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for the Global Goals

TEMPLATE

KEY PROJECT INFORMATION & PROJECT DESIGN DOCUMENT (PDD)

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VERSION **v.1.5**

RELATED SUPPORT

[- TEMPLATE GUIDE Key Project Information & Project Design Document](#)

This document contains the following Sections

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

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KEY PROJECT INFORMATION

GS ID of Project	1020
Title of Project	Production and dissemination of Ceramic Water Purifier by Hydrologic, in the Kingdom of Cambodia
Time of First Submission Date	08/08/2012
Date of Design Certification	08/08/2012
Version number of the PDD	12.3 ¹
Completion date of version	27/06/2025
Project Developer	Hydrologic Social Enterprise
Project Representative	Hydrologic Social Enterprise
Project Participants and any communities involved	NA
Host Country (ies)	Kingdom of Cambodia
Activity Requirements applied	<input checked="" type="checkbox"/> Community Service Activity <input type="checkbox"/> Renewable Energy <input type="checkbox"/> Land-Use and Forests Activity Requirements/Risks & Capacities <input type="checkbox"/> N/A
Scale of the project activity	<input type="checkbox"/> Micro scale <input checked="" type="checkbox"/> Small Scale <input type="checkbox"/> Large Scale
Other Requirements applied	
Methodology (ies) applied and version number	Voluntary Gold Standard methodology: "Methodology for Emission Reductions from Safe Drinking Water Supply" Version 1.0 Publication Date: 03 May 2021.
Product Requirements applied	<input checked="" type="checkbox"/> GHG Emissions Reduction & Sequestration

¹ CP2-PDD was registered with version 11.2

Project Cycle:	<input type="checkbox"/> Renewable Energy Label
	<input type="checkbox"/> N/A
	<input type="checkbox"/> Regular
	<input checked="" type="checkbox"/> Retroactive

Land-use & Forest Key Project Information²

Table 1 – Estimated Sustainable Development Contributions

SUSTAINABLE DEVELOPMENT GOALS TARGETED	SDG (DEFINED IN B.6)	IMPACT	ESTIMATED ANNUAL AVERAGE	UNITS PRODUCTS	OR
SDG13: Climate Action (mandatory)	Amount of emission reduction (tCO2e)		18,585	tCO2e	
SDG1: No poverty	Cost saving from buying wood (USD)		817,211	USD	
	Cost saving from buying charcoal (USD)		421,574	USD	
	Cost saving from buying LPG (USD)		1,571,393	USD	
SDG3: Good health and well being	% of project population avoided from using polluting fuels		72.51%	Percentage	
SDG6: Clean water and sanitation	Number of populations using safely managed drinking water services		378,023	People	
SDG7: Affordable and clean energy	Total energy savings		842	TJ	
SDG8: Decent work and economic growth	Total number of jobs created		100	Staffs	
SDG15: Life on land	Forest areas saved		48	Hectare	

² Please refer to 0 for detailed information on LUF projects

SECTION A. DESCRIPTION OF PROJECT

A.1 Purpose and general description of project

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Cambodia has made a significant increase in access to drinking water service in the last few decades, especially from 2014 to 2022, the percentage of household using an improved source of drinking water increased from 65% to 91% during the dry season and from 84% to 93% during the rainy season. However, only about two-thirds of households (68%) reported using an appropriate method to treat their water prior to drinking. Boiling water and using ceramic, sand, or other filter are the most common type of water treatment being 55% and 20% respectively³.

To make the water safe for drinking, more than 50% of households boil it by using wood, charcoal and other biomass which comes from non-renewable sources. Many families also cannot afford to buy firewood or collect firewood which is getting scarce in Cambodia, and continue to drink unsafe water.

In 2002, the NGO International Development Enterprise (IDE Cambodia) introduced Ceramic Water Purifiers (CWPs) into Cambodia as a way to filter safe drinking water for Cambodian households. These units treat contaminated drinking water, and reduce the demand for conventional water treatment through boiling water with non-renewable biomass. The CWPs can be manufactured using locally available skills and are simple, low cost and easy to use. In December 2010, IDE spun off its CWP manufacturing program, which then became *Hydrologic Social Enterprise*, registered as a private limited company under the Ministry of Commerce.

The enterprise is in the business of getting clean water to more people in Cambodia by selling Ceramic Water Purifiers (CWP). CWPs help people access to safe drinking water, especially in rural areas, reduce time spent provisioning clean water or collecting wood,

³ Cambodia demographic and health survey, 2021-2022:
<https://dhsprogram.com/pubs/pdf/FR377/FR377.pdf>

reduce costs for families, reduce child and adult morbidity and mortality, improve attendance at school and increase productivity. CWPs provide for removal of microorganisms from water by gravity filtration through porous ceramics, with typical flow rates of 2-4.5 liters per hour. This technology has been well documented and is proven to function very well in a Cambodian setting.

Since its inception, Hydrologic has disseminated over 550,00 units between 2010 and 2023. These units have provided safe drinking water for about 2.5 million people, and at the same time reduce the demand for water treatment through boiling water with non-renewable biomass. The CWP’s have a useful life of more than 5 years provided proper care and maintenance including ceramic pot replacement which can be purchased separately as spare part. Ceramic pots are manufactured locally, the assembling of CWPs is done at Hydrologic factory in Cambodia. Thus, it contributes to building a local industry and value added in Cambodia, as well as creating much needed sustainable jobs and business opportunities in rural areas.

The project was registered under the Gold Standard on 08/08/2012 and successfully transitioned into GS4GG in 30/10/2019.

Project milestones:

- Start date of the project is 09/02/2010, which is the date Hydrologic committed financially by signing a contract with a contractor to build the factory/warehouse.
- GS registration date: 08/08/2012.
- GS 1st Crediting period start date: 01/12/2010.
- GS 2nd Crediting period start date: 01/12/2017
- GS 3rd Crediting period start date:01/12/2024

In 3rd crediting period, the expected emission reduction per year would be 18,585 tCO₂e and the total emission reduction would be 130,097 tCO₂e during the CP3 period.

Table 2. CWP sales during CP1, CP2 and CP3

From	To	#of sales	sources
1/12/10	30/11/2011	45,239	Sale data
1/12/11	30/11/2012	48,659	Sale data
1/12/12	30/11/2013	56,953	Sale data
1/12/13	30/11/2014	51,545	Sale data
1/12/14	30/11/2015	42,684	Sale data
1/12/15	30/11/2016	52,726	Sale data
1/12/16	30/11/2017	50,071	Sale data

1/12/17	30/11/2018	31,623	Sale data
1/12/18	30/11/2019	37,241	Sale data
1/12/19	30/11/2020	28,198	Sale data
1/12/20	30/11/2021	41,353	Sale data
1/12/21	30/11/2022	37,058	Sale data
1/12/22	30/11/2023	27,966	Sale data
1/12/23	30/11/2024	37,187	Forecasted by HSE
1/12/24	30/11/2025	39,750	Forecasted by HSE
1/12/25	30/11/2026	44,583	Forecasted by HSE
1/12/26	30/11/2027	49,583	Forecasted by HSE
1/12/27	30/11/2028	48,167	Forecasted by HSE
1/12/28	30/11/2029	51,667	Forecasted by HSE
1/12/29	30/11/2030	54,750	Forecasted by HSE
1/12/30	30/11/2031	59,583	Forecasted by HSE

A.1.1. Eligibility of the project under Gold Standard

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Table 3. Eligibility Criteria as per section 3.1.1 of GS4GG Principles & Requirements

Eligibility Criteria	Requirement	Meet requirement? (Yes/No)
(a) Type of Project	Eligible Projects shall include physical action/implementation on the ground. Pre-identified eligible Project types are identified in the Eligibility Principles and Requirements section.	Yes. The Project type is automatically eligible for Gold Standard Certification as there are Gold Standard approved Activity Requirements and/or Impact Quantification Methodologies associated with it (Methodology for Emission Reductions from Safe Drinking Water Supply)
(b) Location of Project	Projects may be located in any part of the world.	Yes. The location of the Project is in the kingdom of Cambodia
(c) Project Area, Project Boundary and Scale	The Project Area and Project Boundary shall be defined. Projects may be developed at any scale although certain rules, requirements and limitations may apply under specific Activity Requirements, Impact	Yes. The Project Area is defined in A.2. The Boundary is defined in B.3.

	<p>Quantification Methodologies and Products Requirements.</p> <p>In order to avoid double counting the Project shall not be included in any other voluntary or compliance standards programme unless approved by Gold Standard (for example through dual certification). Also, if the Project Area overlaps with that of another Gold Standard or other voluntary or compliance standard programme of a similar nature, the project shall demonstrate that there is no double counting of impacts at design and performance certification (for example use of similar technology or practices through which the potential arises for double counting or misestimation of impacts amongst projects).</p>	<p>The project scale was large scale as defined in the CP2 PDD.</p> <p>The Project is only included under the Gold Standard and no dual certification will take place. The project is the only water filter project with this specific technology as described in section A.3 in the Project Area.</p>
(d) Host Country Requirements	<p>Project shall be in compliance with applicable host country’s legal, environmental and social regulations.</p>	<p>Yes.</p> <p>PD works with local government to ensure that the Project is implemented in line with relevant regulations.</p>
(e) Contact Details	<p>As part of the Project Documentation the Project Developer shall provide</p> <ul style="list-style-type: none"> (i) name and (ii) contact details of all Project Participants; AND in case of an organization (iii) the legal registration details and (iv) documentation by the governing jurisdiction that proves that the entity is in good standing (defined as being a legal or other appropriate entity registered in or allowed to operate within the required jurisdiction and with no evidence of insolvency or legal/criminal notices placed against it or any of its directors). Gold Standard retains the right (at its own discretion) to refuse use of the Standard where reputational concerns are highlighted. 	<p>Yes.</p> <p>PD’s details (i), (ii) and (iii) are provided in the Appendix 2 of this document and the submitted Business registration document.</p> <p>(iv): the PD business license and the Certificate of Tax payment (issued on 26/02/2024) are submitted together with this PDD prove that the entity is in good standing (defined as being a legal or other appropriate entity registered in or allowed to operate within the required</p>

		jurisdiction and with no evidence of insolvency or legal/criminal notices placed against it or any of its Directors).
(f) Legal Ownership	Full and uncontested legal ownership of any Products that are generated under Gold Standard Certification, (for example carbon credits) shall be demonstrated. Where such ownership is transferred from project beneficiaries this must be demonstrated transparently and with full, prior and informed consent (FPIC). Note that for certain Project types there is a requirement for full and uncontested legal land title/tenure to be demonstrated. These are contained within specific activity or product requirements. All projects shall immediately report to Gold standard any land title/tenure disputes arising.	Yes. PD clearly communicated to the stakeholders that PD will claim ownership rights at the stakeholder consultation since the start of the project activity. In addition, the PD explains that the PD retains the rights of ownership of the GHG reductions to purchasers through sales and/ or thank you note documentation attached in operation manual of CWP.
(g) Other Rights	As well as legal title and ownership, the Project Developer shall also demonstrate where required uncontested legal rights and/or permissions concerning changes in use of other resources required to service the Project (for example, access rights, water rights etc.). Any known disputes or contested rights must be declared immediately to Gold Standard by the Project Developer and resolved prior to further Project implementation in affected areas.	Yes. PD will inform GS of any disputes.
(h) Official Development Assistance (ODA) Declaration	All Project Developers applying for project activities located in a country named by the OECD Development Assistance Committee's ODA recipient list and seeking Gold Standard Certification for carbon credits shall declare the Official Development Assistance (ODA) support. The project	Yes. PD has submitted a signed ODA Declaration.

	developer shall follow the GHG Emissions Reduction & Sequestration Product Requirements and submit the declaration at the time of Design Certification.	
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The project follows the Community Services Activity Requirements, the following table demonstrates how it meets criteria in sections 2 Eligible Project Types and section 3 General Eligibility Criteria:

Table 4. Community Services Activity Requirements

Requirements relevant to this project	Meet requirement? (Yes/No)
2. Eligibility Project Types	
2.1.2) All CSA projects shall lead to climate change mitigation and/or adaption by providing or improving access to services/resources at household or community level or institutional level. Eligible services include electricity and energy, water and sanitation, waste management, housing, etc.	Yes. By providing a safe water source for households, the project improves access to safe water services/resources at household level. As such, the project is an Eligible Project Type in line with the requirements.
2.1.3) Projects shall conform to the Principles and Requirements.	Yes. The project conforms with the Principles and Requirements detailed as in the Table 3 above.
3. General Eligibility Criteria	
3.1.1 Types of Project b) End-Use Energy Efficiency: Project activities that reduce energy requirements as compared to baseline scenario without affecting the level and quality of services or products where the end user of the products and services are clearly identified and when the physical intervention is required at the user end.	Yes. By providing safe water, the project activity reduces the energy requirements compared to the baseline scenario by ensuring that households consume less woody biomass through no longer needing to purify their water.
3.1.2 Project Area, boundary and scale Project Area and Boundary shall be defined in line with the applicable Impact Quantification Methodologies and Product Requirements.	Yes. The Project Area is defined in A.2. The Boundary is defined in B.3. The project scale is small-scale.
3.1.3 Certain Impact Quantification methodologies allow projects to account Suppressed Demand scenario when	Yes. The proposed project is a small-scale project. Even though the project is applicable to apply a suppressed demand

<p>establishing a baseline. In such cases, the application of Suppressed Demand baseline is limited to Small-Scale and Microscale Projects.</p> <p>Where a Suppressed Demand baseline is applied, it is not possible to 'stack' Gold Standard Certified Impact statements or Products as the definition of the baseline may be contradictory.</p>	<p>baseline for small-scale project according to the methodology, this project adopts no suppressed demand baseline to achieve the highest integrity.</p>
<p>3.1.4 Legal ownership</p> <p>a) Projects involving the distribution of a large number of devices for services shall provide a clear description of the ownership of the Products that are generated under Gold Standard Certification all along the investment chain. In line with FPIC requirement, the proofs that end-users are aware of and willing to give up their rights on Products shall be provided.</p> <p>b) The transfer for Product ownership shall be discussed during the local stakeholder consultations for projects.</p>	<p>Yes.</p> <p>a) It will be clearly communicated that Hydrologic is the project owner and the entity that is claiming ownership rights of and selling the emission reductions resulting from the project activity. The project is managed in the host country by Hydrologic. Hydrologic have legal ownership of the carbon credits produced as a result of the project. PP is including a document in every CWP sold by explaining that <i>"All Tunsai water filter sales are supported by carbon finance and Hydrologic retains the right to all carbon credits arising from the used of this Tunsai water filter"</i>.</p> <p>b) The transfer of ownership was discussed during the local stakeholder consultation. Hydrologic presented to all the participants about the details of the project including its carbon right. No issues were raised during the meeting voicing issues regarding the transfer of product ownership.</p>

The project follows the GHG Emissions Reduction & Sequestration Product Requirements, the following table demonstrates how it meets criteria in sections 2 Eligible Criteria:

Table 5. GHG Emissions Reduction & Sequestration Product Requirements

Requirements relevant to this project	Meet requirement? (Yes/No)
2. General Eligibility Criteria	

<p>2.1.1 Unless otherwise stated elsewhere in the Principles & Requirements, Projects involving a mix of eligible and ineligible components can only claim credits for the Emission Reductions and/or sequestration associated with the eligible component of the project.</p>	<p>Yes. This criterion is not applicable to the project as this project includes no ineligible component.</p>
<p>2.1.2 Bundled Projects: Where Projects are submitted together for Gold Standard certification within a bundle, each Project shall individually be conformed to the Gold Standard Requirements. Eligibility criteria with regards to the scale of the Project shall apply to the bundle as a whole and not to the individual Projects.</p>	<p>Yes. This criterion is not applicable to the project as this is the stand-alone project</p>
<p>2.1.3 Programme of Activities (PoA): (LUF – _N/A) Where a group of Projects is submitted together for Gold Standard Design Certification within a Programme of Activities, each of these Projects shall confirm to the Gold Standard Requirements. A microscale project can only be part of a Microscale PoA</p>	<p>Yes. This criterion is not applicable to the project as this is a stand-alone project</p>
<p>3. Location of Project</p>	
<p>3.1.1 VER Projects may be located in any host country or state. However, where host countries or states have mandatory operational schemes to reduce GHG emissions in any form (e.g. cap & trade, carbon tax etc.), Projects shall only be eligible if the Project Developer has either: a. provided Gold Standard with satisfactory justification that no double counting of emission reductions occur or b. has committed to retiring eligible units equal to the quantity of Gold Standard VERs. Refer to Annex A of this document.</p>	<p>Yes. This is a GS project and the project is located in the kingdom of Cambodia which has no mandatory operational schemes to reduce GHG emissions in any form (e.g. cap & trade, carbon tax etc.)</p>
<p>4. Eligible Greenhouse Gases</p>	
<p>4.1.1 Only Carbon Dioxide (CO₂), Methane (CH₄) and/or Nitrous Oxide (N₂O) are eligible for Gold Standard crediting, provided Projects comply with Gold Standard Requirements and eligibility criteria</p>	<p>Yes. Carbon Dioxide (CO₂), Methane (CH₄) and/or Nitrous Oxide (N₂O) are included in this project boundary.</p>

<p>4.1.2 Projects involving the reduction of both eligible and non-eligible greenhouse gases shall be eligible under Gold Standard for the crediting of emission reductions associated with eligible gases only</p>	<p>Yes. This criterion is not applicable to the project as this project includes no ineligible component</p>
<p>5. Types of Project</p>	
<p>5.1.1 The Following Project types are eligible for issuance of Gold Standard VERs: (a) Renewable Energy Supply: Project activities that generate and deliver energy services (e.g. mechanical work/electricity/heat) from non-fossil and renewable energy sources. (b) End-Use Energy Efficiency Improvement: Project activities that reduce energy requirements as compared to baseline scenario without affecting the level and quality of services or products, where the end user of the products and services are clearly identified and when the physical intervention is required at the user end. For example, efficient cooking, heating, lighting, etc. (c) Waste Handling & Disposal: The waste handling and disposal category refers to all waste handling Projects that deliver an energy service (e.g. LFG with some of the recovered methane used for electricity generation) or a usable product with sustainable development benefits (e.g. composting). (d) Land Use and Forests: including Afforestation/Reforestation and Agriculture Projects (note – _CDM LUF projects are not eligible for GS Labelling)</p>	<p>Yes. This proposed project type is (b) End- Use Energy Efficiency Improvement</p>
<p>6. Official Development Assistance (ODA) Declaration</p>	
<p>6.1.1 Projects are ineligible for carbon crediting under Gold Standard if the ODA assistance is provided to the project under the condition that the credits generated by the Project will be transferred, either directly or indirectly, to the donor country providing ODA support. The OECD defines Official</p>	<p>Yes. There is no ODA assistance provided to the project under the condition that the credits generated by the Project will be transferred, either directly or indirectly, to the donor country providing ODA support. Please refer to the submitted ODA declaration form.</p>

<p>Development Assistance (ODA) as financial flows:</p> <ul style="list-style-type: none"> a. To developing countries and multilateral institutions; b. Provided by government agencies (e.g. USAID); c. Whose main objective is the economic development and welfare of developing countries; and d. That are concessional in character, conveying a grant element of at least 25%. 	
<p>6.1.2 Project Developer submitting a Project located in a country named by the OECD Development Assistance committee’s ODA recipient list shall sign and submit the ODA Declaration.</p>	<p>Yes. Please refer to the submitted ODA declaration form.</p>
<p>6.1.3 Where there is a material change in the role of ODA for the development or implementation of a Project, the Project Developer shall immediately submit an amended ODA Declaration.</p>	<p>Yes. This criterion is not applicable to the project as there is no ODA assistance provided to the project under the condition that the credits generated by the Project will be transferred, either directly or indirectly, to the donor country providing ODA support. Please refer to the submitted ODA declaration form.</p>
<p>7. Financial additionality & ongoing financial need</p>	
<p>7.1.1 All Projects shall be demonstrated to be additional, meaning that they shall reduce anthropogenic emissions of greenhouse gases below those that would have occurred in the absence of the proposed Project.</p>	<p>Yes. Please refer to the section B.5.</p>
<p>7.1.2 All Projects shall demonstrate Ongoing Financial Need at Certification Renewal following latest version of Principles & Requirements available at the time of renewal of their crediting period, unless otherwise stated in the relevant Activity Requirements</p>	<p>Yes. Please refer to the section B.5.</p>
<p>7.1.3 If the stakeholder consultation for the Project was conducted after the start date of the Project, the Gold Standard reserves the right to require that the Project Developer demonstrate the</p>	<p>Yes. Please refer to the section B.5. This project was already approved for registration and this PDD is for the renewal process.</p>

<p>revenues from carbon credits were seriously considered in the decision to implement the Project. Evidence to support carbon revenue consideration and continuous actions may include contracts, draft versions of Project information, correspondence with financial institutions or other stakeholders, minutes and notes of Board/Management meetings, agreements or negotiations with auditors, publications in newspapers</p>	
<p>8. Eligible methodologies</p>	
<p>8.1.1 All Projects shall a. conform to the relevant Activity Requirements and Gold Standard Approved Methodologies, including eligible CDM Methodologies. b. also meet the additional GS4GG methodology eligibility requirements, where applicable. Refer to eligible CDM Methodologies.</p>	<p>Yes. Please refer to the section B.1 and B.2.</p>
<p>8.2.1 GSVER Projects shall apply a Gold Standard Approved methodology. The Project shall apply the latest version of the methodology and applicable tools available at the time of first submission (preliminary review) of the Project. For transition projects, refer to Annex B for methodology version applicability requirements.</p>	<p>Yes. Please refer to the section B.1 and B.2</p>
<p>8.2.2 The methodology and tool version applied at the time of first submission (preliminary review) may be used for Design Certification as long as the Project is submitted for validation within six months after the time of first submission for Preliminary Review. If this condition is not met, the latest version of the methodology and applicable tool(s) available at the time of submission for validation shall be applied.</p>	<p>Yes. Please refer to the section B.1 and B.2.</p>
<p>8.2.3 GSVER Projects shall apply the latest version of the methodology and applicable tools available at time of</p>	<p>Yes. Please refer to the section B.1 and B.2.</p>

<p>submission for validation of Crediting Period Renewal. Please refer to relevant GS4GG requirements on Crediting Period Renewal for further guidelines.</p>	
<p>9. Project Scale</p>	
<p>9.1.1 GSVER Projects may be registered as 'large scale', 'small-scale' (for the applicability of methodologies and tools only) or 'micro-scale'. Scale is defined in the relevant Activity Requirements or where these do not exist then per following paragraphs.</p>	<p>Yes. The project scale was large scale as defined in the CP2 PDD but it is classified as small scale under this CP3 as the annual-average emission reduction are now below 60,000 tCO₂e. This change is due to the application of a new methodology and a revised lower value of the fNRB</p>
<p>9.1.2 All Projects exceeding the small scale thresholds are defined as large scale. Small scale projects are defined in accordance with CDM project standard for project activities</p>	<p>Yes. The project scale was large scale as defined in the CP2 PDD but it is classified as small scale under this CP3.</p>
<p>9.1.3. Microscale project are those projects associated with annual emission reductions of less than or equal to 10,000 tCO₂eq in each year of the crediting period. In case of A/R Projects with a maximum project area of 500ha are classified under microscale. It should be noted that Gold standard definition of 'microscale projects' is different from the CDM's definition of 'microscales projects'</p>	<p>N/A.</p>
<p>9.1.4 Where the maximum level of allowable annual emission reductions for a small scale or microscale Project has exceeded during project operation, that Project shall only be eligible for GSCERs, GSVERs or ERUs up to the maximum number of allowable credits corresponding to project scale definition per year as per defined Project scale. For e.g., when a micro-scale project achieves emission reductions greater than 10,000 tonnes of CO₂eq in a given year, the claimable emissions reductions shall be capped at 10,000 tonnes of CO₂eq.</p>	<p>NA. The project is small-scale project as the expected emissions reduction would not exceed the limitation of small-scale project of 60,000 tCo₂e per year.</p>

<p>9.1.5 GSVER project and VPAs applying suppressed demand baseline, irrespective of the applied methodology (approved GS or CDM methodology) and individual technology units, shall demonstrate compliance with applicable project type Small Scale thresholds at the aggregate level of the project or VPA, as defined in paragraph 9.1.1 above. Refer to Rule update for further details and CORSIA eligibility- Application of Suppressed Demand, Project Type and Applicable Scale Threshold.</p>	<p>Yes. The project scale was large scale as defined in the CP2 PDD but it is classified as small-scale project under this CP3. Even though the project is applicable to apply a suppressed demand baseline for small-scale project according to the methodology, this project adopts no suppressed demand baseline to achieve the highest integrity.</p>
<p>10. Crediting cycle & issuance</p>	
<p>10.1.1 Gold Standard Projects are eligible to claim GSVERs for no more than: a. The maximum Certification Renewals/Cycles (i.e. Crediting Period) as stipulated in the relevant Activity Requirements OR b. A maximum of one Certification Renewal Cycle (i.e. Crediting Period of 10 years) in the absence of the Activity Requirements</p>	<p>Yes. The project was registered under GS2.2 and transitioned to GS4GG, therefore the crediting period of 7 years and 2 times renewal is applied.</p>
<p>10.2.1 The start date of Crediting Period is the date of start of operation (start of planting for A/R Projects) or a maximum of two years (three years for A/R & AGR) prior to the date of Project Design Certification, whichever occurs later.</p>	<p>Yes. The start date of CP was approved during project registration in start of CP1.</p>
<p>10.2.2 In case the start date of the Crediting Period is after date of Project Design Certification then it may be postponed in line with the requirements listed in paragraph 3.1.3 (b) and (c), of the Design Change requirements. (LUF – _N/A)</p>	<p>N/A</p>

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

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The project is implemented by Hydrology Social Enterprise (HSE), who produces the project CWP. HSE clearly communicated to the stakeholders that the Project Developer (PD) will claim ownership rights at the stakeholder consultation since start of the project

activity. In addition, the PD explains that PD retains the rights of ownership of the GHG reductions to purchasers through sales in which every sold CWP come a thank you note of carbon transferring to HSE as stated that "All Tunsai water filter sales are supported by carbon finance and Hydrologic retains the right to all carbon credits arising from the used of this Tunsai water filter".

A.2 Location of project

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The project boundary for the distribution of the Ceramic Water Purifier of HSE is Nationwide of the Kingdom of Cambodia. The project proponent has a purpose-built factory to produce the CWPs in Kampong Chhnang province.

HYDROLOGIC Social Enterprise office:

#130A, St.430, Sangkat Tuol Tompong 2, Khan Chamkarmon, Phnom Penh, Cambodia, Webpage <https://www.tunsaiwater.com/filters/>; Facebook: <https://www.facebook.com/tunsaiwater/>.

Hydrologic's factory:

Trapeang Samrong Village, Sub-district of Longveak, District of Kompong Tralach, Province of Kompong Chhnang

The coordinates below correspond to the location of Hydrologic's factory.

Latitude	11.8504° N
Longitude	104.7419° E

Based on online resource (<https://latitudelongitude.org/kh/>), the coordinates of all the provinces, cities, and capital which are under the project target are listed below:

Table 6. Coordination of the targeted provinces

No	Name of province/city/capital	Latitude	Longitude
1	Banteay Meanchey	13°35'9.17"N	102°58'25.28"E
2	Battambang	13°6'9.76"N	103°11'53.59"E
3	Kampong Cham	11°59'36.2"N	105°27'48.6"E
4	Kampong Chhnang	12°15'0"N	104°40'0.01"E
5	Kampong Speu	11°27'11.95"N	104°31'15.06"E
6	Kampong Thom	12°42'40.03"N	104°53'19.43"E
7	Kampot	10°36'37.48"N	104°10'53.22"E
8	Kandal	11°28'59.99"N	104°57'0"E
9	Kep	10°28'58.48"N	104°19'0.19"E

No	Name of province/city/capital	Latitude	Longitude
10	Koh Kong	11°36'55.12"N	102°59'1.68"E
11	Kratie	12°29'17.2"N	106°1'7.64"E
12	Mondul Kiri	12°27'20.99"N	107°11'17.2"E
13	Oddar Meanchey	14°10'54.3"N	103°31'3.4"E
14	Pailin	12°50'56.22"N	102°36'33.41"E
15	Phnom Penh	11°33'44.82"N	104°54'57.64"E
16	Preah Sihanouk	10°36'33.55"N	103°31'46.49"E
17	Preah Vihear	13°48'26.32"N	104°58'49.66"E
18	Prey Veng	11°29'12.55"N	105°19'31.19"E
19	Pursat	12°32'19.61"N	103°55'9.12"E
20	Ratanak Kiri	13°44'21.8"N	106°59'14.17"E
21	Siemreap	13°21'42.44"N	103°51'38.02"E
22	Stung Treng	13°31'33.1"N	105°58'5.88"E
23	Svay Rieng	11°5'16.26"N	105°47'57.66"E
24	Takeo	10°59'26.92"N	104°47'5.93"E
25	Tboung Khmum	11.9214° N	105.6002° E

A.3 Technologies and/or measures

>>

Ceramic filtration is the use of porous ceramic (fired clay) to filter microbes or other contaminants from drinking water. Pore size can be made small enough to remove up to 99.99% bacteria.

Locally produced ceramic pot-style filters have the advantages of being lightweight, portable, relatively inexpensive, chemical free, low-maintenance, effective, and easy to use. The filters provide for removal of microorganisms from water by gravity filtration through porous ceramics, with typical flow rates of 2-4.5 liters per hour.

CWP cool the treated water through evapotranspiration and used with a proper storage receptacle, safely store water for use. There are no significant taste issues, they have functional stability in the sense that they have only one moving part (the tap) and require no external energy source (such as UV lamps) or consumables (such as chlorine packets, or media that must be regenerated or replaced). The ceramic filter surface is regenerated through regular scrubbing to reduce surface deposits.

Hydrologic CWP's have a potentially long useful life of 5+ years (Lantagne 2001⁴; Campbell 2005⁵) with proper care and maintenance. The useful life of a ceramic filter depends on the frequency of cleaning, and thus the quality of water being treated, and the thickness, since repeated cleaning will eventually wear away the filter surface. End-users have the possibility to replace broken parts or the entire unit at no cost thanks to the warranty system thus extending the lifespan of the CWP – the warranty system is financed by carbon credits. The project proponent will monitor usage rates in accordance with the methodology to ensure that only units in use are credited.

Filters are produced at Hydrologic's purpose-built factory and then sold through three main channels:

- i) Direct sales to end users by hydrologic sales staffs
- ii) Retailers who purchase wholesale CWPs and sell them to end users or local intermediaries
- iii) NGOs that purchase wholesale CWPs and typically sell them at a subsidized price.

Filters are made locally in Cambodia providing a source of income to poor communities.

Description of the Ceramic Water Filter:

The Ceramic Water Purifier consists of a porous, pot-shaped filter element made of kiln-fired clay impregnated with colloidal silver. The clay pores act as a physical barrier to micro-organisms and the silver acts as a bactericide.

- The ceramic filter element is set in a plastic receptacle tank with a lid and spigot to protect filtered water from recontamination.
- Raw water seeps through the ceramic filter element by gravity at a rate of 2 to 4.5 liters per hour producing potable water.
- The filter element holds approximately 10 liters, allowing a family to produce 30 liters of water per day with three fillings, or more if required.
- Maintenance consists of scrubbing the ceramic filter element to unclog pores and washing the receptacle tank to prevent bacterial growth.
- The ceramic filter element has an average lifespan of two years or more. The lifespan of ceramic pot depends on the quality of the input water and the care

⁴ Lantagne, D. (2001) *Investigation of the Potters for Peace Colloidal Silver Impregnated Ceramic Filter – Report 1: Intrinsic Effectiveness*. Pg. 58. [Online] Available from: <http://pottersforpeace.org/wp-content/uploads/alethia-report-2.pdf> [Last Accessed 28th November 2011].

⁵ Campell, E. (2005) *Study of life span of colloidal silver impregnated ceramic filter. Presented to Potters for Peace*. Par. V. [Online] Available from: <http://pottersforpeace.org/wp-content/uploads/filter-longevity-study.pdf> [Last Accessed 28th November 2011].

taken to avoid breakage. The receptacle and spigot are expected to last for more than five years.

There are four types of CWP products: Original Tunsai, Super Tunsai, Tunsai Thom and Tunsai Thom Auto. The detail specification of each type are described below Figure 1, Figure 2 and Figure 3.

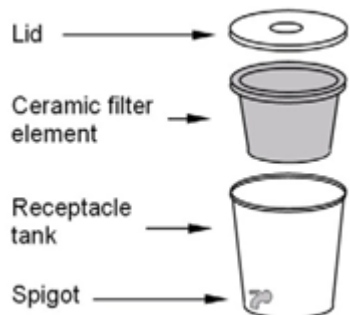
Original Tunsai Elements	Original Tunsai Water Purifier Data:	
	Filter Element Type	Ceramic Clay Pot
	Filter Capacity (Volume)	Approx. 10 L
	Filter Capacity Flow Rate	Typically: 2 – 4.5 L/Hr Typically: 30 L/Day
	Receptacle Type	Closed safe storage food grade plastic receptacle
	Receptacle Storage Capacity (volume)	Approx. 12 L
	Spigot Type	Plastic
	Plastic Type	Food grade polypropylene

Figure 1. Original Tunsai


Super Tunsai Elements	Super Tunsai Water Purifier Data:	
	Filter Element Type	Ceramic Clay Pot
	Filter Capacity (Volume)	Approx. 10 L
	Filter Capacity Flow Rate	Typically: 2 – 4.5 L/Hr Typically: 30 L/Day
	Receptacle Type	Closed safe storage food grade plastic receptacle
	Receptacle Storage Capacity (volume)	Approx. 14 L
	Spigot Type	Plastic
	Plastic Type	Food grade polypropylene

Figure 2. Super Tunsai and its specification

Tunsai Thom and Tunsai Thom Autofill ² Elements	Tunsai Thom Water Purifier Data	
	Filter Element Type	Ceramic Clay Pot
	Filter Capacity (Volume)	Approx. 10 L
	Filter Capacity Flow Rate	Typically: 2 – 4.5 L/Hr Typically: 30 L/Day


	Receptacle Type	Closed safe storage food grade plastic receptacle
	Receptacle Storage Capacity (volume)	Approx. 18 L
	Spigot Type	Plastic
	Plastic Type	Food grade polypropylene

Figure 3. Tunsai Thom and Tunsai Thom Autofill and its technical specification

As described above, the 4 types of CWPs have the same characteristics as illustrated above, with the only difference being the size of the receptacle and the design. These differences do not affect the estimates in carbon reduction, the four products have the exact same ceramic pot and the difference is with the size of the tank where the clean water is stored and with the design which does not affect the performance of the CWP. For carbon credit purposes, the ceramic pot processes the same amount of water in all products, therefore it is considered only one size product.

A.4 Scale of the project

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Small-scale project

A.5 Funding sources of project

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Since CP2, the project is funded by the sales of CWP and carbon credits and it remains the same for CP3. The project receives no public funding. A signed Official Development Assistance (ODA) declaration is being provided.

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

B.1. Reference of approved methodology (ies)

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[Methodology for Emission Reductions from Safe Drinking Water Supply⁶](#)
[Version 1.0, Publication Date: 03 May 2021.](#)

B.2. Applicability of methodology (ies)

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The Voluntary Gold Standard methodology” Methodology for Emission Reductions from Safe Drinking Water Supply” Version 1.0, 03/05/2021, is applicable to projects and programmes that seek to introduce zero or low GHG water purification systems to provide safe drinking water. This methodology quantifies GHG emissions reductions displaced through decentralised thermal energy technologies. The following are the applicable conditions and how they are met:

No	Condition	Project compliance (Yes/No)	Justification
2.1.1	This methodology is applicable to project activities that introduce a new, or rehabilitate an existing, zero-emission or low-emission technology to supply safe drinking water	Yes	The project technology introduces a new zero-emission technology to supply safe drinking water
2.1.2	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	Yes	The project technology is household water treatment technologies (HWT) using ceramic water filters. The HWT calculation and monitoring requirements is applied.

⁶ The proposed project was registered under the Gold Standard Methodology “Technologies and Practices to Displace Decentralized Thermal Energy Consumption version 3.0”. Under CP3 renewal, the updated methodology “Methodology for Emission Reductions from Safe Drinking Water Supply” has been applied.

	methodology provides two sets of calculation methods and monitoring requirements, one set that applies to the HWT and IWT types of technologies, and another set that applied to the CWT and CWS types of technologies.		
2.1.3	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.	Yes	The project technology is household water treatment technologies (HWT) using ceramic water filters. The water supplied from the treatment technology is safe and will be tested annually according to the monitoring
2.2.1.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.	Yes	The project technology is household water treatment technologies (HWT) using ceramic water filter.
2.2.1.b	Eligible community water supply technologies (CWS) include new installation of new borehole hand-pumps, borehole hand-pumps rehabilitation, solar powered	Yes	N/A as the project technology is a household water treatment technology (HWT) and is not using fossil fuel engines.

	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).		
2.2.1.c	All projects involving CWT and CWS technologies must also include ongoing maintenance and repair of the project technology.	Yes	N/A as the project technology is household water treatment technologies (HWT)
2.2.1.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 (parameter SWDS 2).	Yes	N/A as the project technology is household water treatment technologies (HWT) and there is no rehabilitation of an existing technology.
2.2.1.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.	Yes	The project activity is providing household water treatment technologies (HWT).
2.2.1.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 of each CWT or CWS location. Alternatively, as a proxy, a total collection time of 30 minutes or	Yes	N/A as the project technology is household water treatment technologies (HWT).

	less for a round trip, including queuing, using the travel modes of walking or pedaling may be demonstrated (parameter SDWS 1).		
2.2.1.g	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 (i) 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) or (ii) compliance with the national standard or guideline 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) (parameter SDWS 2).	Yes	Hydrologic has monitored the quality of its ceramic filter pot every month by conducting influent and effluent water from ceramic filter on sample based selecting from HSE's factory. The test is conducted by an accredited independent laboratory. The test result shows that the water coming out from the ceramic water filter is meeting WHO international scheme requirements where the E.coli (cfu.100mL) is zero ⁷ .
2.2.1.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	Yes	N/A as the project technology is household water treatment technologies (HWT).

⁷ Result of influent and effluence water from ceramic filter test.

	<p>technology/source achieves both:</p> <p>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); and</p> <p>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 contamination and physical and aesthetic aspects</p>		
<p>2.2.1. i</p>	<p>The project must conduct annual water hygiene education campaigns for the end-users. (parameter SDWS 20).</p>	<p>Yes</p>	<p>The project will conduct annual water hygiene education campaigns for the end-users</p>
<p>2.2.1. j</p>	<p>A project applying this methodology may make SDG claims if relevant monitoring parameter(s) is included in the monitoring plan to demonstrate and confirm the project's contribute to SDGs. See parameter SDWS 19.</p>	<p>Yes</p>	<p>This project is contributing to SDG 13, SDG1, SDG3, SDG6, SDG7, SDG8 and SDG 15 as listed in section B.6 of the PDD.</p>

B.3. Project boundary

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The project reduces the amount of greenhouse gases (GHGs) emitted through the use of fuel wood to boil water with inefficient cook stoves by introducing widespread use of a zero-emission water treatment technology. To ensure conservative estimates of

emission reductions, the project will not account for GHG reductions attributable to production and transportation of baseline fuels. The identified project boundary meets the methodology requirement as below:

Project boundary following methodology requirement	Project situation
a. the physical, geographical sites of the low- or zero-greenhouse gas emitting technologies to treat/supply safe drinking water installed by the project activity,	The project boundary for the distribution of the HSE Ceramic Water Purifiers is in the Kingdom of Cambodia. The PD has a purpose-built factory to produce the CWP's near Kampong Chhnang province, Cambodia.
b. any back-up engines or other equipment using fossil-fuel related to the low greenhouse gas emitting technologies	There is not any requirement for back-up engines or other equipment using fossil-fuel related to the low greenhouse gas emitting technologies
c. the electricity grid, in the case electricity is used by the project and	There is not any requirement for the electricity grid used by the project.
d. the household, commercial and institutional buildings where the end users of safe water provided by the project are located.	The households who purchase the project CWP are located in Cambodia.

The project boundary is delimited by the percentage of biomass fuel/fossil fuel used to boil water and is illustrated in the below Figure 4.

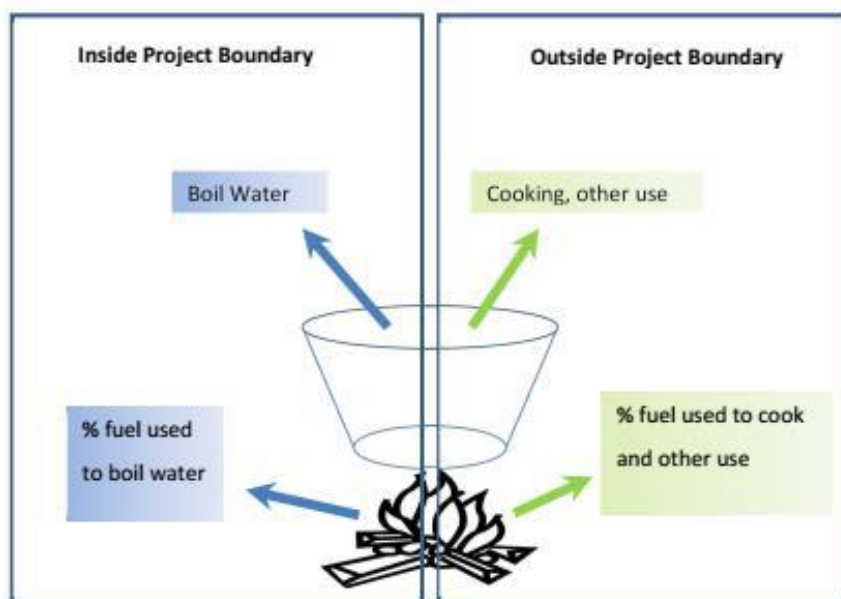


Figure 4. Project and baseline situation

The source listed below are included in the project boundary

Scenario	Source	GHGs	Include	Justification/Explanation
Baseline Scenario	Emissions from wood/charcoal/LPG utilized for boiling water to get safe drinking water.	CO2	Yes	Important source of emissions
		CH4	Yes	Gas included in the calculations. Emission factors for fuel in stationary combustion by the IPCC
		N2O	Yes	Gas included in the calculations. Emission factors for fuel in stationary combustion by the IPCC
Project Scenario	Emission from electricity operating water project water supply/treatment/technology	CO2	No	No electricity energy is required
		CH4	No	No electricity energy is required
		N2O	No	No electricity energy is required
	Emission from fossil fuels for operating project water supply/treatment technology	CO2	No	No fuel energy is required
		CH4	No	No fuel energy is required
		N2O	No	No fuel energy is required

B.4. Establishment and description of baseline scenario

>>

Following the GS requirement for renewal of the 3rd crediting period, HSE conducted the Baseline assessment research including physical baseline survey and desk study of national statistics. The objective of baseline study is to obtain baseline information of the target population characteristics for the HSE Ceramic Water Purifier project in Cambodia as part of the carbon finance process. This will assess the existing practice of treating water for consumption by boiling using high emission fuels including non-renewable biomass and fossil fuels.

The baseline survey was conducted in November 2023 in accordance with the new SDWS methodology in which the baseline survey questionnaire, data entry and report template are used. For this baseline survey, HSE has contracted with consultant

companies, ACS, that has experience in conducting carbon monitoring survey with Hydrologic in previous years. This baseline survey was conducted in concurrent with usage and project survey of CP2-MP6. The number of sample is 150 households across four representative provinces. These samples met the requirement of at least 100 samples as required by the registered methodology. Please refer to **the baseline training report** for the detailed sampling and survey approach.

Based on the analysis of the emission reduction calculation, the project is considered as a small scale and it adopts no suppressed demand baseline to achieve the highest integrity and only users that boil water in the pre-project scenario are accounted under this proposed project as required by the methodology seen in Table 7.

Table 7. Baseline scenario and baseline survey under the applied methodology

Para.	Baseline scenario	Baseline survey under this proposed project
3.4.1	For users that boil unsafe water for drinking in the pre-project scenario, the general baseline scenario is that users would have boiled water for drinking in the absence of the project activity.	The baseline survey was conducted with baseline households who did not own the CWP at time of surveying. The general baseline is established with the users who would have boiled water for drinking in the absence of the project activity.
3.4.2	For household end-users currently drinking unsafe water, the principles of suppressed demand are applied, such that the general baseline scenario is assumed to be that users would have boiled water for drinking in the absence of the project activity. The suppressed demand baseline does not apply to a large-scale project. A large-scale project can only account the users that boil water in the pre-project scenario. 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 (parameter SDWS12).	This project is small scale. Even though the project is applicable to apply a suppressed demand baseline for small-scale project according to the methodology, this project adopts no suppressed demand baseline to achieve the highest integrity. Only users that boil water in the pre-project scenario are accounted under this proposed project.

Existing Treatment Methods

Based on the baseline survey (150 households), 53.33% of the total population boiled water, 7.33% use water filter, 19.33% let it sand and settle, 24.67% purchase bottle water and 4% use pipe water as shown in Table 8 (see detail in baseline data, tab Analysis_BL, cell K11:M21).

Table 8. Method of water treatment

Method of water treatment	Number	Percentage*
Boil	80	53.33%
Add bleach / chlorine	0	0.00%
Strain it through a cloth	0	0.00%
Use water filter (ceramic, sand, composite, reverse osmosis, etc)	11	7.33%
Solar disinfection	0	0.00%
Let it stand and settle	29	19.33%
Don't know	0	0.00%
Purchase bottle water	37	24.67%
Pipe water	6	4.00%
Total population (150 HHs)	150	108.67%
<i>* some users use more than one method to treat water, thus total percentage is more than 100%.</i>		

There are main different types of stove used in the baseline for boiling water including: 3-stone stove, Traditional stove (conventional system using woody biomass) and LPG stove, while electric stove and biogas stove are minimal.





Figure 5. Types of stove technologies used in the baseline

By combining type of stoves and its fuel used, the percentage of each stove type and its fuel type used were calculated as seen in the below Table 9. For simplicity and conservative approach, households that use electricity and or biogas for boiling water are excluded from the baseline.

Table 9. Average main stove and its fuel use

Type of stove	Three-stone fire or a conventional system for woody biomass lacking improved combustion air supply mechanism and flue gas ventilation system	Other conventional systems using woody biomass	Improved cookstove	LPG	Other fossil fuel combusting systems	Electricity	Biogas stove	Total*
Wood	8.75%	48.13%	11.25%	-	-	-	-	68.13%
Charcoal	-	3.13%	1.25%	-	-	-	-	4.38%
LPG	-	-	-	18.75%	-	-	-	18.75%
Electricity	-	-	-	-	-	7.50%	-	7.50%
Biogas	-	-	-	-	-	-	1.25%	1.25%
Total	8.75%	51.25%	12.50%	18.75%	-	7.50%	1.25%	100.00%

B.5. Demonstration of additionality

Use this table for Automatic Additionality Only – delete if N/A

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).

a. Applicable GS4GG Activity Requirements;
 b. CDM Tool 01 - Tool for the Demonstration and Assessment of Additionality;
 c. CDM Tool 19- Demonstration of additionality of microscale project activities; (not applicable to Gold Standard microscale projects)
 d. CDM Tool 21 – _Demonstration of additionality of small-scale project activities; (applicable to small-scale projects only)
 e. An approved Gold Standard VER additionality tool

Referring to the Gold Standard for the Global Goals Community Services Activity Requirements section 4.1.9 (which is under the category a. Applicable GS4GG Activity Requirements above).

Projects that meet any of the following criteria are considered as deemed additional and therefore are not required to prove Financial Additionality at the time of Design Certification:

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

Describe how the proposed project meets the criteria for deemed additionality.	Cambodia is listed under LDC ⁸ , so the project is deemed additional and its does not require to prove Financial Additionality as in option (b) above.
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B.5.1 Prior Consideration

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Not applicable as this is renewal design certification.

⁸ <https://unctad.org/topic/least-developed-countries/list>, access 22 May, 2024.

B.5.2 Ongoing Financial Need

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At Hydrologic, the main revenue is generated from selling their ceramic water purifier (CWP) which covers an average of 76% of the total revenue, for the last three years 2022-2024, while the remaining 22% is coming from selling carbon credits as shown in the below table. The finance derived from the carbon credit is very crucial for Hydrologic to maintain its good operation and services to its customers as it covers around 20% of the total expenses. The carbon income is used in several main activities of the project including (1) price subsidy to maintain a reasonable flat selling price of Tunsai regardless of its sell location. The sale team brings CWP to the remote area with the same selling price compared to the one at the store; (2) two-year guaranty on ceramic pot; and (3) research and development of the project technology: new design of CWP and improving Kiln for barking the ceramic pot (installing LPG kiln).

Hydrologic Incomes⁹	2022	2023	2024	Average
<i>Sale revenue from selling Tunsai</i>	70%	83%	76%	77
<i>Carbon revenue (from selling carbon credit):</i>	28%	17%	21%	22%
<i>Other revenue:(Grant)</i>	1%		3%	1%
Total income	100%	100%	100%	100%
Hydrologic Expenses				
Operation expenses supported by sale revenue and other	77%	81%	81%	80%
Operation expenses supported by carbon revenue	10%	8%	6%	8%
Expenses on carbon related activities	13%	11%	13%	12%
Total expenses	100%	100%	100%	100%

B.6. Sustainable Development Goals (SDG) outcomes

Relevant Target/Indicator for each of the three SDGs

SDG IMPACT

SUSTAINABLE DEVELOPMENT GOALS TARGETED	MOST RELEVANT SDG TARGET	INDICATOR (PROPOSED OR SDG INDICATOR)

⁹ For the detail please refer to OFN_GS1020_CP3

Goal 13: Climate Action (mandatory)	13.2 integrate climate change measures into national policies, strategies, and planning	Amount of emission reduction
Goal 1: No Poverty	1.1 by 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day	Cost of saving from wood buying
		Cost of saving from charcoal buying
		Cost of saving from LPG buying
Goal 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	% of project population avoiding using polluting fuels
Goal 6: Clean Water and Sanitation	6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	Number of populations using safely managed drinking water services
Goal 7: Affordable and clean energy	7.3 By 2030, double the global rate of improvement in energy efficiency	Total energy savings
Goal 8: Decent Work and Economic Growth	8.5 By 2030 achieve full and productive employment and decent work for all women and men	Total number of jobs created
Goal 15: Life on Land	15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	Forest areas saved

B.6.1 Explanation of methodological choices/approaches for estimating the SDG Impact
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Goal 1 Contribution

The project technology helps users to save household expenditures on fuel purchase for boiling water. The indicator for this SDG1 would be the cost of saving from wood buying (a), charcoal buying (b), and LPG buying (c), which are relevant to the indicator "Average household savings i.e., decrease in expenditure on basic service such cooking, lighting, drinking."

Estimating baseline outcome:

- Baseline outcome (a) of SDG1

In the baseline situation, there is no wood fuel savings and cost saving from wood saving so the baseline contribution for SDG 1.a is **zero**.

- Baseline outcome (b) of SDG1

In the baseline situation, there is no charcoal fuel savings so the baseline contribution for SDG 1.b is **zero**.

- Baseline outcome (c) of SDG1

In the baseline situation, there is no LPG fuel savings so the baseline contribution for SDG 1.c is **zero**.

Estimating project outcome:

- Project outcome (a) of SDG1

The project cost saving from buying wood =

Amount of saved wood in the project scenario * % of household purchasing wood * Unit cost of wood

The amount of saved wood in the project scenario will be estimated from amount of CWP units in operation, actual amount of treated water ($QPW_{hh,p,y}$), required energy to treat water ($SE_{w,b,y}$), NCV of fuel (default IPCC values), percentage of wood in baseline consumption (fixed ex-ante SDWS 8) as in the proposed formulae:

Amount of saved wood in project scenario

$$= \text{CWP Units in operation} * QPW_{hh,p,y} * SE_{w,b,y} * x_{f-wood} / \text{NCV of wood}$$

Where:

$$\text{CWP Units in operation} = \text{CWP sold} * \text{Boiling factor in pre-project scenario} * U_{p,y}$$

- Project outcome (b) of SDG1

The project cost saving from buying charcoal =

Amount of saved charcoal in the project scenario * % of household purchasing charcoal * Unit cost of charcoal

The amount of saved charcoal in the project scenario will be estimated from amount of CWP units in operation, actual amount of treated water ($QPW_{hh,p,y}$), required energy to treat water ($SE_{w,b,y}$), NCV of fuel (default IPCC values), percentage of charcoal in baseline consumption (fixed ex-ante SDWS 8) as in the proposed formulae:

Amount of saved charcoal in project scenario

$$= \text{CWP Units in operation} * QPW_{hh,p,y} * SE_{w,b,y} * x_{f-charcoal} / \text{NCV of charcoal}$$

- Project outcome (c) of SDG1

The project cost saving from buying LPG =

Amount of saved LPG in the project scenario * % of household purchasing charcoal * Unit cost of charcoal

The amount of saved LPG in the project scenario will be estimated from amount of CWP units in operation, actual amount of treated water ($QPW_{hh,p,y}$), required energy to treat water ($SE_{w,b,y}$), NCV of fuel (default IPCC values), percentage of charcoal in baseline consumption (fixed ex-ante SDWS 8) as in the proposed formulae:

Amount of saved LPG in project scenario

$$= \text{CWP Units in operation} * QPW_{hh,p,y} * SE_{w,b,y} * x_{f-LPG} / \text{NCV of LPG}$$

Estimating net benefit

Net benefit (a) of SDG1 = Project outcome (a) of SDG1 - Baseline outcome (a) of SDG1

Net benefit (b) of SDG1 = Project outcome (b) of SDG1 - Baseline outcome (b) of SDG1

Net benefit (c) of SDG1 = Project outcome (c) of SDG1 - Baseline outcome (c) of SDG1

Goal 3 Contribution

The project technology helps avoiding polluting fuels from boiling water. The SDG's indicator is the percentage of the population avoided from using polluting fuels, *which is under SDG's target "3.9. By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination"*.

Estimating baseline outcome:

In the baseline situation, there were not avoiding polluting fuels to boil water. Hence, the baseline outcome is **zero**.

Estimating project outcome:

During CP2-MP6, the percentage of population using different kinds of stoves and fuel types, that are polluting fuels, are determined. In the project situation, CWPs are used, and no boiling is needed. Therefore, the percentage of population avoided from using polluting fuels will be the percentage of population using different kinds of stoves and fuel types.

Estimating net benefit

Net benefit of SDG3 = Project outcome of SDG3 - Baseline outcome of SDG3

Goal 6 Contribution

The project technology provides clean drinking water to end users. The SDG’s indicator is 6.1.1 Proportion of population using safely managed drinking water services, *which is under SDG’s target* "6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all". This indicator is continuously monitored and can be estimated as following:

Estimating baseline outcome:

In the baseline situation, the baseline outcome is **zero** due to no clean drinking water without project technology.

Estimating project outcome:

In the project situation, the number of populations using safely managed drinking water can be estimated as following:

$$\text{Project outcome of SDG6} = \text{Average CWP Units in operation} * HN_{p,y - \text{Full-time premises}}$$

Where:

$$HN_{p,y - \text{Full-time premises}} = \text{Number of individuals per premises type p in the project boundary in year y (SDWS 25.1)}$$

Estimating net benefit

The net benefit of SDG6 = Project outcome of SDG6 – Baseline outcome of SDG6

Goal 7 Contribution

The project technology helps users to save energy for boiling water. The indicator for this SDG7 would be the total energy savings from wood (a), charcoal (b), and LPG (c), which are relevant to the indicator "Energy efficiency improvement".

Estimating baseline outcome:

In the baseline situation, there is no wood, charcoal, and LPG savings so the baseline contribution for SDG7 is **zero**.

Estimating project outcome:

The total project energy savings from wood, charcoal, and LPG =

(Amount of saved wood in the project scenario*NCV of wood) + (Amount of saved charcoal in the project scenario*NCV of charcoal) + (Amount of saved LPG in the project scenario*NCV of LPG)

Estimating net benefit

Net benefit of SDG7 = Project outcome of SDG7 - Baseline outcome of SDG7

Goal 8 Contribution

The project creates a number of jobs which contribute to SDG’s target “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”. The indicator of this goal is the total number of jobs.

Estimating baseline outcome:

In the baseline situation, no new jobs were created. Hence, baseline outcome benefit is zero.

Estimating project outcome:

In the project situation, the number of jobs created is derived from project survey in CP2-MP6.

Estimating net benefit

The net benefit of SDG8 = Project outcome of SDG8 – Baseline outcome of SDG8

Goal 13 Contribution

The project will contribute to reduce GHG emission according to the selected METHODOLOGY FOR EMISSION REDUCTIONS FROM SAFE DRINKING WATER SUPPLY Version V1.0. The ER will be calculated based on the methodology which is under the SDG’s target “13.2 Integrate climate change measures into national policies, strategies and planning”. The indicator is Amount of GHGs emissions avoided or sequestered. The following section will describe a step-by-step method of estimating ER.

Baseline Emissions Calculation $BE_{b,y}$

The baseline emissions shall be calculated following Method 2 applied to HWT as follows:

$$BE_y = EF_b \times (1 - C_b - X_{cleanboil,y}) \times Q_y \times M_{q,y} \tag{Eq. 1}$$

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

The baseline emission factor shall be calculated as follows:

$$EF_b = SE_{w,b,y} \times \sum (x_f * (EF_{b,f,CO2} * f_{NRB,f,y} + EF_{b,f,nonCO2})) \div 10^9 \quad \text{Eq. 2}$$

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)
- $EF_{b,f,CO2}$ = CO2 emission factor from use of fuel f (tCO2/TJ)
- $EF_{b,f,nonCO2}$ = 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 losses¹⁰, taking into account default or measured stove efficiency.

$$SE_{w,b,y} = 360.83/\eta_{wb} \quad \text{Eq. 3}$$

Where:

¹⁰ 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).

360.83 = Default amount of energy required to obtain 1 L of water after 5 minutes of boiling from a first principles approach 22 kJ/l

η_{wb} = Efficiency of the stoves for baseline water boiling (%). Weighted average of baseline stove types.

The quantity of safe drinking water provided by the project is calculated using Method 2 applies to HWT.

Method 2 – HWT technologies

In the case of HWT, the quantity of safe drinking water provided by the project Q_y is determined as follows:

$$Q_y = \sum N_{p,y} \times U_{p,y} \times QPW_{hh,p,y} \times DP_{p,y} \quad \text{Eq. 4}$$

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 per day 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:

$$QPW_{hh,p,y} = \min \left((q_i \times t_{p,y} \times DN_{p,y}), (QPW_p \times HN_{p,y}) \right) \quad \text{Eq. 5}$$

Where:

q_i = Capacity of the HWT or IWT individual project technology (L/h)

$t_{p,y}$ = Usage time of the project technology by premises type p in year y (h/day)

$DN_{p,y}$ = 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). Apply the default value or monitored value through water consumption field tests in the project scenario, capped at 5.5 L per person per day.

Emissions for project PE_y

Using the project CWP will require no fossil fuel and electricity use. Therefore, the project emission is estimated as **zero**.

Leakage emissions LE_y

The project developer evaluates leakage for ex-ante from the potential sources of leakage as follow:

- *Members of the population who do not participate in the project, and previously used lower emitting energy sources, instead use the non-renewable biomass saved under the project activity.*

The volume of water treated by boiling in the baseline consumes a fractional portion of the biomass used by families. Biomass is currently non-renewable and expensive for families. It is highly unlikely that any biomass saved by the project activity will significantly reduce biomass costs outside the project boundary. Hence, the project developer assigned a value of 0 in this leakage parameter.

- *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 small size of the project is unlikely to have a significant impact on the NRB fraction. Therefore, the leakage resulting from the NRB is considered null.

- *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.*

In Cambodia, households rarely used stoves for heating since the temperature is rarely lower than 20°C all year round. Therefore, it is unlikely that the project activity will result in increased usage of biomass for the space heating. Hence, this leakage is considered a value of 0.

The other sources of leakage would be fuel consumption at the factory, which are wood consumption for wood fire kiln and diesel consumption from generator use at the factory. Wood fire kiln in the factory has been replaced by low-emitting kiln (LPG kiln) in January 2023. According to 3.8.1 in the methodology, leakage relating to the non-renewable woody biomass shall be assessed while other types of leakage are excluded for simplification. Thus, leakage at the factory is considered null.

In conclusion, leakage risks are insignificance and considered null for the project ex-ante. The actual Fuel consumption at the factory will be monitored in case any non-renewable woody biomass is used during project monitoring survey.

Estimating net benefit

The emission reductions are calculated as follows:

$$ER_y = BE_y - PE_y - LE_y \quad \text{Eq. 6}$$

Where:

ER_y = Emission reductions in year y (tCO2e/yr)

BE_y = Baseline emissions in year y (tCO2e/yr)

PE_y = Project emissions in year y (tCO2e/yr)

LE_y = Leakage emissions in year y (tCO2e/yr)

Goal 15 Contribution

The project technology helps forest saved from boiling practices. The SDG’s indicator is the amount of forest areas saved, *which is under SDG’s target* "15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally".

Estimating baseline outcome:

In the baseline situation, no forest areas were saved. Therefore, baseline outcome benefit is **zero**.

Estimating project outcome:

In the project situation, amount of forest areas saved can be determined by:

Project outcome of SDG 15 = ((Amount of saved wood + Amount of saved charcoal) * $f_{NRB,f,y}$) / (Growth stock in forest * Converting factor of biomass from m³ to tonne)

Estimating net benefit

The net benefit of SDG15 = Project outcome of SDG15 – Baseline outcome of SDG15

B.6.2 Data and parameters fixed ex ante

SDG13

Data/parameter	x_f (SDWS 8)
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. Please refer to section B.4 of PDD.																
Source of data	Baseline_Data_Report_CP3, Tab, Analysis_BL, cell AB74:AI79																
Value(s) applied	<table border="1"> <thead> <tr> <th>Type of stove and fuel</th> <th>% of stove/fuel (x_f)</th> </tr> </thead> <tbody> <tr> <td>Traditional Stove Users with wood</td> <td>8.75%</td> </tr> <tr> <td>Other Convention Stove Users with wood</td> <td>48.13%</td> </tr> <tr> <td>Improved Stove Users with wood</td> <td>11.25%</td> </tr> <tr> <td>Traditional Stove Users with charcoal</td> <td>0%</td> </tr> <tr> <td>Other Convention Stove Users with charcoal</td> <td>3.13%</td> </tr> <tr> <td>Improved Stove Users with charcoal</td> <td>1.25%</td> </tr> <tr> <td>Others (LPG)</td> <td>18.75%</td> </tr> </tbody> </table>	Type of stove and fuel	% of stove/fuel (x_f)	Traditional Stove Users with wood	8.75%	Other Convention Stove Users with wood	48.13%	Improved Stove Users with wood	11.25%	Traditional Stove Users with charcoal	0%	Other Convention Stove Users with charcoal	3.13%	Improved Stove Users with charcoal	1.25%	Others (LPG)	18.75%
Type of stove and fuel	% of stove/fuel (x_f)																
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Other Convention Stove Users with charcoal	3.13%																
Improved Stove Users with charcoal	1.25%																
Others (LPG)	18.75%																
Choice of data or Measurement methods and procedures	The survey was designed following GS requirements. Survey data are double checked to ensure quality of data.																
Purpose of data	Identify the type of fuel in the baseline situation																
Additional comment	N/A																

SDG13

Data/parameter	EF_{b,f,CO_2} (SDWS 9)
Unit	tCO ₂ e/TJ
Description	CO ₂ emission factor from use of fuels
Source of data	IPCC (2006) "IPCC Guidelines for National Greenhouse Gas Inventories", Volume 2, Energy, Chapter 2, Stationary Combustion, Table 2.4 and Gold Standard Methodology Emission Reduction from Safe Drinking Water Supply, v1.0

Value(s) applied	For wood and charcoal, the following defaults derived from the IPCC shall be applied: Wood: 112 tCO ₂ e/TJ Charcoal: 165.22 tCO ₂ e/TJ (includes charcoal production emissions) according to Gold Standard Methodology Emission Reduction from Safe Drinking Water Supply, v1.0 LPG: 63.1 tCO ₂ e/TJ
Choice of data or Measurement methods and procedures	Default value
Purpose of data	For baseline emission estimation
Additional comment	N/A

SDG13

Data/parameter	$EF_{b,f,nonCO_2}$ (SDWS 10)
Unit	tCO ₂ e/TJ
Description	Non-CO ₂ emission factor from use of fuels, in case the baseline fuel is biomass or charcoal
Source of data	Gold Standard Methodology Emission Reduction from Safe Drinking Water Supply, v1.0
Value(s) applied	For wood and charcoal, the following defaults for AR5 GWP are: - Wood: 9.46 tCO ₂ e/TJ - Charcoal: 44.83 tCO ₂ e/TJ (includes production emissions of CH ₄ and N ₂ O) - LPG: 0 (Non-CO ₂ emission factor for LPG is omitted when it is fossil fuel as stated in the Methodology).
Choice of data or Measurement methods and procedures	Default value

Purpose of data	For baseline emission estimation
Additional comment	N/A

SDG13

Data/parameter	η_{wb} (SDWS11)
Unit	Percentage
Description	Weighted average efficiency of the baseline water boiling devices. Calculate the weighted average of the water boiling efficiency in the project boundary using the proportion of different stove types used and the stove efficiencies.
Source of data	Default value from the methodology and AMS III.AV Version 8.0
Value(s) applied	<ul style="list-style-type: none"> - Three-stone fire or a conventional system for woody biomass lacking improved combustion air supply mechanism and flue gas ventilation system, that is without either a grate or a chimney: default efficiency 10%. - Other conventional systems using woody biomass: default efficiency 20%. - Improved cookstoves: manufacturer specification, or if not available, default efficiency 30%. - Other cookstove (LPG): default efficiency 50%.
Choice of data or Measurement methods and procedures	Default value
Purpose of data	For baseline emission estimation
Additional comment	N/A

SDG13

Data/parameter	C_b (SDWS12)
Unit	Percentage

Description	A 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	Calculated based on the baseline survey result and water quality test result conducted in Cambodia (Phan, K., Hoeng, S., Phin, S., The, N., Sriv, T., Sao, V., & Chey, C. O. (2023). Chemical risks in drinking water of inhabitants in the basin of the Tonle Sap Great Lake. Journal of Water and Health, 21(12), 1908-1921).
Value(s) applied	21.69%
Choice of data or Measurement methods and procedures	The survey was designed following GS requirements. Survey data are double checked to ensure quality of data.
Purpose of data	For baseline emission estimation
Additional comment	The detail calculation can be found in Baseline data, Tab Analysis_BL, Cell G46.

Source of water for household who don't boil water nor treating water for drinking	Dry season	Rainy season	Average	Percentage percentage	Passing rate for water quality test	Weighted average of water quality pass WHO standard for drinking water
Piped water						
Piped into dwelling	1	1	1	0.67%	17.78%	0.12%
Piped into compound, yard or plot	0	0	0	0.00%	17.78%	0.00%
Piped to neighbour	0	0	0	0.00%	17.78%	0.00%
Public tap / standpipe	0	0	0	0.00%	17.78%	0.00%
Borehole or tubewell	14	14	14	9.33%	6.12%	0.57%
Dug well						
Protected well	12	12	12	8.00%	0.00%	0.00%
Unprotected well	5	4	4.5	3.00%	0.00%	0.00%
Water from spring						
Protected spring	0	0	0	0.00%	0.00%	0.00%
Unprotected spring	0	0	0	0.00%	0.00%	0.00%
Rainwater collection						
Delivered water						
Tanker-truck	4	0	2	1.33%	0.00%	0.00%
Cart with small tank / drum	0	0	0	0.00%	0.00%	0.00%
Water kiosk						
Packaged water						
Bottled water	33	30	31.5	21.00%	100.00%	21.00%
Sachet water	0	0	0	0.00%	100.00%	0.00%
Surface water (river, stream, dam, la						
Other (Specify:)	0	0	0	0.00%	0.00%	0.00%
				47.33%		21.69%

SDG13

Data/parameter	q_i (SDWS 13)
Unit	Liters per hour

Description	Capacity of the household or institutional water treatment technology
Source of data	HSE's specification
Value(s) applied	3.25 Liters per hour
Choice of data or Measurement methods and procedures	Information is provided by the technology manufacturer
Purpose of data	For baseline emission estimation
Additional comment	The average value of the specification between 2-4.5L/h is 3.25 L/h.

SDG13

Data/parameter	NCV_f (SDWS 14)
Unit	TJ/fuel units, i.e. mass or volume units
Description	Net calorific value of fossil fuel f
Source of data	IPCC (2006) "IPCC Guidelines for National Greenhouse Gas Inventories", Volume 2, Energy, Chapter 1, Introduction, Table 1.2, p 1.18
Value(s) applied	Wood = 0.0156 TJ/tonne Charcoal = 0.0295 TJ/tonne LPG = 0.0473 TJ/tonne
Choice of data or Measurement methods and procedures	Default value from IPCC
Purpose of data	For estimating emission reduction
Additional comment	N/A

SDG13

Data/parameter	$f_{NRB,f,y}$ (SDWS 21)
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	TOOL33: Default values for common parameters, Version 03.0, Dated 12 June 2025 (CDM TOOL33 V03.0) ¹¹
Value(s) applied	20% for Cambodia It is fixed ex-ante for a given crediting period.
Choice of data or Measurement methods and procedures	fNRB is adopted from the latest updated TOOL33: Default values for common parameters, Version 03.0, Dated 12 June 2025 (CDM TOOL33 V03.0).
Purpose of data	For estimating emission reduction
Additional comment	N/A

SDG 13

Data / Parameter	Boiling factor (SDWS 19)
Unit	%
Description	The percentage of end-users boil water in pre-project scenario as detail in section B.4 of PDD.
Source of data	Baseline data analysis
Value(s) applied	53.33% Fixed at the beginning of each crediting period and it will be re-evaluated at renewal crediting period.
Choice of data or Measurement methods and procedures	Conducting the survey.

¹¹ [EB125_repan02_TOOL33_v03.0](#)

Purpose of data	For estimating emission reduction
Additional comment	N/A

B.6.3 Ex ante estimation of SDG Impact

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The ex-ante annual average estimations of SDG impacts are summarized below table¹²:

Item	Indicator	Baseline estimate	Project estimate
SDG13	Amount of emission reduction (tCO2e)	18,585	0
SDG1	Cost saving from buying wood (USD)	0	817,211
	Cost saving from buying charcoal (USD)	0	421,574
	Cost saving from buying LPG (USD)	0	1,571,393
SDG3	% of project population avoided from using polluting fuels	0%	72.51%
SDG6	Number of populations using safely managed drinking water services	0	378,023
SDG7	Total energy savings (TJ)	0	842
SDG8	Total number of jobs created	0	100
SDG15	Forest areas saved (ha)	0	48

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

SDG1. a: Cost saving from buying wood (USD)

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1 1/12/2024 – 30/11/2025	0	674,283	674,283
Year 2 1/12/2025 – 30/11/2026	0	698,774	698,774
Year 3 1/12/2026 – 30/11/2027	0	742,978	742,978
Year 4	0	814,354	814,354

¹² The detail calculation of SDG could be found in tab "SDG" of ER calculation spreadsheet.

1/12/2027 – 30/11/2028			
Year 5 1/12/2028 – 30/11/2029	0	873,769	873,769
Year 6 1/12/2029 – 30/11/2030	0	930,199	930,199
Year 7 1/12/2030 – 30/11/2031	0	986,122	986,122
Total	0	5,720,479	5,720,479
Total number of crediting years	7		
Annual average over the crediting period	0	817,211	817,211

SDG1. b: Cost saving from buying charcoal (USD)

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1 1/12/2024 – 30/11/2025	0	347,842	347,842
Year 2 1/12/2025 – 30/11/2026	0	360,476	360,476
Year 3 1/12/2026 – 30/11/2027	0	383,279	383,279
Year 4 1/12/2027 – 30/11/2028	0	420,100	420,100
Year 5 1/12/2028 – 30/11/2029	0	450,751	450,751
Year 6 1/12/2029 – 30/11/2030	0	479,861	479,861
Year 7 1/12/2030 – 30/11/2031	0	508,710	508,710
Total	0	2,951,019	2,951,019
Total number of crediting years	7		
Annual average over the crediting period	0	421,574	421,574

SDG1. c: Cost saving from buying LPG (USD)

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1 1/12/2024 – 30/11/2025	0	1,296,561	1,296,561
Year 2 1/12/2025 – 30/11/2026	0	1,343,654	1,343,654
Year 3 1/12/2026 – 30/11/2027	0	1,428,652	1,428,652
Year 4 1/12/2027 – 30/11/2028	0	1,565,899	1,565,899
Year 5 1/12/2028 – 30/11/2029	0	1,680,147	1,680,147
Year 6 1/12/2029 – 30/11/2030	0	1,788,654	1,788,654
Year 7 1/12/2030 – 30/11/2031	0	1,896,187	1,896,187
Total	0	10,999,754	10,999,754
Total number of crediting years	7		
Annual average over the crediting period	0	1,571,393	1,571,393

SDG3: % of project population avoided from using polluting fuels

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1 1/12/2024 – 30/11/2025	0	72.51%	72.51%
Year 2 1/12/2025 – 30/11/2026	0	72.51%	72.51%
Year 3 1/12/2026 – 30/11/2027	0	72.51%	72.51%
Year 4 1/12/2027 – 30/11/2028	0	72.51%	72.51%
Year 5 1/12/2028 – 30/11/2029	0	72.51%	72.51%
Year 6 1/12/2029 – 30/11/2030	0	72.51%	72.51%
Year 7 1/12/2030 – 30/11/2031	0	72.51%	72.51%

Total	0	72.51%	72.51%
Total number of crediting years	7		
Annual average over the crediting period	0	72.51%	72.51%

SDG6: Number of populations using safely managed drinking water services

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1 1/12/2024 – 30/11/2025	0	312,018	312,018
Year 2 1/12/2025 – 30/11/2026	0	323,368	323,368
Year 3 1/12/2026 – 30/11/2027	0	343,815	343,815
Year 4 1/12/2027 – 30/11/2028	0	375,834	375,834
Year 5 1/12/2028 – 30/11/2029	0	404,338	404,338
Year 6 1/12/2029 – 30/11/2030	0	430,456	430,456
Year 7 1/12/2030 – 30/11/2031	0	456,332	456,332
Total	0	2,646,161	2,646,161
Total number of crediting years	7		
Annual average over the crediting period	0	378,023	378,023

SDG7: Total energy savings from wood, charcoal, and LPG (TJ)

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1 1/12/2024 – 30/11/2025	0	695	695
Year 2 1/12/2025 – 30/11/2026	0	720	720
Year 3 1/12/2026 – 30/11/2027	0	766	766

Year 4 1/12/2027 – 30/11/2028	0	839	839
Year 5 1/12/2028 – 30/11/2029	0	900	900
Year 6 1/12/2029 – 30/11/2030	0	959	959
Year 7 1/12/2030 – 30/11/2031	0	1,016	1,016
Total	0	5,895	5,895
Total number of crediting years	7		
Annual average over the crediting period	0	842	842

SDG8: Total number of jobs created

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1 1/12/2024 – 30/11/2025	0	100	100
Year 2 1/12/2025 – 30/11/2026	0	100	100
Year 3 1/12/2026 – 30/11/2027	0	100	100
Year 4 1/12/2027 – 30/11/2028	0	100	100
Year 5 1/12/2028 – 30/11/2029	0	100	100
Year 6 1/12/2029 – 30/11/2030	0	100	100
Year 7 1/12/2030 – 30/11/2031	0	100	100
Total	0	100	100
Total number of crediting years	7		
Annual average over the crediting period	0	100	100

SDG13: Amount of emission reduction (tCO2e)

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1 1/12/2024 – 30/11/2025	15,338	0	15,338
Year 2 1/12/2025 – 30/11/2026	15,899	0	15,899
Year 3 1/12/2026 – 30/11/2027	16,903	0	16,903
Year 4 1/12/2027 – 30/11/2028	18,477	0	18,477
Year 5 1/12/2028 – 30/11/2029	19,880	0	19,880
Year 6 1/12/2029 – 30/11/2030	21,164	0	21,164
Year 7 1/12/2030 – 30/11/2031	22,436	0	22,436
Total	130,097	0	130,097
Total number of crediting years	7		
Annual average over the crediting period	18,585	0	18,585

SDG15: Forest areas saved (ha)

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1 1/12/2024 – 30/11/2025	0	40	40
Year 2 1/12/2025 – 30/11/2026	0	41	41
Year 3 1/12/2026 – 30/11/2027	0	44	44
Year 4 1/12/2027 – 30/11/2028	0	48	48
Year 5 1/12/2028 – 30/11/2029	0	51	51
Year 6 1/12/2029 – 30/11/2030	0	55	55
Year 7 1/12/2030 – 30/11/2031	0	58	58

Total	0	337	337
Total number of crediting years	7		
Annual average over the crediting period	0	48	48

B.7. Monitoring plan

B.7.1 Data and parameters to be monitored

a. Related to water quality

SDG 13

Data / Parameter	$M_{q,y}$ (SDWS 18)
Unit	Fraction
Description	Ongoing water quality is indicated as the fraction of the samples that pass microbial quality standard requirements specified in relevant microbial quality standard for drinking water of the host country. In case a national standard is not available, the water quality shall comply with WHO Guideline values for verification of microbial quality i.e., all water directly intended for drinking must not have detectable E.Coli in any 100 ml sample i.e., less than 1 Colony Forming Unit (CFU) of E.Coli /100 ml.
Source of data	Data from CP2-MP6 of this GS1020
Value(s) applied	93%
Measurement methods and procedures	For ex-ante estimation, the PD applied rate of 93% from CP2-MP6 for water quality test. During future verifications, the PD will conduct the Water quality test required by the methodology below: Testing of water all appliances or at a representative sample of end users at the exits of the treatment technology. The sampling results shall satisfy at minimum the 90/10 rule, i.e. the endpoints of the 90% confidence interval lie within +/- 10% of the estimated proportion in

	relative units. A minimum sample size of 30 must be selected.
Monitoring frequency	Annual sampling, and the first round of testing shall be conducted at least after six months from the start date.
QA/QC procedures	Laboratories used for water quality testing will be monitored.
Purpose of data	For emission reduction calculation
Additional comment	N/A

SDG 13

Data / Parameter	Water hygiene education campaigns (SDWS 20)
Unit	People
Description	<p>Hygiene campaigns are carried out among project safe water end-users.</p> <p>The following guidelines apply for conducting these campaigns:</p> <ul style="list-style-type: none"> - Hygiene refers to access to sanitation amenities, equipment and infrastructure, as well as to the behavior in respect to regular and correct use of such amenities. It also refers to behavior that prevents infections from water-related diseases. - The project developer shall report the activities conducted each year in a detailed "Report of annual hygiene campaigns results" and summarize the results in the project monitoring reports. - Any major 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 and, if relevant, a strategy put in place to address it through the subsequent hygiene campaign. - The detailed method used to assess hygienic handling of clean water must be provided with the PDD and verified by the VVB.

	<p>- The details of the method should be adjusted to suit the circumstances of each project and also to suit learning year on year.</p> <p>The impacts of the hygiene campaign shall be assessed using the WHO/UNICEF Joint Monitoring Programme Core questions for drinking water and hygiene to determine the fraction of the households and institutions where Safe water and Hygiene practices are found to fulfill “safely managed” or “basic” requirements.</p> <p>In-person or telephone or by messaging (e.g. text, app) based survey shall be conducted covering all the JMP core questions for drinking water and core questions for hygiene.</p> <p>For sampling requirements, follow section 4.2 General requirements for sampling, below.</p> <p>The JMP core questions for households, schools and health care facilities are available at https://washdata.org/monitoring/methods/core-questions</p>
Source of data	Report of annual hygiene campaigns results
Value(s) applied	74,079 PD use the latest figure from CP2-MP6 as an ex-ante figure. PD will monitor this parameter during the monitoring and verification stage.
Measurement methods and procedures	Records the number of users/potential users who attend the sale meeting and hygiene campaign.
Monitoring frequency	Annually
QA/QC procedures	The fraction of the households where Safe water and Hygiene practices are found to fulfill “safely managed” or “basic” requirements is expected to increase over time as a result of the hygiene campaigns.
Purpose of data	For emission reduction calculation
Additional comment	N/A

b. Related to emission reductions

SDG 13

Data / Parameter	$X_{cleanboil,y}$ (SDWS 22)
Unit	Percentage
Description	Proportion of project end-users that boil safe (treated, or from safe supply) water after installation of project technology in year y
Source of data	Project survey This survey may be performed in person, by telephone, by messaging (e.g. text, app), appropriate to the context. For sampling, follow the section 4.2 General requirements for sampling, as required by the applied methodology.
Value(s) applied	10% For ex-ante estimation, the PD applied rate of 10% for amount of safe water boiled. During future verifications, the PD will conduct the project survey as required by the methodology.
Measurement methods and procedures	The survey shall be designed following GS requirements. Result data are double checked to ensure quality of data.
Monitoring frequency	Annually
QA/QC procedures	N/A
Purpose of data	For emission reduction calculation
Additional comment	-

SDG 13

Data / Parameter	QPW_p (SDWS 24)
Unit	Liters/person/day
Description	Volume of drinking water per person per day for premises type p
Source of data	PD used the default value in the registered methodology.

	In the case of institutions, such as schools, the value should reflect the expected drinking water use per person while on the premises of the institution, in line with the following defaults: <ul style="list-style-type: none"> • Full-day premises/ Boarding school: 4 L/person/day • Half-time premises: 3 L/person/day
Value(s) applied	4 L/person/day
Measurement methods and procedures	If the survey is conducted, the survey shall be designed following GS requirements. Result data are double checked to ensure quality of data.
Monitoring frequency	Every two years
QA/QC procedures	N/A
Purpose of data	For emission reduction calculation
Additional comment	Based on the baseline survey, all households are full-day premises, thus the default value is 4L/person/day.

SDG 13

Data / Parameter	$HN_{p,y}$ (SDWS 25)
Unit	Number
Description	Number of individuals per premises type p in the project boundary in year y
Source of data	Baseline survey
Value(s) applied	4.39 For ex-ante estimation, the PD use the data of 4.39 people/household as resulted from the baseline survey.
Measurement methods and procedures	The survey shall be designed following GS requirements. Result data are double checked to ensure quality of data.
Monitoring frequency	Annually
QA/QC procedures	The value applied shall be cross-checked against at least one other source on the list. 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.
Purpose of data	For emission reduction calculation
Additional comment	N/A

SDG 13

Data / Parameter	$N_{p,y}$ (SDWS 28)			
Unit	Number			
Description	Accumulated number of premises type p with at least one individual project technology in year y			
Source of data	Sales records			
Value(s) applied	From	To	# of sales	sources
	1/12/10	30/11/2011	45,239	Sale data
	1/12/11	30/11/2012	48,659	Sale data
	1/12/12	30/11/2013	56,953	Sale data
	1/12/13	30/11/2014	51,545	Sale data
	1/12/14	30/11/2015	42,684	Sale data
	1/12/15	30/11/2016	52,726	Sale data
	1/12/16	30/11/2017	50,071	Sale data
	1/12/17	30/11/2018	31,623	Sale data
	1/12/18	30/11/2019	37,241	Sale data
	1/12/19	30/11/2020	28,198	Sale data
	1/12/20	30/11/2021	41,353	Sale data
	1/12/21	30/11/2022	37,058	Sale data
	1/12/22	30/11/2023	27,966	Sale data
	1/12/23	30/11/2024	37,187	Forecasted by HSE

	1/12/24	30/11/2025	39,750	Forecasted by HSE
	1/12/25	30/11/2026	44,583	Forecasted by HSE
	1/12/26	30/11/2027	49,583	Forecasted by HSE
	1/12/27	30/11/2028	48,167	Forecasted by HSE
	1/12/28	30/11/2029	51,667	Forecasted by HSE
	1/12/29	30/11/2030	54,750	Forecasted by HSE
	1/12/30	30/11/2031	59,583	Forecasted by HSE
Measurement methods and procedures	Data will be calculated directly from the sales records.			
Monitoring frequency	Annually			
QA/QC procedures	Sales records include: <ul style="list-style-type: none"> i. Date of sale ii. Sale channel iii. Type of sale iv. Model/type of project technology sold v. Quantity of project technologies sold vi. Reference (invoice number) 			
Purpose of data	For emission reduction calculation			
Additional comment	<p>Applies to HWT projects.</p> <p>Units shall not be counted in $N_{p,y}$ after the end of their technical life, unless this is addressed by the measures to manage the cases where the expected technical life of the project technology is shorter than the crediting period, namely replacement or retrofit as described in the parameter SDWS 7.</p> <p>It should be noted that Hydrologic sale their products through 3 different types of sale including:</p> <ul style="list-style-type: none"> - Direct sale - Retails - NGO sale <p>Thus, it is challenging to track all the locations of end-user in the sale database. Therefore, PD has created an end-user database which content: Name, address, number of purchased filter, date of purchased and telephone number</p>			

(if available) for sale in which the above information can be collected.

SDG 13

Data / Parameter	$U_{p,y}$ (SDWS 29)																																																							
Unit	Percentage																																																							
Description	The usage rate of the project technology by premises type p during year y to be filled in tab "ER schedule per month"																																																							
Source of data	Survey the premises with a project technology to determine the usage rate of the project technology during the year. The usage survey guidelines are provided in Annex -1 of the methodology.																																																							
Value(s) applied	<table border="1"> <thead> <tr> <th colspan="4">Age from</th> <th>Usage rates</th> </tr> </thead> <tbody> <tr> <td>9</td> <td>to</td> <td>10</td> <td>years</td> <td>0.00%</td> </tr> <tr> <td>8</td> <td>to</td> <td>9</td> <td>years</td> <td>0.00%</td> </tr> <tr> <td>7</td> <td>to</td> <td>8</td> <td>years</td> <td>0.00%</td> </tr> <tr> <td>6</td> <td>to</td> <td>7</td> <td>years</td> <td>0.00%</td> </tr> <tr> <td>5</td> <td>to</td> <td>6</td> <td>years</td> <td>0.00%</td> </tr> <tr> <td>4</td> <td>to</td> <td>5</td> <td>years</td> <td>57.14%</td> </tr> <tr> <td>3</td> <td>to</td> <td>4</td> <td>years</td> <td>80.00%</td> </tr> <tr> <td>2</td> <td>to</td> <td>3</td> <td>years</td> <td>83.33%</td> </tr> <tr> <td>1</td> <td>to</td> <td>2</td> <td>years</td> <td>95.00%</td> </tr> <tr> <td>0</td> <td>to</td> <td>1</td> <td>years</td> <td>95.00%</td> </tr> </tbody> </table> <p>For ex-ante estimation, the PD applied the usage rates from the most recent monitoring survey (CP2-MP6). For ex-ante estimation, the usage rate of age groups which are more than 5 years old are assumed to be zero (0%). During future verifications, the PD will conduct the Usage survey as required by the methodology.</p>	Age from				Usage rates	9	to	10	years	0.00%	8	to	9	years	0.00%	7	to	8	years	0.00%	6	to	7	years	0.00%	5	to	6	years	0.00%	4	to	5	years	57.14%	3	to	4	years	80.00%	2	to	3	years	83.33%	1	to	2	years	95.00%	0	to	1	years	95.00%
Age from				Usage rates																																																				
9	to	10	years	0.00%																																																				
8	to	9	years	0.00%																																																				
7	to	8	years	0.00%																																																				
6	to	7	years	0.00%																																																				
5	to	6	years	0.00%																																																				
4	to	5	years	57.14%																																																				
3	to	4	years	80.00%																																																				
2	to	3	years	83.33%																																																				
1	to	2	years	95.00%																																																				
0	to	1	years	95.00%																																																				
Measurement methods and procedures	The survey shall be designed following GS requirements. Result data are double checked to ensure quality of data.																																																							
Monitoring frequency	Annually																																																							
QA/QC procedures	Where a WCFT is undertaken to determine QPW_p , this may be used to cross check the usage percentage.																																																							
Purpose of data	For emission reduction calculation																																																							

Additional comment	The usage survey provides a single usage parameter that is representative for project technologies in the total sales record. Applies to all HWT technologies and project.
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SDG 13

Data / Parameter	$t_{p,y}$ (SDWS 30)
Unit	Hours per day
Description	Usage time of the project technology by premises type p in year y
Source of data	Determine in project survey
Value(s) applied	7 This parameter is newly introduced in the new methodology SWDS and the PD does not have the data at the CP renewal stage, for ex-ante estimation of the PD has been temporary applying usage time of 7 hours (2 hours in the morning, 2 hours in the afternoon and 3 hours in the evening). The actual value will be monitored and applied during verification.
Measurement methods and procedures	The survey shall be designed following GS requirements. Result data are double checked to ensure quality of data.
Monitoring frequency	Annually
QA/QC procedures	Result data are double checked to ensure quality of data.
Purpose of data	For emission reduction calculation
Additional comment	Applies to HWT

SDG 13

Data / Parameter	$DP_{p,y}$ (SDWS 31)
Unit	Days
Description	Average days the project technology is present for end-users in the premises p in year y
Source of data	Sales or distribution records. 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 365 days of the year it was in the premises and within its technical life. Calculate the average for all the project technology by premises type p to obtain this parameter.
Value(s) applied	365 Assume that the filter will be present in user's home for the whole year.
Measurement methods and procedures	Data will be calculated from the distribution date records
Monitoring frequency	Annually
QA/QC procedures	N/A
Purpose of data	For emission reduction calculation
Additional comment	Applies to HWT

SDG 13

Data / Parameter	$DN_{p,y}$ (SDWS 32)
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. Based on the sales or distribution records of "Quantity of project technologies sold" and identifying information of buyer/recipient, calculate the average number of project devices per premises. If the project covers different types of end-users (e.g., households, institutions), the average number must be determined per premises type p.
Value(s) applied	1 Assume one household will only buy one CWP for ex-ante
Measurement methods and procedures	The survey shall be designed following GS requirements. Result data are double checked to ensure quality of data.
Monitoring frequency	Annually

QA/QC procedures	Result data are double checked to ensure quality of data.
Purpose of data	For emission reduction calculation
Additional comment	Applies to HWT projects

SDG 13

Data / Parameter	LE_y (SDWS 35)
Unit	tCO ₂ e per year
Description	Leakage emissions during year y
Source of data	Assumption
Value(s) applied	0 Assumption made at this ex-ante evaluation stage due to sources of leakage. The actual LPG and diesel consumption will be monitored and assessed during project monitoring surveys.
Measurement methods and procedures	Survey shall be designed following GS requirements. Result data are double checked to ensure quality of data.
Monitoring frequency	Every two years
QA/QC procedures	Compliance with the general requirement for sampling and general requirements for data and information sources
Purpose of data	For emission reduction calculation
Additional comment	In monitoring survey, the users and project implementer will be asked: <ol style="list-style-type: none"> 1. After you had Tunsai, do you think people in your community use more biomass? Why? 2. What was the average distance someone from your household travelled to collect biomass before and after using Tunsai? 3. Do you collect or purchase biomass? If you purchase biomass, how much does it cost (fuel wood and charcoal) before and after using Tunsai?

	<p>4. How much time does someone from your household spend collecting biomass before and after using Tunsai?</p> <p>5. Do you still use biomass for firing ceramic pot kiln after installing LPG kiln? If yes, how many tons of biomass do you use?</p>
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SDG 1

Data / Parameter	Cost saving from buying wood (SDWS 19)
Unit	USD
Description	The expenditure saved from buying wood in the project activity
Source of data	<p>Project activity.</p> <p>This parameter will be estimated from the actual amount of CWP units in operation, actual amount of treated water ($QPWhh,p,y$), required energy to treat water (SEw,b,y), NCV of fuel (default IPCC values), percentage of wood in baseline consumption (fixed ex-ante SDWS 8), % of household purchasing wood, and unit cost of wood as mentioned in section B.6.1.</p>
Value(s) applied	817,211
Measurement methods and procedures	Representative group of households participating in the project and calculated based on survey data and methodology, IPCC values
Monitoring frequency	Annually
QA/QC procedures	Result data are double checked to ensure quality of data.
Purpose of data	For demonstrating the SDG1 contribution
Additional comment	N/A

SDG 1

Data / Parameter	Unit cost of fuel (SDWS 19)
Unit	USD/tonne

Description	The cost of fuel (wood, charcoal, and LPG) that end-users need to pay
Source of data	Survey data
Value(s) applied	Unit cost of wood = 35 USD/tonne Unit cost of charcoal = 350 USD/tonne Unit cost of wood = 994.85 USD/tonne
Measurement methods and procedures	In the monitoring survey, this parameter will be monitored.
Monitoring frequency	Annually
QA/QC procedures	Result data are double checked to ensure quality of data.
Purpose of data	For demonstrating the SDG1 contribution
Additional comment	N/A

SDG 1

Data / Parameter	Cost saving from buying charcoal (SDWS 19)
Unit	USD
Description	The expenditure saved from buying charcoal in the project activity
Source of data	Project activity. This parameter will be estimated from the actual amount of CWP units in operation, actual amount of treated water ($QPWhh,p,y$), required energy to treat water (SEw,b,y), NCV of fuel (default IPCC values), percentage of charcoal in baseline consumption (fixed ex-ante SDWS 8), % of household purchasing charcoal, and unit cost of charcoal as mentioned in section B.6.1.
Value(s) applied	421,574
Measurement methods and procedures	Representative group of households participating in the project and calculated based on survey data and methodology, IPCC values
Monitoring frequency	Annually
QA/QC procedures	N/A
Purpose of data	For demonstrating the SDG1 contribution

Additional comment	N/A
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SDG 1

Data / Parameter	Cost saving from buying LPG (SDWS 19)
Unit	USD
Description	The expenditure saved from buying LPG in the project activity
Source of data	Project activity. This parameter will be estimated from the actual amount of CWP units in operation, amount of treated water ($QPWhh,p,y$), required energy to treat water (SEw,b,y), NCV of fuel (default IPCC values), percentage of LPG in baseline consumption (fixed ex-ante SDWS 8), % of household purchasing LPG, and unit cost of LPG as mentioned in section B.6.1.
Value(s) applied	1,571,393
Measurement methods and procedures	Representative group of households participating in the project and calculated based on survey data and methodology, IPCC values
Monitoring frequency	Annually
QA/QC procedures	N/A
Purpose of data	For demonstrating the SDG1 contribution
Additional comment	N/A

SDG 1

Data / Parameter	% of household purchasing fuels (SDWS 19)
Unit	Percentage
Description	The percentage of household purchasing fuels in pre-project scenario
Source of data	Monitoring survey data
Value(s) applied	% of household purchasing wood = 50%

	% of household purchasing charcoal = 90%
	% of household purchasing LPG = 100%
Measurement methods and procedures	Monitoring survey: Questions will be asked to household about how they get their fuel for boiling water by (1) purchasing, (2) collecting or (3) other.
Monitoring frequency	Annually
QA/QC procedures	Result data are double checked to ensure quality of data
Purpose of data	For demonstrating the SDG1 contribution
Additional comment	N/A

SDG 3

Data / Parameter	% of project population avoided from using polluting fuels (SDWS 19)
Unit	Percentage
Description	Percentage of project population avoided from using polluting fuels using the project technology
Source of data	Monitoring survey data. Assuming all the users who use wood and/or charcoal in baseline will stop boiling or boil less water after having Tunsai.
Value(s) applied	72.51%
Measurement methods and procedures	In monitoring survey, the users will be asked: Do you still boil or boil less water after having Tunsai? - Yes - No
Monitoring frequency	Biennial
QA/QC procedures	Result data are double checked to ensure quality of data.
Purpose of data	For demonstrating the SDG3 contribution
Additional comment	N/A

SDG 6

Data / Parameter	Number of populations using safely managed drinking water services (SDWS 19)
Unit	Number
Description	Number of populations using safely managed drinking water services when using project technology
Source of data	This parameter will be estimated from the actual units in operation and number of individuals per premise as mentioned in section B.6.1.
Value(s) applied	378,023
Measurement methods and procedures	Calculated based on survey data and methodology, IPCC values In monitoring survey, the users will be asked: How many members in the family are using filter?
Monitoring frequency	Annually
QA/QC procedures	Result data are double checked to ensure quality of data.
Purpose of data	For demonstrating the SDG6 contribution
Additional comment	N/A

SDG 8

Data / Parameter	Total number of jobs created (SDWS 19)
Unit	Staffs
Description	Total number of jobs created in project activity
Source of data	Data from HSE
Value(s) applied	100
Measurement methods and procedures	HR data
Monitoring frequency	Annually
QA/QC procedures	N/A
Purpose of data	For demonstrating the SDG8 contribution

Additional comment	N/A
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SDG 13

Data / Parameter	Amount of GHGs emissions avoided
Unit	tCO2e
Description	Amount of GHGs emission avoided
Source of data	Project activity, please refer to ER calculation sheet.
Value(s) applied	18,585
Measurement methods and procedures	Calculation
Monitoring frequency	Annually
QA/QC procedures	Result data are double checked to ensure quality of data.
Purpose of data	For demonstrating the SDG13 contribution
Additional comment	N/A

SDG 15

Data / Parameter	Forest areas saved (SDWS 19)
Unit	ha
Description	Forest areas saved when using project technology
Source of data	This parameter will be estimated as mentioned in section B.6.1.
Value(s) applied	48
Measurement methods and procedures	Calculated based on survey data and methodology, IPCC values
Monitoring frequency	Annually
QA/QC procedures	N/A
Purpose of data	For demonstrating the SDG15 contribution
Additional comment	N/A

B.7.2 Sampling plan

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The sampling requirement for project monitoring parameters are described below:

Table 10.Sampling requirement for each monitored parameter

Parameter	ID	Frequency	Sampling method and survey method
Water quality test	SWDS 18	Annual	Sample based testing, minimum sample size 30, third party laboratory or field-testing kits
13 Climate Action (mandatory) Amount of emission reduction SDG6 Number of populations using safely managed drinking water services	SWDS 19	Annual	N/A as these SDG contributions are calculated from the monitoring other parameters
SDG1 <ul style="list-style-type: none"> - Cost saving from buying wood - Cost saving from buying charcoal - Cost saving from buying LPG 	SWDS 19	Annual	N/A as these SDG contributions are calculated from the monitoring other parameters
Unit cost of fuel	SWDS 19	Annual	Project surveys with minimum samples size will be 100 samples following methodology requirement in section 4.2.3
Boiling factor (% of household boiling water)	SWDS 19	Annual	Project surveys with minimum samples size will be 100 samples following methodology requirement in section 4.2.3
% of household purchasing fuel	SWDS 19	Annual	Project surveys with minimum samples size will be 100 samples following methodology requirement in section 4.2.3
SDG3 % of project population avoided from using polluting fuels	SWDS 19	Annual	Project surveys with minimum samples size will be 100 samples

			following methodology requirement in section 4.2.3
SDG8 The number of jobs created	SWDS 19	Annual	N/A as this SDG contribution does not require sampling.
SDG15 Forest areas saved	SWDS 19	Annual	N/A as this SDG contribution is calculated from the monitoring other parameters
Water hygiene education campaigns	SWDS 20	Annual	Sample survey, in-person or telephone or by messaging (e.g., text, app) based survey. Minimum samples size will be 100 samples following methodology requirement in section 4.2.3.
Proportion of project end-users that boil safe (treated, or from safe supply) water after installation of project technology	SWDS 22	Annual	Sample survey, in-person or telephone or by messaging (e.g., text, app) based survey. Minimum samples size will be 100 samples following methodology requirement in section 4.2.3.
Volume of drinking water per person per day	SDWS 24	Default or once in two years if WCFT is conducted	Depending on each verification, the Default value or WCFT will be conducted. In case the WCFT is conducted, minimum sample size will be 30 samples.
Number of individuals per households/ premises	SDWS 25	Annual	Depending on each verification, the project survey or Official data will be conducted/used: <ul style="list-style-type: none"> • Project surveys with minimum samples size will be 100 samples following methodology requirement in section 4.2.3. • Official government publications or statistic, Credible published literature for project region, or studies by academia, NGOs or multilateral institutions, source must be within 3 years old.
Number of households with at least one HWT units	SDWS 28	Annual	Not required sampling.
Usage rate of the project technology by premises	SDWS 29	Annual	Minimum 30 per technology age group. The usage surveys are to cover each of the six topics (option 1) or topic 1,2,3 (option

			2) as outlined in Annex 1 "Usage Surveys Guidelines – HWT Technologies" of the applied methodology to identify the project technology users.
Usage time of the project technology by premises	SDWS 30	Annual	Project survey or Interview survey performed by telephone or messaging (e.g., text, app). Minimum samples size will be 100 samples following methodology requirement in section 4.2.3.
Average days the project technology is present for end users in the premises	SDWS 31	Annual	Not required sampling. Estimated based on sales or distribution record.
Average number of individual project technologies in each project premises	SDWS 32	Annual	Not required sampling. Estimated based on sales or distribution record.
Leakage	SDWS 35	Once in two years	Project survey or Interview survey performed by telephone or messaging (e.g., text, app). Minimum samples size will be 100 samples following methodology requirement in section 4.2.3.

B.7.3 Other elements of monitoring plan

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The structure of the monitoring group is described in the Figure 6 below:

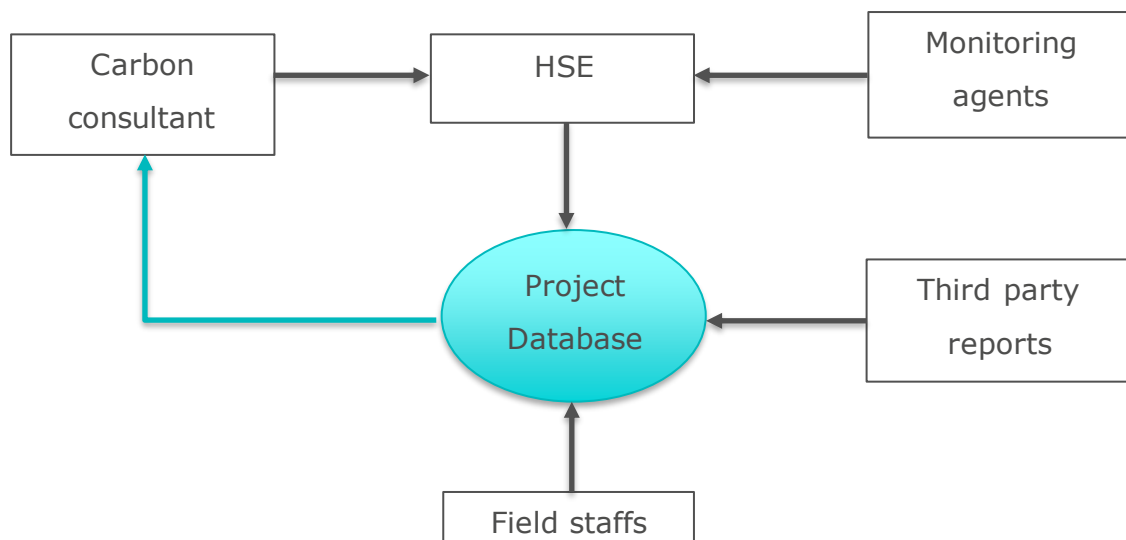


Figure 6. Structure of the monitoring group

For each monitoring group, the detail of their responsibilities is described in Table 11.

Table 11. Responsible of monitoring group

Group	Responsibility
Carbon consultant	Consult and prepare the sampling plan, Verify the monitoring work done to ensure accuracy before submission, spot check data, Prepare the monitoring report, and Contact the VVB.
HSE	Implement project, Manage the Project Database, in which the results of monitoring shall be summarized, Collect data to be monitored accurately, or train Field Measurement Personnel to do so, Share monitoring data, Maintain proper and continuous records of project activities and disseminated technologies, including product identification, and Provide warranty support to project technology users
Field staffs	Insert sales records to database, and Conduct on the ground monitoring of end users.
Monitoring agents	Conduct the monitoring surveys such as usage survey, project survey and water quality test if required.
Third party reports	Official government publications or statistic, credible published literature for project region, or studies by academia, NGOs or multilateral institutions, source must be 3 years old.

Quality assurance and quality control

The project developer is responsible for accurate and transparent record keeping, monitoring and evaluation. All supporting documentation and records for the project will be easily accessible for spot checking and cross-referencing by a third party. The contact information in the total sales record will allow a project auditor to easily contact and visit a reasonable sample of end users. Auditors will be able to cross reference pertinent project documentation, which will include archives such as production records (i.e. materials purchased, internal logs...) and sales records, as well as wholesale customer invoices, observations of retailer activities and sales performance.

Emergency procedure

In case of any data missing, HSE will seek the consultant for guidance. The missing period will be conservatively estimated based on the other available data.

Data collection and archive procedure

The monitored data will be reported and electronically achieved annually.

All data shall be kept for 2 years after the end of the crediting period.

Monitored data shall be collected and inserted into the database by HSE

The carbon consultant shall access the database and spot check data every monitoring period.

SDG contribution and MR preparation

Before the start of the monitoring period, the consultant will be in close collaboration with the PD to conduct the relevant survey to collect data, estimate the SDGs contribution and prepare the monitoring report.

SECTION C. DURATION AND CREDITING PERIOD

C.1. Duration of project

C.1.1 Start date of project

09/02/2010

C.1.2 Expected operational lifetime of project

21 years

C.2. Crediting period of project

C.2.1 Start date of crediting period

>>

1st Crediting Period 01/12/2010

2nd Crediting Period 01/12/2017

3rd Crediting Period 01/12/2024

C.2.2 Total length of crediting period

>> 21 years (7 years for each crediting period)

SECTION D. SUMMARY OF SAFEGUARDING PRINCIPLES AND GENDER SENSITIVE ASSESSMENT

D.1 Safeguarding Principles that will be monitored

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

PRINCIPLES	MITIGATION MEASURES ADDED TO THE MONITORING PLAN
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Principle 1. Human Rights	not required
Principle 2. Gender Equality and Women’s Empowerment	not required
Principle 3. Community Health and Safety	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 peoples	not required
Principle 5. Corruption	not required
Principle 6.1 Labour Rights and Working Conditions	not required
Principle 6.2 Negative Economic Consequences	not required

Principle 7.1 GHG 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 Biosafety and 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 & Fertilizers	not required
Principle 9.7 Harvesting of Forests	not required
Principle 9.8 Food Security	not required
Principle 9.9 Animal Welfare	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

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 addresses the gender sensitive requirements as mentioned in the Appendix 1 or as below:

- Project has highly considered gender roles and the abilities of women or men to participate in the decisions/designs of the project’s activities by welcoming all comments/feedback from users and stakeholders. Anyone could contact the project via the published

telephone number or email address whenever it is convenient for them.

- The Project has highly considered gender roles and the abilities of women or men to benefit from the Project’s activities. Anyone could use project’s technology (CWP) by purchasing it.

<p>Question 2 - Explain how the project aligns with existing country policies, strategies and best practices</p>	<p>Cambodia is a party to all core international human rights treaties including the Convention on the Elimination of all forms of Discrimination against Women¹³. The project is aligned with the country’s policies, strategies and best practices on gender equality and women’s empowerment as follow:</p> <ul style="list-style-type: none"> • Project has highly considered gender to participate in the decisions/designs of the project’s activities by welcoming all comments/feedback from users and stakeholders. • Project contributes to a decrease in women’s workload by reducing time and money from collecting fuel for water boiling. Thus, it allows them to engage in other activities which could generate extra income.
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¹³ [Gender Deep Dive - CCA Cambodia V6 010322 LQ.pdf \(un.org\)](#)

Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?	N/A
Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?	N/A

SECTION E. SUMMARY OF LOCAL STAKEHOLDER CONSULTATION

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

E.1 Summary of stakeholder mitigation measures

>>

This is the renewal of 3rd crediting period. The project has been consulting the local stakeholder since the start of the 1st crediting period and 2nd crediting period as summarized below. The details of the consultation process have been described in the LSC report and the on-going consultation for CP3 which is summarized below.

Summary of stakeholder consultation for CP1

The stakeholders were invited from three of the projects districts, including local people impacted by the project, local policy makers and representatives of local authorities. In selecting stakeholders, several factors were considered: Hydrologic relied on local staff which has a good understanding of individuals and relevant organisations in Cambodia that have an interest in offering input on this project. In addition to local leaders and relevant NGO's and IO's working in similar sectors, relevant national and local government bodies were invited. Because of the large number of districts covered, three stakeholder meetings were held to capture representative stakeholder input. The meetings were held in Kampong Speu, Takeo and Phnom Penh on 17th June 2011, 21st June 2011, and 1st July 2011, respectively. The two provinces were chosen to gather inputs from the rural population as they are the main end users of the CWP. Kompong Speu was chosen to get inputs from CWP users which know our product well. Takeo was chosen to have inputs from a majority of non-users with a different perspective on our project than CWP users. Phnom Penh was finally chosen for as third meeting to target NGOs, government officials and International Organisations which are mainly

based in the capital of the country. With these three meetings we hoped to reach a broader range of stakeholders.

HSE officially opened the Stakeholder Feedback Round on the 17th Dec 2011 by making the PDD, Stakeholder Consultation Report and GS Passport publicly available on the GS Registry and from the 19th Nov 2011 the documents were available on HSE's website. All the stakeholders that were previously invited to the Stakeholder Consultations were re-invited for the stakeholder feedback round by email, letter or phone call. In addition, invitation announcements were published by 2 different newspapers to invite the public. A summary of the comments from the Stakeholder Consultation Report was produced in Khmer and English. A copy was provided to all attendees and the document was read out loud. There was no additional comment other than the ones previously mentioned in the Stakeholder Consultation Report. The villagers were also given the contact details of HSE for additional comments.

Summary of stakeholder consultation for CP2

HSE organized a local stakeholder consultation workshop on 29th August 2017 at Banan District Hall in the purpose to discuss positive and negative impacts of Ceramic Water Purifier Project on "Production and dissemination of Hydrologic Social Enterprise Ceramic Water Purifier". There were 18 participants (3 females), attended the meeting and it has ended up with successfully many good questions and feedback from the participants. The stakeholders had raised some concerns on usage life of CWP, capacity of CWP, drinking water quality, and contact point related to CWP's issues. All concerns have been responded to stakeholders and taken into consideration in project design. All stakeholders that were previously invited to the stakeholder consultation workshop were re-invited for stakeholder feedback round on 28th September 2017.

Summary of stakeholder consultation for CP3

HSE has been consulting with stakeholders for the renewal of the 3rd crediting period. HSE will continue producing and selling CWPs that will contribute to sustainable development goals (SDGs): SDG1, SDG3, SDG6, SDG7, SDG8, SDG13, SDG15 as identified above.

In accordance with the Gold Standard guidelines for stakeholder consultation, a total of 71 project stakeholders with seven categories (A, B, C, D, E, F, G) were identified and invited to join the consultation workshop. In this process, gender sensitivity has been taken into account. Thus, female CWP users, female potential CWP (non-users),

representative from Provincial Department of Environment, Provincial Department of Health, national and international organizations were invited to join the workshop to gather more inputs from women’s perspectives. All stakeholders were invited via letter, email, announcement in social media in Khmer and English.

The local stakeholder consultation workshop was held at Sanctuary Residence, Siem Reap City, Siem Reap province on 1st March 2024 with 37 participants including 14 females. Most of stakeholders attended the workshop made some comments and provided their feedback through evaluation forms. Overall, the comments and feedback are a positive opinion of the work of HSE and its benefits, which related to usage of water filter, quality of filters, discount of products, and GHG emission reduction contribution. For those who could not join the physical workshop and would like to share their feedback, they can provide their feedback via telephone, email, or website of HSE.

As part of Stakeholder Feedback Round (SFR), HSE invited all relevant stakeholders including government authorities, NGOs, SustainCERT and public to join the SFR via email. The SFR was officially opened from the 27th May 2024 by sharing necessary documents, including the PDD, Stakeholder Consultation Report, Project Information, and Minutes of meeting for Stakeholder Consultation Report. By 27th June 2024, one month after the starting of SFR, HSE has not received any comments, feedback or questions from the stakeholders. Thus, there is not any changes in the project design were made

E.2 Final continuous input / grievance mechanism

METHOD INCLUDE ALL DETAILS OF CHOSEN METHOD (S) SO THAT THEY MAY BE UNDERSTOOD AND, WHERE RELEVANT, USED BY READERS.

Continuous Input / Grievance Expression Process Book (mandatory)	All complaints and grievances are recorded in Expression Process book kept at Hydrologic office.
GS Contact (mandatory)	help@goldstandard.org
Telephone access (optional)	+855 (0)23 901 770/ +855 (0)96 6767 689/ +855 (0)86 57 5555

Internet/email access (optional)	ibora@hydrologichealth.com
Other	www.tunsaiwater.com

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.

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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.1.1.3	Does this project undermine national or regional measures for the realisation of the right to development?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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...(N/A)		
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?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.1.1.3	exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY

	<input checked="" type="checkbox"/> NO
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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.

Cambodia has ratified a number of treaties on human right. In 2007, the Cambodian constitutional council issued a ruling clarifying that the human rights treaties are a part of domestic Cambodian law. The project complies with Human Right Law of Cambodia. People of Cambodia is widely accessible to project technology without age, gender, and disability limitation.

P.2 | GENDER EQUALITY AND WOMENT'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)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.2.1.2	Does the project undermine the principles of non-discrimination, equal treatment, and equal pay for equal work?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.2.1.2	Does the project limit the participation of women or men based on pregnancy, maternity/paternity leave, or marital status?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.2.1.3	Has the project assessed gender risks without referencing the country's gender strategy or equivalent national commitment?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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....
N/A

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?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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.	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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.	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO

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

The project highly considers gender equality and women’s empowerment in any stage of the project. Female CWP users, female potential CWP (non-users), representative from Provincial Department of Environment, Provincial Department of Health, national and international organizations are invited to join the stakeholder consultation workshop to gather more inputs from women’s perspectives. Furthermore, the project technology contributes to decrease women’s workload by saving time and money on collecting fuel and boiling water. Women can use these saved resources to meet other basic household needs, more productive works, education and better childcare and thus they could generate extra income. The Project has considered gender roles and the abilities of women or men to benefit from the Project’s activities. Anyone could use project’s technology (CWP) by purchasing it.

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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.3.1.2	Does the project involve any potential risks to the workers' safety and health?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.3.1.2	air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.3.1.2	harm or losses due to failure of structural elements of the project (e.g., collapse of buildings or infrastructure)?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO

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

The project reduces health risks through reducing polluting fuels which leads to air pollution. People will be less exposed to air pollution within households and communities. More importantly, the project technology of ceramic water filter allows the communities and households access the clean drinking water even without boiling water resulting in decreasing water-borne disease.

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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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....

(N/A)

Would the project potentially involve or lead to:

P.4.1.1	activities adjacent to or within a cultural heritage site?	<input type="checkbox"/> YES
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		<input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.4.1.1	significant excavations, demolitions, movement of earth, flooding or other environmental changes?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.4.1.1	alterations to landscapes and natural features with cultural significance?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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)	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA

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

Please add text here...

P.4.2 | Forced Eviction and Displacement

P.4.2.1	Does the project involve any risks related to involuntary relocation of people?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.4.2.2	temporary or permanent and full or partial physical displacement (including people without legally recognisable claims to land)?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA

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

Please add text here...
N/A

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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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.4.3.1	impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.4.3.1	uncertainties with regards to land tenure, access rights, usage rights or land ownership?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY

	Examples include, but are not limited to water access rights, community-based property rights and customary rights.	<input checked="" type="checkbox"/> NO
P.4.3.2	Changes in legal arrangements, if yes, are the changes done in line with relevant laws and regulations?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA
P.4.3.3	Does some other entity (other than the project developer) hold uncontested land title for the entire Project Boundary?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA
P.4.3.5	Have project developer in consultation with stakeholders established a functioning mechanism to receive, process, resolve, communicate and record grievances?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> 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.

In the consultation workshop, project developer had consulted with stakeholders on methods for continuous input and grievance expression process. It could be via email, telephones, or website. All grievance will be collected and recorded by Hydrologic.

P.4.4 | INDIGENOUS PEOPLE

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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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....

N/A

Would the project potentially involve or lead to:

P.4.4.1	affect areas where indigenous peoples are present (including project area of influence)	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.4.4.1	affect areas, land and territory claimed by indigenous peoples?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO

P.4.4.1	impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.4.4.7	<p>If answer to above questions is "YES" or "POTENTIALLY",</p> <ul style="list-style-type: none"> - 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? 	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA
P.4.4.3	risk of forcibly removing indigenous people from their lands and territories?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.4.4.4	<p>utilisation and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?</p> <p>Consider, and where appropriate ensure, consistency with the answers under Principle 4.1 above</p>	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
<p>P.4.4.5 </p> <p>P.4.4.6 </p>	<p>If answer to question above is "YES" or "POTENTIALLY"</p> <ul style="list-style-type: none"> - 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' 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? 	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA
P.4.4.8	Does the project lack appropriate feedback and grievance channels for Indigenous Peoples and their representatives?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA

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

Please add text here...
N/A

P.5 |CORRUPTION

P.5.1.1	Does the project involve, or is it complicit in, contributing to or reinforcing corruption or corrupt projects?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.5.1.1	Does the project have a risk of encouraging bribery, kickbacks, or other unethical behavior?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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...
N/A

ECONOMIC SAFEGUARDING PRINCIPLES

P.6 |ECONOMIC IMPACT

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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.6.1.1	Does the project violate any labor or health and safety laws, international obligations, or ILO conventions?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.6.1.2	Does the project violate the principles of equal opportunity and fair treatment in its employment decisions?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.6.1.3	Does the project violate national laws, if available regarding non-discrimination in employment?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.6.1.4	Does the project allow child labor?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.6.1.5		<input checked="" type="checkbox"/> NO

P.6.1.7	Does the project have insufficient processes and measures in place to ensure the safety and health of project workers?	<input type="checkbox"/> YES
P.6.1.8		<input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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....

N/A

Would the project potentially involve or lead to:

(NOTE: APPLIES TO BOTH PROJECT AND CONTRACTOR WORKERS)

P.6.1.1	use of forced labour?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.6.1.1	working conditions that do not meet national labour laws and international commitments?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.6.1.1	working conditions that may deny freedom of association and collective bargaining?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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 shall provide reasonable working conditions and terms of employment.</i>	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
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>	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO

P.6.1.1	having no arrangements for basic services ¹⁴ 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>	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.6.1.2	harassment, intimidation, and/or exploitation, especially in regard to women?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.6.1.4	use of child labour? (including third-party engaged workers)	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.6.1.4	inadequate and verifiable mechanisms for age verification?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.6.1.7	no processes and measures in place for the safety and health of project workers?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.6.1.7	No provision to record and document accidents, diseases, incidents, and any resulting injuries, illnesses, or deaths?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

¹⁴ 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.6.1.10	No grievance mechanism available for workers to voice workplace concerns.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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.

Please add text here....

N/A

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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.6.2.2	Does the project have potential negative impacts or pose a risk to the local economy?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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...

NA/A

Would the project involve or lead to:

P.6.2.2	economic impacts (negative/detrimental) to the local economy?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.6.2.2	negative economic consequences during and after project implementation, e.g., for vulnerable and marginalised social groups in targeted communities?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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.

Please add text here....

N/A

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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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...
N/A

Would the project involve or lead to:

P.7.1.1	increase greenhouse gas emissions over the Baseline Scenario?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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.

Please add text here...
N/A

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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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...
N/A

Would the project involve or lead to:

P.7.2.1	negative impact on the availability and reliability of energy supply to other users?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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.

Please add text here...
N/A

P.8 | WATER

P.8.1 | IMPACT ON NATURAL WATER PATTERNS/FLOW

P.8.1.1	Does the project increase water usage to a level that will not allow for the maintenance of environmental flows?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.8.1.1	Does the project have the potential risk to exceed the rate of recharge for the groundwater source?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.8.1.1	Does the project involve any processes or activities that could contaminate the groundwater and render it unsuitable for use?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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....

N/A

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?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.8.1.1	Wastewater discharge of quality that does not meet the required standard for beneficial reuse?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.8.1.1	significant extraction, diversion of ground water? For example, construction of dams, reservoirs, river basin developments, groundwater extraction	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA

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

Please add text here....

N/A

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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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....

N/A

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>	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA

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

Please add text here....
N/A

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 water retention. Steps to minimise soil degradation include crop rotation, composting, using N-fixing plants, and reducing tillage and ecologically harmful substances.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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....
N/A

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?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.9.1.4	if answer to above question "yes" or "potentially", does project adopt appropriate and culturally sensitive sustainable resource management practices?	<input type="checkbox"/> YES <input type="checkbox"/> NO

		<input checked="" type="checkbox"/> 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.

Please add text here...
N/A

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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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...
N/A

Would the project involve or lead to:

P.9.2.2	any potential risks that require emergency preparedness and response planning?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
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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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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.

Please add text here...
N/A

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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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...
N/A

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	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
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P.9.3.1	If answer to above question is "yes" has a risk assessment by a competent Expert stakeholder been carried out in	<input type="checkbox"/> YES <input type="checkbox"/> NO
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	accordance with Annex iii of the Cartagena protocol on biosafety to the convention on biological diversity?	<input checked="" type="checkbox"/> NA
P.9.3.2	If answer to above question is "yes" has any risks identified in the risk assessment?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA

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

Please add text here....

N/A

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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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....

N/A

Would the project involve or lead to:

P.9.4.1	any potential risk of pollutant release that cannot be avoided?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA
P.9.4.2	If answer to above question is "Yes" or "potentially", do the pollution prevention and control technologies and practices applied during the project life cycle align with national regulations or international best practices?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA

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

Please add text here....

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)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.9.5.3	Does the project involve risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
P.9.5.5	Does the project involve the use of any chemicals or materials subject to international bans or phase-outs?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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.9.5.1	the generation and management of waste materials?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.9.5.1	treatment, destruction, or disposal of waste material?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA
P.9.5.3	risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> NA
P.9.5.3	If answer to above question is "yes", does project has measures in place to address health risks?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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.

Please add text here....

P.9.6 | PESTICIDES AND FERTILISERS

P.9.6.1	Does the project involve the use of chemical pesticides?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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....

N/A

Would the project involve or lead to:

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

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

Please add text here....

N/A

P.9.7 | HARVESTING OF FOREST

P.9.7.1	Does the project have a risk of unsustainable forest management, including timber harvesting?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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....

N/A

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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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...
N/A

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?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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.

Please add text here...
N/A

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.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
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P.9.9.2	Does the project involve any potential risk of excessive or inadequate use of veterinary medicines?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
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P.9.9.4	Does the project involve the risk of administering synthetic growth promoters, including hormones?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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.

Please add text here...
N/A

Would the project involve or lead to:

P.9.9.1	animal husbandry or harvesting of fish populations or other aquatic species? ¹⁵	<input type="checkbox"/> YES <input type="checkbox"/> NO
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¹⁵ 'Involve' means if the project mechanism and/or impact(s) are achieved via changing animal husbandry practices in some way.

		<input checked="" type="checkbox"/> NA
P.9.9.1	limiting access for animals to basic needs like drinking water, adequate food, daylight, appropriate shelter etc.?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.9.9.3	inadequate measures to isolate sick animals and control the spread of disease, especially zoonotic diseases?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA
P.9.9.5	inadequate low-stress methods, equipment, and facilities that facilitate calm animal movement.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA
P.9.9.6	inadequate measures to ensure that animals are exposed to the least stress possible during transportation and slaughtering?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA
P.9.9.7	inappropriate spacing per animal and stocking rates per land unit?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA
P.9.9.8	inadequate measures to address the specific needs of aquatic animals?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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.

Please add text here....
N/A

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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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), habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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....
N/A

Would the project involve or lead to:		
P.9.10.1	identified habitats as HCV areas and or Critical habitats?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.9.10.2	If the answer to the above question is "yes", will the project have any adverse effects on these areas?	<input type="checkbox"/> YES <input type="checkbox"/> No <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> No <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> No <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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.		
Please add text here.... N/A		
P.9.11 ENDANGERED SPECIES		
P.9.11.1	Does the project lead to the reduction or negative impact on any recognised Endangered, Vulnerable or Critically Endangered species?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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 involve or lead to:

P.9.11.2	distortion of habitats of endangered species?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NA
P.9.11.2	If answer to the above question is "yes", does the project plan to protect and enhance them?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
P.9.11.2	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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.

Please add text here....

P.9.12 | INVASIVE ALIEN SPECIES

P.9.12.1	Does project introduce any alien species (not currently established in the country or region of the project) into new environments?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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.9.12.1	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?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.9.12.1	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.	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> NO
P.9.12.2	risk of spreading alien species into areas in which they have not already been established?	<input type="checkbox"/> YES <input type="checkbox"/> POTENTIALLY <input checked="" type="checkbox"/> 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.

Please add text here....

N/A

APPENDIX 2 - CONTACT INFORMATION OF PROJECT DEVELOPER(S)

Organization name	Hydrologic Social Enterprise Company Limited
Registration number with relevant authority	00018587
Street/P.O. Box	#130A, St.430, Sangkat Tuol Tompong 2, Khan Chamkarmon,
Building	N/A
City	Phnom Penh
State/Region	Phnom Penh
Postcode	12300
Country	Cambodia
Telephone	855 (0)23 901 770/+855 (0)96 6767 689/
E-mail	hello@tunsaiwater.com
Website	www.tunsaiwater.com
Contact person	Sam Sothea
Title	General Manager
Salutation	Mrs.
Last name	Sam
Middle name	
First name	Sothea
Department	NA
Mobile	+855 92 419 692
Direct tel.	+855 92 419 692
Personal e-mail	ssothea@hydrologichealth.com

APPENDIX 3 - LUF ADDITIONAL INFORMATION

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

APPENDIX 4 - DESIGN CHANGES

A4.1. Details of proposed or actual design change

>>

NA

A4.2. Describe the impacts of design change on the following

a. Additionality

>>

NA

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

>>

NA

c. Compliance with the monitoring plan of the applied methodology

>>

NA

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

>>

NA

e. Scale of the project activity

>>

NA

f. Stakeholder consultation

>>

NA

g. Sustainable development criteria

>>

NA

h. Safeguarding assessment

>>

NA

i. Compliance with applicable legislation

>>

NA

j. Only for LUF Projects: Transparent summary of all approved changes in Project Area, Eligible Area and accompanying changes in ex-ante emissions removals.

DATE APPROVED DESIGN CHANGE (MM/DD/YYYY)	OF	PROJECT AREA (HA)	ELIGIBLE AREA (HA)	EX-ANTE (TCO2E)	ESTIMATE
		INCREASE OR DECREASE ? VALUE (HA)	INCREASE OR DECREASE? VALUE (HA)	INCREASE OR DECREASE ?	PERCENTAGE (%)

Revision History

Version	Date	Remarks
1.5	29 June 2023	Editorial changes to match V2.1 of the Safeguarding Principles Requirements
1.4	21 June 2023	Editorial changes to match V2.0 of the Safeguarding Principles Requirements
1.3	14 April 2023	Integrated the design change memo as annex of the document. Editorial changes
1.2	14 October 2020	Hyperlinked section summary to enable quick access to key sections Improved clarity on Key Project Information Inclusion criteria table added Gender sensitive requirements added Prior consideration (1 yr rule) and Ongoing Financial Need added Safeguard Principles Assessment as annex and a new section to include applicable safeguards for clarity Improved Clarity on SDG contribution/SDG Impact term used throughout Clarity on Stakeholder Consultation information required Provision of an accompanying Guide to help the user understand detailed rules and requirements
1.1	24 August 2017	Updated to include section A.8 on 'gender sensitive' requirements
1.0	10 July 2017	Initial adoption