall be submitted to the GS-VVB. The photographs of the cooking area will also be submitted. In addition, GPS coordinates of the surveyed households shall be captured to be submitted to VVB.

	c. Verification of accuracy of results-the project developer representative shall telephone a randomly selected 5-10% of the surveyed households to verify that homes were visited by surveyors and the recorded responses are correct. Good Practices: a. The field training records shall be submitted to the GS-VVB b. The end-user training records, photographs of visits, agenda and photographs of the awareness campaign shall be submitted to GS-VVB Best Practices: a. Records of the measurement campaigns using Stove Use Monitors (SUMs) or Continuous Stove Monitors (CSM) shall be submitted to the GS-VVB b. Minimum 100 households shall be monitored for at least 90 days, with at least 30 samples for project technologies of each age.
Monitoring frequency	At least annually
QA/QC procedures	Compliance with the general requirements for sampling (Section 4.4) and general requirements for QA/QC (Section 4.5) of TPDDTEC, version 4.0 methodology
Purpose of data	Calculation of emission reduction
Additional comment	-

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	Project sales database
Value(s) applied	365
Measurement methods and procedures	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.
Monitoring frequency	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 cations as expected, or not.
Purpose of data	Calculation of emission reduction
Additional comment	-

SDG-3: Good Health and Well Being

Data/parameter	SDG 3.9
Unit	%
Description	Number of household visited medical facilities/dispensary for treatment of respiratory issues etc. such as cough, shortness in breath, pneumonia and other respiratory
Source of data	Project survey
Value(s) applied	80% (ex-ante estimation)
Measurement methods and procedures	In the project survey, the households will be asked whether they are reporting any reduction in number of medical visits due to respiratory ailments (such as cough, shortness of breath, pneumonia etc.) after purchasing the project device.
Monitoring Frequency	Annual
QA/QC Procedures	-
Purpose of data	Monitoring of SDG 3
Additional comment	-

SDG 5: Gender Equality

Data/parameter	SDG 5.4
Unit	Hours/HH/week
Description	Average time saving associated with cooking time and fuel collection
Source of data	Project Survey
Value(s) applied	2

Measurement methods and procedures	This parameter will be monitored as part of the project survey. Users will be asked as part of survey if they have been able to save time after receiving the project device
Monitoring Frequency	Annual
QA/QC Procedures	Sampling for the survey should be carried out on randomly selected beneficiaries
Purpose of data	Monitoring of SDG 5
Additional comment	-

SDG 7: Clean and Affordable Energy

Data/parameter	SDG 7.1
Unit	Number
Description	Number of beneficiaries: Households
Source of data	Project Sales database and usage survey
Value(s) applied	100,000
Measurement methods and procedures	SDG-7 contribution of the project will be calculated by multiplying the number of households which have received the improved cookstove technology under the project with the usage rate determined for the project in order to calculate the number of households which have access to operational improved cookstove technology (ICS) due to the project.
Monitoring Frequency	Annual
QA/QC Procedures	-
Purpose of data	Monitoring of SDG 7
Additional comment	-

SDG 8: Decent work and Economic Growth

Data / Parameter	SDG 8.5
Unit	-
Description	Total no of jobs
Source of data	Employment records
Value(s) applied	30

Measurement methods and procedures	Total number of employment opportunities created under the project
Monitoring frequency	Annual
QA/QC procedures	Employment created during different phases of the project activity under different categories eg. Full time, part time, consultant etc. will be recorded
Purpose of data	Monitoring of SDG 8
Additional comment	-

B.7.2. Sampling plan

>>

The sampling approach to be used for surveys is summarized below:

A statistically valid sample can be used to determine parameter values, as per the relevant requirements for sampling in the "Guidelines for Sampling and surveys for CDM project activities and programme of activities, version 4.0" Minimum 90% confidence interval and a 10% margin of error requirement shall be achieved for the sampled parameters. In any case, for proportion parameter values, a minimum sample size of 30, or the whole group size if this is lower than 30, must always be applied.

Sampling Methodology

Since the baseline cooking patterns and behaviours are the same across the project boundary, the usage pattern is expected to be similar. The project will employ a simple random sampling method when drawing up a sample.

Sampling frame

The sample size shall be sufficient to ensure that the precision of the sample means/proportions are in accordance to the sampling frame established for the project. As per the methodology, in cases where survey results indicate that the desired precision is not achieved, the lower bound value of corresponding confidence interval of the parameter value may be used as an alternative to repeat the survey. Alternatively, the survey may be expanded to reach the required confidence/precision. To ensure a simple random sample selection, random number generators was applied. Each unit in the target population shall be uniquely identifiable by its serial ID number. Each ICS shall be allocated a Sample Selection Number in each monitoring period, starting at 1 and increasing up to the total number of ICS in the sales database for that pre-defined simple random sampling frame. Applying the random number generators,

the ICS shall randomly be chosen from the defined population up to the required sample size as calculated by the project developer.

The mean value of each of the surveyed parameter, standard deviation, standard error, and precision shall be calculated as per best practice examples for reliability calculations provided in the "Guidelines for Sampling and surveys for CDM project activities and programmes of activities Version 04.0." For proportion-based reliability test, Standard Error and precision shall be calculated as per best practice examples for reliability calculations provided in the "Guidelines for Sampling and surveys for CDM project activities and programmes of activities Version 04.0."

Sample Size

The minimum sample sizes for the determination of the monitored parameters will be determined as per 'The Guidelines for Sampling and Surveys for CDM Project Activities and Programme of Activities', Version 04.0 and the TPDDTEC, version 4.0 methodology. The minimum sample sizes required for the determination of the different types of parameters

a) Usage Survey and presence of stove-stacking (use of other stoves)

The usage proportion for each age cohort of technologies being credited shall be determined by selecting a minimum of 30 samples for each age cohort except where the age cohort comprises fewer than 30 units, in which case all units shall be sampled. For Usage Survey, the overall sample size will be determined for each age category based on percentage of stoves in corresponding age category. For example,

- Participants in a usage survey with technologies in the first year of use (age0-1) must have technologies that have been in use on average at least 0.5 years or longer.
- Participants in a usage survey with technologies in the second year of use (age1-2) must be conducted with technologies that have been in use on average at least 1.5 years, and so on.

As usage is a proportion-based parameter, the following equation will be used to determine the sample size:

$$n \geq \frac{1.645^2 N \times (1 - p)}{(N - 1) \times 0.1^2 \times p^2 + 1.645(1 - p)}$$

As presence of stove-stacking (use of other stoves) is a mean-based parameter, the following equation will be used to determine the sample size:

$$n \geq \frac{1.645^2 NV}{(N - 1) \times 0.1^2 \times 1.645^2 V}$$

b) Baseline and Project Kitchen Performance Field Tests (BKT and PKT)

In order to determine the sample size for the baseline fuel consumption field test (bKPT) and project fuel consumption field test (pKPT) the guidelines mentioned under annex-2 of the TPDDTEC, version 4.0 methodology will be followed.

c) Project Survey

In order to conduct the project survey sampling guidance provided under section 4.3.3 of the methodology TPDDTEC v4.0 will be followed:

Group size	Minimum sample size
<300	30 or population size, whichever is smaller
300 to 1000	10% of group size
>1000	100

The project will involve the distribution of 100,000 ICS hence the minimum sample size for project survey will be 100.

Implementation plan

a) In-person surveys

In person survey shall be conducted for both the usage, project survey and KPTs. Data shall be collected by trained enumerators who speak the local language.

During in-person surveys for usage rate, the project developer shall clearly define the project technology “use” versus “non-use” to determine who should be considered eligible for crediting. The criteria for defining the same has been listed below:

- User is defined as someone who uses the stove daily. The same shall be captured in the survey questionnaire and SUMs.
- To define the use and non-use of project technology, project developer will include questions in the survey questionnaire such as when was the stove last used, frequency of use, how many meals are prepared in a day, whether the household is using any alternate fuel (fuel other than firewood) for preparing meals and how frequently such fuel is being used on a weekly basis.
- Physical verification of the stove is conducted to check if the combustion chamber is intact and grate is available or not. Surveyor shall also observe physically that the stove feels warm and presence of ash in the stove.

- Users shall be asked questions on use of the baseline stove, how many meals prepared, presence or absence of the baseline stove.
- PD shall refer to usage and project survey, results from SUMs and Kitchen Performance Tests (KPTs) to determine if the stove was in use or not.

b) Continuous stove monitoring

In addition to in-person surveys, continuous monitoring of stoves using SUMs will be conducted for understanding the usage/adoption rate. This step shall ensure that the project developer follows the best practices for cookstove usage under the "Cookstove usage rate guideline, version 2.0". The data loggers will also help in tracking the non-operational days of the cookstove technology.

B.7.3. Other elements of monitoring plan

>>

A) Monitored Systems

In-line with the above methodologies, the following components will be involved in monitoring of the project:

i) Total sales record: All the details of the end-users (who have purchased ICS technology) will be recorded in a database. Each end-user will be given a unique ID in order to avoid any instances of double counting under the project. This record will be maintained continuously and backed-up electronically.

At minimum the following details recorded in the database maintained for the project:

- a) Date of installation of technology
- b) Geographic area of sale
- c) Model/type of project technology distributed
- d) Quantity of project technology distributed
- e) Name, telephone number (if available), and address and/or GPS coordinates of the end-users (i.e. households)
- f) The mode of use of the technology (i.e. domestic or any other purposes)

ii) Project sales database: A project database will be created for the project which will list all the project technology units that have been distributed under the project which have not surpassed their technical life. The project database shall be derived from the total sales record (and will be maintained continuously. Technologies which have aged beyond their life will be replaced in order to continue claiming credits for the project.

B) The organizational structure, responsibilities and competencies of the personnel

Entity	Role
Project Manager	The project manager will be responsible for overseeing all aspects of the initiative, ensuring its successful implementation and delivery. Responsibility will include engaging with regulatory authorities, ensuring adherence to company policies, overseeing quality check of the data collection etc.
Operation Manager	The operation manager will be responsible for overseeing the setup of the project. Other responsibilities include local engagement, technical oversight, etc.
Monitoring team	The monitoring team will be responsible for conducting the fuel consumption tests. The skills and experience required for the data collection activities include: • Experience conducting surveys/tests • Experience conducting door-to-door surveys • Local language skills (especially important for input to questionnaire design and interviewing of end users) • Cultural awareness • Numerical proficiency • Data entry skills
On-ground staff (field staff)	On-ground staff will be responsible for ensuring that the households receive on-time replacement of the project technology. Other tasks of the on-ground staff include maintaining project database and overseeing the operation& maintenance of the stoves.

C) Technical Failure and Maintenance Protocol

A robust after-sales mechanism will be put in place which ensures that the complaints of the beneficiaries are registered and resolved in a timely manner. The mechanism involves various steps:

- Step 1: Complaint Registration
- Step 2: Lodging complaint
- Step 3: Collection of products for repair
- Step 4: Resolution of the complaint
- Step 5: Feedback (optional)

Ecolinks shall set up a toll-free calling system where the beneficiaries can call to register a problem/complaint. A dedicated customer service team will be established to handle and address the complaints from communities.

A logbook shall be maintained to capture the information at a centralized location. As soon as service team receives the complaint, the field team will visit the household within 48-72 hours to examine the product. In case of minor issues, repair of the device will happen on the site itself however if the issue is major then the device is collected and taken to the nearest workshop for repair. Once the product is repaired, it will be returned to the beneficiary.

D) Quality Assurance/Quality Control

To increase the precision of the estimates during the survey, it will be necessary to establish sampling mechanisms for avoiding non-sampling errors (bias) include good questionnaire design and well-tested questionnaires. To remedy the incomplete questionnaires, additional households will be drawn randomly until the required number is met as per the sample size determined. Then, well-trained personnel will scrutinize all the questionnaires. All monitored data such as name, date and contact information of the end-user will be archived in the electronic database tool. All the data will be used to calculate the sample size for parameters and emission reductions. All data stored to be kept for at least two years after the crediting period or the last issuance of carbon credits for the project.

SECTION C. DURATION AND CREDITING PERIOD

C.1. Duration of project

C.1.1. Start date of VPA

>> 15/02/2025 (the start on which the first ICS is expected to be distributed under the project)

C.1.2. Expected operational lifetime of VPA

>>

15 years (15/02/2025- 14/02/2040)

C.2. Crediting period of project

C.2.1. Start date of crediting period

>>

15/02/2025

C.2.2. Total length of crediting period

>>

15 years (15/02/2025- 14/02/2030). The crediting period may be renewed twice in line with the Community Services Activity Requirements.

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.

Data / Parameter	Principle 6.1. Labour Rights
Unit	-
Description	CME 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.
Source of data	Employment Contracts
Value(s) applied	Employment contracts shall be checked to see compliance with principle 6.1
Measurement methods and procedures	The employment contract is checked to ensure compliance with Principle 6.1
Monitoring frequency	Annual
QA/QC procedures	-
Purpose of data	For Safeguarding Principle 6.1
Additional comment	-

Data / Parameter	Principle 9.5. Hazardous and Non-Hazardous Waste
Unit	-
Description	CME shall ensure that all the hazardous and non-hazardous waste generated from the project is collected and disposed in line with the Rwanda's standard for Health, Environment and Safety (HES)
Source of data	Receipts or declaration from authorized waste collector
Value(s) applied	-
Measurement methods and procedures	Check the scrap disposal receipts and interview the PO staff to ensure compliance with Principle 9.5
Monitoring frequency	Biennial
QA/QC procedures	-
Purpose of data	For Safeguarding Principle 9.5
Additional comment	-

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 has been designed keeping in mind the GS4GG's gender sensitive requirements. The grouped local stakeholder consultation meeting also had over 50% women participation. The project helps women is spending less time on collecting fuel (firewood) and cooking due to the distribution of efficient improved cookstove technology (ICS)
Question 2 - Explain how the project aligns with existing country policies, strategies and best practices	The project focuses bridging the prevalent gender inequality in Rwanda and is therefore aligned with the National Gender Policy, Rwanda³⁴. In rural Rwanda, the burden of cooking for the entire household is shouldered by the women therefore by distributing improved cookstove, the project helps in making cooking more efficient, which in-turn helps women in saving immense time that can be spent on more productive activities such as learning vocational courses.
Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?	Not applicable. The improved cookstove projects following Gender responsive approach do not require to contract an expert as per Gender Equality Requirements & Guidelines.

³⁴ chrome-extension://efaidnbmnnnibpcajpcgclefindmkaj/https://www.migeprof.gov.rw/fileadmin/user_upload/Migeprof/Publications/Guidelines/Revised_National_Gender_Policy-2021.pdf

Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?

Not applicable. There is no need for an expert to assist with Gender issues at the Stakeholder Consultation. The project is prepared and implemented in line with the Gold Standard GS4GG Principles & Requirements as well as the Stakeholder Consultation and Engagement Requirements and Guidelines. The carbon technical team was present on the day of the consultation which has extensive experience in conducting this type of meeting, and followed the Gold Standard Stakeholder Consultation and Engagement Requirements, which includes gender guidelines, and specifies which social groups must be included in the consultation. The stakeholder consultation included interactions with potential beneficiaries including women and their feedback were considered appropriately.

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

>>

The physical grouped local stakeholder consultation meeting was conducted on 26/09/2024 at the Chris hotel, Kamonyi. There was around 50% women participation. The consultation involved inviting comments/feedback from the following category of stakeholders:

- Local people impacted by the project and official representatives.
- Local policy makers and representatives of local authorities
- Local non-governmental organizations working on relevant topics
- Host country DNA
- Research organizations/institutes
- GS NGO Supporters (present in that host country)
- Other relevant local NGOs of the host country

The invites for the stakeholder consultation meeting were sent keeping in mind the local circumstances. The following modes were used to invite different categories of stakeholders: email, public notice, one to one meeting and handing them a hard copy of the invitation. The content of the information was provided in local language i.e. Kinyarwanda.

The project reflects key gender issues and requirements of gender sensitive design and implementation. The primary beneficiaries of the project will be women since the project aims at reducing exposure to IAP during cooking meals. During the stakeholder consultation meeting, the women were informed about how the project will benefit them. The meetings were conducted in the local language and the travel was facilitated by the project developer to prevent the women from being excluded from any kind of participation. The women were encouraged to ask questions and provide feedback about what they feel about the project.

During the physical meeting, all the stakeholders were informed about the design of the project, implementation plan, SDG benefits, safeguarding principle, carbon ownership and grievance mechanism.

There was several useful feedback received however, no negative comments were received from the stakeholders during the physical meeting. Summary of the comments received are as follows:

- The truly vulnerable people who deserve to receive the improved cookstoves must be identified
- The improved cookstove to be distributed must meet quality standards and be certified.
- Any issues or disputes that arise should be resolved at the local level, with the involvement of the local community and authorities (village, sector, and district levels).
- Additional Consultation meetings can held, as they help promote gender equality, improve livelihoods, and protect the environment.
- A local-based committee can be formed to monitor the implementation of this project including community representatives, local authorities and NGOs involved in the project.

After the grouped stakeholder consultation meeting, EcoLinks had initiated the stakeholder feedback round on 9th October, 2024 during which non-technical summary including the summary of the feedback received and update grievance process was shared with all stakeholders (including the ones who participated in the grouped local stakeholder consultation meeting). The stakeholder feedback round was closed on 8th November, 2024. There was no feedback received during the SFR round.

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)	In line with the section 2.1 of the Annex W of the Gold Standard, a grievance expression book shall be placed with the village heads and local office of EcoLinks which will ensure that the stakeholders can easily access the logbook. By maintaining a feedback book with the village head, it shall be ensured that stakeholders who do not have access to electronic media for expressing concerns/ feedback are also able to express their concerns/feedbacks. Additionally, the end-users always have an option to contact the EcoLinks in case of any feedback/complaints about the product or the project.
GS Contact (mandatory)	help@goldstandard.org
Other	johnson@ecolinks.kr
Telephone (optional)	(+250) 785478658 Toll free number will also be set up.

SECTION F. Eligibility and inclusion criteria for VPAs inclusion

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The eligibility criteria for including “regular VPAs” under this real case VPA are as follows:

NO.	ELIGIBILITY CRITERION	DESCRIPTION/ REQUIRED CONDITION	DESCRIPTION OF THE VPA IN RELATION TO THE CRITERIA, MEANS OF VERIFICATION/SUPPORTING EVIDENCE FOR INCLUSION
1	Boundary and location of the VPA	The regular VPA must be located within the geographical boundary of Rwanda, details of which are included in the PoA.	The VPA will involve the distribution of improved cookstove technology (ICS) to the rural households which are situated within the PoA boundary of Rwanda. Supporting evidence: CME statement which confirms the geographical boundary of the VPA (Rwanda)
2	Project technology	The regular VPA must involve the distribution of improved cookstove technology (ICS) which will benefit the rural communities in Rwanda	The VPA will involve the distribution of improved cookstove technologies (ICS) which will benefit rural communities in Rwanda. The details of the technology shall be provided in section A.3 of the VPA-DD. Supporting evidence Manufacturer Specification and Third-party test report.
3	No Double counting of impacts within this PoA and	Under the regular VPA, there must be a unique identification for each	A unique ID will be provided for each improved cookstove distributed

	across other registered improved cookstove or deregistered PoAs technology distributed . This shall ensure no double counting of stoves within the PoA and also ensure that ICS can be identified as belonging to this PoA and not to any other project/programme	under the VPA. A database will be maintained for the VPA which will help in tracing the beneficiary details (such as name, address, GPS coordinates) corresponding to the unique ID of each improved cookstove distributed under the programme.
		An end-user agreement will be signed between the beneficiaries and EcoLinks (which will transfer the carbon rights of the improved cookstove from the beneficiary to EcoLinks)
		A summary of projects registered with other standards-GS/VERRA/CDM and how they are not overlapping with the VPA shall be submitted to VVB.
		Supporting evidences: a) Distribution database under the project b) End-user agreement c) Registry analysis excel
4 VER Ownership	Under the regular VPAs, the end users benefitting from the improved cookstove technology shall contractually cede their rights to claim and own emission reductions to the CME of the PoA.	Under the VPA, the emission reductions generated from distributed improved cookstove technology (ICS) shall be ceded to EcoLinks. An end-user agreement will be signed by the beneficiary of the improved cookstove technology which will establish that the beneficiaries have relinquished their carbon rights to EcoLinks after receiving the product.

		Supporting evidence:
		End user agreement signed between the beneficiaries and EcoLinks
5	No Double counting of VPA	The regular VPA must exclusively be included in the PoA. The VPA shall not be proposed as part of another offset program i.e. as an individual Gold Standard or CDM project and/or as part of any other CDM PoA and/or any other mechanism to avail climate change mitigation benefits. CME shall issue a statement included in the VPA-DD that the specific VPA will not be part of another Gold Standard or CDM project activity or VPA under another PoA. For each VPA, a declaration from the CME on its letterhead would be provided that the specific VPA will not be part of another project activity or VPA under another PoA. A registry analysis will be conducted to cross-check whether a programme/project of similar nature has been registered/deregistered in the same location. Supporting evidence a) Declaration provided by the CME b) Registry analysis excel
6.	Non-diversion of ODA in case of Public funding	Under the regular VPA, the CME confirms that there is no public funding and no diversion of Official Development Assistance involved in the project. EcoLinks will provide an ODA Declaration for each VPA wherein it will be confirmed that the project will not receive any ODA funding Supporting evidence ODA declaration signed by EcoLinks
7.	Specification of the technology such as the level and type of service, as well as performance specification;	The improved cookstove technology (ICS) distributed under the regular VPA must be at least meet the tier-3 requirements and should be designed for domestic-users. The technology The VPA will involve the distribution of Hisha Eco7 improved cookstove

should be in-line with the technology³⁵ which will at least meet the tier-3 requirements and will be designed for domestic users in rural Rwanda.

The technology will be certified by the Rwanda Board of Standards.

Supporting evidence

Certification from Rwanda Board of Standards

8. Start date of the VPAs	The start dates of the regular VPAs shall be mentioned in each VPA-DD and should be on or after the start date of the registered PoA. The start date of the VPA is defined as the date on which the first ICS is distributed under the VPA.	The start date of all the VPAs shall be after the start date of the registered PoA. The end-user agreement signed between EcoLinks and the beneficiaries will serve as the evidence of the start date under the VPA.
9. VPA Crediting period	The crediting period of the regular VPA must not exceed the PoA end date and the start date of the crediting period of a VPA shall be on or after: (i) The date of registration of the PoA, if the corresponding VPA-DD is submitted together with the request for registration;	A statement shall be included in the VPA-DD specifying the crediting period start date and that the crediting period will not exceed the PoA end date (i.e. 20 years after the date of registration of the PoA) totaling to 15 years for a VPA. Supporting evidence

³⁵ Depending on the availability, EcoLinks can also distribute a different cookstove model under the project as long as it has similar/better efficiency than the Hisha Eco7 model. The definition of similar technology is in-line with paragraph 3.7.3 of the "TPDDTEC, version 4.0" technology.

		(ii) The date when the VPA was included in the PoA.	Please refer section C of the VPA-DD
10	Approval of VPA by CME	CME must approve each regular VPA to be included into its registered PoA.	A letter by EcoLinks giving approval for inclusion of the regular VPA into its registered PoA shall be submitted to VVB/GS Supporting evidence Approval letter from EcoLinks
11	Target groups of the program	The regular VPA included in the POA includes the distribution of improved cookstove technology (ICS) to the rural households in Rwanda.	The VPA will involve the distribution of improved cookstove technology (ICS) to the rural households which are situated within the PoA boundary of Rwanda. Supporting evidence Distribution database under the project
12	Additionality of VPA	All regular VPAs to be included under the PoA will comply with any one of the conditions prescribed in paragraph 4.1.9 of the 'Community Services Activity Requirements', version 1.2, the projects that meet any of the following criteria are considered additional: a) Positive list (Annex B) i.e. All projects will be solely composed of isolated units (ICS) where the users of the technology/ measure are households or communities or institutions and where each unit results in ≤ 600	The VPA will be solely composed of isolated units (ICS) where the users of the technology will be rural households in Rwanda where each ICS unit shall results in ≤ 600 tonnes of emission reduction. Also, the project is located in Rwanda which is a LDC. Therefore, the criteria (a) and (b) of the 4.1.9 of the CSA requirements apply. Supporting evidence Refer section B.5 of the VPA-DD

		tonnes of emission reductions per year. (b) Projects located in LDC, SIDS, LLDC (c) Micro-scale projects .	
13	Sampling requirements for the PoA	The regular VPAs will follow the usage survey guidelines of the methodology and UNFCCC guidelines on sampling and survey for Programme of Activities version 4.0	The VPA-DDs will incorporate the sampling procedure and sampled survey form/excel sheets shall be provided to VVB. Supporting evidence Refer section B.7 of the VPA-DD
14	Application of Methodologies	The regular VPAs under the PoA will apply "Reduced emissions from cooking and heating – Technologies and Practices to displace Decentralised Thermal Energy Consumption (TPDDTEC), version 4.0"	The VPAs will employ the "Reduced emissions from cooking and heating – Technologies and Practices to displace Decentralised Thermal Energy Consumption (TPDDTEC), version 4.0" impact quantification Supporting evidence: Refer section B.1 of the VPA-DD
15	Baseline parameters to be established at VPA level	Each regular VPA shall demonstrate how the baseline parameters that are to be calculated at the VPA level have been determined.	The VPA shall outline the approach for determining baseline and provide supporting documents including copies of any official government reports, statistics or literature sources used for determining parameters. Supporting evidence: Please refer section B.4 of the VPA-DD Baseline survey report
16	Scale of the VPAs	The regular VPAs included must be large-scale. The	The VPAs included will be large-scale. The definition of scale shall be in-line

		definition of scale must be in-line with type-2 project i.e. "activities that lead to a thermal energy saving of greater than 180 GWh _{thermal} "	with type-2 project i.e. "activities that will lead to a thermal energy saving of greater than 180 GWh _{thermal} "
			Supporting evidence SSC Threshold calculation in ex-post ER calculation sheet
17	LSC	The grouped stakeholder consultation meeting conducted for the real case will be valid for all the regular cases included within 2 years from the date of the physical stakeholder consultation meeting.	The grouped stakeholder consultation meeting conducted for the real case will be valid for all the regular cases included within 2 years from the date of the physical stakeholder consultation meeting for future regular VPAs additional consultation meetings will be held. Supporting evidence Stakeholder consultation reports
18	Conditions to confirm that technologies in VPAs are eligible	The improved cookstove technologies which fulfil all the applicability conditions as described under section 2.2.1 of the "TPDDTEC, version 4.0" methodology are eligible to be distributed under the VPAs.	The improved cookstove technologies which fulfil all the applicability conditions described under section 2.2.1 of the "TPDDTEC, version 4.0" will be distributed under the VPAs. Supporting evidence Refer section B.2 of the VPA-DD
19	Conditions to be met by each VPA regarding SDG outcomes assessment	The CME shall conduct the Sustainable Development Goals (SDGs) impact assessment at the regular VPA level as per Principles & Requirements	SDG outcome assessment shall be done at VPA level and the results will be included in section B.6 of the VPA-DDs.

		Supporting evidence	
		Digital SDG Impact Tool	
20	Conditions to be met by each VPA regarding safeguarding principles	Projects shall conduct a The Safeguarding Safeguarding Principles principles assessment Assessment and conform to report shall be conducted Gold Standard Safeguarding done at VPA level Principles and Requirements.	
			Supporting evidence Please refer section D and Appendix-A of the VPA-DDs.

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.

SOCIAL SAFEGUARDING PRINCIPLES		
Reference requirement	Question	Response
ERROR! REFERENCE SOURCE NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project developer, its representatives and the Project disrespect internationally proclaimed human rights?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Is the project involved or complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Have local communities or individuals raised human rights concerns regarding the project (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Is there a risk that rights-holders (e.g., Project-affected stakeholders) do not have the capacity to claim their rights?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does this project undermine national or regional measures for the realisation of the right to development?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.		
NA		
Would the project potentially involve or lead to:		
ERROR! REFERENCE SOURCE NOT FOUND.	adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalised groups?	☐ YES ☐ POTENTIALLY ☒ NO

ERROR! REFERENCE SOURCE NOT FOUND.	inequitable or discriminatory impacts on affected populations, particularly people living in poverty or marginalised or excluded individuals or groups, including persons with disabilities?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	restrictions in availability, quality of and/or access to resources or basic services, in particular to marginalised individuals or groups, including persons with disabilities?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?	☐ YES ☐ POTENTIALLY ☒ NO

Briefly describe below how the project incorporates a human rights-based approach.

For example, by describing how the project design:

- is informed by human rights analysis, including from UN human rights mechanisms (human rights treaty bodies, universal periodic review, special procedures)
- includes measures to assist the government to realise (respect, protect and fulfil) human rights under international law and to implement human rights-related standards in national law (whichever is higher)
- enhances the availability, accessibility and quality of benefits and services for potentially marginalised individuals and groups, and to increase their inclusion in decision-making processes that may impact them (consistent with the non-discrimination and equality human rights principle)
- provides reasonable accommodations to strengthen inclusivity and accessibility of project benefits and services to persons with disabilities.

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The project will respect all the internationally proclaimed human rights. There will not be any kind of force/coercion to participate in the project. The beneficiaries will be participating voluntarily under the project.

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ERROR! REFERENCE SOURCE NOT FOUND.	Have women's groups/leaders raised gender equality concerns regarding the project, (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project undermine the principles of non-discrimination, equal treatment, and equal pay for equal work?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project prevent men and women from having equal opportunities to participate in identified tasks and activities, whether through paid work, volunteer work, or community contributions, as appropriate?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE	Does the project limit the participation of women or men based on pregnancy, maternity/paternity leave, or marital status?	☐ YES ☒ NO

<u>NOT FOUND.</u>		
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	Is information about project objectives being communicated in a way that is inappropriate for the local context and not tailored to the methods of understanding of both women and men, which could hinder their participation?	☐ YES ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	Has the project assessed gender risks without referencing the country's gender strategy or equivalent national commitment?	☐ YES ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	Has expert stakeholder(s) been involved, and has their input been requested for the project design on gender equality and women's empowerment?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

NA

Would the project potentially involve or lead to:

<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	adverse impacts on gender equality and/or the situation of women and girls?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	exacerbation of risks of gender-based violence? For example, through the influx of workers to a community, changes in community and household power dynamics, increased exposure to unsafe public places and/or transport, etc.	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	reproducing discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	limitations on women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well-being.	☐ YES ☐ POTENTIALLY ☒ NO

Briefly describe below how the project is addressing any identified risk to gender equality and women's empowerment.

The project helps in reducing the time spent by women in collecting firewood for preparing meals thereby giving them more time for vocational activity such as education.

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ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve potential risks to the health and safety of affected communities during its life cycle?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve any potential risks to the workers' safety and health?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

NA

Would the project potentially involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	construction and/or infrastructure development (e.g., roads, buildings, dams)?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	harm or losses due to failure of structural elements of the project (e.g., collapse of buildings or infrastructure)?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	risks of water-borne or other vector-borne diseases (e.g., temporary breeding habitats), communicable and noncommunicable diseases, nutritional disorders, mental health?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g., explosives, fuel and other chemicals during construction and operation)?	☐ YES ☐ POTENTIALLY ☒ NO

ERROR! REFERENCE SOURCE NOT FOUND.	adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g., food, surface water purification, natural buffers from flooding)?	☐ YES ☐ POTENTIALLY ☒ NO
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Briefly describe below how the project is addressing any identified risk related to community health and safety.

The project doesn't expose the community to increased health risks and is not adversely affecting the health of workers and the community. As per a study by Energy by Sustainable Development³⁶, concentration in open fire was found to be 1340 mg/MJ_d for PM2.5 and 9 g/MJ_d for CO among households using traditional stove. The project technology demonstrate that they do not worsen the level of IAP (211 mg/MJ_d for PM2.5 and 4.10 g/MJ_d for CO). The workers participating in the project activity are not exposed to unsafe or unhealthy work environments as the sale/distribution of improved cookstove. The monitoring activities of the project will not include any hazardous chemicals or other hazardous material.

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ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve altering, damaging, or removing sites, objects, or structures of significant cultural heritage?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

NA

Would the project potentially involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	activities adjacent to or within a cultural heritage site?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	significant excavations, demolitions, movement of earth, flooding or other environmental changes?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	alterations to landscapes and natural features with cultural significance?	☐ YES ☐ POTENTIALLY ☒ NO

³⁶ <https://www.sciencedirect.com/science/article/pii/S097308262200165X>

<u>NOT FOUND.</u>		
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g., knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	utilisation of tangible and/or intangible forms (e.g., practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	If answer to question above is "YES" or "POTENTIALLY" - are the communities made aware of their right under the law, scope and nature of proposed development and its potential consequences?	☐ YES ☐ NO ☒ NA
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	If answer to question above is "YES" - does the project provide equitable sharing of benefits from commercialisation of such knowledge, innovation, or practice, consistent with their customs and traditions?	☐ YES ☐ NO ☒ NA
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	If answer to question above is "YES" - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	If answer to question above is "YES", has project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

NA

ERROR! REFERENCE SOURCE NOT FOUND.**ERROR! REFERENCE SOURCE NOT FOUND.**

<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	Does the project involve any risks related to involuntary relocation of people?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

NA

Would the project potentially involve or lead to:		
ERROR! REFERENCE SOURCE NOT FOUND.	risk of forced evictions or involuntary relocation of people?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	temporary or permanent and full or partial physical displacement (including people without legally recognisable claims to land)?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	economic displacement (e.g., loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "YES" or "POTENTIALLY", - has the project developed Resettlement Action Plan or Livelihood Action Plan in consultation and agreement with affected individual, group or community? - has the project integrated Resettlement Action Plan or Livelihood Action Plan into the Project design?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "YES" - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
Please add text here....		
ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve any risks related to identifying and managing legitimate tenure rights that may be affected by the project?	☐ YES ☒ NO
If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.		
NA		

Would the project potentially involve or lead to:		
ERROR! REFERENCE SOURCE NOT FOUND.	impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	uncertainties with regards to land tenure, access rights, usage rights or land ownership? Examples include, but are not limited to water access rights, community-based property rights and customary rights.	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Changes in legal arrangements, if yes, are the changes done in line with relevant laws and regulations?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Changes in legal arrangements, if yes, are these changes agree with free, prior and informed consent of the involved stakeholders?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Does some other entity (other than the project developer) hold uncontested land title for the entire Project Boundary?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Have project developer in consultation with stakeholders established a functioning mechanism to receive, process, resolve, communicate and record grievances?	☐ YES ☐ NO ☒ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
NA		
ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve Indigenous People within the Project area of influence who may be affected directly or indirectly by the Project?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

Would the project potentially involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	affect areas where indigenous peoples are present (including project area of influence)	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	affect areas, land and territory claimed by indigenous peoples?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above questions is "YES" or "POTENTIALLY", - Is it determined that the proposed project may affect the rights, lands, resources, or territories of indigenous people? - Has an "Indigenous People Plan" (IPP) or "Indigenous People Plan Framework" been elaborated and included in the project documentation? - Was the plan developed in accordance with the effective and meaningful participation of indigenous peoples and in accordance with UNDP Guidelines?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	risk of forcibly removing indigenous people from their lands and territories?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	utilisation and/or commercial development of natural resources on lands and territories claimed by indigenous peoples? Consider, and where appropriate ensure, consistency with the answers under Principle 4.1 above	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "YES" or "POTENTIALLY" - Did the project obtain free, prior and informed consent from indigenous people before taking their cultural, intellectual, religious, and/or spiritual property?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE	- Does the project ensure that the indigenous people receive an equitable sharing of benefits resulting	

SOURCE NOT FOUND.	from the use of their traditional knowledge and practices? ? - Does the project ensure that the sharing of benefits resulting from the use of indigenous peoples' traditional knowledge and practices is culturally appropriate and inclusive? - Does the project ensure that the provision of equitable sharing of benefits does not impede land rights or equal access to basic services including health services, clean water, energy, education, safe and decent working conditions, and housing?	
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project lack appropriate feedback and grievance channels for Indigenous Peoples and their representatives?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Has a grievance mechanism not been established at the beginning of programme or project implementation with due consideration given to customary dispute settlement mechanisms among the Indigenous Peoples concerned and will it remain operational throughout the project cycle?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☐ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
NA		
ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve, or is it complicit in, contributing to or reinforcing corruption or corrupt projects?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have a risk of encouraging bribery, kickbacks, or other unethical behavior?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

ECONOMIC SAFEGUARDING PRINCIPLES

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve, facilitate, or condone forced labor, or pose a potential risk of forced labor?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project violate any labor or health and safety laws, international obligations, or ILO conventions?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project violate the principles of equal opportunity and fair treatment in its employment decisions?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project violate national laws, if available regarding non-discrimination in employment?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND. ERROR! REFERENCE SOURCE NOT FOUND.	Does the project allow child labor?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have insufficient processes and measures in place to ensure the safety and health of project workers?	☐ YES ☒ NO

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>		
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Does the project have insufficient measures to safeguard and support vulnerable project workers, such as women, people with disabilities, migrant workers, and young workers, and to prevent any kind of harassment, abuse, bullying, or exploitation, including gender-based violence (GBV)?	☐ YES ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE NOT</u> <u>FOUND.</u>	Does the project have no grievance mechanism available for workers to voice workplace concerns? Is information about this mechanism not provided to workers at the time of recruitment, or is it not easily accessible?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

Would the project potentially involve or lead to:

(NOTE: APPLIES TO BOTH PROJECT AND CONTRACTOR WORKERS)

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	use of forced labour?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	working conditions that do not meet national labour laws and international commitments?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	working conditions that may deny freedom of association and collective bargaining?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	absence of documented working agreements with all individual workers <i>if such agreements do not exist, or do not address working conditions and terms of employment, the project developer shall provide reasonable working conditions and terms of employment.</i>	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	use of migrant workers? <i>if engaged, the developer shall ensure that they are engaged substantially equivalent terms and conditions to non-migrant workers carrying out similar work.</i>	☐ YES ☐ POTENTIALLY ☒ NO

ERROR! REFERENCE SOURCE NOT FOUND.	having no arrangements for basic services ³⁷ for workers? <i>the project developer shall put in place and implement policies on the quality and management of the accommodation and provision of basic services in a manner consistent with the principles of non-discrimination and equal opportunity. Workers' accommodation arrangements should not restrict workers' freedom of movement or of association</i>	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	any form of discrimination or harassment based on factors unrelated to job requirements, such as gender, race, nationality, ethnicity, social or indigenous origin, religion or belief, disability, age, or sexual orientation?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	any form of discrimination in any aspect of employment, such as recruitment, compensation, working conditions, training, job assignment, promotion, termination, or discipline?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	harassment, intimidation, and/or exploitation, especially in regard to women?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	discriminatory working conditions and/or lack of equal opportunity where national law provides provision to address non-discrimination in employment?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	use of child labour? (including third-party engaged workers)	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	inadequate and verifiable mechanisms for age verification?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	no processes and measures in place for the safety and health of project workers?	☐ YES ☒ NO

³⁷ Basic services requirements refer to minimum space, supply of water, adequate sewage and garbage disposal system, appropriate protection against heat, cold, damp, noise, fire, and disease-carrying animals, adequate sanitary and washing facilities, ventilation, cooking and storage facilities and natural and artificial lighting, and in some cases basic medical services.

ERROR! REFERENCE SOURCE NOT FOUND.	No provision of safety and health training provisions, including on the proper use and maintenance of personal protective equipment conducted by competent persons and the maintenance of training records?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	No provision to record and document accidents, diseases, incidents, and any resulting injuries, illnesses, or deaths?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	occupational health and safety risks due to physical, chemical, biological and psychosocial hazards (including violence and harassment) throughout the project life-cycle?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	No measures to protect vulnerable project workers from harassment, exploitation, and gender-based violence (GBV)? This includes women, people with disabilities, migrant workers, and young workers.	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	No grievance mechanism available for workers to voice workplace concerns.	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	No measures for due diligence and the establishment of policies and procedures to manage and monitor the performance of third-party employees in the project?	☐ YES ☒ NO

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Even though response to all parameters is no, yet PD has added a monitoring indicator for the same under section D.1 of the VPA-DD

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Is there a risk of project failure during implementation or after project certification due to a lack of financial resources?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have potential negative impacts or pose a risk to the local economy?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Are there any potential risks or negative impacts this project may have on vulnerable or marginalised social groups, despite the benefits it may bring?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA		
Would the project involve or lead to:		
ERROR! REFERENCE SOURCE NOT FOUND.	economic impacts (negative/detrimental) to the local economy?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	negative economic consequences during and after project implementation, e.g., for vulnerable and marginalised social groups in targeted communities?	☐ YES ☐ POTENTIALLY ☒ NO
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
NA		
ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have a risk of increasing greenhouse gas emissions over the Baseline Scenario?	☐ YES ☒ NO
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
NA		
Would the project involve or lead to:		
ERROR! REFERENCE SOURCE NOT FOUND.	increase greenhouse gas emissions over the Baseline Scenario?	☐ YES ☐ POTENTIALLY ☒ NO
If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
NA		
ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.		

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project pose a risk to the availability and reliability of energy supply to other users?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	negative impact on the availability and reliability of energy supply to other users?	☐ YES ☐ POTENTIALLY ☒ NO
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If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

NA

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project increase water usage to a level that will not allow for the maintenance of environmental flows?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project result in the discharge of wastewater that does not meet the required standard for beneficial reuse and could therefore negatively impact the environmental flow?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have the potential risk to exceed the rate of recharge for the groundwater source?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve any processes or activities that could contaminate the groundwater and render it unsuitable for use?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	affect the natural or pre-existing pattern of watercourses, groundwater and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Wastewater discharge of quality that does not meet the required standard for beneficial reuse?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	significant extraction, diversion of ground water? For example, construction of dams, reservoirs, river basin developments, groundwater extraction	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

NA

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have a risk of negatively impacting the catchment and has it been assessed and addressed?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	negatively impact on the catchment area?	☐ YES ☐ POTENTIALLY ☒ NO
-	<i>If yes, Erosion prevention measures, including soil and slope protection measures, must be implemented before project commencement. These measures should involve natural terracing, infiltration strips, permanent ground</i>	

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	<i>cover, hedge and tree rows, and effective slope length assessment. Regular reassessment of these measures is necessary.</i>	
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

NA

ERROR! **REFERENCE** **SOURCE** **NOT** **FOUND.** **ERROR!** **REFERENCE** **SOURCE** **NOT** **FOUND.**

ERROR! **REFERENCE** **SOURCE** **NOT** **FOUND.** **ERROR!** **REFERENCE** **SOURCE** **NOT** **FOUND.**

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Is there any risk of soil resource degradation or loss of ecosystem services provided by soils in the project?	
-	<i>If yes, the project shall maintain healthy soils by minimising negative impacts on soil health, productivity, structure, and water retention. Steps to minimise soil degradation include crop rotation, composting, using N-fixing plants, and reducing tillage and ecologically harmful substances.</i>	☐ YES ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>		

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

Would the project involve or lead to:

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	production, harvesting, and/or management of living natural resources by small-scale landholders and/or local communities?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	if answer to above question "yes" or "potentially", does project adopt appropriate and culturally sensitive sustainable resource management practices?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

NA

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have any risks associated with natural or man-made hazards that could result from land use changes due to the project?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	any potential risks that require emergency preparedness and response planning?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	if answer to above question "yes" or "potentially", did the project developer disclose appropriate information about emergency preparedness and response to affected communities?	☐ YES ☒ NO ☐ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

NA

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve the transfer, handling, and use of genetically modified organisms/living modified organisms that may result in adverse effects on biological diversity?	☐ YES ☒ NO
---	--	--

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	the transfer, handling and use of genetically modified organisms/living modified organisms (GMOs/LMOs) that result from modern biotechnology	☐ YES ☐ POTENTIALLY
---	--	--

NOT FOUND.		☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above question is "yes" has a risk assessment by a competent Expert stakeholder been carried out in accordance with Annex iii of the Cartagena protocol on biosafety to the convention on biological diversity?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above question is "yes" has any risks identified in the risk assessment?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Forestry (for example Afforestation/Reforestation) involving GMO planting? <i>Note - Forestry projects (for example Afforestation/Reforestation) involving GMO planting are not eligible for Certification under Gold Standard for the Global Goals.</i>	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here....

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have a risk of releasing pollutants to air, water, and land in routine, non-routine, or accidental circumstances?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	any potential risk of pollutant release that cannot be avoided?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above question is "Yes" or "potentially", has the project identified all potential pollution sources that may degrade the quality of soil, air, surface, and groundwater in the project area?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above question is "Yes" or "potentially", do the pollution prevention and control technologies and practices applied during the project life cycle align with national regulations or international best practices?	☐ YES ☐ NO ☒ NA

NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above question is "Yes", is there a monitoring plan to ensure that mitigation measures are implemented, and resources are protected?	☐ YES ☒ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here....

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve the generation of waste materials (both hazardous and non-hazardous)?	☒ YES ☐ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve the use of any chemicals or materials subject to international bans or phase-outs?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Burning of wood result in production of ash which contain harmful elements. The use of wood in traditional stove is higher than improved cookstoves as the thermal efficiency is lower in the traditional stoves. The project intervention becomes even more critical considering improved cookstoves have higher thermal efficiency thus reducing the amount of wood required for cooking. The project intervention leads to significant reduction in the ash generation from the baseline scenario. Hence, it has a positive impact on water and land pollution.

The beneficiaries will be informed about proper waste handling and disposal of scrap material due to end of life or non-operational product. PD would ensure proper collection and disposal of National Environment (Waste Management) Regulations, 2020³⁸.

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[https://nema.go.ug/sites/all/themes/nema/docs/National%20Environment%20\(Waste%20Management\)%20Regulations%20S.I.%20No.%2049%20of%202020.pdf](https://nema.go.ug/sites/all/themes/nema/docs/National%20Environment%20(Waste%20Management)%20Regulations%20S.I.%20No.%2049%20of%202020.pdf)

Would the project involve or lead to:		
ERROR! REFERENCE SOURCE NOT FOUND.	the generation and management of waste materials?	☒ YES ☐ POTENTIALLY ☐ NO
ERROR! REFERENCE SOURCE NOT FOUND.	treatment, destruction, or disposal of waste material?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above question is "Yes", does the project involve an environmentally friendly method that includes appropriate control of emissions and residues resulting from the handling and processing of waste material?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above question is "yes", does project has measures in place to address health risks?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Involve manufacture, trade, and use of chemicals and hazardous materials subject to international bans or phase-outs due to their high toxicity to living organisms, environmental persistence, potential for bioaccumulation, or potential for depletion of the ozone layer	☐ YES ☐ POTENTIALLY ☒ NO
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
NA		
ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve the use of chemical pesticides?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve purchase, store, manufacture, trade or use products that fall in Classes IA (extremely hazardous) and IB (highly hazardous)	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project use fertilisers, and if so, are measures being taken to minimise their use and nutrient losses to the environment?	☐ YES ☒ NO

NOT FOUND.		
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If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	chemical pesticides use for pest management?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "yes" or "potentially", does project has documented Chemical Pesticides Policy in place?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	purchase, store, use, manufacture, or trade in Class II (moderately hazardous) pesticides?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "yes" or "potentially", does project has appropriate controls on manufacture, procurement, or distribution and/or use of these chemicals?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

NA

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have a risk of unsustainable forest management, including timber harvesting?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project pose a risk of depleting biodiversity and ecosystem functionality in areas where improved forest management is undertaken?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project risk not meeting requirements for environment-friendly, socially beneficial, and economically viable plantations using native species whenever possible?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve the risk of negatively influencing access to and availability of food for people affected?	☐ YES ☒ NO
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If the answer to the question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	modification of the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	☐ YES ☐ POTENTIALLY ☒ NO
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If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

NA

ERROR! REFERENCE SOURCE NOT FOUND. ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve any risks to animal welfare?	
	Animal welfare shall be ensured by providing access to water and food, appropriate environment, humane treatment, and staff training. Evidence of mistreatment will be treated as an immediate non-conformity.	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve any potential risk of excessive or inadequate use of veterinary medicines?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve the risk of administering synthetic growth promoters, including hormones?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

Would the project involve or lead to:		
ERROR! REFERENCE SOURCE NOT FOUND.	animal husbandry or harvesting of fish populations or other aquatic species? ³⁹	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	limiting access for animals to basic needs like drinking water, adequate food, daylight, appropriate shelter etc.?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	inadequate measures to isolate sick animals and control the spread of disease, especially zoonotic diseases?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	inadequate low-stress methods, equipment, and facilities that facilitate calm animal movement.	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	inadequate measures to ensure that animals are exposed to the least stress possible during transportation and slaughtering?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	inappropriate spacing per animal and stocking rates per land unit?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	inadequate measures to address the specific needs of aquatic animals?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	primary production of living natural resources such as animal husbandry, aquaculture, and fisheries? If the answer is yes, implement industry-standard sustainable management practices in line with to one or	☐ YES ☐ NO ☒ NA

³⁹ 'Involve' means if the project mechanism and/or impact(s) are achieved via changing animal husbandry practices in some way.

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	more relevant and credible standards and utilise available technologies.	
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If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

NA

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Does the project have the risk of negatively impacting HCV areas and/or critical habitats?	☐ YES ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Does the project in the project area or area of downstream impacts have risks to the following: native tree patches, individual native trees, freshwater resources (including rivers, lakes, swamps, temporary water bodies, and wells), habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

Would the project involve or lead to:

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	identified habitats as HCV areas and or Critical habitats?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	If answer to above question is "yes", does the project have any risks that could negatively impact the catchment, project success, and surrounding HCV and ecological assets, as well as any measurable adverse impacts on the criteria or biodiversity values for which the critical habitat was designated, and on the ecological processes supporting that biodiversity?	☐ YES ☐ NO ☒ NA
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	If answer to above question is "yes", is a robust, appropriately designed, and long-term Habitats and Biodiversity Action Plan absent which will make the project unable to achieve net gains of those biodiversity values for which the critical habitat was designated?	☐ YES ☐ NO ☒ N/A
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u>	Does the project area or area of downstream impacts have native tree patches, individual native trees, freshwater resources (including rivers, lakes, swamps, temporary	☐ YES ☐ POTENTIALLY

<u>NOT FOUND.</u>	water bodies, and wells), habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?	☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	If the answer to the above question is "yes", will the project have any adverse effects on these areas?	☐ YES ☐ No ☒ NA
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	If the answer to above question is "yes", does the project has opportunities to minimise unwarranted conversion or degradation of the habitat and to enhance the habitat as part of its development?	☐ YES ☐ No ☒ NA
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	Is the project applying Land Use & Forest Activity Requirements and managing a minimum 10% of the project area to protect or enhance the biological diversity of native ecosystems following HCV approach as per the given requirements?	☐ YES ☐ No ☒ NA
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

NA

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	Does the project lead to the reduction or negative impact on any recognised Endangered, Vulnerable or Critically Endangered species?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

Would the project involve or lead to:

<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	distortion of habitats of endangered species?	☐ YES ☐ POTENTIALLY ☒ NA
<u>ERROR! REFERENCE</u>	If answer to the above question is "yes", does the project plan to protect and enhance them?	☐ YES ☐ POTENTIALLY

<u>SOURCE NOT FOUND.</u>		☐ NO ☒ N/A
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

NA

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	Does project introduce any alien species (not currently established in the country or region of the project) into new environments?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

NA

Would the project involve or lead to:

<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	risk of introducing any alien species with a high risk of invasive behaviour regardless of whether such introductions are permitted under the existing regulatory framework?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	risk of potential accidental or unintended introductions including the transportation of substrates and vectors (such as soil, ballast, and plant materials) that may harbour alien species.	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	risk of spreading alien species into areas in which they have not already been established?	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

NA

APPENDIX 2- CONTACT INFORMATION OF VPA IMPLEMENTER

Organisation name	EcoLinks Co., Ltd.
Registration number with relevant authority	171-88-01731
Street/P.O. Box	21 Baekbeom-ro 31-gil
Building	No. 527
City	Seoul
State/Region	Mapo-gu
Postcode	-
Country	Republic of Korea
Telephone	+82 10 64449722
E-mail	johnson@ecolinks.kr
Website	https://ecolinks.kr/
Contact person	Tichaa Johnson Penn
Title	Chief Executive Officer
Salutation	Mr.
Last name	Penn
Middle name	Johnson
First name	Tichaa
Department	-
Mobile	+82 10 64449722
Direct tel.	-
Personal e-mail	johnson@ecolinks.kr

APPENDIX 3- LUF ADDITIONAL INFORMATION

Not applicable as this is not a LUF category project.

Risk of change to the Project Area during Project Certification Period:	N/A
Risk of change to the Project activities during Project Certification Period:	N/A
Land-use history and current status of Project Area:	N/A
Socio-Economic history:	N/A
Forest management applied (past and future)	N/A
Forest characteristics (including main tree species planted)	N/A
Main social impacts (risks and benefits)	N/A
Main environmental impacts (risks and benefits)	N/A
Financial structure	N/A
Infrastructure (roads/houses etc):	N/A
Water bodies:	N/A
Sites with special significance for indigenous people and local communities - resulting from the Stakeholder Consultation:	N/A
Where indigenous people and local communities are situated:	N/A
Where indigenous people and local communities have legal rights, customary rights or sites with special	N/A

cultural, ecological, economic, religious
or spiritual significance:

APPENDIX 4 - DESIGN CHANGES

A4.1. Details of proposed or actual design change

>>

N/A

A4.2. Describe the Impacts of Design Change on the following

a. Additionality

>>

N/A

b. Applicability of methodology and other methodological regulatory documents with which the project activity has been certified

>>

N/A

c. Compliance with the monitoring plan of the applied methodology

>>

N/A

d. Level of accuracy and completeness in the monitoring of the project activity compared with the requirements contained in the registered monitoring plan

>>

N/A

e. Scale of the project activity

>>

N/A

f. Stakeholder consultation

>>

N/A

g. Sustainable development criteria

>>

N/A

h. Safeguarding Assessment

>>

N/A

i. Compliance with applicable legislation

>>

N/A

Revision History

Version	Date	Remarks
2.3	Dd/mm/yyyy	Editorial changes in line with V2.1 of the Safeguarding Principles and Requirements
2.2	21 June 2023	Editorial changes in line with V2.0 of the Safeguarding Principles and Requirements
2.1	14 April 2023	Integrated the design change memo as annex of the document.
2.0	4 May 2022	
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