

TEMPLATE

KEY PROJECT INFORMATION & VPA DESIGN DOCUMENT (VPA DD)

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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

Section F - Eligibility and inclusion criteria for VPAs inclusion

Appendix 1 – Safeguarding Principles Assessment (mandatory)

Appendix 2 – Contact information of VPA Implementer (mandatory)

Appendix 3 – LUF Additional Information (VPA specific)

Appendix 4 – Design Changes

Appendix 5- Entity Responsible for completing VPA Design document

Appendix 6- Deviation from the monitoring methodology

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)	Not Applicable
GS ID of real case VPA (if applicable)	Not Applicable
GS ID of VPA	GS 12252
Title of VPA	Improved Cookstove and Safe Water Programme – Kenya - VPA 50
Time of First Submission Date	17/07/2023
Date of Design Certification	-
Version number of the VPA-DD	5.0
Completion date of version	22/11/2023
Coordinating/managing entity	Impact Carbon LLC
VPA Implementer (s)	Impact Water LLC
Project Participants and any communities involved	Impact Carbon LLC Impact Water LLC
Host Country (ies)	Kenya
GS ID and Title of applicable Design Certified VPA	-
GS ID and Title of applicable Performance Certified VPA	-
Activity Requirements applied	☒ Community Services Activities ☐ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☐ N/A
Other Requirements applied	GS4GG Principles & Requirements Version 1.2 GHG Emissions Reduction & Sequestration Product Requirements Version 2.0 Programme of Activity Requirements Version 1.2 “Emission reductions from Safe Drinking Water Supply” Version 1.0 – 03/5/2021
Methodology (ies) applied and version number	
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	Amount of CO ₂ e reduced by the project	59,618	tCO ₂ e (VER)
SDG: 1 No Poverty					
1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance			1.4.1 Proportion of population living in households with access to basic services		
			Indicator: Total number of premises (Schools / institutions) with at least one WPS distributed / installed under the project	620	Number
SDG:3 Good Health and Well Being					
3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.			3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services.		
			Indicator: % sampled Schools / institutions reporting reduction in incidence of diarrhoea and water borne diseases etc. after shifting to the project WPS	90%	Percentage
SDG:6 Clean Water and sanitation					
6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all			6.1.1 Proportion of population using safely managed drinking water services	620	Number
			Indicator: Total Number of WPS distributed/installed under the project and % of WPS distributed/installed providing safe drinking water quality	90%	Percentage

7 Affordable and Clean Energy	7.1.2 Proportion of population with primary reliance on clean fuels and technology	90%	Percentage
7.1 By 2030, ensure universal access to affordable, reliable and modern energy services	Indicator: % Schools / institutions reporting an operational WPS in project		
8 Decent Work and Economic Growth	8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities	12	Number
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	Indicator: Number of male / females employment created by project		

SECTION A. DESCRIPTION OF PROJECT

A.1. Purpose and general description of project

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The stated goal of proposed VPA is the widespread dissemination of water purification systems (WPS) to schools and other institutions in Kenya. The technologies implemented under the VPA are further described in section A.3 below. The VPA will use carbon finance to support local partners engaged in the production, distribution, and maintenance of various WPS technologies.

The VPA will reduce GHG emissions by reducing or replacing the use of non-renewable biomass / fossil fuel for boiling water to purify it for drinking purposes. The baseline study conducted to assess the baseline scenario in schools and institutions in Kenya is stated in section B.4 below.

Prevailing Policies:

Kenya environmental sanitation and hygiene policy¹ 2016-2030 recognizes that unsafe drinking water, along with inadequate hygiene and sanitation contributes much of the disease burden in Kenya. This policy therefore recommends development and implementation of sanitation and hygiene interventions that address faecal contamination and vector breeding in household/school water storage and promoting appropriate technology options for household/school water treatment and safety in tandem with sanitation and hygiene interventions at household/School/ community levels.

The project WPS will result in elimination/reduction of non-renewable biomass / fossil fuels usage for water boiling. This will result in significant improvement in indoor air pollution associated with use of solid biomass / fossil fuel based inefficient cookstove used for water boiling practice which has a direct correlation with respiratory illness and mortality rates, especially among school children in the project beneficiaries.

In this VPA, the VPA implementer is Impact Water LLC, and the CME is Impact Carbon LLC. The VPA Implementer shall operate the VPA as per the CME management system and provide the CME with information required to include the project activity under the PoA, perform monitoring and verification of the activity, and renew the crediting period, besides other responsibilities.

Beneficiaries receiving the project technologies under the VPA will agree to the terms of the PoA and will cede all rights to any VERs resulting from the VPA to CME (Impact Carbon) or CPA Implementer (Impact Water), as applicable.

Target Group

¹<https://www.wsp.org/sites/wsp.org/files/publications/Kenya%20Environmental%20Sanitation%20and%20Hygiene%20Policy.pdf>

The VPA's target groups are schools and institutions, within Kenya that purify water, or would have purified water (suppressed demand), through boiling using non-renewable biomass / fossil fuel.

Distribution Method

The VPA Implementer will either distribute technologies directly to the target groups (i.e., schools or institutions) in Kenya or work with local distributors to distribute the WPS technologies to the target group.

Technology

The technology distributed / sold under the VPA are low-GHG water purification technologies (refer section A.3 below for details).

Record Keeping System

Upon installation/distribution of the project WPS units, and associated accessories as applicable, following data would be collected for the project unit²:

- a) Address and contact details (name and phone number if available) of the beneficiary
- b) Date of distribution / installation
- c) WPS Technology type (model, make etc.)
- d) Unique ID number / TAG number / Batch number, as applicable.

The record keeping database will also be used to record the results of all monitoring activity, with all data collected to be kept for at least two years after the end of crediting period or the last issuance of VERs for the project activity, whichever is later. The data will be stored electronically in the database.

The VPA follows the GS Methodology "Emission reductions from Safe Drinking Water Supply" Version 1.0 – 03/5/2021.

Contribution to Sustainable Development

The VPA contributes to sustainable development by increasing accessibility to low GHG safe drinking water technologies among the target groups within the VPA boundary. In addition to increasing accessibility, the activity implemented under the VPA will reduce the use of fossil fuels and non-renewable biomass thereby decreasing GHG emissions within the VPA boundary and reducing fuel expenditures. It will also provide health benefits, such as the reduction of waterborne disease by increasing access to safe drinking water and improved indoor air quality by reducing IAP emissions. Refer table 1 above for anticipated SD benefits from the project.

A.1.1. Eligibility of the VPA under approved PoA

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² It may not be possible to collect beneficiary details for all WPS distributed under a VPA. However, the beneficiary details should be collected for as many beneficiaries as commensurate with representative sampling, i.e. it should not be less than 10 times the survey and field test sample size.

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 AND SUPPORTING EVIDENCE FOR INCLUSION
1	Technology	For WPS Project technology performance level (HWT and IWT): It shall be demonstrated based on report of laboratory testing or official notification that the project technology or equipment achieves either - Compliance with the national standard or guideline for household drinking water treatment technology, or - The performance target classification 3-star or 2-star level, meaning "Comprehensive Protection," as per the WHO International Scheme to Evaluate Household Water Treatment Technologies (World Health Organization, 2011)	The WPS technologies under the VPA are in compliance with the national standards. Supporting Evidence: Technical specifications / official notification from approved agencies for Chlorination (UltraTAB / UltraFLO).
2	Location	Each VPA will be located within the physical/geographical boundary of the PoA	Refer section A.2 (location of project) of VPA-DD for location of the VPA. The WPS Distribution / Installation Database lists all systems as installed within Kenya.
3	Additionality	Each VPA will satisfy the criteria for demonstrating additionality through one of the following options: Option 1: As per Activity Requirement: As per GS4GG Community services activity requirements, Version 1.2, Para 4.1.9, Projects that meet any of the	The project is additional as per CSA Annex B. Refer section B.5 below for details.

following criteria are considered as deemed additional and therefore are not required to prove Financial Additionality at the time of design certification:

- (a) Positive list (Annex B of this document)
- (b) Projects located in LDC, SIDS, LLDC
- (c) Microscale projects

Option 2: CDM Tool

- Para 12 and 13 of Tool 19 (version 9.0); or
- Para 10/Figure 1 of Tool 21 (Version 13.1); or

Para 11 of Tool 21 (Version 13.1)

4	De-Bundling	As per GS4GG Programme of activities requirements section 10.1.1, de-bundling provisions do not apply to Voluntary PoAs.	Not required
5	Double Counting	Each VPA will utilize identifiers for every appliance under the PoA to show that the appliance belongs to that specific PoA. The unique identifier will be designating each appliance as part of the PoA, and CME master distribution/installation records will ensure each sale is credited under only a single VPA.	CME maintains a VPA distribution database listing all distributed WPS included in the VPA. Each WPS unit bears a unique product ID to avoid double counting. Supporting Evidence: WPS Distribution / Installation Database
6	History	V/CPAs are neither registered as project activities with other offset Schemes, included in other registered PoAs, nor the project activities that have been deregistered. unless transitioning to GS from other standard.	The VPA is neither registered as project activities with other offset Schemes, included in other registered PoAs, nor the project activities that have been deregistered from any other GHG programs and is only seeking registration under GS. Supporting Document: CME declaration
7	Start Date	Each VPA will prove that the start date of the VPA is on or after the start date of the PoA, or state that the VPA is claiming credits retroactively.	The start date of the VPA is 08/03/2023.

		As the project involves distribution/installation of WPS (distributed technology) the start date is the date of implementation of the first unit under the project.	Supporting Evidence: First WPS sales receipt / installation log / delivery note etc.
8	Crediting Period	Each VPA will have a renewable crediting period	The VPA has a renewable crediting period. Refer section C (duration and crediting period) of VPA-DD for crediting period
9	Public Funding	Each VPA will confirm that it does not results in diversion of Official Development Assistance (ODA). Declaration by CME that the VPA does not involve any funding that results in diversion of ODA.	Refer section A.5 (funding source of project) below. Supporting Documents: ODA Declaration by CME /VPA Implementer.
10	CME Approval	Each VPA will prove it has received the approval of the CME of the PoA.	The VPA has been approved by CME for inclusion in the PoA. Supporting Document: CME approval letter
11	Methodology	VPA will apply the GS methodology: "Emission Reductions from safe drinking water supply" Version 1.0 and adhere to all applicability conditions and other requirements of the methodology	Refer section B.1 (reference of approved methodologies) below where the same has been confirmed.
12	Target Group	The target group of the PoA, and each included VPA, are schools and/or institutions: those that prior to the implementation of the PoA either used or would have used, fossil fuels and/or non-renewable biomass to boil and purify water for drinking.	Refer Distribution database confirming the target group as schools and other institutions Supporting Document: Distribution / Installation database
13	Sampling	VPA will adhere to the sampling requirements stipulated in "Standard for Sampling and surveys for CDM project activities and programmes of activities" version 09.0.	Refer section B.7.2 (sampling plan) of VPA-DD below.

14	Stakeholder Consultation and Environmental Impact Analysis	VPA will conduct a Local Stakeholder Consultation / SFR, as applicable and adhere to the Environmental Impact Analysis requirements of the host country	VPA Local stakeholder consultation/SFR has been conducted. As per, the 2 nd Schedule of Environmental Management and coordination Act (EMCA) 1999 (Amended 2012) provides for categories of projects that require an Environmental Impact Assessment be concluded before project implementation ³ . There is no mandatory requirement for water purification systems to conduct an environmental Impact Assessment. hence EIA is not deemed required for WPS technologies in host country Kenya.
			Supporting Document: Consultation Report
15	VER Ownership	Each VPA will assure ownership of the VERs is secured by the CME	Refer purchase orders / sales receipts which transfers the rights of VERs from beneficiary VPA Implementer. The rights of VERs are transferred from VPA implementer to CME via contract. Also, this has been communicated to stakeholders during stakeholder Consultation.
16	Meth threshold	Each WPS VPA will ensure that it will meet the small-scale thresholds and remain within those thresholds throughout the crediting period	The VPA is limited to small-scale threshold (60k VERs per annum). Supporting Document: ER spreadsheet

³ Environmental Management and Co-Ordination Act Chapter 387, 2012, The Republic of Kenya

17	SDG outcome assessment	The monitoring plan for SDG shall include: 1. reduction in smoke, PM, soot emissions after shifting to the project ICS 2. reduction in incidence of diarrhoea and water borne diseases etc. after shifting to the project WPS 3. Number of ICS/WPS distributed and operating. 4. Total Number of WPS distributed/installed under the project and % of WPS distributed/installed provide safe drinking water quality 5. Number of male/female persons hired. Fuel savings reported by users in the PoA after shifting to ICS	SDG monitoring plan includes all details. Refer Section B.7.1 of the VPA-DD
18	Safeguarding Principles	Conducted at VPA level	Refer Appendix-A below for the SPA at the VPA level.
19	Retroactive VPAs	Retroactive VPAs that are submitted to GS /SustainCert at a date later than one year from the VPA start date shall not be eligible for Gold Standard Certification.	The VPA start date is 08/03/2023 and this VPA shall be submitted to GS within one year from VPA start date, i.e., before 08/03/2024. Thus, the VPA is deemed eligible for Gold Standard Certification.
20	CER Labelling	Projects in other standards seeking labelling of CERs under GS4GG shall demonstrate compliance with section 2.0, Annex B of GHG Emissions Reduction and Sequestration Product Requirements	Not Applicable, CER labelling is not envisaged for this VPA.
21	Conditions to be met in multi-country PoAs	Not applicable. Although the PoA is multi-country, a VPA shall remain limited to a singular country in the PoA and shall not include more than one country in the VPA boundary.	Although the PoA is multi-country, project boundary of the VPA-DD is Kenya. Refer section A.2 of the VPA-DD.

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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CME (Impact Carbon LLC) has full and uncontested legal ownership of GS VERs (SDG 13) that are generated from use of WPS products distributed under the VPA (VERs rights). The project beneficiaries agree to transfer the ownership of GS VERs to VPA Implementer (Impact Water LLC) at the time of purchase / distribution of product. The rights of VERs are transferred from VPA implementer to CME via contract.

A.2. Location of VPA

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Host Country: Kenya

Region/State/Province etc.: All regions of Kenya

City/Town/Community etc.: All cities and towns in Kenya

PoA Title: Improved Cookstove and Safe Water Programme

VPA Title: Improved Cookstove and Safe Water Programme – Kenya – VPA 50

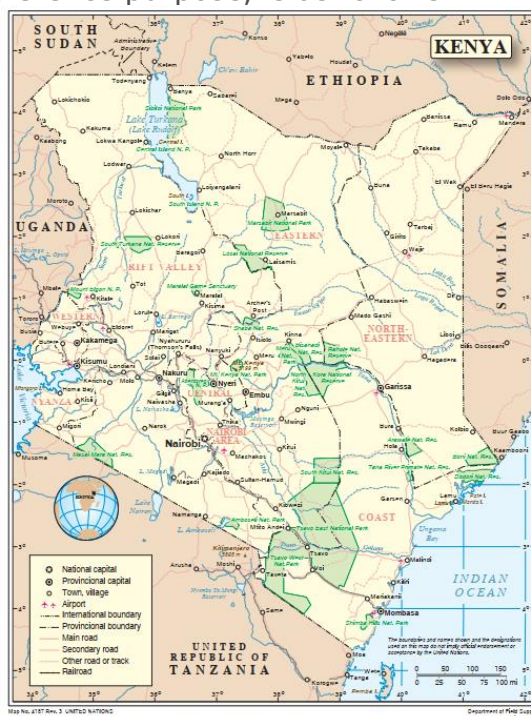
PoA GS ID: 11189

VPA GS ID: 12252

Physical/Geographical location:

Kenya is spread from 5.03° N to -4.65° N latitude, while the longitude spread is between 34.03° E to 41.9° E. With the land area of 581,309 km². The capital of Kenya is Nairobi, and its geographic coordinates are 1°16'S latitude and 36°48'E longitude.

The map of Kenya, for reference purpose, is as follows:



A.3. Technologies and/or measures

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Low GHG Water Purification Technologies

The project intends to make WPS products available to the schools and institutions in Kenya. The project proponent will continually assess technology options and partnerships, with the goal of providing the high performance, affordable and appropriate technologies to beneficiaries in Kenya.

The technologies/measures employed under the VPA are low GHG water purification technology involving point-of-use (POU) water treatment systems for schools and institutional applications. These will replace the current practice of boiling water with fossil fuel and/or non-renewable biomass which is the baseline scenario.

Several types of water purification technologies will be distributed under the VPA, that achieve compliance with the national standard or guideline for drinking water treatment technology. The example water purification systems and expected specifications, to be distributed initially through the project include the following:

WPS Models	Technology Type	Lifetime ⁴	Fixed or Portable	Removal of E. coli	Minimum Watt / Voltage
UltraFLO	Chemical	Expiry: 5 year Capacity: Flo: 340,000 ltrs Inline: 720,000 ltrs	Fixed	99 (2-log)	Not applicable
UltraTAB	Chemical	Expiry: 5 years Capacity: Big pack: 48,000 ltrs Small pack: 10,000 ltrs	Portable	99 (2-log)	Not applicable

All technologies included in the VPA are suitable within the context of local water consumption and cooking practices.

Along with the WPS that are currently being implemented, other low carbon water purification systems may also be included in the VPA later during the crediting period provided they meet the requirements of applied methodology and GS4GG requirements.

A.4. Scale of the VPA

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The project is a small-scale project.

A.5. Funding sources of VPA

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The project activity does not receive any public funding from Annex I countries and diversion of official development assistance (ODA) is not involved in the project activity.

⁴ Estimated lifetime from manufacturer specification sheet. This expiry is the valid lifetime of the chlorine tablet / cartridge within which it is deemed to be effective. The system lifetime is deemed greater than 20 years as other than the tablet, cartridge it consists on tanks and piped connections (for UltraFLO) which are highly durable and long lasting and can be easily replaced.

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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GS Standard Approved Methodology:

The first crediting period will follow GS approved methodology i.e., "Emission reductions from Safe Drinking Water Supply" Version 1.0 – 03/05/2021 for baseline and monitoring requirements. The applied methodology can be access at the following link:

https://globalgoals.goldstandard.org/standards/429_V1.0_EE_SWS_Emission-reductions-from-Safe-Drinking-Water-Supply.pdf

Methodological Tools:

CDM Tool 30: Calculation of the fraction of non-renewable biomass

Guidelines:

N/A

Standardized baseline:

Not applicable

Additionality Tool:

Annex B of CSA requirements

B.2. Applicability of methodology (ies)

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The project applied methodology "Emission reductions from Safe Drinking Water Supply Version 1.0 – 03/05/2021". The following conditions apply to VPAs under this methodology:

The following conditions apply to VPAs under this methodology:

Applied Methodology Applicability Criteria	Justification
This methodology is applicable to project activities that introduce a new, or rehabilitate an existing, zero-emission ⁵ or low-emission technology to supply safe drinking water.	The VPA involves distribution of Low GHG Emission Water Purification Systems ("WPS") in schools and Institutional premises ⁶ that would have boiled water in the baseline.

⁵ Zero emission technology refers here to emissions generated by technologies once installed within the targeted premises and operational – it does not refer to life cycle emissions such as upstream emissions associated with the production or delivery of the technology.

⁶ e.g., residential institutional, industrial, or commercial facilities.

Technologies include household water treatment technologies (HWT), Institutional water treatment technologies (IWT), Community level water treatment technologies (CWT) and community water supply technologies (CWS).	The Project technology includes Institutional water treatment technologies (IWT).
Under this Methodology, a project's objectives are to reduce or avoid greenhouse gas emissions from boiling unsafe drinking water in the baseline, and to supply drinking water that is safe for consumption when it enters the project households or institutional premises. When the drinking water is treated in the household or institution (HWT or IWT), then the water supplied from the treatment technology should be safe. When the water is supplied or retrieved from a CWT or CWS directly to the premises of the household or institution, then the water entering the end-user premises should be safe.	The VPA involves distribution/installation of low greenhouse gas, Institutional water treatment technologies (IWT). These are point of use systems, located in the school/institution premises. These systems avoid GHG emissions from boiling unsafe drinking water in the baseline. Ex-post monitoring shall be conducted on sampling basis to demonstrate that the project systems deliver safe water. Emission reductions shall be accounted accordingly.
The methodology is applicable under the following conditions:	Please refer below for justifications:
a. Eligible household water treatment technologies (HWT), institutional water treatment technologies (IWT), and community level water treatment technologies (CWT) include bleach/chlorine, water filter (ceramic, sand, composite, membrane, etc.), UV disinfection, etc.	Examples of WPS technologies to be included in the VPA, but not limited to, are as follows: 1. Chemical disinfection – (chlorine) UltraTAB/UltraFLO
b. Eligible community water supply technologies (CWS) include new installation of new borehole hand-pumps, borehole hand-pumps rehabilitation, solar powered drinking water pumps, etc. Water pumps powered by fossil-fuel engines are not eligible, with the exception of backup fossil-fuel engines that are used for no more than 10% of operating hours (parameter SWDS 33).	Not applicable, as VPA involves distribution/installation of low greenhouse gas point of use Institutional water treatment technologies (IWT).
c. All projects involving CWT and CWS technologies must also include ongoing maintenance and repair of the project technology.	Not applicable, no CWT or CWS technologies are involved.

d. Where the project involves the rehabilitation of an existing technology, the project developer shall provide evidence that the existing technology is non-operational and that there is no planned maintenance or repair for at least 3 months after the date it became non-operational.	Not applicable, rehabilitation of existing technology is not envisaged in the VPA.
e. This methodology allows for project activities to include safe water treatment and/or supply technologies implemented for end-users in households, and/or commercial premises such as shops or institutional premises including half or full day/boarding schools, prisons, army camps & refugee camps.	The VPA involves distribution/installation of low greenhouse gas, Institutional water treatment technologies (IWT) in schools and other Institutions in Kenya.
f. In cases where the safe water is retrieved at the CWT or CWS location, the water in its improved form shall be available within a distance of 1 km or less from the end-users, as demonstrated by satellite imaging or GPS coordinates ⁷ of each CWT or CWS location. Alternatively, as a proxy, a total collection time of 30 minutes or less for a round trip, including queuing, using the travel modes of walking or pedaling may be demonstrated.	Not applicable, no CWT or CWS technologies are involved
g. Project technology performance level (HWT and IWT): It shall be demonstrated based on report of laboratory testing ⁸ or official notification ⁹ that the project technology or equipment achieves either (i) the performance target classification 3-star or 2-star level, meaning "Comprehensive	The project technologies meet compliance with the national standard/guidelines. Please refer the confirmation letter from local agency.

⁷ Acceptable formats for GPS coordinates include DMS (degrees, minutes and seconds), DMM (degrees and decimal minutes), and DD (decimal degrees).

⁸ The testing should be undertaken under conditions that are representative of the operation conditions of the project site(s) including feedwater.

⁹ For example, notifications from the national authority on health.

Protection,” as per the WHO International Scheme to Evaluate Household Water Treatment Technologies¹⁰ (World Health Organization, 2011) or (ii) compliance with the national standard or guideline¹¹ for household drinking water treatment technology; if no national guideline or standard is available, then the project technology shall comply with the WHO International Scheme requirements as per (i).	
h. Project technology performance level (CWT and CWS): For each individual CWT or CWS, it shall be demonstrated at the start of each crediting period with water quality testing reports that the water directly supplied by the project water technology/source achieves both: i. microbial quality in line with either (i) national standards or guidelines for microbial quality of drinking water, or in the absence of such requirements, (ii) the guideline values for verification of microbial quality from the Guidelines for drinking-water quality (Table 7.10, WHO, 2017)¹²; and ii. compliance with (i) national standards or guidelines on priority chemical contamination and physical and aesthetic aspects, or in the absence of such requirements, (ii) international standards or guidelines on priority chemical	Not applicable, no CWT or CWS technologies are involved.

¹⁰ International Scheme to Evaluate Household Water Treatment Technologies, WHO Refer to the list of products tested by WHO https://www.who.int/water_sanitation_health/waterquality/household/hwts-products-evaluated/en/

¹¹ The national standard or guideline shall be based on laboratory efficacy testing that, at a minimum, includes quantitative microbial measures of pre- and post-treatment challenge waters that are representative of potential drinking water sources, and that includes measured reductions based on at least one pathogen class (bacteria, viruses, protozoa). “Challenge water” is synonymous with “test water”. This is the experimental water that has been spiked with microbes (a “microbial challenge”) in order to demonstrate the potential for the technology to reduce microbes.

¹² World Health Organization. (2017). Guidelines for Drinking-water Quality: fourth edition incorporating the first addendum. Geneva: World Health Organization.

contamination ¹³ and physical and aesthetic aspects. (Parameter SWDS 3).	
i. The project must conduct annual water hygiene education campaigns for the end-users.	The project will conduct annual water hygiene education campaigns for the end-users. This has been developed as a monitoring parameter. Refer monitoring plan section below.
Project shall document the national, regional and local regulatory framework for provision of safe drinking water in the project boundary (parameter SDWS 4). The project shall not undermine or conflict with any national, sub-national and local regulations or guidance for safe drinking water supply, operation, and maintenance, including any tariff requirements.	For national, regional and local regulatory framework for provision of safe drinking water in the project boundary refer section A.1 of the VPA-DD. The VPA does not undermine or conflict with any national, sub-national and local regulations or guidance for safe drinking water supply, operation, and maintenance, including any tariff requirements.
If the expected technical life of project technology (parameter SDWS 7) is shorter than the crediting period, describe measures to ensure that end users are provided replacement systems of comparable quality at the end of the expected technical life (for example, replace with comparable or better technology, retrofit with performance guarantee, etc.). This applies both for new technology and rehabilitated.	The technical lifetime of the systems is not limited. Instead, the system lifetime is based on the lifetime of the cartridge / Tab Pack as applicable. Depending on the type of system installed/distributed, the lifetime is deemed renewed automatically, every time the system is reinforced with a new cartridge / TAB pack Thus, the systems are not constrained with respect to lifetime. The supplies (quantity and date) made are being monitored as part of proposed monitoring plan for this purpose.
All CWT and CWS projects must include ongoing maintenance and repair of the project technology. The PDD must describe the maintenance and repair plan, including the system for logging/documenting of technology operation and maintenance events including periods of downtime ¹³ . The log of operation and maintenance shall be required during the monitoring period to demonstrate project technology operation".	Not applicable, the VPA does not involve CWT/CWS systems.

¹³ At the global level, the priority chemical contaminants are arsenic and fluoride. In absence of relevant national standards, compliance with the WHO guideline values (maximum 10 µg/L and 1.5 mg/L, respectively) shall be demonstrated.

B.3. VPA boundary

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Project Boundary

The requirements apply to boundary of VPAs under this methodology:

- a) The project boundary is the physical, geographical sites of the project technologies and potentially of the baseline and project fuel collection and production (e.g., charcoal), as well as solid waste and effluents disposal or treatment facilities associated with the fuel processing.

The project boundary for the VPA is comprised of the schools and institutions where the project units are physically located, and the baseline fuel collection and production points, which wood or charcoal would have been produced or collected in the areas surrounding the project schools and institutions.

- b) The region(s) or town(s) within a single country defines the target area. The target area provides an outer limit to the project boundary in which the project has a target population.

The target area is Kenya.

- c) In cases where woody biomass (including charcoal) is the baseline fuel or where the project activity introduces the use of a new biomass feedstock into the project situation, the fuel production and collection area is the area within which this woody or new biomass is produced, collected and supplied.

The woody biomass fuel is expected to be sourced from within the project boundary or target area, given biomass-based cooking is prevalent in Kenya as explained in section A.1 above. The project does not involve the introduction of new biomass feedstock.

Source		GHGs	Included?	Justification/Explanation
Baseline scenario	Emissions from combustion, in baseline	CO ₂	Yes	Important source of emissions
		CH ₄	Yes	Important source of emissions
		N ₂ O	Yes	Important source of emissions
Project scenario	Emissions from combustion, production, and transport in project	CO ₂	No	VPA replaces the use of nonrenewable biomass/fossil fuel, neither does it requires electricity consumption, hence no project emissions are envisaged.
		CH ₄	No	
		N ₂ O	No	

All water purification systems disseminated under the VPA are located within the VPA boundary shown in section A.2. The VPA boundary is within the host country(ies) covered by the PoA, i.e., the boundary of the PoA.

B.4. Establishment and description of baseline scenario

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KENYA ENVIRONMENTAL SANITATION AND HYGIENE POLICY 2016-2030 recognizes that unsafe drinking water, along with inadequate hygiene and sanitation contributes much of the disease burden in Kenya. This policy therefore recommends development and implementation of sanitation and hygiene interventions that address faecal contamination and vector breeding in household/school water storage and promoting appropriate technology options for household/school water treatment and safety in tandem with sanitation and hygiene interventions at household/School/ community levels.

Even though the policy and framework, related to safe water drinking, is in place in Kenya. The baseline study conducted to assess the baseline scenario in schools and institutions substantiate that access to safe drinking water for the population is still a challenge in Kenya.

As per section 3.4.1 of the applied GS methodology, the general baseline scenario is that users would have boiled drinking water in the absence of the project activity.

As per section 3.4.3 of the applied methodology, for the case of schools/institutions currently drinking unsafe water because e.g., energy poverty barriers result in less than the minimum required amount of safe drinking water, the principles of suppressed demand are applied, and the baseline is set as a proxy technology (water boiling of an adequate quantity of drinking water) based on the standard of living achieved by peers (adequate supply of safe drinking water).

As per section 3.4.2 of applied methodology, the suppressed demand baseline may be applied for institutional end-users, except where the institution is connected to a public distribution network (PDN) that supplies safe drinking water – unless justified that supplied water quality doesn't meet safe water definition.

Therefore, Institutional end users, connected to PDN, who are consuming unsafe water due to resource constraint are also included in the baseline scenario.

As per section 3.5.1 of the applied GS methodology, the applicable baseline scenario for fuel, technology and end user group will be determined as per guidelines on baseline scenario selection and justification provided in Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC, Version 3.1).

As per applied methodology (Version 1.0) section 4.2.3, the baseline survey should be following these guidelines for minimum sample size:

Group size <300: 30 or population size, whichever is smaller

Group size 300 to 1,000: 10% of group size

Group size > 1,000: 100

As per official website of ministry of education, Republic of Kenya, there are over 90,000 schools in Kenya. Therefore, the sample size to considered as per methodology is 100. The CME conducted baseline survey in Aug-Sep 2021 targeting 200 schools spread across Kenya (spread across 21 counties) out of which surveys were completed for 180 schools successfully. The section below presents the outcome of the survey. The sources of water in these 180 schools were verified as follows:

Source of drinking water	# Schools/Institutions	% Of Schools/Institutions
Well/borehole	76	42.22%

Surface_Water	19	10.56%
Piped_government	24	13.33%
Piped_private	17	9.44%
Rainwater	36	20.00%
Trucked _water	6	3.33%
Other	2	1.11%

As per Annex 2 of the applied GS methodology, piped water, rainwater, packed or delivered water (ex-Trucked water) and water from boreholes or protected wells belong to improved sources of drinking water. For the remaining, the water source has been considered as unimproved.

Source of drinking water	# of Schools/Institutions	% of Schools/Institutions
Improved sources	159	88.33%
Unimproved Sources	21	11.67%

Pre-project practices of boiling water, or drinking unsafe water (suppressed demand):

The baseline survey questionnaire, confirmed from the sample of the practice of treating water (either via boiling or other technique) or drinking unsafe water. Based on the same the following was deduced from survey data collected.

Baseline Treatment Method	
Type of treatment method	# Of Schools/Institutions
Receiving safe water without treatment	2
Treating/ would have treated water without boiling	6
Treating/ would have treated water via boiling	172
C_b	4.44%

Therefore, C_b (Proportion of project end-users who in the baseline were already using safe water, either from an improved water source, or from a water treatment method other than boiling) is =4.44%.

Baseline Fuels:

The types of baseline fuels reported by sampled school included woodfuel and charcoal. The distribution of different fuel types being consumed is as follows:

Baseline Fuel Usage	
Type of fuel consumed	% Schools/Institutions
Woodfuel	98.84%
Charcoal	1.16%
Total	100.00%

So, solid biomass fuel is the primary fuel type in the baseline. Also, the woodfuel using institutions were found to be using traditional /three stone fire stove for water boiling and the charcoal using institutions were found to be using traditional coal pot.

Type/Efficiency of water boiling systems:

The following table presents the type of baseline devices being used for water boiling in schools/institutions. The average thermal efficiency has been considered as follows as conservative measure:

Baseline thermal efficiency	
Type of baseline stove	% Value
Traditional/three-stone fire woodfuel	10%
Traditional Charcoal pot	20%
Baseline thermal efficiency	10.12%

The weightage average thermal efficiency of the baseline devices is therefore considered as 10.12% (refer ER calculator for details).

During the baseline surveys conducted, the suppressed demand was duly captured. The baseline surveys objectively determined the extent to which sampled schools/institutions were prevented from treating unsafe water due to lack of funds, or non-availability of any treatment technology in the region (suppressed demand).

The project WPS will result in elimination/reduction of non-renewable biomass / fossil fuels usage for water boiling. This will result in significant improvement in indoor air pollution associated with use of solid biomass / fossil fuel based inefficient cooking and water boiling practice which has a direct correlation with respiratory illness and mortality rates, especially among women and children, worldwide.

Thus, the baseline scenario as per 3.4.1 and 3.4.2 (Suppressed demand) of the methodology is the use of non-renewable biomass/fossil fuels for water boiling. Since the voluntary Project Activities (VPAs) are accounting Suppressed Demand Scenario to establish baseline, hence, the scale of VPA is limited to small scale. As per para 1.1.1(c) of the GS4GG Rule Update "Application of Suppressed Demand, project type and applicable scale threshold (entry into force: 13/11/2020)" project activity shall not result in GHG emission reductions more than 60,000 tCO₂e per year in any year of the crediting period. Refer section B.6.4 below where the estimated ERs from the VPA are projected to be lower than 60,000 tCO₂e per annum over the crediting period.

B.5. Demonstration of additionality

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Activity Requirement:

Specify the methodology, activity requirement or product requirement that establishes deemed additionality for the proposed project (including the version number and the specific paragraph, if applicable).

As per GS4GG Community services activity requirements, Version 1.2, Para 4.1.9, Projects that meet any of the following criteria are considered as deemed additional and therefore are not required to prove Financial Additionality at the time of design certification:

- (a) Positive list (Annex B of this document)
- (b) Projects located in LDC, SIDS, LLDC
- (c) Microscale projects

Justification:

As per Positive List - Annex B, the project meets the criteria given in 1.1.3

Project activities solely composed of isolated units where the users of the technology/measure are households or communities or institutions and where each unit results in <= 600 MWh of energy savings per year or <=600 tonnes of emission reductions per year.

Describe how the proposed VPA meets the criteria for deemed additionality.	Each project unit shall result in emission reductions less than 600 tCO ₂ e per annum. In case the VPA generates more than 60,000 tCO ₂ e per annum, the VERs shall be capped at 60,000 tCO ₂ e per annum Hence the project meets the requirements of Positive List mentioned within the CSA Requirements and hence is deemed additional. Refer cell E34 of the Tab: Assumptions & ER Values of ER calculator
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B.5.1. Prior Consideration

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The Start date of VPA is 08/03/2023 (date of installation of first unit in the VPA). The systems are being included under the registered GS PoA 11189 hence, prior consideration is not applicable.

B.5.2. Ongoing Financial Need

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Not Applicable. The project is automatically additional as per Annex B of CSA Requirements as explained in B.5 above.

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)

1 No Poverty	1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	1.4.1 Proportion of population living in households with access to basic services Indicator: Total number of premises (Schools / institutions) with at least one WPS distributed / installed under the project
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.	3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services) Indicator: % sampled Schools / institutions reporting reduction in incidence of diarrhoea and water borne diseases etc. after shifting to the project WPS
6 Clean Water and sanitation	6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	6.1.1 Proportion of population using safely managed drinking water services Indicator: Total Number of WPS distributed/installed under the project and % of WPS distributed/installed providing safe drinking water quality
7 Affordable and Clean Energy	7.1 By 2030, ensure universal access to affordable, reliable, and modern energy services	7.1.2 Proportion of population with primary reliance on clean fuels and technology Indicator: % Schools / institutions reporting an operational WPS in project
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	8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities Indicator: Number of male / females employment created by project

13	Climate	Amount of CO ₂ e emissions reduced by the project per year.
Action (mandatory)	Not applicable	

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

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Technologies employed under the VPA include low-carbon water purification technologies intended as technologies and/or practices under the methodology. The VPA applies the following methodological choices:

As the expected technical life of the project technology is shorter than the crediting period, end users will be provided replacement systems of comparable quality to continue claiming emission reductions or otherwise, the ERs will be limited to the expected technical life.

$f_{NRB,f,y}$ is being fixed ex-ante as an option provided in parameter table SDWS 21 of the methodology.

The following default values for water consumption (used for drinking, food preparation and cleaning) as per the meth will be used for ER calculations:

Type of Premises	Default value	Applicability	Reference
Full-day premises	4 L /person / day	Premises like households etc.	Emission reductions from Safe Drinking Water Supply Version 1.0 - 03/05/2021"
Boarding school	4 L /person / day	-	
Half time premises	3 L /person / day	Premises like day schools, offices etc.	

SDG 1: No Poverty

Applied methodology/approach	Equation/calculation
1.4.1 Proportion of population living in households with access to basic services Approach: Total number of WPS distributed / installed under the project	WPS distribution/installation records Net Benefit (SDG 1) = $ABS_{Project} - ABS_{Baseline}$ Where: $ABS_{Baseline}$ Access to basic services (number of premises with at least one WPS distributed / installed in baseline) $ABS_{Project}$ Access to basic services (number of premises with at least one WPS distributed / installed under the project)

SDG 3: Good Health and Well Being

Applied methodology/approach	Equation/calculation
	Ex-post Monitoring Surveys Records

3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services) Approach: % of users reporting reduction in incidence of diarrhoea and water borne diseases etc. after shifting to the project WPS	Net Benefit (SDG 3) = $IH_{Project} - IH_{Baseline}$ Where: $IH_{Baseline}$ % of users reporting reduction in incidence of diarrhoea and water borne diseases etc. in baseline $IH_{Project}$ % of users reporting reduction in incidence of diarrhoea and water borne diseases etc. after shifting to the project WPS
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SDG 6: Clean water and Sanitation

Applied methodology/approach	Equation/calculation
6.1.1 Proportion of population using safely managed drinking water services Approach: Total Number of WPS distributed/installed provide safe drinking water quality	Ex-post Monitoring Surveys Records Net Benefit (SDG 6) = $SWQ_{Project} - SWQ_{Baseline}$ Where: $SWQ_{Baseline}$ Total Number of WPS distributed/installed under the baseline and % users reporting safe water quality in baseline $SWQ_{Project}$ Total Number of WPS distributed/installed under the project and % users reporting safe water quality in project

SDG 7: Affordable and Clean Energy

Applied methodology/approach	Equation/calculation
7.1.2 Proportion of population with primary reliance on clean fuels and technology Approach: Monitor the % of operational WPS distributed	WPS distribution records + Ex-post Monitoring Surveys Records Net Benefit (SDG 7) = $AAC_{Project} - AAC_{Baseline}$ Where: $AAC_{Baseline}$ Access to affordable and clean energy (% of operating WPS units under Baseline) $AAC_{Project}$ Access to affordable and clean energy (% of operating IWPS units under Project)

SDG 8: Decent Work and Economic Growth

Applied methodology/approach	Equation/calculation
8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities	Employment records Net Benefit (SDG 8) = $QE_{IG_{Project}} - QE_{IG_{Baseline}}$

Approach: Recording the number of employees (male / female) in the project under administrative, sales, production and management positions	Where: QE IG_{Baseline} Quantitative Employment and income generation (Number of person (male and female) hired under Baseline) QE IG_{Project} Quantitative Employment and income generation (Number of person (male and female) hired under Project)
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SDG 13: Climate Action

Applied methodology/approach	Equation/calculation
Amount of CO₂e emissions reduced by the project per year Approach: Emission reductions from Safe Drinking Water Supply Version 1.0 – 03/5/2021	For water purification technologies the overall GHG reductions achieved by the project activity in year y are calculated as follows: The baseline emission factor shall be calculated as follows: $EF_b = SE_{w,b,y} * \sum(x_f * (EF_{b,f,CO_2} * f_{NRB,f,y} + EF_{b,f,nonCO_2})) \div 10^9$ Where: EF_b = Emission factor for the use of fuel to obtain safe water in the baseline (tCO₂e/L) $SE_{w,b,y}$ = Specific energy required to boil water (kJ/L), to be calculated as per the paragraph below x_f = Proportion of fuel f used in the baseline (fraction determined based on an energy basis) EF_{b,f,CO_2} = CO₂ emission factor from use of fuel f (tCO₂/TJ) $EF_{b,f,nonCO_2}$ = Non-CO₂ emission factor arising from use of fuel f, when the baseline fuel f is biomass or charcoal (tCO₂e/TJ). This parameter is omitted when f is a fossil fuel. $f_{NRB,f,y}$ = 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. f = Index for baseline fuel types .

	The specific energy required to boil water using the baseline technology ($SE_{w,b,y}$) is determined as follows, by calculating the energy input required to obtain 1 L of boiling water, including boiling and vaporization losses¹⁴, taking into account default or measured stove efficiency. $SE_{w,b,y} = 360.83/\eta_{wb}$ Where: 360.83 = Default amount of energy required to obtain 1 L of water after 5 minutes of boiling from a first principles approach kJ/l η_{wb} = Efficiency of the stoves for baseline water boiling (%). Weighted average of baseline stove types. The baseline emissions shall be calculated as follows: $BE_y = EF_b \times (1 - C_b - X_{cleanboil,y}) \times Q_y \times M_{q,y}$ Where: BE_y = Baseline emissions from the use of fuel to obtain safe water in the baseline (tCO₂e) C_b = Proportion of project end-users who in the baseline were already using a safe water supply that did not require boiling (%) $X_{cleanboil,y}$ = Proportion of project end-users that boil safe water in the project year y (%) Q_y = Quantity of safe drinking water provided by the project in year y (L) $M_{q,y}$ = Modifier for the water quality in year y
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¹⁴ The previous version of TPDDTEC Annex 3 assumed that purifying water by boiling would require boiling water for 10 minutes. This assumption is revised to 5 minutes, following WHO technical information that less than 5 minutes of boiling is sufficient for inactivation of enteric bacteria (Technical Brief WHO/FWC/WSH/15.02, 2015).

	In the case of IWT, the quantity of safe drinking water provided by the project Q_y is determined as follows: $Q_y = \sum N_{p,y} \times U_{p,y} \times QPW_{hh,p,y} \times DP_{p,y}$ Where: $N_{p,y}$ = Number of premises type p with at least one project technology in year y $U_{p,y}$ = Usage rate of the project technology by premises type p during year y (%) $QPW_{hh,p,y}$ = Volume of drinking water per premises p per day in year y (L) $DP_{p,y}$ = Days the project technology is present for end-users in the premises p in year y The volume of drinking water per premises is determined by considering whether the capacity of the project device is sufficient to provide at least the default amount of drinking water, as follows: $QPW_{hh,p,y} = \min((q_i \times DN_{p,y}), (QPW_p \times HN_{p,y}))^{15}$ Where: q_i = Capacity of the HWT or IWT individual project technology supplied(L) $DN_{p,y}$ = Average number of individual project technologies in each project premises type p in year y $HN_{p,y}$ = Number of individuals per premises type p (e.g. household, school) in year y QPW_p = Volume of drinking water per person per day for premises type p (L) * average number of operational days in the year. Apply the default value or
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¹⁵ The ER calculation approach will ensure that the credits are claimed only for the period for which the school / institution is operational and has treatment supplies available. As a conservative measure, if there is a supply shortfall in a school / institution, the VERs calculated are limited by the available treatment capacity i.e. VERs will be claimed for minimum of the Available treatment capacity Vs total quantity of treated water required. This ensures that any period affected by shortfall / dis-continuity in the supplies is not accounted in the emission reductions.

	monitored value through water consumption field tests in the project scenario, capped at 5.5 L per person per day Project emissions are not envisaged in the VPA as chlorination does not require any fuel/ electricity use. The emission reductions are calculated as follows: $ER_y = BE_y - PE_y - LE_y$ Where: ER_y = Emission reductions in year y (t CO₂e/yr) BE_y = Baseline emissions in year y (t CO₂e/yr) PE_y = Project emissions in year y (t CO₂e/yr) LE_y = Leakage emissions in year y (t CO₂e/yr)
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Leakage

In line with the methodology “Emission reductions from Safe Drinking Water Supply” Version 1.0 – 03/5/2021, the following leakage studies will be included to assess the emission reductions generated by the activity:

1. The following potential sources of leakage have been evaluated ex-ante:

a) Members of the population who do not participate in the project, and previously used lower emitting energy sources, instead use the nonrenewable biomass saved under the project activity

- There is no evidence that the project increases the use of higher emitting fuel outside the project boundary where lower emitting energy sources take in place. Wood fuels remain a valuable and declining resource. Moreover, many users collect locally available wood for free. The free supply of wood is external to economic markets for wood and thus, to a large extent, these communities are shielded from market forces on wood fuel prices. This trend will not be reversed by the project activity.
- The government published data provides evidence that both non-project and project beneficiaries mainly use firewood and/or charcoal to fuel traditional cookstoves for water boiling. Baseline surveys also substantiate that solid biomass fuels is the primary fuel type in the baseline. Also, the woodfuel using institutions were found to be using traditional /three stone fire stove for water boiling and the charcoal using institutions were found to be using traditional coal pot. There is therefore no risk that the non-project beneficiaries may adopt higher emitting energy sources due to the project activity.

- Given that the leakage assessment does not expect an increase in fuel consumption by the non-project beneficiaries attributable to the project activity, calculations do not need to be adjusted to account for this leakage at the time of validation. However, the relevant parameters/data may be updated, if necessary, as specified by the monitoring plan.

Overall justification at the time of validation: No leakage is present.

b) The project significantly reduces the NRB fraction within an area where other GHG mitigation project activities account for NRB fraction in their baseline scenario.

- The impact of the project activity on the NRB fraction within the project boundary is expected to be negligible. The size of the project activity is small compared to the scale of the project boundary (country of Kenya) and thus is not likely to be significant within the target population to affect a change in f_{NRB} . The amount of woody biomass saved due to project activity is very less as compared to the total woody biomass consumption in Kenya i.e., 61,963,512Tonnes/yr (refer f_{NRB}). Hence, it will not have any significant impact on the NRB fraction of Kenya.

Overall justification at the time of validation: No leakage is present.

c) The project population compensates for loss of the space heating effect of water boiling by adopting some other form of space heating or by retaining some baseline wood fuel-burning practices.

- The climate throughout Kenya is temperate to hot. Space heating is not likely to be significant within the target population. No evidence exists that the project will result in increased fuel use for heating from inefficient stoves.

Overall justification at the time of validation: No leakage is present.

2. For each source for which the leakage assessment expects an increase in non-renewable biomass fuel consumption by non-project households/users attributable to the project activity, then calculations must be undertaken to account for the leakage from this source. Leakage is either calculated as a quantitative emissions volume (tCO₂e) or as a percentage of total emission reductions. The project documentation shall include a projection of leakage emissions based on available data and information. The monitoring plan must include monitoring parameters to be registered during the leakage investigation every two years to populate the leakage calculation.

Justification: Not Applicable as no significant increase in non-renewable biomass fuel consumption by non-project households/users attributable to the project activity is envisaged

3. The project developer must conduct a leakage investigation every two years using relevant methods. For example, surveys to determine parameters for the leakage calculation may be combined with project monitoring surveys, as is applicable.

Justification: leakage will be determined every two years.

4. If the ex-ante evaluation shows that leakage emissions are less than 5% of total emission reductions, then no monitoring is needed, and emission reductions simply shall be adjusted 5% down. In this case, the sources and magnitude of leakage emissions must be reassessed at the time of crediting period renewal.

Justification: As per 3 above, the PD will estimate leakage every two years. Alternatively, in case the leakage cannot be assessed, due to lack of data or other reasons, the PD may use a leakage discount factor of 0.95 (given it has been demonstrated above already that leakage is 0).

Justification: leakage will be determined every two years or at the time of CP renewal.

Ex-ante emission reduction calculations are provided in the Emission Reduction Calculation spreadsheet, submitted to DOE separately. In addition, further information for each parameter is provided in sections B.6.2 and B.7.1 of this VPA-DD.

B.6.2. Data and parameters fixed ex ante

SDG Indicator	SDG 1: No Poverty
Data/parameter	ABS _{Baseline}
Unit	Number
Description	Access to Basic Services (number of premises with at least one WPS distributed / installed under the baseline)
Source of data	--
Value(s) applied	0
Choice of data or Measurement methods and procedures	--
Purpose of data	SDG 1 Impact calculation
Additional comment	--

SDG Indicator	SDG 3: Good Health and Well Being
Data/parameter	IH _{Baseline}
Unit	%
Description	% of users reporting reduction in incidence of diarrhoea and water borne diseases etc. in baseline (improved health)
Source of data	--
Value(s) applied	0
Choice of data or Measurement methods and procedures	--
Purpose of data	SDG 3 Impact calculation
Additional comment	--

SDG Indicator	SDG 6: Clean Water and sanitation
Data/parameter	SWQ _{Baseline}
Unit	Number: For "total Number of WPS distributed/installed under in baseline scenario" %: For "% WPS distributed / installed providing safe drinking water to beneficiaries in baseline"
Description	Total Number of WPS distributed/installed and % users reporting safe water quality in baseline
Source of data	--
Value(s) applied	0
Choice of data or Measurement methods and procedures	--
Purpose of data	SDG 6 Impact calculation
Additional comment	--

SDG Indicator	SDG 7: Affordable and Clean Energy
Data/parameter	AAC _{Baseline}
Unit	%
Description	Access to affordable and clean energy (% of operating WPS units under Baseline)
Source of data	--
Value(s) applied	0
Choice of data or Measurement methods and procedures	--
Purpose of data	SDG 7 Impact calculation
Additional comment	-

SDG Indicator	SDG 8: Decent Work and Economic Growth
Data/parameter	QE IG _{Baseline}
Unit	number
Description	Quantitative Employment and income generation (Number of person (male and female) hired under Baseline)
Source of data	--
Value(s) applied	0
Choice of data or Measurement	--

methods and procedures	
Purpose of data	SDG 8 Impact calculation
Additional comment	--

SDG 13 parameters are governed by the methodology. The following parameters have not been included as these are deemed not applicable to the VPA:

- Parameters applicable to CWT / CWS:
 - Number of household/institution per CWT/CWS
 - Project technology performance level (CWT or CWS)
- NCV_f – Net Calorific value of fossil fuel f in project scenario is not applicable
- EF_f – fossil fuel f consumption in project scenario is not applicable

SDG Indicator	SDG 13: Climate Change		
Data/parameter	Project technology description		
Unit	NA		
Description	The detailed description of the planned project technology		
Source of data	- Manufacturer specifications - Third-party certification by a qualified entity, for example recognized certification agency by National/International Standard body		
Value(s) applied	Description	UltraFLO	Ultra TAB
	Manufacturer	Medentech	Medentech
	Product Name	FLO, InLine	Big Pack, Small Pack
	Technology type	Chlorination	Chlorination
	Performance classification	Complies with National standard	Complies with National standard
Choice of data or Measurement methods and procedures	As per methodology		
Purpose of data	--		
Additional comment	--		

SDG Indicator	SDG 13: Climate Change
Data/parameter	Regulatory framework for safe water supply
Unit	NA
Description	National, sub-national and local regulations or guidance for safe drinking water supply, operation and maintenance, including any tariff requirements in host country Kenya.
Source of data	National, sub-national and local authorities
Value(s) applied	Kenya environmental sanitation and hygiene policy 2016-2030 recognizes that unsafe drinking water, along with

	inadequate hygiene and sanitation contributes much of the disease burden in Kenya. This policy therefore recommends development and implementation of sanitation and hygiene interventions that address faecal contamination and vector breeding in household/school water storage and promoting appropriate technology options for household/school water treatment and safety in tandem with sanitation and hygiene interventions at household/School/ community levels. The implementation of the project is fully in line with the relevant water resources policies/framework of Kenya. The project does not undermine or conflict with any national, sub-national and local regulations or guidance for safe drinking water supply, operation and maintenance, including any tariff requirements. Further, the national standards and local regulations for safe drinking water supply do not impose any cap on parameters used by the methodology and therefore have no implications on emission reduction calculations.
Choice of data or Measurement methods and procedures	--
Purpose of data	--
Additional comment	Update at the start of crediting period

SDG Indicator	SDG 13: Climate Change		
Data/parameter	Water sources in the project boundary		
Unit	NA		
Description	Improved and Unimproved drinking water sources in Kenya		
Source of data	Design certified VPA-DDs of VPA31-47		
Value(s) applied			
	S.No	Drinking water source	% Premises
	1.	Government/ Private piped connection	22.78
	2.	Surface water	10.56
	3.	Well, /Borehole	42.22
	4.	Rainwater	20.00
	5.	Trucked Water	3.33
	6.	Others	1.11
	As per Annex 2 of the applied GS methodology, piped water, rainwater, packed or delivered water (ex-Trucked water) and water from boreholes or protected wells belong to improved sources of drinking water. For the remaining, the water source has been considered as unimproved.		
	S.No	Source of drinking water	% Premises
1.	Improved sources	88.33	

	2.	Unimproved Sources	11.67
Choice of data or Measurement methods and procedures	--		
Purpose of data	--		
Additional comment	Determined based on GS approved Baseline survey data, conducted for design certified VPAs (VPA31-47) Update at the start of crediting period		

SDG Indicator	SDG 13: Climate Change											
Data/parameter	Stove technologies used in the project boundary											
Unit	NA											
Description	The proportion of different stove types used in premises in the geographical area of the project. If the project covers different types of end-users premises (e.g. households, institutions), then the stoves technologies should be determined for each premises type.											
Source of data	Design certified VPA-DDs of VPA31-47											
Value(s) applied	<table><tr><th>S.no</th><th>Stove Technology</th><th>School/Institutions (%)</th></tr><tr><td>1</td><td>Traditional / 3 Stone Fire</td><td>98.84</td></tr><tr><td>2</td><td>Traditional Charcoal Pot</td><td>1.16</td></tr></table>			S.no	Stove Technology	School/Institutions (%)	1	Traditional / 3 Stone Fire	98.84	2	Traditional Charcoal Pot	1.16
S.no	Stove Technology	School/Institutions (%)										
1	Traditional / 3 Stone Fire	98.84										
2	Traditional Charcoal Pot	1.16										
Choice of data or Measurement methods and procedures	As per methodology											
Purpose of data	Determination of baseline emissions											
Additional comment	Determined based on GS approved Baseline survey data, conducted for design certified VPAs (VPA31-47) Update at the start of crediting period											

SDG Indicator	SDG 13: Climate Change
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Data/parameter	Expected technical life of project technology														
Unit	Treatment volume or operational hours or time period (e.g. “eight years”)														
Description	The expected technical life of an individual project technology shall be defined in the PDD. The details include both technology/device life and filter life, if a filter is used and it is replaceable.														
Source of data	Manufacturer specifications														
Value(s) applied	<table><tr><th>Description</th><th>UltraFLO</th><th>UltraTAB</th></tr><tr><td>Treatment Volume (Ltrs)</td><td>Flo: 340,000 Inline: 720,000</td><td>Big Pack: 48,000 Small Pack: 10,000</td></tr><tr><td>Life Span / Expiry-filter</td><td>5 years</td><td>5 years</td></tr><tr><td>Life Span / Expiry - system</td><td>20 years</td><td>20 years</td></tr></table>			Description	UltraFLO	UltraTAB	Treatment Volume (Ltrs)	Flo: 340,000 Inline: 720,000	Big Pack: 48,000 Small Pack: 10,000	Life Span / Expiry-filter	5 years	5 years	Life Span / Expiry - system	20 years	20 years
	Description	UltraFLO	UltraTAB												
	Treatment Volume (Ltrs)	Flo: 340,000 Inline: 720,000	Big Pack: 48,000 Small Pack: 10,000												
	Life Span / Expiry-filter	5 years	5 years												
	Life Span / Expiry - system	20 years	20 years												
Choice of data or Measurement methods and procedures	Manufacturer specifications														
Purpose of data	Determination of baseline emissions														
Additional comment	The lifetime of the systems is not constrained. Instead, the system lifetime is governed by the lifetime of the cartridge / Tab Pack as applicable, depending on the type of system installed/distributed. In case of UltraFLO/UltraTAB, the expiry of the cartridge/TABPack is 5 years. Every-time a school receives a new supply of UltraFLO cartridge/TABPack, the lifetime of the system is automatically deemed renewed, the supplies being a consumable.														
	Thus, the systems are not constrained with respect to lifetime and can extend much beyond the crediting period. Therefore “Life Span / Expiry – system” covers the total length of crediting period of the VPA.														
	In case the requirement for replacement due to loss or functional issues arises then a replacement system of comparable or better technology will be installed/distributed and relevant documents will be provided to end users														

	SDG 13: Climate Change
Data/parameter	X_f
Unit	Percentage of fuel f use in target population
Description	The proportion of each different cooking fuel f used in the project boundary by end-users:
Source of data	Design certified VPA-DDs of VPA31-47

Value(s) applied	<table><tr><th>S.no</th><th>Baseline Fuel Usage</th><th>School/Institutions (%)</th></tr><tr><td>1.</td><td>Woodfuel</td><td>98.84</td></tr><tr><td>2.</td><td>Charcoal</td><td>1.16</td></tr></table>	S.no	Baseline Fuel Usage	School/Institutions (%)	1.	Woodfuel	98.84	2.	Charcoal	1.16							
S.no	Baseline Fuel Usage	School/Institutions (%)															
1.	Woodfuel	98.84															
2.	Charcoal	1.16															
Choice of data or Measurement methods and procedures	As per methodology baseline surveys were conducted.																
Purpose of data	Determination of baseline emissions																
Additional comment	Determined based on GS approved Baseline survey data, conducted for design certified VPAs (VPA31-47) Update at the start of crediting period As per the baseline study conducted, ~99% of the sampled schools relying on wood fuel and ~1% relying on charcoal. Cross check measures: The value obtained has been cross checked against a study conducted in Trans-Nzoia County i.e., <i>"Demand and Supply Dynamics of Wood Energy in Schools in Trans-Nzoia County, Kenya"</i>. As per the referenced study Fuel type commonly found to be used by schools in Trans-Nzoia is as follows: <table><tr><th>Fuel Type</th><th>Trans-Nzoia West</th><th>Trans-Nzoia East</th><th>Kwanza</th></tr><tr><td>Firewood</td><td>93.1%</td><td>100%</td><td>100%</td></tr><tr><td>Charcoal</td><td>3.4%</td><td>-</td><td>-</td></tr><tr><td>Maize cobs</td><td>3.4%</td><td>-</td><td>-</td></tr></table> The result obtained from the referenced study supports the result obtained from the baseline surveys conducted.	Fuel Type	Trans-Nzoia West	Trans-Nzoia East	Kwanza	Firewood	93.1%	100%	100%	Charcoal	3.4%	-	-	Maize cobs	3.4%	-	-
Fuel Type	Trans-Nzoia West	Trans-Nzoia East	Kwanza														
Firewood	93.1%	100%	100%														
Charcoal	3.4%	-	-														
Maize cobs	3.4%	-	-														

SDG Indicator	SDG 13: Climate Change
Data/parameter	EF _{b, f, CO2}
Unit	tCO ₂ /TJ
Description	CO ₂ emission factor from use of fuels
Source of data	IPCC defaults
Value(s) applied	Wood = 112 tCO ₂ /TJ Charcoal = 165.22 tCO ₂ /TJ (includes charcoal production emissions)
Choice of data or Measurement methods and procedures	As per applied methodology
Purpose of data	Calculation of baseline emissions
Additional comment	--

SDG Indicator	SDG 13: Climate Change
Data/parameter	$EF_{b, f, nonCO2}$
Unit	tCO _{2e} /TJ
Description	Non-CO ₂ emission factor from use of fuels, in case the baseline fuel is biomass or charcoal
Source of data	IPCC defaults
Value(s) applied	AR5 GWP - Wood: 9.46 tCO _{2e} /TJ - Charcoal: 44.83 tCO _{2e} /TJ (includes production emissions of CH ₄ and N ₂ O)
Choice of data or Measurement methods and procedures	Deemed valid by GS VER Methodology
Purpose of data	Determination of baseline emissions
Additional comment	--

SDG Indicator	SDG 13: Climate Change		
Data/parameter	η_{wb}		
Unit	Percentage		
Description	Weighted average efficiency of the baseline water boiling devices.		
Source of data	Design certified VPA-DDs of VPA31-47 Methodology default value		
Value(s) applied	Stove Technology Usage:		
	S.no	Stove Technology	School/Institutions (%)
	1	Traditional / 3 Stone Fire	98.84
	2	Traditional Charcoal Pot	1.16
	Stove Efficiency:		
	S.no	Stove Technology	% Efficiency
	1	Traditional / 3 Stone Fire	10
	2	Traditional Charcoal Pot	20
	Thus, $\eta_{wb} = 98.84\%* 0.1+1.16\%*0.20 = 10.12\%$		
	Choice of data or Measurement methods and procedures	As per the methodology	
Purpose of data	Determination of baseline emissions		
Additional comment	Determined based on GS approved Baseline survey data, conducted for design certified VPAs (VPA31-47)		

SDG Indicator	SDG 13: Climate Change	
Data/parameter	C _b	
Unit	Percentage	
Description	Proportion of project end-users who in the baseline were already using safe water, either from an improved water source, or from a water treatment method other than boiling.	
Source of data	Design certified VPA-DDs of VPA31-47	
Value(s) applied	Baseline Treatment Method	
	Type of treatment method	# of Schools
	Receiving safe water without treatment	2
	treating/ would have treated water without boiling	6
	treating/ would have treated water via boiling	172
	C _b	4.44%
Choice of data or Measurement methods and procedures	Value is calculated based on baseline survey conducted for the target users	
Purpose of data	Determination of baseline emissions	
Additional comment	Determined based on GS approved Baseline survey data, conducted for design certified VPAs (VPA31-47) Cross check measures: Study referenced for cross check in GS decision for deviation DEV_259- The impact of a school-based safe water and hygiene programme on knowledge and practices of students and their parents: Nyanza Province, western Kenya, 2006.	
	This study is focused on evaluating the outcome of implementation of CARE Kenya SWS programme in Nyanza province. The SWS was implemented in 45 public primary schools in three districts of Nyanza Province: Suba, Homa Bay and Rachuonyo. The study selected 9 out of the 45 project schools, to assess drinking water collection, storage and treatment practices. Among these 9 sampled schools only 2 schools reported that they are treating their water, one by allowing the water to settle and other with WaterGUARD. The method of treating water by allowing it to settle does not ensure that the water is free from microbial infection. Further, treating by settlement is not considered a valid treatment method by DHS. The use of WaterGuard reported by other school, is not deemed the baseline situation as the school received	

	waterGuard under the SWS programme for a limited period of time which is not business as usual practice. Thus, the report reflects that treatment of water other than boiling in the baseline does not exists. Thus, as per cross checks conducted, the C_b value established as 4.44% is conservative.
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SDG Indicator	SDG 13: Climate Change		
Data/parameter	q_i		
Unit	Liters/cartridge or Liters/Tab Pack		
Description	Capacity of the household or institutional water treatment technology		
Source of data	Manufacturer specifications		
Value(s) applied	Description	UltraFLO	UltraTAB
	Dosage rate (Treatment Capacity)	FLO: 340,000L/Cartridge Inline: 720,000L/Cartridge	Big Pack: 48,000 L/Tab Pack Small Pack: 10,000 L/Tab Pack
Choice of data or Measurement methods and procedures	Manufacturer specifications		
Purpose of data	Determination of baseline emissions		
Additional comment	An alternative approach is being used given the project technologies does not have a standard flow rate.		

SDG Indicator	SDG 13: Climate Change		
Data/parameter	$f_{nr,b,f,y}$		
Unit	Percentage		
Description	Fractional non-renewability status of woody biomass fuel during year y, in case the baseline fuel is biomass or charcoal		
Source of data	UN Data and FRA 2015		
Value(s) applied	93.51		
Choice of data or Measurement methods and procedures	Calculated using Tool 30 of CDM		
Purpose of data	Determination of baseline emissions		
Additional comment	-		

SDG Indicator	SDG 13: Climate Change													
Data/parameter	QPW _p													
Unit	Litres per person per day													
Description	Volume of drinking water per person per day for premises type p													
Source of data	Parameter table SWDS 24 of methodology													
Value(s) applied	<table border="1"> <thead> <tr> <th>Type of Premises</th><th>Default value</th><th>Applicability</th></tr> </thead> <tbody> <tr> <td>Full-day premises</td><td>4 L /person / day</td><td>Premises like households etc.</td></tr> <tr> <td>Boarding school</td><td>4 L /person / day</td><td>-</td></tr> <tr> <td>Half time premises</td><td>3 L /person / day</td><td>Premises like day schools, offices etc.</td></tr> </tbody> </table> For ex-ante ER calculations, a weighted average value of 3.15 L /person / day has been applied based on full-time vs half time premises.		Type of Premises	Default value	Applicability	Full-day premises	4 L /person / day	Premises like households etc.	Boarding school	4 L /person / day	-	Half time premises	3 L /person / day	Premises like day schools, offices etc.
Type of Premises	Default value	Applicability												
Full-day premises	4 L /person / day	Premises like households etc.												
Boarding school	4 L /person / day	-												
Half time premises	3 L /person / day	Premises like day schools, offices etc.												
Choice of data or Measurement methods and procedures	Default from methodology													
Purpose of data	Baseline emission calculations													
Additional comment	-													

B.6.3. Ex ante estimation of SDG Impact

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Sustainable Development Goals Targeted	SDG Impact Indicator	Calculation	Ex-ante Estimate (Annual)
1 No Poverty	Indicator: Total number of premises with at least one WPS distributed / installed under the project	$ABS_{Project} - ABS_{Baseline}$	620
3 Good Health and Well Being	Indicator: % of users reporting reduction in incidence of diarrhoea and water borne diseases etc. (improved health)	$IH_{Project} - IH_{Baseline}$	90%
6 Clean Water and sanitation	Indicator: Total Number of WPS distributed/installed under the project and % WPS distributed / installed providing safe drinking water to beneficiaries	$SWQ_{Project} - SWQ_{Baseline}$	620 and 90%
7 Affordable and Clean Energy	Indicator: % users reporting an operational WPS in project	$AAC_{Project} - AAC_{Baseline}$	90%

8 Decent Work and Economic Growth	Indicator: Number of male / female numbers of employment created by project	$QE_{IG_{Project}} - QE_{IG_{Baseline}}$	12
13 Climate Action	Amount of CO ₂ e emissions reduced by the project per year	Refer the table below	59,618 tCO ₂ e

Water Purification System (WPS)				
Description	Symbol	Reference: Institutional	Unit	VPA 50
Baseline Emissions				
Percentage of fuel f use in target population	xf	woodfuel users	Percentage	98.84%
Percentage of fuel f use in target population	xf	Charcoal users	Percentage	1.16%
CO ₂ Emission factor for Wood	$EF_{b,f,CO_2} / EF_{b,f,CO_2}$	Meth default value, Fixed Ex-ante	tCO ₂ /TJ	112.0
CO ₂ Emission factor for charcoal	$EF_{b,f,CO_2} / EF_{b,f,CO_2}$	Meth default value, Fixed Ex-ante	tCO ₂ /TJ	165.2
Non-CO ₂ emission factor for Wood	$EF_{b,f,nonCO_2} / EF_{b,f,nonCO_2}$	Meth default value, Fixed Ex-ante	tCO ₂ e/TJ	9.46
Non-CO ₂ emission factor for charcoal	$EF_{b,f,nonCO_2} / EF_{b,f,nonCO_2}$	Meth default value, Fixed Ex-ante	tCO ₂ e/TJ	44.83
Average efficiency of the baseline water boiling devices	nwb	Baseline survey	Percentage	10.12%
Specific energy required to boil 1 L of water using the baseline technology	Sew,b,y	Calculated	kJ/L	3566.83
Fractional non-renewability status of woody biomass fuel during year y, in case the baseline fuel is biomass or charcoal	f _{NBS,f,y}	(Calculated as per tool 30)	Percentage	93.51%
Emission factor for use of fuel to obtain safe water in the baseline	EF _b	calculated	tCO ₂ /L	0.00041083
Portion of users of project technology who were already in baseline consuming safe water without boiling it	Cb	Baseline Survey	Percentage	4.44%
Proportion of project end-users that boil safe (treated, or from safe supply) water after installation of project technology in year y	x _{cleanboil,y}	Assumed for ex-ante calculation only, usage survey will be conducted for ex post value	Percentage	0.00%
Water Quality	Mq,y	Assumed for ex-ante calculation only, WQT will be conducted for ex post value	fraction	0.90
Volume of drinking water per person per day for full day premises	QPWp,full day	Meth default value, Fixed Ex-ante	Liters/person/day	4.00
Volume of drinking water per person per day for half day premises	QPWp, half day	Meth default value, Fixed Ex-ante	Liters/person/day	3.00
% full day premises	--	Assumed	%	15%
Volume of drinking water per person per day for premises type p	QPWp	calculated	Liters/person/day	3.15
Number of individuals per premises type p in the project boundary in year	HNp,y	Assumed for ex-ante calculation only, project usage survey will be conducted for ex post value	Persons	480
Usage rate of the project technology by premises type p during year y	U _{p,y}	Assumed for ex-ante calculation only, in person or telephonic survey will be conducted for ex post value	Percentage	90.0%
Average days the project technology is present for end-users in the premises p in year y	DPp,y	Assumed for ex-ante calculation only. Sales/Distribution database will be used for ex post determination	days	200
Accumulated number of premises type p with at least one individual project technology in year y	Np,y	Calculated	Number	620
Baseline Emissions	BEy	Calculated	tCO ₂	59,618
Project Emissions				
Project Emissions	PEy	Calculated	tCO ₂	-
Leakage Emissions				
Leakage emissions	LEy	not applicable	tCO ₂	-
Emission Reduction				
Emission Reductions	ERy	Calculated	tCO ₂	59,618

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

SDG 1: No Poverty

YEAR	BASLINE ESTIMATE (ABS _{Baseline})	PROJECT ESTIMATE (ABS _{Project})	NET BENEFIT
Year 1	0	620	620
Year 2	0	620	620
Year 2	0	620	620
Year 4	0	620	620
Year 5	0	620	620
Total	0	620	620
Total number of crediting years		5	
Annual average over the crediting period	0	620	620

SDG 3: Good Health and Well Being

YEAR	BASLINE ESTIMATE (IH _{Baseline})	PROJECT ESTIMATE (IH _{Project})	NET BENEFIT
Year 1	0	90%	90%
Year 2	0	90%	90%
Year 2	0	90%	90%
Year 4	0	90%	90%
Year 5	0	90%	90%
Total	0	90%	90%
Total number of crediting years		5	
Annual average over the crediting period	0	90%	90%

SDG 6: Clean Water and sanitation

YEAR	BASLINE ESTIMATE (SWQ _{Baseline})	PROJECT ESTIMATE (SWQ _{Project})	NET BENEFIT
Year 1	0	620 and 90%	620 and 90%
Year 2	0	620 and 90%	620 and 90%
Year 2	0	620 and 90%	620 and 90%
Year 4	0	620 and 90%	620 and 90%
Year 5	0	620 and 90%	620 and 90%
Total	0	620 and 90%	620 and 90%
Total number of crediting years		5	
Annual average over the crediting period	0	620 and 90%	620 and 90%

SDG 7: Affordable and Clean Energy

YEAR	BASLINE ESTIMATE (AAC _{Baseline})	PROJECT ESTIMATE (AAC _{Project})	NET BENEFIT
Year 1	0	90%	90%
Year 2	0	90%	90%
Year 2	0	90%	90%

Year 4	0	90%	90%
Year 5	0	90%	90%
Total	0	90%	90%
Total number of crediting years		5	
Annual average over the crediting period	0	90%	90%

SDG 8: Decent Work and Economic Growth

YEAR	BASLINE ESTIMATE (QE IG _{Baseline})	PROJECT ESTIMATE (QE IG _{Project})	NET BENEFIT
Year 1	0	12	12
Year 2	0	12	12
Year 2	0	12	12
Year 4	0	12	12
Year 5	0	12	12
Total	0	60	60
Total number of crediting years		5	
Annual average over the crediting period	0	12	12

SDG 13: Climate Action

Year	Baseline estimate	Project estimate	Leakage Estimate	Net benefit
2021	59,618	0	0	59,618
2022	59,618	0	0	59,618
2023	59,618	0	0	59,618
2024	59,618	0	0	59,618
2025	59,618	0	0	59,618
Total	298,090	0	0	298,090
Total number of crediting years	5			
Annual average over the crediting period	59,618	0	0	59,618

B.7. Monitoring plan

B.7.1. Data and parameters to be monitored

SDG Indicator	SDG 1: No Poverty
Data / Parameter	ABS _{Project}
Unit	Number
Description	Access to Basic Services (number of premises with at least one WPS distributed / installed under the project)
Source of data	Sales / Installation records
Value(s) applied	620
Measurement methods and procedures	Not applicable
Monitoring frequency	Continuous
QA/QC procedures	--
Purpose of data	SDG 1 contribution
Additional comment	--

SDG Indicator	SDG 3: Good Health and Well Being
Data / Parameter	IH _{Project}
Unit	%
Description	% of users reporting reduction in incidence of diarrhoea and water borne diseases etc. (improved health) in project
Source of data	Ex-post monitoring surveys
Value(s) applied	90
Measurement methods and procedures	Not applicable
Monitoring frequency	Annual / Biennial
QA/QC procedures	--
Purpose of data	SDG 3 contribution
Additional comment	--

SDG Indicator	SDG 6: Clean Water and sanitation
Data / Parameter	SWQ _{Project}
Unit	Number: For "total Number of WPS distributed/installed under the project" %: For "% WPS distributed / installed providing safe drinking water to beneficiaries in project"
Description	Total Number of WPS distributed/installed under the project and % WPS distributed / installed providing safe drinking water to beneficiaries in project
Source of data	Ex-post water quality tests
Value(s) applied	620: Total Number of WPS distributed/installed under the project

	90%: % WPS distributed / installed providing safe drinking water to beneficiaries in project
Measurement methods and procedures	Not applicable
Monitoring frequency	Annual / Biennial
QA/QC procedures	--
Purpose of data	SDG 6 contribution
Additional comment	--

SDG Indicator	SDG 7: Affordable and Clean Energy
Data / Parameter	AAC _{Project}
Unit	%
Description	Access to affordable and clean energy (% of operating WPS units under Project)
Source of data	Ex-post monitoring surveys
Value(s) applied	90
Measurement methods and procedures	Not applicable
Monitoring frequency	Annual / Biennial
QA/QC procedures	--
Purpose of data	SDG 7 contribution
Additional comment	--

SDG Indicator	SDG 8: Decent Work and Economic Growth
Data / Parameter	QE IG _{project}
Unit	number
Description	Quantitative Employment and income generation (Number of person (male and female) hired under project)
Source of data	HR records/ Sales and marketing records
Value(s) applied	12
Measurement methods and procedures	Not applicable
Monitoring frequency	Annual / Biennial
QA/QC procedures	--
Purpose of data	SDG 8 contribution
Additional comment	--

SDG 13 parameters are governed by the methodology. The following parameters have not been included as these are deemed not applicable to the VPA:

1. Parameters applicable to CWT / CWS:

- a. $Q_{m,y}$ - Monitored quantity of safe water provided by the CWS/CWT project in year y
- b. $HH_{p,y}$ - Number of premises type p served by the project in year y
- c. $DO_{p,y}$ - Days the project technology is operational for end-users in premises p in year y
2. $f_{NRB,f,y}$ - fixed ex-ante
3. QPW_p - fixed ex-ante as option 1 is being used
4. $t_{p,y}$ - the project technology is not standardized flow rate technology and hence this parameter is not deemed applicable.
5. $P_{p,f,y}$ - fossil fuel consumption is not envisaged in the VPA.
6. LE_y - A % default leakage value has been considered.

SDG Indicator	SDG 13: Climate Change
Data / Parameter	$M_{q,y}$
Unit	fraction
Description	Ongoing water quality indicated as the fraction of the samples that pass microbial quality standard
Source of data	Field Test or Test in Laboratories
Value(s) applied	0.90
Measurement methods and procedures	Water quality testing of the project devices on sampling basis. The samples of treated water collected from project devices, should be tested either using field testing kits or in labs.
Monitoring frequency	Annually or more frequently. In addition, the first round of testing will be conducted at least after six months from the start date of registration ¹⁶ .
QA/QC procedures	Following QA/QC procedures will be followed: 1. Laboratories used for water quality testing must be approved by local health authorities and/or have quality accreditation; and 2. The laboratory used must demonstrate that it has an adequate quality management plan in place which addresses both quality assurance and quality control test procedures. 3. Field testing kits also are eligible, e.g. based on Colony Forming Unit method or Most Probable Number method. To use the field testing kits the project shall meet the following requirements:

¹⁶ The methodology mentions first test to be conducted within 6 months of project start date which is not possible for retroactive VPAs. Hence this has been altered to be conducted within 6 months of project registration.

	a. Testing kits must be approved by national agency or meet standards set by relevant international organization e.g. US-EPA, and b. Testing kits shall be tested for its accuracy and robustness prior to application for project level monitoring, whereby local or accredited laboratory shall conduct water quality tests using testing kits and a relevant ISO standard or an equivalent standard, in parallel with field testing kits. The sample size will be sufficient to meet 95/10(or 90/10 as applicable) confidence/precision. The lower bound of the one-sided confidence interval may optionally be used as an alternative to the 95/10 (or 90/10 as applicable) rule.
Purpose of data	Determination of baseline emissions
Additional comment	If the proportion of samples not meeting Safe Drinking Water Quality Standards exceeds a threshold, no emission reductions can be claimed for the corresponding monitoring period. Thresholds: - Project or VPA year 1: 20% - Project or VPA year 2: 15% - Project or VPA year 3 or above: 10% When the crediting period is renewed, the year number count continues, i.e. the second crediting period would encompass year 6, year 7, year 8, etc. Additionally, when the threshold is exceeded, the project shall provide an explanation for why this occurred and provide a remediation plan.

SDG Indicator	SDG 13: Climate Change
Data / Parameter	Water hygiene education campaigns
Unit	NA
Description	Hygiene campaigns carried out among project safe water end users
Source of data	Annual hygiene campaigns records
Value(s) applied	--
Measurement methods and procedures	Usage Survey (in person or telephone or messaging) A questionnaire-based survey will be used to assess hygienic handling of clean water as per CME knowledge and experience and WHO/UNICEF JMP core questions on drinking and hygiene.

	The PD shall report the activities conducted each year in a detailed "Report of annual hygiene campaigns results" and summarize the results in the project monitoring report. Any significant changes in the health status of the water users as a result of contaminated water (e.g. an outbreak of water related disease) must be reported.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting.
Purpose of data	--
Additional comment	Sample size to be determined using 95/10 (or 90/10 as applicable) confidence precision requirements.

SDG Indicator	SDG 13: Climate Change
Data / Parameter	$X_{\text{cleanboil},y}$
Unit	Percentage
Description	Proportion of project end-users that boil safe (treated, or from safe supply) water after installation of project technology
Source of data	Project survey
Value(s) applied	0 %
Measurement methods and procedures	This survey may be performed in person, by telephone, by messaging (e.g. text, app), appropriate to the context.
Monitoring frequency	Annually
QA/QC procedures	Transparent data analysis and reporting is ensured through the use of personnel extensively trained in conducting Project Surveys. Results of the test will be reviewed by additional personnel trained in conducting the test. The remuneration of both the party undertaking the test and the party reviewing the result will not be linked to the performance of the VPA.
Purpose of data	Determination of baseline emissions
Additional comment	-

SDG Indicator	SDG 13: Climate Change
Data / Parameter	$HN_{p,y}$
Unit	Number
Description	Number of individuals per premises type p in the project boundary in year y
Source of data	Sales or distribution records

Value(s) applied	480
Measurement methods and procedures	The total number of individual for each project premise type in each specific VPA is tracked in the Sales or distribution records
Monitoring frequency	Continuous
QA/QC procedures	CME shall apply referenced cross-checks for Parameter $HN_{p,y}$. The value applied shall be cross-checked against at least one other sources like: - Project survey - Official government publications or statistics - Credible published literature for project region, or - Studies by academia, NGOs or multilateral institutions For cross-check purposes, sources applied may be up to 5 years old. Further, cross-check with older sources may be used provided they provide conservative results. Further, as per methodology clause 3.11.2, the source applied to cross-check the parameter may not be the most conservative, if it can be shown to be the most relevant. Refer Para 3.11.2 (a) and (b) of methodology for additional guidance.
Purpose of data	Determination of baseline emissions
Additional comment	-

SDG Indicator	SDG 13: Climate Change
Data / Parameter	$N_{p,y}$
Unit	Number
Description	Accumulated number of premises type p with at least one individual project technology in year y
Source of data	Sales or distribution records
Value(s) applied	620
Measurement methods and procedures	The total number of premises with at least one individual technology type is tracked in the Sales or distribution database.
Monitoring frequency	Annually
QA/QC procedures	Sales or distribution records to include: - Date of sale/distribution - Geographic area of sale - Model/type of project technology sold - Quantity of project technologies sold Name and telephone number, and address (if available) or other traceable indicator of premises identity and location for all end users
Purpose of data	Determination of baseline emissions

Additional comment	--
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SDG Indicator	SDG 13: Climate Change
Data / Parameter	$U_{p,y}$
Unit	percentage
Description	Usage rate of the project technology by premises type p during year y
Source of data	Project Surveys
Value(s) applied	90%
Measurement methods and procedures	PP will use either In-person survey of project premises or by Survey performed by telephone or messaging or a mix of both options following Annex 1 of the applied GS methodology(non-binding).
Monitoring frequency	Annually
QA/QC procedures	--
Purpose of data	Determination of baseline emissions
Additional comment	The usage survey provides a single usage parameter that is representative for project technologies in the total sales record.

SDG Indicator	SDG 13: Climate Change
Data / Parameter	$DP_{p,y}$
Unit	Days
Description	Average days the project technology is present for end-users in the premises p in year y
Source of data	Sales and distribution records and School Academic Calendar
Value(s) applied	200
Measurement methods and procedures	Based on the sales or distribution records of "Date of sale/distribution" and ex-ante parameter "Expected technical life of project technology," determine for each project device how many days of the year it has been in the premises and within its technical life. Calculate the average for all the project technology by premises type p to obtain this parameter. For schools and other institutions, the days will be limited by the number of school days in the monitoring period, taking into account weekends and holidays, as applicable for boarding and non-boarding premises.
Monitoring frequency	Annually
QA/QC procedures	-
Purpose of data	Determination of baseline emissions
Additional comment	

SDG Indicator	SDG 13: Climate Change
Data / Parameter	$DN_{p,y}$
Unit	Number
Description	Average number of individual project technologies in each project premises type p in year y
Source of data	Sales or distribution records
Value(s) applied	Refer ex-ante ER sheet
Measurement methods and procedures	The total number of individual project units by each project premise type in each specific VPA is tracked in the Sales or distribution records
Monitoring frequency	Annually
QA/QC procedures	-
Purpose of data	Determination of baseline emissions
Additional comment	-

B.7.2. Sampling plan

>>

Due to the large number of units projected to be distributed in the VPA, coupled with the difficulties with monitoring in some regions, it is not economically feasible to monitor each unit distributed in the VPA. Therefore, the project will employ representative sampling in line with the requirements of the applied methodology.

Stratified random sampling shall be applied for determining the usage rate of units distributed. The units in the population shall be categorized (based on technology deemed appropriate) and sample size shall be determined based on expected usage rate in each category using stratified random sampling approach as per the Guideline: Sampling and surveys for CDM project activities and programmes of activities and Standard "Sampling and surveys for CDM project activities and programmes of activities". The sample size determined shall be distributed within each category based on percentage of units in corresponding category. A deviation (from monitoring methodology) on the sampling approach has been approved by GS4GG for the first crediting period. Please refer Appendix 6.

Baseline / Project surveys, if any, should be carried out as per the sample sizing mentioned in para 4.2.3, page 41 of the applied methodology however, the sampling exemptions stated in Appendix 6 below shall prevail.

Sampling approaches / plans may be updated during the crediting period in case they are deemed better/convenient than stratified random sampling.

In some situations, the project proponent reserves the right to conduct monitoring remotely (like interviews by phone, message or remotely through its staff / trained local personal to assess parameters that will not need to be physically measured). Alternatively, the project proponent will establish conservative values based on data

from the past verifications and/or from local knowledge from the in-country team in case monitoring of some parameters is not possible either via physical or remote monitoring.

Conservative bound value of 95/10 or 90/10 as applicable shall be used in case the desired precision is not achieved instead of repeating the monitoring.

B.7.3. Other elements of monitoring plan

>>

Implementation Plan:

Impact Carbon is responsible for the production of monitoring reports, following the criteria outlined in section B.7.1 and B.7.2. Sampling will be carried out following the Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities in accordance with GS4GG requirements. A precision/confidence of 95/10 will be applied for cross-VPA sampling, in accordance with the requirements of the methodologies above.

Sampling efforts will be conducted by qualified personnel or those who have prior experience of sampling. The surveyors will have native language(s) competencies, allowing for full comprehension of any responses given by sampled users, and any questions therein.

Data collection and archiving:

The monitored data will be entered into the CME database. Original copies of monitoring documents will be kept and archived. The name of the surveyor will be specified on monitoring survey forms, therefore allowing for the follow-up of incomplete/unclear data, in case any. Hard copies of all documents will be kept at the office of Impact Carbon, or an alternative address nominated by them, and monitoring data will be entered into a central record keeping database. The record keeping database will be used to record the results of all monitoring/total sales.

The CME shall maintain the following information:

- 1) **Total sales record:** The total sales record contains the information listed below for the technologies implemented under the project. This record will be kept electronically and/or in paper records (wherever applicable and possible) and provided to DOE at verification. Records will include the following information:
 - a. Type of system (UltraFLO / UltraTAB)
 - b. Unique serial number of the units installed / distributed
 - c. Date of installation / distribution
 - d. Address and details of school and contact detail (if available) of representative
 - e. Type of School (Boarding / Non-boarding)
 - f. Number of project technology installed/distributed in an institution
 - g. School population count (number of students / staff in boarding / non-boarding category)
- 2) The project surveys will collect information as per the survey questionnaire designed for the purpose.

Responsibilities and institutional arrangements:

The responsibility for monitoring and reporting lies with the CME. Trained staff will be assigned to carry out the monitoring process including data recording, reporting, archiving and management.

Entities responsible for conducting monitoring

Role	Responsibility
Project Development Director	Receive escalated monitoring issues and questions from Water Programme Manager, clarify uncertainties in methodology, provide additional support from Project Development team if needed. Advises on monitoring issues.
Programme Manager -	- Enlist and manage work of Third-party monitoring - supply protocols, ensure timeframe is met, address issues, compile final reports, etc - Manages the Project Database, in which the results of monitoring shall be summarized - Oversees and drafts the production of annual monitoring reports - Coordinates communication with the verifier and Gold Standard.
VPA Implementer	- Collecting data to be monitored accurately, or training Field Measurement Personnel to do so. - Sharing monitoring data with the Water Programme Manager (CME). - Maintains proper and continuous records of project activities and disseminated WPS, including technology ident
Programme Associate	Assist with the completion of monitoring reports with input from the Water Programme Manager
Field measurement personnel	Conduct on the ground monitoring of sampled users
External QA/QC	- Verify the monitoring work done to ensure accuracy before submission. - review protocols, interview enumerators, spot check data

SECTION C. DURATION AND CREDITING PERIOD

C.1. Duration of project

C.1.1. Start date of VPA

>>

08/03/2023

C.1.2. Expected operational lifetime of VPA

>>

21 Years and 0 Months

C.2. Crediting period of project

C.2.1. Start date of crediting period

>>

The VPA start date or two years prior to the date of Design Certification, whichever is later.

C.2.2. Total length of crediting period

>>

Total length of the crediting period is 15 years (5 year, renewable twice). The length of the first crediting period is 5 years which is from 08/03/2023 to 07/03/2028.

SECTION D. SUMMARY OF SAFEGUARDING PRINCIPLES AND GENDER SENSITIVE ASSESSMENT

D.1. Safeguarding Principles that will be monitored

A completed Safeguarding Principles Assessment is in [Appendix 1](#), ongoing monitoring is summarised below.

PRINCIPLES	MITIGATION ADDED TO THE PLAN	MEASURES ADDED TO THE MONITORING PLAN
Principle 1. Human Rights		not required
Principle 2. Gender Equality		not required
Principle 3. Community Health, Safety and Working Conditions		not required
Principle 4.1 Sites of Cultural and Historical Heritage		not required
Principle 4.2 Forced Eviction and Displacement		not required
Principle 4.3 Land Tenure and Other Rights		not required
Principle 4.4 Indigenous people		not required
Principle 5. Corruption		not required
Principle 6.1 Labour Rights		not required
Principle 6.2 Negative Economic Consequences		not required
Principle 7.1 Emissions		not required
Principle 7.2 Energy Supply		not required
Principle 8.1 Impact on Natural Water Patterns/Flows		not required
Principle 8.2 Erosion and/or Water Body Instability		not required
Principle 9.1 Landscape Modification and Soil		not required
Principle 9.2 Vulnerability to Natural Disaster		not required
Principle 9.3 Genetic Resources		not required
Principle 9.4 Release of pollutants		not required
Principle 9.5 Hazardous and Non-hazardous Waste		not required
Principle 9.6 Pesticides & Fertilisers		not required
Principle 9.7 Harvesting of Forests		not required
Principle 9.8 Food		not required
Principle 9.9 Animal husbandry		not required

Principle 9.10 High Conservation Value Areas and Critical Habitats	not required
Principle 9.11 Endangered Species	not required

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

Requirement	Relevance	Description	Mitigation Action Required
a. Is there a possibility that the VPA might reduce or put at risk women's access to or control of resources, entitlements and benefits?	Yes	The Project does not limit women access to or control of resources, entitlements and benefits. On the contrary, the Project ameliorates the living condition of women by freeing them from the burden of biomass fuel collection, decreasing smoke levels and incidence of respiratory illness relative to cooking on traditional biomass stoves using solid biomass fuel and use of traditional biomass stoves using solid biomass fuel for water boiling	Not required
b. Is there a possibility that the VPA can adversely affect men and women in marginalized or vulnerable communities (e.g., potential increased burden on women or social isolation of men)?	Yes	The Project does not result in any increased burden on women or social isolation of men. The Project ameliorates the living condition of women by freeing them from the burden of biomass fuel collection as well as saving cooking time and saving water boiling time	Not required
c. Is there a possibility that the VPA might not take into account gender roles and the abilities of women or men to participate in the decisions / designs of the project's activities (such as lack of time, child-care	Yes	The Project ameliorates the living condition of women by freeing them from the burden of fuelwood collection, offering them fast cooking time and fast / replace water boiling time. Any time savings will be used by the women for more	Not required

		duties, low literacy or educational levels, or societal discrimination)?		productive work or child-care duties.	
d.		Does the PoA take into account gender roles and the abilities of women or men to benefit from the Project's activities (e.g., Does the PoA / VPA criteria ensure that it includes minority groups or landless peoples)?	No	The Project does not de-limits its access to minority groups or landless people	Not required
e.		Does the VPA design contribute to an increase in women's workload that adds to their care responsibilities or that prevents them from engaging in other activities	Yes	The Project reduces women's workload by freeing them from the burden of fuelwood collection and reduce water boiling time, allowing more time for alternative activities	Not required
f.		Would the VPA potentially reproduce or further deepen discrimination against women based on gender, for instance, regarding their full participation in design and implementation or access to opportunities and benefits?	Yes	The Project is not expected to reproduce / deepen discrimination against women. In fact as listed above, the Project offers multiple benefits and opportunities to women	Not required
g.		Would the VPA potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and priorities of women and men in accessing and managing environmental goods and services?	Yes	The Project is not expected to limit women' ability to use, develop or protect natural resources. In fact as listed above, the Project offers multiple benefits and opportunities to women to avoid deforestation resulting in protection of forests	Not required
h.		Is there a likelihood that the proposed VPA would expose women	Yes	The Project does not expose women or girls to further risks or hazards. By providing access to clean	Not required

and girls to further risks or hazards?

and safe cooking technology, the Project reduces risk to health due to IAP.

The VPA seeks gender certification at first level only (Mandatory Gender-Sensitive Requirements). Thus, the VPA needs to demonstrate compliance only with step 1-3 of the GS4GG Gender Equality Requirements & Guidelines. Please note the following in this regard:

- The project reflects the key issues and requirements of Gender Sensitive design and implementation as per GS Gender Policy. The CME has put in place internal policies that are gender sensitive and ensure that equal opportunities / access is available to women and men alike on various issues. The project is non-discriminating on the basis of gender in addition to other non-discriminating parameters. The project provides equal opportunity to men and women with respect to access to its technology / measures and use of resource, two-way stakeholder communication, voicing grievances, employment etc.
- The following table details the project's alignment with nation policies, strategies and best practices:

National Policy	Project alignment
Kenya "The Sexual Offences Act, No 3 of 2006 ACT, revised edition 2009 2 " provides protection against sexual harassment of women at workplace and for the prevention and redressal of complaints of sexual harassment.	Impact Carbon, as part of HR policy has zero tolerance on issues around sexual harassment and misconduct. The Policy defines the scope, coverage, procedure for complaints and punishment in such cases. The contact details of Internal Committee set up to review such concerns, are listed on the notice boards and are equally accessible to all genders.
Kenya's National Development plans such as Kenya's Economic Recovery Strategy for Wealth Creation (2003-2007), Kenya Vision 2030 and the Medium-Term Plans 2008-2012, 2013-2017 and 2018-2022 have recognized that women should have equal access to opportunities and assets with men for the purpose of sustainable development.	The project provides equal opportunities to women and men alike and does not result in any increased burden on women or social isolation of women.
As per Kenya "NATIONAL POLICY ON GENDER AND DEVELOPMENT, October 2019" Kenya has a huge clean water deficit and the demand for clean and safe water is increasing phenomenally. The burden of sourcing for, ferrying, and distributing water for domestic use has been largely left to women, thus providing yet another ground for subordinating and marginalizing women and girls. The right to water provided for in Article 43 of the Constitution requires that water be accessible, affordable and	The project increases women access to or control of resources, entitlements and benefits. The project by installation/distribution of WPS units upgrades the living condition of women by freeing them from the drudgery of fuel collection for water boiling on inefficient stoves and reduces the impact of IAP and water borne diseases on health, this results in more number of school days for students. Schools/institutions, where the WPS units are installed, does not

of good quality. Gender related uses of water discriminate on basis of gender with are not prioritized and because of the gender respect to access to the safe drinking division of labour, women and girls miss the water. opportunity to attend school and to participate in income generating activities in the search for water.

- The information sharing under the project is equitable with women and men stakeholders as a minimum standard. The information related to the project available and presented in an accessible format across all stakeholder groups. This was ensured via sharing Non-technical summary via email to stakeholders without discriminating on the basis of gender. The project provides equal opportunities to all stakeholders to voice their comments /concerns. There are opportunities for stakeholders to share information in a two -way exchange, give regular feedback during implementation and ensure their views and priorities are incorporated in design and practice. The project has set up a comprehensive grievance mechanism system which is accessible to women and men alike.

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 is aligned with existing country policies, strategies and best practices. The project addresses the Gender sensitive requirements as mentioned in table above.

Question 2 - Explain how the project aligns with existing country policies, strategies and best practices

The project complies with the National Gender Policies as explained above.

No, as explained in tables above, the project has significant positive contribution towards gender equality. Further the consultation conducted for the VPAs are in line with Gold Standard Stakeholder Consultation & Engagement Procedure, Requirements & Guidelines.

Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?

The invitations extended for the consultation conducted already included Ministry of Education, Ministry of Health, Ministry of Environment, National Environment Management Agency, UNWOMEN to provide their comments/ feedback. Refer GS4GG SCR wherein the stakeholders' have provided positive rating to the project towards SDG5.

Based on above, an expert's assistance on Gender/Environment issues is not deemed required

Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation? No, refer above

SECTION E. SUMMARY OF LOCAL STAKEHOLDER CONSULTATION

Physical meeting for stakeholder feedback was conducted on 30th May 2023 at 09:00 A.M. at Apollo Center, Westlands, Nairobi, Kenya as part of local stakeholder consultation.

The invitations for the physical meeting were made using emails, phone calls along with notices, newspaper, and online advertisement, with non-technical summary of the project activity and feedback form attached with it.

The consultation involved inviting comments/feedback on the design of the project activity from the following categories of stakeholders as defined in the GS4GG Stakeholder Consultation and Engagement Guidelines.

- Local people, communities and representatives who are directly or indirectly affected by the project.
- Local policy makers and representatives of local authorities
- National government officials or National Focal bodies responsible for the project in the host country, for example, Designated National Authority (DNA)
- Local non-governmental organizations (NGOs), Women Groups working on topics relevant to the project or working with communities who are likely to be affected by the project.
- Relevant international Gold Standard NGO Supporters with representation in the region and all Gold Standard NGO Supporters located in the host country of the project
- Gold Standard representative at help@goldstandard.org

To ensure maximum participation the meeting was also conducted virtually along with physical meetings, allowing the stakeholders who could not join the physically to participate in the stakeholder meeting.

Also, to ensure the participation of individuals who couldn't attend the consultation meeting, proactive measures were implemented to provide alternative modes for stakeholders to contribute their valuable feedback.

As part of the invitation procedure, stakeholders were furnished with a non-technical summary of the project and a stakeholder feedback form. This enabled them to express their thoughts and opinions through email correspondence.

Furthermore, the regional office address and contact number were shared, allowing stakeholders, who preferred offline options, to provide their feedback in person by visiting the office or through a phone conversation.

Thus, by offering multiple channels for engagement, PD ensured inclusivity and enabled a wider range of stakeholders to actively participate and contribute their insights to the project by providing their valuable feedback.

The SFR was initiated on August 14, 2023, it was due for closure on September 13, 2023. However, the CME extended the consultation time to provide equal opportunity to various stakeholders to revert. Hence, instead of the required 30 days period, the SFR feedback window had been kept open till September 30, 2023, and was concluded on October 01, 2023. All stakeholders invited to the physical meeting, were also invited for SFR.

Refer Stakeholder consultation report for more detail.

E.1. Summary of stakeholder mitigation measures

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No mitigation measures are required.

Stakeholders feedback was received during physical meeting. In general, the stakeholders were appreciative of the project and its features and acknowledged the reduction in water borne diseases, Indoor air pollution and GHG emissions, employment generation and other SDG impacts of the project. The stakeholders liked the fact that the VPA sought detailed and comprehensive feedback on various features of the VPAs.

No feedback was received during Stakeholder Feedback Round.

Refer Annex-3 of the Stakeholder consultation report for stakeholder feedback forms.

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.	Justification
Continuous Input / Grievance Expression Process Book (mandatory)	Continuous input / Grievance Expression process book is available at the office at the following address: Impact Water PO Box 1903-00606, Nairobi House #44, Muthithi Road Westlands, Nairobi	In line with section 2.1 of the Annex W Expression book has been placed at office of Impact Water in Kenya. Stakeholders are free to voice their concerns via the Grievance Expression Book. By maintaining feedback book at the local office, it is ensured that stakeholders that don't have access to electronic media for expressing concerns / grievances are also able to share their concerns / feedback. Additionally, the end users always have an option to revert to the salesperson (representative of distribution/retail partners etc.) in case of any feedback / complaints with the product post distribution.
GS Contact (mandatory)	help@goldstandard.org	--

Other	Contact number: +256 790 911 934	As the project is spread across a huge area hence telephone access has also been provisioned for in line with Annex W, section 2.3 of Gold Standard.
	Email: info@impactcarbon.org	As per para 2.4 of Annex W of GS, the stakeholders with internet access have an option of contacting Impact Carbon through the email id provided.

SECTION F. Eligibility and inclusion criteria for VPAs inclusion

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Not Applicable

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
P.1 HUMAN RIGHTS		
P.1.1.1 	Does the project developer, its representatives and the Project disrespect internationally proclaimed human rights?	☐ YES ☒ NO
P.1.1.1 	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
P.1.1.2 	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
P.1.1.3 	Is there a risk that rights-holders (e.g., Project-affected stakeholders) do not have the capacity to claim their rights?	☐ YES ☒ NO
P.1.1.3 	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.		
Please add text here...		
Would the project potentially involve or lead to:		
P.1.1.1 	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
P.1.1.2 	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
P.1.1.3 	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
P.1.1.3 	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.

Please add text here....

The project incorporates a human rights-based approach through various strategies that align with international human rights standards and principles.

- *The project design is informed by human rights analysis, drawing from UN human rights mechanisms such as human rights treaty bodies, universal periodic reviews, and special procedures. This ensures that the project's goals and strategies align with recognized human rights principles and obligations.*
- *The project includes measures to assist the government of Kenya in realizing, respecting, protecting, and fulfilling human rights under international law. By supporting the dissemination of WPS to schools and institutions, the project contributes to the government's efforts to provide safe drinking water, which is a fundamental human right.*
- *By targeting schools and institutions that may have limited access to clean drinking water, the project directly addresses the needs of potentially vulnerable populations, consistent with the non-discrimination and equality human rights principle.*
- *The project strives to provide reasonable accommodation to strengthen inclusivity and accessibility of its benefits and services to persons with disabilities. This could involve ensuring that the water purification technologies are designed and distributed in a way that accommodates the needs of individuals with disabilities, promoting their equal access and participation.*
- *The project's central focus is on providing safe drinking water, aligning with the human right to water and sanitation. By addressing a critical need, the project directly contributes to the enjoyment of a fundamental human right.*
- *Access to clean water reduces the risk of waterborne diseases, which positively impacts the right to health. By improving community health, the project indirectly supports other related human rights.*
- *The project explicitly targets marginalized groups such as schools and institutions with limited access to clean water. This demonstrates a commitment to addressing disparities and ensuring that those who are often underserved benefit from the project.*
- *The project's emphasis on involving local communities, including marginalized individuals, in decision-making processes fosters inclusivity and empowers these groups to shape the project's outcomes.*
- *The project acknowledges the challenge of limited water access and aims to overcome barriers by providing water purification systems. By doing so, it directly addresses the restriction in availability of a basic resource, especially for marginalized individuals.*

- improving water quality and reducing waterborne diseases, the project contributes to community well-being. This, in turn, can lead to reduced tensions and conflicts over access to limited resources, supporting conflict prevention.
- The project's goal of reducing the use of non-renewable biomass and fossil fuels can contribute to reducing deforestation and associated resource-related conflicts. This aligns with the project's potential positive impact on conflict prevention.
- The project's approach of involving beneficiaries in technology distribution, maintenance, and decision-making processes empowers communities, enhancing their voice and agency in shaping the project's outcomes.
- By discouraging the use of inefficient cookstoves, the project improves indoor air quality, leading to reduced health risks associated with respiratory illnesses, particularly benefiting marginalized populations.
- In summary, the project's explicit focus on providing safe water, targeting marginalized groups, promoting inclusivity, addressing barriers to access, and enhancing community well-being collectively support the concerns related to human rights, equity, safety, and conflict. While careful planning and monitoring are necessary, the project's design and objectives demonstrate a commitment to addressing these concerns in a positive and meaningful way.

P.2 | GENDER EQUALITY AND WOMEN'S EMPOWERMENT

P.2.1.1 	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
P.2.1.2 	Does the project undermine the principles of non-discrimination, equal treatment, and equal pay for equal work?	☐ YES ☒ NO
P.2.1.2 	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
P.2.1.2 	Does the project limit the participation of women or men based on pregnancy, maternity/paternity leave, or marital status?	☐ YES ☒ NO
P.2.1.2 	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
P.2.1.3 	Has the project assessed gender risks without referencing the country's gender strategy or equivalent national commitment?	☐ YES ☒ NO
P.2.1.4 	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.

Please add text here....

Would the project potentially involve or lead to:

P.2.1.1	adverse impacts on gender equality and/or the situation of women and girls?	☐ YES ☐ POTENTIALLY ☒ NO
P.2.1.1	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
P.2.1.2	reproducing discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	☐ YES ☐ POTENTIALLY ☒ NO
P.2.1.2	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's focus on providing water purification systems (WPS) to schools and institutions directly supports gender equality by reducing the burden on women and girls who often bear the responsibility of water collection.
- Access to safe drinking water through WPS contributes to better health outcomes, benefiting women and girls, and aligns with Sustainable Development Goal (SDG) 3: Good Health and Well-being.
- The project's emphasis on distributing WPS technologies primarily to schools and institutions reduces the influx of workers to communities, mitigating the risk of changes in power dynamics that could exacerbate gender-based violence.
- Improved community health and safety resulting from the project can indirectly contribute to a safer environment, aligning with SDG 5: Gender Equality and SDG 16: Peace, Justice, and Strong Institutions.
- The project aims to increase the inclusion of women and girls in decision-making processes, addressing potential discrimination by ensuring their perspectives are considered.
- By providing training and employment opportunities related to WPS technologies, the project promotes gender equality in access to opportunities, in line with SDG 8: Decent Work and Economic Growth.
- The project's focus on reducing the use of non-renewable biomass and fossil fuels aligns with environmental sustainability goals, reducing pressure on natural resources and indirectly supporting livelihoods that depend on them.
- Proper training on technology usage and maintenance ensures responsible resource management, consistent with SDG 15: Life on Land, and supports women's roles in resource access and protection.
- In summary, the project is designed to support gender equality, minimize gender-based violence risks, promote inclusivity, and enhance women's access to resources and opportunities. It aligns with various Sustainable Development Goals while

actively working to mitigate any potential adverse impacts on gender equality, women's empowerment, and resource management.

P.3 | COMMUNITY HEALTH AND SAFETY

P.3.1.1 	Does the project involve potential risks to the health and safety of affected communities during its life cycle?	☐ YES ☒ NO
P.3.1.2 	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.

Please add text here....

Would the project potentially involve or lead to:

P.3.1.1 	construction and/or infrastructure development (e.g., roads, buildings, dams)?	☐ YES ☒ NO
P.3.1.2 	air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	☐ YES ☐ POTENTIALLY ☒ NO
P.3.1.2 	harm or losses due to failure of structural elements of the project (e.g., collapse of buildings or infrastructure)?	☐ YES ☐ POTENTIALLY ☒ NO
P.3.1.2 	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
P.3.1.2 	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
P.3.1.2 	adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g., food, surface water purification, natural buffers from flooding)?	☐ YES ☐ POTENTIALLY ☒ NO

Briefly describe below how the project is addressing any identified risk related to community health and safety.

Safe Water Provision: The project's primary focus on distributing water purification systems (WPS) to schools and institutions directly addresses the risk of unsafe drinking water. By providing a reliable and efficient means of purifying water, the project reduces the potential for waterborne diseases, contributing to improved community health.

Indoor Air Quality Improvement: The project's emphasis on replacing the use of non-renewable biomass/fossil fuel for boiling water helps improve indoor air quality. Traditional cooking practices using solid biomass fuel often result in indoor air pollution, which can lead to respiratory illnesses. By reducing the reliance on such practices, the project contributes to a healthier indoor environment.

Reducing Respiratory Illnesses: The project's shift away from inefficient cookstoves and solid biomass/fossil fuel-based water boiling practices reduces exposure to harmful pollutants that contribute to respiratory illnesses. This reduction in pollution helps mitigate health risks and enhances overall community well-being.

Health Awareness and Education: The project may include components of health awareness and education, informing communities about the importance of clean water,

proper hygiene practices, and the risks associated with unsafe water sources. This knowledge empowers community members to make informed decisions about their health and safety.

Technology Training: As part of the project, training may be provided on the proper use and maintenance of the water purification technologies. Ensuring that community members understand how to operate and care for the systems helps maximize their benefits and minimizes potential risks.

Environmental Impact: By eliminating the use of non-renewable biomass and fossil fuels, the project contributes to mitigating environmental risks associated with deforestation, air pollution, and greenhouse gas emissions, which can have long-term health implications for communities.

In summary, the project's focus on safe water provision, indoor air quality improvement, respiratory illness reduction, health education, and proper technology training collectively addresses identified risks to community health and safety. These measures work together to create healthier and safer living conditions for the communities benefiting from the project.

P.4 | CULTURAL HERITAGE, INDIGENOUS PEOPLE, DISPLACEMENT AND RESETTLEMENT

P.4.1 | Sites of Cultural and Historical Heritage

P.4.1.1 	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.

Please add text here....

Would the project potentially involve or lead to:

P.4.1.1 	activities adjacent to or within a cultural heritage site?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.1 	significant excavations, demolitions, movement of earth, flooding or other environmental changes?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.1 	alterations to landscapes and natural features with cultural significance?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.1 	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
P.4.1.2 	utilisation of tangible and/or intangible forms (e.g., practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.2 	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

P.4.1.3 	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
P.4.1.4 	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
P.4.1.4 	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.

The project's focus on the dissemination of WPS to schools and institutions in Kenya emphasizes addressing water purification needs. This does not involve activities adjacent to or within cultural heritage sites without adversely affecting historical, cultural, or religious values. The implementation does not require significant excavations, demolitions, or drastic environmental changes.

[P.4.2 | Forced Eviction and Displacement](#)

P.4.2.1 	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.

Please add text here....

Would the project potentially involve or lead to:

P.4.2.1 	risk of forced evictions or involuntary relocation of people?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.2.2 	temporary or permanent and full or partial physical displacement (including people without legally recognisable claims to land)?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.2.2 	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
P.4.2.2 	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
P.4.2.3 	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
P.4.2.3 	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.

The project emphasizes working closely with local communities, schools, and institutions to ensure that all activities are carried out with their full involvement and consent avoiding forced evictions, involuntary relocations, or economic displacement.

P.4.3 | LAND TENURE AND OTHER RIGHTS

P.4.3.1	Does the project involve any risks related to identifying and managing legitimate tenure rights that may be affected by the project?	☐ 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.

Would the project potentially involve or lead to:

P.4.3.1	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
P.4.3.1	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
P.4.3.2	Changes in legal arrangements, if yes, are the changes done in line with relevant laws and regulations?	☐ YES ☐ NO ☒ NA
P.4.3.2	Changes in legal arrangements, if yes, are these changes agree with free, prior and informed consent of the involved stakeholders?	☐ YES ☐ NO ☒ NA
P.4.3.3	Does some other entity (other than the project developer) hold uncontested land title for the entire Project Boundary?	☐ YES ☐ NO ☒ NA
P.4.3.4	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
P.4.3.4	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
P.4.3.5	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.

The project is designed to focus on water purification systems (WPS) distribution to schools and institutions in Kenya, with the primary objective of providing safe and clean drinking water. The target beneficiaries are schools and institutions, which are generally established entities with established land arrangements. This reduces the likelihood of conflicting with existing land tenure and property rights. Also, the project does not involve activities that would require extensive land use, such as infrastructure development or resource extraction, and therefore less likely to be associated with uncertainties in land tenure.

P.4.4 INDIGENOUS PEOPLES		
P.4.4.1 	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. Please add text here....		
Would the project potentially involve or lead to:		
P.4.4.1 	affect areas where indigenous peoples are present (including project area of influence)	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.1 	affect areas, land and territory claimed by indigenous peoples?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.1 	impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.7 	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
P.4.4.3 	risk of forcibly removing indigenous people from their lands and territories?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.4 	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
P.4.4.5 P.4.4.6 	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? - Does the project ensure that the indigenous people receive an equitable sharing of benefits resulting 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'	☐ YES ☐ NO ☒ NA

	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?	
P.4.4.8 	Does the project lack appropriate feedback and grievance channels for Indigenous Peoples and their representatives?	☐ YES ☐ NO ☒ NA
P.4.4.8 	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
P.4.4.9 	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
P.4.4.9 	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.

The project is designed to minimize the potential involvement or negative impacts on areas inhabited by indigenous peoples and their rights. Several justifications support this:

- **Targeted Distribution:** The project explicitly focuses on distributing water purification systems (WPS) to schools and institutions in Kenya. These target areas are distinct from indigenous territories, which reduces the likelihood of affecting or encroaching upon indigenous lands and territories.
- **Geographical Scope:** The project's geographic scope is centered on schools and institutions within Kenya, with a focus on water purification. This localized approach is not aimed at areas specifically inhabited by indigenous peoples, minimizing the risk of encroachment or disruption to their traditional livelihoods.
- **Non-Invasive Technology:** The project involves the distribution of water purification technologies, which do not entail large-scale infrastructure development or resource extraction. These technologies are less likely to have direct negative impacts on indigenous lands, natural resources, and territories.
- **Human Rights Consideration:** The project explicitly acknowledges and integrates a human rights-based approach, ensuring that access to safe drinking water is a fundamental right. While not specifically targeted at indigenous peoples, this approach underscores the project's commitment to equitable access to clean water, which aligns with the broader principles of human rights.

[P.5 | CORRUPTION](#)

P.5.1.1 	Does the project involve, or is it complicit in, contributing to or reinforcing corruption or corrupt projects?	☐ YES ☒ NO
P.5.1.1 	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.

ECONOMIC SAFEGUARDING PRINCIPLES

P.6 | ECONOMIC IMPACTS

P.6.1 | LABOUR RIGHTS AND WORKING CONDITIONS

P.6.1.1 	Does the project involve, facilitate, or condone forced labor, or pose a potential risk of forced labor?	☐ YES ☒ NO
P.6.1.1 	Does the project violate any labor or health and safety laws, international obligations, or ILO conventions?	☐ YES ☒ NO
P.6.1.2 	Does the project violate the principles of equal opportunity and fair treatment in its employment decisions?	☐ YES ☒ NO
P.6.1.3 	Does the project violate national laws, if available regarding non-discrimination in employment?	☐ YES ☒ NO
P.6.1.4 P.6.1.5 	Does the project allow child labor?	☐ YES ☒ NO
P.6.1.7 P.6.1.8 	Does the project have insufficient processes and measures in place to ensure the safety and health of project workers?	☐ YES ☒ NO
P.6.1.9 	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
P.6.1.10 	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.

Please add text here....

Would the project potentially involve or lead to:

(NOTE: APPLIES TO BOTH PROJECT AND CONTRACTOR WORKERS)

P.6.1.1 	use of forced labour?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 	working conditions that do not meet national labour laws and international commitments?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 	working conditions that may deny freedom of association and collective bargaining?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 	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</i>	☐ YES ☐ POTENTIALLY ☒ NO

	<i>shall provide reasonable working conditions and terms of employment.</i>	
P.6.1.1 	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
P.6.1.1 	having no arrangements for basic services ¹⁷ 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
P.6.1.2 	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
P.6.1.2 	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
P.6.1.2 	harassment, intimidation, and/or exploitation, especially in regard to women?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.3 	discriminatory working conditions and/or lack of equal opportunity where national law provides provision to address non-discrimination in employment?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.4 	use of child labour? (including third-party engaged workers)	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.4 	inadequate and verifiable mechanisms for age verification?	☐ YES ☒ NO
P.6.1.7 	no processes and measures in place for the safety and health of project workers?	☐ YES ☒ NO
P.6.1.7 	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
P.6.1.7 	No provision to record and document accidents, diseases, incidents, and any resulting injuries, illnesses, or deaths?	☐ YES ☒ NO

¹⁷ 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.

P.6.1.8 	occupational health and safety risks due to physical, chemical, biological and psychosocial hazards (including violence and harassment) throughout the project life-cycle?	☐ YES ☒ NO
P.6.1.9 	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
P.6.1.10 	No grievance mechanism available for workers to voice workplace concerns.	☐ YES ☒ NO
P.6.1.11 	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.

The project is designed to uphold ethical and fair labor practices, prioritizing the well-being and rights of all workers involved, and aligns with Sustainable Development Goal 8 (Decent Work and Economic Growth).

The project:

- ensures that all workers are engaged voluntarily, with transparent terms and conditions of employment.*
- is committed to complying with both national labor laws and international labor standards, ensuring that working conditions and terms of employment meet or exceed legal requirements.*
- respects the right to freedom of association and collective bargaining, enabling workers to voice their concerns and negotiate collectively promoting effective labor rights and empowering workers.*
- ensures that documented working agreements are in place for all workers, which comprehensively address working conditions and terms of employment promoting decent work and fair treatment.*
- implements policies to provide quality accommodation and basic services, ensuring non-discrimination and equal opportunity promoting safe and inclusive working environments.*
- strictly prohibits discrimination or harassment based on any factors unrelated to job requirements, fostering a respectful and inclusive workplace.*
- has a zero-tolerance policy for child labor, adhering to national and international standards. This aligns with SDG 8's commitment to eradicating child labor and protecting the rights of children.*
- places a strong emphasis on worker safety and health, providing training, protective equipment, and maintaining thorough records of accidents and incidents. This approach supports SDG 8's goal of promoting safe and secure working environments.*
- takes measures to protect vulnerable workers, including women, people with disabilities, migrant workers, and young workers, from harassment, exploitation, and gender-based violence. This approach aligns with SDG 8's aspiration to promote inclusivity and equal treatment.*
- ensures due diligence in managing third-party employees, establishing clear policies and procedures to monitor their performance.*

- adopts a robust grievance mechanism allow workers to voice concerns and seek resolution, promoting a transparent and responsive work environment with a focus on promoting effective labor rights.

P.6.2 | NEGATIVE ECONOMIC CONSEQUENCES

P.6.2.1	Is there a risk of project failure during implementation or after project certification due to a lack of financial resources?	☐ YES ☒ NO
P.6.2.2	Does the project have potential negative impacts or pose a risk to the local economy?	☐ YES ☒ NO
P.6.2.2	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.

Please add text here...

Would the project involve or lead to:

P.6.2.2	economic impacts (negative/detrimental) to the local economy?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.2.2	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.

The project design incorporates a robust financial framework that includes the utilization of carbon finance to support local partners engaged in the production, distribution, and maintenance of water purification systems (WPS) technologies. The involvement of Impact Water LLC as the VPA implementer and Impact Carbon LLC as the CME provides a structured management system, reducing the risk of project failure due to financial constraints thus contributing positively to the local economy by creating opportunities for training and employment.

P.7 | CLIMATE AND ENERGY

P.7.1 | GHG EMISSIONS

P.7.1.1	Does the project have a risk of increasing greenhouse gas emissions over the Baseline Scenario?	☐ 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.

Please add text here...

Would the project involve or lead to:

P.7.1.1	increase greenhouse gas emissions over the Baseline Scenario?	☐ 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.

The project aims to replace the use of non-renewable biomass and fossil fuels for boiling water with clean water purification technologies with a clear emphasis on reducing greenhouse gas (GHG) emissions compared to the baseline scenario.

P.7.2 | ENERGY SUPPLY

P.7.2.1 	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.

Please add text here....

Would the project involve or lead to:

P.7.2.1 	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.

*The energy requirements of the water purification systems (WPS) distributed to schools and institutions are **zero** and therefore shall not exert any pressure on the overall energy supply available to other users.*

P.8 | WATER

P.8.1 | IMPACT ON NATURAL WATER PATTERNS/FLOWS

P.8.1.1 	Does the project increase water usage to a level that will not allow for the maintenance of environmental flows?	☐ YES ☒ NO
P.8.1.1 	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
P.8.1.1 	Does the project have the potential risk to exceed the rate of recharge for the groundwater source?	☐ YES ☒ NO
P.8.1.1 	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.

Please add text here....

Would the project involve or lead to:

P.8.1.1 	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
P.8.1.1 	Wastewater discharge of quality that does not meet the required standard for beneficial reuse?	☐ YES ☐ POTENTIALLY ☒ NO
P.8.1.1 	significant extraction, diversion of ground water? For example, construction of dams, reservoirs, river basin developments, groundwater extraction	☐ YES ☐ POTENTIALLY ☒ NO

P.8.1.2 	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
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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.

The project's core objective is to enhance the quality of drinking water by providing water purification technologies. It does not entail any significant alteration or manipulation of natural watercourses, as the activities are centered around improving water quality within schools and institutions, rather than modifying watercourses.

Additionally, the project does not involve significant extraction or diversion of groundwater and the underlying activities do not involve large-scale developments like dams, reservoirs, or river basin alterations that could impact groundwater resources.

[P.8.2 | EROSION AND/OR WATER BODY INSTABILITY](#)

P.8.2.1 	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.

Please add text here...

Would the project involve or lead to:

P.8.2.2 	negatively impact on the catchment area?	
P.8.2.5 	<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 cover, hedge and tree rows, and effective slope length assessment. Regular reassessment of these measures is necessary.</i>	☐ YES ☐ POTENTIALLY ☒ NO
P.8.2.6 	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.

The project's aim is to disseminate water purification systems (WPS) to schools and institutions thus contributing to the reduction in deforestation and therefore is not expected to adversely affect the catchment area.

[P.9 | ENVIRONMENT, ECOLOGY AND LAND USE](#)

[P.9.1 | LANDSCAPE MODIFICATION AND SOIL](#)

P.9.1.1 	Is there any risk of soil resource degradation or loss of ecosystem services provided by soils in the project?	
P.9.1.3 	<i>If yes, the project shall maintain healthy soils by minimising negative impacts on soil health, productivity, structure, and</i>	☐ YES ☒ NO

	<i>water retention. Steps to minimise soil degradation include crop rotation, composting, using N-fixing plants, and reducing tillage and ecologically harmful substances.</i>	
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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.

Please add text here....

Would the project involve or lead to:

P.9.1.4 	production, harvesting, and/or management of living natural resources by small-scale landholders and/or local communities?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.1.4 	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.

The project is centered around enhancing community health, safety, and well-being by improving access to clean drinking water and reducing indoor air pollution. This focus underscores its supportive role in positively impacting the communities' living conditions, health, and sustainability, without indicating any significant engagement in the management of living natural resources.

[P.9.2 | VULNERABILITY TO NATURAL DISASTER](#)

P.9.2.1 	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.

Please add text here....

Would the project involve or lead to:

P.9.2.2 	any potential risks that require emergency preparedness and response planning?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.2.2 	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.

The project involves distribution of water purification systems (WPS) within established settings like schools and institutions and is free from any possibility of large-scale and uncontrolled land use changes that could lead to hazards.

[P.9.3 | BIOSAFETY AND GENETIC RESOURCES](#)

P.9.3.1 	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
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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.

Please add text here....

Would the project involve or lead to:

P.9.3.1 	the transfer, handling and use of genetically modified organisms/living modified organisms (GMOs/LMOs) that result from modern biotechnology	☐ YES ☐ POTENTIALLY ☒ NO
P.9.3.1 	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
P.9.3.2 	If answer to above question is "yes" has any risks identified in the risk assessment?	☐ YES ☐ NO ☒ NA
P.9.3.3 	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.

The project's core objective is to distribute water purification systems (WPS) to schools and institutions in Kenya, with a clear emphasis on low-GHG water purification technologies. The involvement of genetically modified organisms (GMOs) or living modified organisms (LMOs) is extremely unanticipated throughout the project cycle. Also, the project does not engage in the transfer, handling, or use of GMOs/LMOs resulting from modern biotechnology.

[P.9.4 | RELEASE OF POLLUTANTS](#)

P.9.4.1 	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.

Please add text here....

Would the project involve or lead to:

P.9.4.1 	any potential risk of pollutant release that cannot be avoided?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.4.3 	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
P.9.4.2 	If answer to above question is "Yes" or "potentially", do the pollution prevention and control technologies and practices	☐ YES ☐ NO

	applied during the project life cycle align with national regulations or international best practices?	☒ NA
P.9.4.3 	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.

The project is designed to **minimize the risk of releasing pollutants** to air, water, and land in routine, non-routine, or accidental circumstances. The focus on distributing water purification systems (WPS) and promoting clean cooking practices reduces reliance on traditional solid biomass and fossil fuel-based methods, significantly lowering air pollutants. Additionally, by enhancing water safety, the project contributes to reducing waterborne pollutants.

[P.9.5 | HAZARDOUS AND NON-HAZARDOUS WASTE](#)

P.9.5.1 	Does the project involve the generation of waste materials (both hazardous and non-hazardous)?	☐ YES ☒ NO
P.9.5.3 	Does the project involve risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☐ YES ☒ NO
P.9.5.5 	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.

Would the project involve or lead to:

P.9.5.1 	the generation and management of waste materials?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.5.1 	treatment, destruction, or disposal of waste material?	☐ YES ☐ NO ☒ NA
P.9.5.1 	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
P.9.5.3 	risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☐ YES ☐ NO ☒ NA
P.9.5.3 	If answer to above question is "yes", does project has measures in place to address health risks?	☐ YES ☐ NO ☒ NA
P.9.5.4 	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.

The project implementation centers on distributing and utilizing water purification systems (WPS) in schools and institutions. These technologies are intentionally designed to function without presenting risks of hazardous material release. Furthermore, any waste produced is subject to diligent disposal practices, minimizing the potential for hazardous material release throughout the project's lifecycle – from production and transportation to handling, storage, and usage. Importantly, the project maintains strict adherence to international regulations, ensuring that no chemicals or materials subject to bans or phase-outs are utilized.

P.9.6 | PESTICIDES & FERTILISERS

P.9.6.1 	Does the project involve the use of chemical pesticides?	☐ YES ☒ NO
P.9.6.5 	Does the project involve purchase, store, manufacture, trade or use products that fall in Classes IA (extremely hazardous) and IB (highly hazardous)	☐ YES ☒ NO
P.9.6.6 	Does the project use fertilisers, and if so, are measures being taken to minimise their use and nutrient losses to the environment?	☐ 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.

Please add text here....

Would the project involve or lead to:

P.9.6.1 	chemical pesticides use for pest management?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.6.4 	If answer to question above is "yes" or "potentially", does project has documented Chemical Pesticides Policy in place?	☐ YES ☐ NO ☒ NA
P.9.6.5 	purchase, store, use, manufacture, or trade in Class II (moderately hazardous) pesticides?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.6.5 	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.

- The project focuses on water purification technologies (WPS) and does not have a direct connection to pest management activities.*
- Its primary goal is to provide safe drinking water to schools and institutions, which does not require to involve pest control measures.*

P.9.7 | HARVESTING OF FORESTS

P.9.7.1 	Does the project have a risk of unsustainable forest management, including timber harvesting?	☐ YES ☒ NO
P.9.7.1 	Does the project pose a risk of depleting biodiversity and ecosystem functionality in areas where improved forest management is undertaken?	☐ YES ☒ NO

P.9.7.1 	Does the project risk not meeting requirements for environment-friendly, socially beneficial, and economically viable plantations using native species whenever possible?	☐ YES ☒ NO
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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.

The project is supportive of sustainable forest management by promoting the use of water purification systems (WPS) and reducing the demand for non-renewable biomass and fossil fuels. This will rather mitigate the risk of unsustainable timber harvesting.

[P.9.8 | FOOD SECURITY](#)

P.9.8.1 	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.

Please add text here....

Would the project involve or lead to:

P.9.8.1 	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.

The project would not potentially involve or lead to modification of the quantity or nutritional quality of food available. Instead, it is focused on improving access to safe drinking water through water purification systems, thereby supporting community health without altering food crops, regimes, exports, or economic incentives.

[P.9.9 | ANIMAL WELFARE](#)

P.9.9.1 	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
P.9.9.2 	Does the project involve any potential risk of excessive or inadequate use of veterinary medicines?	☐ YES ☒ NO
P.9.9.4 	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.

Please add text here....

Would the project involve or lead to:

P.9.9.1 	animal husbandry or harvesting of fish populations or other aquatic species? ¹⁸	☐ YES ☐ NO ☒ NA
P.9.9.1 	limiting access for animals to basic needs like drinking water, adequate food, daylight, appropriate shelter etc.?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.9.3 	inadequate measures to isolate sick animals and control the spread of disease, especially zoonotic diseases?	☐ YES ☐ NO ☒ NA
P.9.9.5 	inadequate low-stress methods, equipment, and facilities that facilitate calm animal movement.	☐ YES ☐ NO ☒ NA
P.9.9.6 	inadequate measures to ensure that animals are exposed to the least stress possible during transportation and slaughtering?	☐ YES ☐ NO ☒ NA
P.9.9.7 	inappropriate spacing per animal and stocking rates per land unit?	☐ YES ☐ NO ☒ NA
P.9.9.8 	inadequate measures to address the specific needs of aquatic animals?	☐ YES ☐ NO ☒ NA
P.9.9.9 P.9.9.10 	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 more relevant and credible standards and utilise available technologies.	☐ 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.

The project's focus on distributing water purification systems (WPS) to schools and institutions in Kenya is aimed at improving access to safe drinking water for human consumption. This effort does not directly involve or lead to limitations on animals' access to basic needs. Instead, the project's goal to enhance water purification primarily benefits human communities, ensuring better access to clean water. It does not negatively impact animals' access to water, food, shelter, or other essential resources, as its scope is primarily centered on human welfare and environmental sustainability.

[P.9.10 | HIGH CONSERVATION VALUE AREAS AND CRITICAL HABITATS](#)

P.9.10.1 	Does the project have the risk of negatively impacting HCV areas and/or critical habitats?	☐ YES ☒ NO
P.9.10.2 	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),	☐ YES ☒ NO

¹⁸ 'Involve' means if the project mechanism and/or impact(s) are achieved via changing animal husbandry practices in some way.

	habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?	
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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.

Please add text here....

Would the project involve or lead to:

P.9.10.1	identified habitats as HCV areas and or Critical habitats?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.10.1	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
P.9.10.1	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
P.9.10.2	Does the project area or area of downstream impacts have 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 ☐ POTENTIALLY ☒ NO
P.9.10.2	If the answer to the above question is "yes", will the project have any adverse effects on these areas?	☐ YES ☐ No ☒ NA
P.9.10.3	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
P.9.10.4	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
P.9.10.5	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.

The project's scope primarily involves the distribution of water purification systems to schools and institutions in Kenya, focusing on safe water provision and reducing the use of non-renewable biomass for water boiling. Therefore, it is unlikely to have direct impacts on native tree patches, individual native trees, or habitats of rare, threatened, and endangered species.

The project's indirect positive effects on reducing air pollution and greenhouse gas emissions can, instead, be supportive of native tree patches, freshwater resources, and biodiversity-

enhancing areas. By decreasing the reliance on solid biomass fuel and fossil fuels, the project contributes to improved environmental conditions, which can benefit local ecosystems, water resources, and biodiversity.

P.9.11 | ENDANGERED SPECIES

<u>P.9.11.1 </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.

Please add text here....

Would the project involve or lead to:

<u>P.9.11.2 </u>	distortion of habitats of endangered species?	☐ YES ☐ POTENTIALLY ☒ NA
<u>P.9.11.2 </u>	If answer to the above question is "yes", does the project plan to protect and enhance them?	☐ YES ☐ POTENTIALLY ☐ NO ☒ N/A
<u>P.9.11.2 </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.

The project focus is targeted only to the schools and institutions for distributing water purification systems (WPS) and does not involve direct habitat disturbance or distortion of habitats of endangered species.

P.9.12 | INVASIVE ALIEN SPECIES

<u>P.9.12.1 </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.

Please add text here....

Would the project involve or lead to:

<u>P.9.12.1 </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>P.9.12.1 </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>P.9.12.2 </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.

The project's scope is not expected to cause unintended Introductions/spread of alien species or establishment of new ecosystems. The project focusses on water purification systems (WPS) primarily using chemical disinfection and does not involve the introduction of plant materials or organisms that could become invasive.

APPENDIX 2- CONTACT INFORMATION OF VPA IMPLEMENTER

Organisation name	Impact Carbon
Registration number with relevant authority	-
Street/P.O. Box	582 Market St, Suite 1205
Building	
City	San Francisco
State/Region	CA
Postcode	94104
Country	USA
Telephone	+1 (415) 968-9087
E-mail	ehaigler@impactcarbon.org
Website	www.impactcarbon.org
Contact person	Evan Haigler
Title	Executive Director
Salutation	Mr.
Last name	Haigler
Middle name	
First name	Evan
Department	Executive
Mobile	
Direct tel.	
Personal e-mail	

APPENDIX 3- LUF ADDITIONAL INFORMATION

Not Applicable

Risk of change to the Project Area during Project Certification Period:	
Risk of change to the Project activities during Project Certification Period:	
Land-use history and current status of Project Area:	
Socio-Economic history:	

Forest management applied (past and future)	
Forest characteristics (including main tree species planted)	
Main social impacts (risks and benefits)	
Main environmental impacts (risks and benefits)	
Financial structure	
Infrastructure (roads/houses etc):	
Water bodies:	
Sites with special significance for indigenous people and local communities - resulting from the Stakeholder Consultation:	
Where indigenous people and local communities are situated:	
Where indigenous people and local communities have legal rights, customary rights or sites with special cultural, ecological, economic, religious or spiritual significance:	

APPENDIX 4 - DESIGN CHANGES

A4.1. Details of proposed or actual design change

>>

Not Applicable

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

a. *Additionality*

>>

Not Applicable

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

>>

Not Applicable

c. *Compliance with the monitoring plan of the applied methodology*

>>

Not Applicable

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

>>

Not Applicable

e. Scale of the project activity

>>

Not Applicable

f. Stakeholder consultation

>>

Not Applicable

g. Sustainable development criteria

>>

Not Applicable

h. Safeguarding Assessment

>>

Not Applicable

i. Compliance with applicable legislation

>>

Not Applicable

APPENDIX 5-ENTITY RESPONSIBLE FOR COMPLETING VPA DESIGN DOCUMENT

Project participant and/or responsible person/ entity	☐ Project participant ☒ Person/entity responsible for completing the VPA-DD
Organization name	Climate Secure India Private Limited
Street/P.O. Box	Club Road
Building	Pragati Apartments
City	West Delhi
State/Region	Delhi
Postcode	110063
Country	India
Telephone	+91 11 2521 3080
Fax	--
E-mail	info@climate-secure.com
Website	www.climate-secure.com

Contact person	Rohit Lohia
Title	Director
Salutation	Mr.
Last name	Lohia
Middle name	--
First name	Rohit
Department	--

APPENDIX 6- DEVIATION FROM THE MONITORING METHODOLOGY

Reference: Dev_184

Date of approval: 07/12/2021

Validity: first crediting period of the VPA

Description:

Methodological requirement:

- 1. Parameter table SDWS 29 - The minimum sample size for IWT – for individual technology age group shall be determined considering the project technology type and in line with the sampling approach applied*
- 2. Also, page 51 of the applied methodology, for parameter SDWS29, refers a minimum sample size of 30 per technology age.*
- 3. Para 4.2.2. of the applied methodology prohibits grouping more than 10 VPAs together.*

Deviation proposed:

Conduct the project surveys for WPS stratifying each technology irrespective of their age, and by grouping more than 10 small scale VPAs together.

Justification:

WPS technologies are not affected by ageing, and are resupplied, maintained, and/or replaced on an ongoing basis. The water purification technologies operate on consumable modules basis i.e., once their treatment capacity (cartridge / tablets / filters) is fully consumed, their consumables (cartridges / tablets / filters) are replaced making them revive their useful lifetime (age) again. Also, WPS operate on binary performance rather than reducing performance i.e., a WPS irrespective of its age will either provide safe water or unsafe water. Thus, requirement to monitor the systems per technology age is deemed superfluous and only the monitoring of each WPS technology, irrespective of age shall be applicable for WPS devices.

The VPAs in each country are identical as they follow same management plan, operational plan and technologies. The limit on grouping by number of VPAs (maximum 10) is not a correct parameter to determine the limits for sampling.

GS Decision:

The deviation request is approved for the first crediting period of the VPAs GS11259 to GS11305. However, the PD must ensure that:

1. The stratified random sampling approach applied for sample size calculation for the monitoring survey must meet all the requirements under Appendix 3 of Guideline: Sampling and surveys for CDM project activities and programmes of activities.
2. Continuity in the project's monitoring activities is maintained, and PD can justify that no monitoring gaps exist (especially for SDG parameters) within the Monitoring Period(s). However, if gap(s) exist, the project shall justify that conservative approach(es) have been applied in line with section 3 of the Deviation Approval Requirements and Procedures (version 1.1) and overarching GS principles (as applicable).

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